

5th International Congress on **Neurobiology, Psychopharmacology & Treatment Guidance**

ICNP2017

Working together for a better future

May 25th-28th, 2017

Porto Carras

Chalkidiki, Greece



2008 • ISNP

INTERNATIONAL SOCIETY of NEUROBIOLOGY
& PSYCHOPHARMACOLOGY



World Psychiatric Association

Under the auspices of:



School of Medicine
Aristotle University of Thessaloniki, Greece



Hellenic Psychiatric Association

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ICNP2017

5th International Congress on
**Neurobiology,
Psychopharmacology
& Treatment Guidance**

Chalkidiki, Greece



Dear colleagues,

It's a great pleasure to invite you to the **5th International Congress on Neurobiology, Psychopharmacology and Treatment Guidance** which will take place in Chalkidiki, Greece, on May 25-28, 2017.

After the great success of the 4th Congress which was held in 2015, this fifth Congress again aims at being valuable for the clinicians who fight daily in the front line for the treatment of real-world patients. In this frame, our goal is to provide a global and comprehensive update of the newest developments in Psychiatry and the allied sciences in a manner, which will be both focused and enriched. The rule is to avoid content-free eloquence and authority and to face hard questions on the base of research findings.

Many worldwide experts have been invited to share with us their knowledge and experience once again with the support and guidance of the European Psychiatric Association, the World Psychiatric Association and under the Auspices of the School of Medicine, Aristotle University of Thessaloniki.

During these difficult circumstances for the world economy, advanced education and training is the only way to the future. Teaching clinical usefulness and application of new knowledge and informed treatment with psychopharmacological agents in a truly multidisciplinary approach is the central axis of the meeting and although the congress will embrace high tech research concerning psychopathology, new treatment methods, genetics and molecular biology, it also aims on putting the emphasis on the human factor, both the therapist and the patient.

Apart from the humanistic tradition of Psychiatry and life sciences, the continuous and unconditional investment on the high level training of professionals and education of patients and their families, emerged as a significant challenge during the last few decades. Medical scientists and public health policy makers are increasingly concerned that the scientific discoveries are failing to be translated efficiently into tangible human benefit. Today, in an all the more complex and technologically advanced environment, the human factor emerges again as the most valuable one, the factor that determines the final outcome.

This **5th ICNP** specifically focuses on the ultimate aim: that is to empower and eventually free patients and their families from the burden of mental disease and fighting for full remission and functional rehabilitation. It also includes the distinguished aim to spread high-level training to younger generations by including symposia organized by medical students and psychiatric residents from around the world.

As hosts and organizers, we shall spare no effort in making your participation scientifically rewarding and meaningful and your stay in Chalkidiki as enjoyable as possible.

Konstantinos N. Fountoulakis
Associate Professor of Psychiatry,
Aristotle University of Thessaloniki, Greece

Chair of the 5th International Congress on Neurobiology,
Psychopharmacology & Treatment Guidance - ICNP2017



Friends and Colleagues,

I regret that I cannot join you at the 5th International Congress on Neurobiology, Psychopharmacology and Treatment Guidance in the beautiful Chalkidiki Peninsula. With a fine scientific program of quality speakers, I have no doubt that the event will be a meaningful and enjoyable use of your time.

‘Working together for a better future’ is an ongoing goal of this congress and stresses the importance of working collaboratively not only with other psychiatrists and mental health professionals but also with patients and empowering them throughout the treatment process; is a topic that underpins much of my own work with the World Psychiatric Association (WPA). Indeed it is my belief that it is vital for all stakeholders in the mental health enterprise - patients, family members, mental health providers, social welfare agencies, and others - to work together to reach an understanding about their common interests. Combining their efforts will help create the convincing arguments needed to persuade government leaders and community members to invest societal resources in mental health care and in the educational and research efforts essential to the promotion of mental health.

A taskforce established by the WPA in the years 2008-2011 highlighted the importance of developing a unified approach to advocacy for mental health at country and international levels. Adequate support for mental health care in any country requires a united voice, but in many countries there are weak partnerships between the many stakeholders concerned about mental health. Patients and their family members are a crucial component of the coalition that is needed to instigate changes in the provision of services to people with mental illnesses.

However, support from others for their systematic involvement is uncommon. The WPA has reinforced calls from psychiatrists and advocacy groups for the inclusion of service users and family carers in all decisions directly and indirectly related to the treatment, rehabilitation and recovery of people with mental illnesses. Part of my responsibility within WPA’s current action plan is to explore ways we can help to achieve this. It is work that WPA is committed to doing and that we look forward to continuing with your help in this triennium and the next.

I wish you a wonderful Congress!

Helen Herrman
President Elect, World Psychiatric Association

Reflections of human neurocognitive abilities



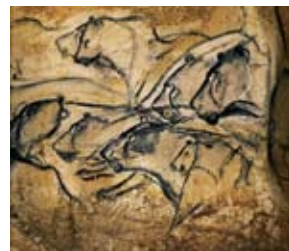
The Chauvet Cave is located in the Ardèche department of southern France. It is a cave that contains some of the best preserved figurative cave paintings in the world, as well as other evidence of Upper Paleolithic life. Discovered on December 18, 1994, it is considered one of the most significant prehistoric art sites and the UN's cultural agency UNESCO granted it World Heritage status on June 22, 2014. Its paintings, along with those of Lascaux and the Cave of Altamira, have been dubbed a "prehistoric Sistine Chapel".

Based on radiocarbon dating, the cave appears to have been used by humans during two distinct periods: the Aurignacian and the Gravettian. Most of the artwork dates to the earlier, Aurignacian, era (30,000 to 32,000 years ago). The later Gravettian occupation, which occurred 25,000 to 27,000 years ago, left little but a child's footprints, the charred remains of ancient hearths, and carbon smoke stains from torches that lit the caves. The footprints may be the oldest human footprints that can be dated accurately.



Hundreds of animal paintings have been catalogued, depicting at least 13 different species, including some rarely or never found in other ice age paintings. Rather than depicting only the familiar herbivores that predominate in Paleolithic cave art, i.e. horses, cattle, mammoths, etc., the walls of the Chauvet Cave feature many predatory animals, e.g., cave lions, panthers, bears, and cave hyenas. There are also paintings of rhinoceroses.

The artists who produced these unique paintings used techniques rarely found in other cave art. Many of the paintings appear to have been made only after the walls were scraped clear of debris and concretions, leaving a smoother and noticeably lighter area upon which the artists worked. Similarly, a three-dimensional quality and the suggestion of movement are achieved by incising or etching around the outlines of certain figures. The art is also exceptional for its time for including "scenes", e.g., animals interacting with each other.



These exceptional cave paintings clearly show that the mind of primitive humans several thousand years ago had the inherent ability to catch and reproduce three-dimensional images and scenes of everyday life with remarkable mastery and impressive elaboration. This happened without any formal training and education, at least not in the way we conceive them today.



Main Topics of the Congress

The main topics of the Congress are the following:

- Animal Models
- Anxiety disorders
- Basic Neuroscience
- Behavioural disorders
- Bioethics
- Biological rhythms
- Biomedical Technology
- Childhood and adolescence disorders
- Clinical Psychiatry
- Clinical Psychopharmacology
- Dementia
- Drug development
- Eating disorders
- Evidence-based psychiatry
- Experimental Psychopharmacology
- Forensic Psychiatry
- Health Economics and Quality of Life
- Information technology and neuroscience
- Learning abilities and disabilities
- Major disaster and mental health
- Memory and cognitive disorders
- Methodology in Psychiatric research
- Molecular Psychiatry
- Mood disorders
- Neural Networks
- Neuroimaging
- Neuropsychology
- Neurophysiology
- Neuropsychobiology
- Neuropsychopharmacology
- Non pharmacological biological therapies
- Nosology and classification
- Pharmacogenetics
- Psychiatric Genetics
- Psychogeriatrics
- Psychoimmunology
- Psychometrics
- Psychopharmacology
- Psychophysiology
- Psychosocial and other non-biological therapies and interventions
- Schizophrenia and other psychotic disorders
- Sexual behaviour and disorders
- Sleep
- Social Psychiatry
- Stress
- Substance abuse and dependence
- Suicide
- Transcultural Psychiatry
- Treatment guidelines
- Violence

Honorary Chair of the Congress: Constantin Soldatos (Greece)

Executive Chair of the Congress: Konstantinos N. Fountoulakis (Greece)

Organizing/Scientific Committee & Faculty

Chairman: Hagop S. Akiskal (USA)

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Akiskal, Hagop S.

Distinguished Professor of Psychiatry
and Director of the International Mood
Center at the University of California at
San Diego, USA

Professor Stefanis was one of the greatest psychiatrists of our times. He helped in restructuring Greek psychiatry, and as Greek minister of health, Greek medicine. In this context, it is relevant to point out his emphasis on preventable and highly treatable conditions like mood disorders and suicide prevention. By the time of one of his followers, Professor Lopez Ibor, the World Psychiatric Association became one of the most powerful medical organizations in this world.

Costas Stefanis was born in Greece in 1928 and graduated from the Medical School of Athens University in 1953. He trained in neurology and psychiatry in Athens and subsequently served as a fellow in basic neurophysiology at McGill University, Montreal, and as a research scientist at the National Institute of Mental Health and Saint Elizabeth Mental Hospital (Bethesda, Maryland and Washington, DC). His work advanced Greek psychiatry away from a previously narrow traditional psychoanalytic approach

towards a much broader biopsychosocial direction. He developed the first community mental health centre in Greece, a strong research programme, and acquired international reputation as an expert on the mode of action of neurotransmitters functioning on central nervous system synapses.

He mentored several generations of Greek psychiatrists. In 1989, in Athens, he founded the University Mental Health Research Institute - which undertook much neurobiological and psychosocial research into mental disorders. As president of the World Psychiatric Association (WPA) from 1983 to 1990, he was responsible for an organisation in crisis. The political use of psychiatry in the Soviet Union to incarcerate political dissidents on the grounds of mental illness in 1983 led the All-Union Society of Psychiatrists and Neuropathologists of the USSR to withdraw from the WPA. However, during the 1989 Athens WPA congress, the general secretary of that Society publicly acknowledged that political abuse of psychiatry had indeed taken place and the organisation was reinstated as a member. Costas Stefanis was among those responsible for reaching a conciliatory approach on issues with significant ethical and political dimensions.

Costas Stefanis was always politically active and served as Minister of Health and Welfare from 2002 to 2004. During his ministerial tenure, he was president of the Council of Ministers of Health of the European Union and succeeded in achieving approval for anti-stigma legislation regarding mental illness. On behalf of the EU member states, he signed the World Health Organization's International Treaty on Tobacco Advertising. In Greece, he was responsible for four major bills passed by Parliament

In 1994 he was elected life member of the Athens Academy of Sciences and Arts - the highest level of scientific recognition in Greece - and served as its president in 2006. He was awarded the Medal of the Cross of the President of the Hellenic Republic in recognition of his distinguished service to the country. In acknowledgement of his contribution to psychiatry, the World Federation of Societies of Biological Psychiatry and International Neuropsychiatric Association established an international prize: the Costas Stefanis Award for Excellence in Psychiatry and the Neurosciences. He was elected honorary member and fellow of several scientific associations and he authored numerous peer-reviewed articles as well as books and articles in the lay press.

The death of Costas Stefanis will be felt as a great loss to psychiatry by many clinical, academic and international colleagues who had the privilege of knowing and working with him.

Psychiatry is, like much of what we today call medical science is based on history, observation and examination, with putative alterations in body fluids, environmental and climatic factors--had its origins in ancient Greece with Hippocrates--including the role of the brain in melancholia--It is relevant that the contributions of Prof Stefanis represent the same arena, in light of modern developments both in science and social psychiatry and suicide prevention.

Psychiatry in Pinel's era had benefited from reforms to free the mentally ill from unnecessary restraints except on a temporary basis.

One of the most fundamental reforms in modern psychiatry were bringing together the entire world in different sociopolitical systems to assure the universal rights of mental patients worldwide. Professor Stefanis and his successor Lopez Ibor Jr as consecutive presidents of the world psychiatric association assured this fundamental principle is most countries in this world.

It was an honor for me to work with these two visionary presidents for this cause.



Herrman, Helen
President Elect,
World Psychiatric Association

Recently world Psychiatry experienced the loss of Professor Costas Stefanis who was one of the most influential psychiatrists of our times.

As professor of Psychiatry at the University of Athens Medical School he worked on the advancement of Greek psychiatry. As chair of the WPA he worked for the advancement of world psychiatry, and also towards reconciliation, resolving of tensions and improvement of international collaboration. Later, from his position as Greek minister of health, he left his mark on the Greek National Health Care system. During that time he was president of the Council of Ministers of Health of the European Union and succeeded in achieving approval for anti-stigma legislation regarding mental illness, and also on behalf of the EU member states, he signed the World Health Organization's

International Treaty on Tobacco Advertising.

It is impossible to mention all the awards, distinctions and honors he received during his career or to describe in detail his global contribution to psychiatry and related sciences. His death was a great loss to psychiatry but his memory will serve as an example for future generations.



IN MEMORIAM



Costas Stefanis
(1928 - 2016)

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Kostas N. Fountoulakis

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2nd Congress on Evidence Based Mental Health: From research to clinical practice

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Scientific Program

Thursday, May 25th 2017

13.00 **REGISTRATIONS**

14.30-16.00 **SYMPOSIUM**

AUDITORY PERCEPTION IN LEARNING WITH IMPLICATIONS IN MENTAL HEALTH

Chairperson: **Vasiliki Iliadou** (Greece)

Representations and Recordings from Peripheral and Sub-cortical Auditory Structures: Opportunities and Challenges in Hearing and Learning.

Konstantinos Pasiadis (Greece)

Effect of rhythm in speech perception in children with learning disabilities

Christos Sidiras (Greece)

Status and Perspectives on Music and Learning Disabilities.

Elli Ziaziari (Greece)

Hyperacusis in Autism Spectrum Disorder

Vasiliki Iliadou (Greece)

16.00-17.30 **SYMPOSIUM**

MEDICATION AND COGNITIVE BEHAVIOR THERAPY FOR ANXIETY DISORDERS: ALONE OR IN COMBINATION?

Chairperson: **Gregoris Simos** (Greece)

Medication and cognitive behavior therapy for panic disorder / agoraphobia

Meropi Simou (Greece) & **Gregoris Simos** (Greece)

Medication and cognitive behavior therapy for generalized anxiety disorder

Nestoras Papathanasiou (Greece)

Medication and cognitive behavior therapy for social anxiety disorder

Panagiotis Athanasis (Greece)

17.30-18.00 **Coffee Break**



Thursday, May 25th 2017

18.00-19.30 **SYMPOSIUM**

A WORD OF CRISIS AND DISASTERS. THE ROLE OF PSYCHIATRY AND THE CONSEQUENCES IN MENTAL HEALTH

Chairpersons: **Konstantinos N. Fountoulakis** (Greece), **Martin Hatzinger** (Switzerland)

Crisis-Crisis Management - Communicational Crisis Management

Georgios Karampoutakis (Greece)

The impact of disasters in mental health. Evidence from current experience

Achilleas Oikonomou (Greece)

Mental Health of Child & Adolescent refugees: the hidden momentum and an urgent call for action

Eirini Rera (Greece)

Working with refugees: the psychiatrist's experience in primary care

Anastasia Diakoumopoulou (Greece)

19.30-20.00 **LECTURE**

Chairpersons: **Athanasios Douzenis** (Greece), **Gregoris Simos** (Greece)

A critical review of the history of the development of treatments for mental disorders

Konstantinos N. Fountoulakis (Greece)

21.00 **Dinner**

Friday, May 26th 2017

08.30-10.00 **SYMPOSIUM**

THE KALEIDOSCOPIC IMAGE OF MENTAL DISORDERS

Chairpersons: **Loukas Athanasiadis** (Greece), **Anastasia Konsta** (Greece)

General medical conditions associated with mental disorders

Odyseas Kyriazis (Greece)

Aging with mental disorders

Anastasia Konsta (Greece)

Sexual life and mental disorders

Loukas Athanasiadis (Greece)

The biology of emotional memories' retrieval in psychotherapy

Orestis Giotakos (Greece)

10.00-10.30 **LECTURE**

Chairperson: **Maria Samakouri** (Greece)

The use of Long Acting Inject able Antipsychotics in Schizophrenia: Dealing with the gaps between Guidelines and Clinical practice

Petros Fotiadis (Greece)

10.30-11.00 **LECTURE**

Chairperson: **Ioanna Ierodiakonou-Benou** (Greece)

Nature and Nurture from vulnerability to plasticity: importance of gene x environment interactions in the understanding and treatment of affective disorders

Xenia Gonda (Hungary)

11.00-11.30 **Coffee Break**



Friday, May 26th 2017

11.30-13.00 **SYMPOSIUM**

NEUROPSYCHOLOGICAL AND NEUROIMAGING SIGNATURE OF BIPOLAR DISORDER AND ITS MODULATION BY EARLY LIFE STRESS

Chairpersons: **Athanasios Douzenis** (Greece), **Panagiotis Ferentinos** (Greece)

Neurocognitive impairments across the bipolar spectrum

Kalliopi Tournikioti (Greece)

Understanding the structural neuroanatomy of bipolar disorder using advanced neuroimaging techniques

Efstratios Karavasilis (Greece)

Understanding the functional neuroanatomy of bipolar disorder using task-related and resting-state methods

Foteini Christidi (Greece)

The neuropsychological and neuroimaging footprint of early life stress in bipolar disorder

Panagiotis Ferentinos (Greece)

13.00-13.30 **LECTURE**

Chairperson: **Panagiotis Ferentinos** (Greece)

Effect of Comorbid Diseases on Cognitive Decline & Dementia Prevention

Istvan J.E. Boksay (USA)

13.30-14.00 **LECTURE**

Chairperson: **Athanasios Douzenis** (Greece)

Non invasive point of care diagnostic tests for personalizing psychiatric drug therapy

Anil S. Modak (USA)

14.00-15.30 **Break**

Friday, May 26th 2017

15.30-17.00 **SYMPOSIUM**

ANXIETY SYMPTOMS IN DAILY LIFE. CAN WE AFFORD TO IGNORE THEM?

Chairperson: **Charalampos Touloumis** (Greece)

Rethinking use of benzodiazepines and/or antidepressants in the daily clinical treatment of anxiety disorders

Charalampos Touloumis (Greece)

Role of oxytocin and other neuropeptides in anxiety symptoms and disorders.

Maria Dimitraka (Greece), **Panagiota Papadimitriou** (Greece),

Angelica Gatopoulos (Greece)

Association of contemporary city life with mental illness.

Christos Tsopelas (Greece), **Dimitra Karadima** (Greece)

17.00-18.30 **SYMPOSIUM**

FACIAL AFFECT RECOGNITION AND THEORY OF MIND IN PSYCHOTIC DISORDERS

Chairperson: **Anca-Livia Popescu** (Romania)

The Role Of Social Cognition In Everyday Life

Cristina Bredicean (Romania)

Theory of Mind Particularities in Bipolar Affective Disorder

Ioana-Alexandra Ravis (Romania)

What Aggravates Emotion Recognition Ability In Psychosis?

Depression, Somatization and Dissociation

Anca-Livia Popescu (Romania)

What Aggravates Emotion Recognition Ability in Psychosis?

Psychotic Symptoms, Age and Global Functioning

Claudia Homorogan (Romania)

18.30-19.00 **Coffee Break**

19.00-19.30 **LECTURE**

Chairperson: **Ioannis Nimatoudis** (Greece)

Stress and Pediatric Obesity: Neurobiology and Behavior

Panagiota Pervanidou (Greece)



Friday, May 26th 2017

19.30-20.00 **LECTURE**

Chairpersons: **Charalampos Touloumis** (Greece), **Christos Tsopelas** (Greece)

Performance deficits for action- but not mental state- verb fluency in schizophrenia spectrum disorders

Daria Smirnova (Russia)

21.00 **Dinner**

Saturday, May 27th 2017

08.30-10.00 **SYMPOSIUM**

NOVEL APPROACHES IN THE NEUROBIOLOGY OF SCHIZOPHRENIA

Chairpersons: **André Aleman** (The Netherlands), **Kenneth Hugdahl** (Norway)

Is schizophrenia a neuroinflammatory disorder?

Iris Jonker (The Netherlands)

Neuroimaging and auditory verbal hallucinations

Kenneth Hugdahl (Norway)

BCI neurofeedback as a tool to improve cognitive dysfunctions in schizophrenia

Stefanie Enriquez-Geppert (The Netherlands)

Noninvasive neurostimulation to target brain circuits underlying positive and negative symptoms in schizophrenia

André Aleman (The Netherlands)

10.00-10.30 **LECTURE**

Chairpersons: **Angelos Halaris** (USA), **Giuseppe Tavormina** (Italy)

Role of growth factors in neurogenesis and depression

Anne Clark-Raymond (USA)

10.30-11.00 **LECTURE**

Chairperson: **Thomas G. Schulze** (Germany)

Stress, Stress-Related Disorders (SR-Ds) and Resilience

Uriel Halbreich (USA)

11.00-11.30 **Coffee Break**

11.30-13.00 **SYMPOSIUM**

COMPLEXITIES IN THE TREATMENT OF MOOD DISORDERS AND BIPOLARITY

Chairpersons: **Giuseppe Tavormina** (Italy), **Nicolas Zdanowicz** (Belgium)

Reasoned use of BZD in depressive disorder

Nicolas Zdanowicz (Belgium)

Risk and effectiveness of cognitive functions with atypical antipsychotics augmentation in BD II: a three-years observational study

Francesco Franza (Italy)

Mixed states: beyond the diagnoses, towards a differentiation of the clinical subtypes

Giulia Menculini (Italy)

An approach to treat bipolar disorders mixed states: proposals for a guideline

Giuseppe Tavormina (Italy)



Saturday, May 27th 2017

13.00-13.30 LECTURE


Chairperson: **Konstantinos N. Fountoulakis** (Greece)

Social Functioning as an outcome variable in schizophrenia
Afzal Javed (UK)

13.30-15.00 Satellite Symposium

Chairperson: **Konstantinos N. Fountoulakis** (Greece)

Clozapine: Recent data concerning an effective but rarely used compound
Charalampos Touloumis (Greece)

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15.00-15.30 Break

15.30-17.00 SYMPOSIUM

**ADVANCES IN UNDERSTANDING MOLECULAR AND CELLULAR MECHANISMS
RELEVANT TO BIOLOGICAL PSYCHIATRY**

Chairpersons: **Thomas G. Schulze** (Germany), **Dimitrios Dikeos** (Greece)

Current understanding of the biological substrate of schizophrenia
Evangelia Tsapaki (Greece)

Understanding brain function through circadian rythmes
Agorastos Agorastos (Germany)

Epigenetics in Psychiatry: Understanding the interface between biological and
psychological mechanisms
Dimitrios Dikeos (Greece)

Logistical, technical, and ethical issues in longitudinal biological psychiatric
research: comprehensive phenotype assessment and biobanking, broad consent,
and one's right not to know
Thomas G. Schulze (Germany)

Saturday, May 27th 2017

17.00-18.30 **SYMPOSIUM**

TREATING COGNITIVE DYSFUNCTIONS IN DEPRESSION: THE CHALLENGE FOR REMISSION

Chairpersons: **Edith Holsboer-Trachsler** (Switzerland), **Constantin Soldatos** (Greece)

Cognitive dysfunction in depression: Pathophysiological mechanisms and phytotherapeutic approaches

Anne Eckert (Switzerland)

Therapeutic sleep deprivation as treatment option in major depression: effects on cognition

Christoph Nissen (Germany)

Physical activity as a treatment option for cognitive dysfunction in depression and its relationship to sleep regulation

Martin Hatzinger (Switzerland)

Treatment of depressed mood states in dementia and the sleep/wakefulness regulation

Dimitrios Dikeos (Greece)

18.30-19.00 **Coffee Break**

19.00-19.30 **LECTURE**

Chairpersons: **Ioannis Diakogiannis** (Greece), **Konstantinos N. Fountoulakis** (Greece)

Modulation of inflammation may arrest neuroprogression in treatment resistant bipolar depression

Angelos Halaris (USA)

19.30-20.00 **LECTURE**

Chairpersons: **Ioannis Nimatoudis** (Greece), **Konstantinos N. Fountoulakis** (Greece)

The wide scope of Psychiatry and its consequent claims on Sleep Disorders Medicine

Constantin Soldatos (Greece)

21.00 **President's dinner & Awards Ceremony**



Sunday, May 28th 2017

08.00-09.30 SYMPOSIUM

ASPECTS OF STRESS

Chairperson: **Konstantinos N. Fountoulakis** (Greece)

Life Events and Psychosomatic health

Efstratia-Maria Georgopoulou (Greece)

Psychoneuroendocrinology of stress

Anna Eleftheriades (Greece)

Is stress toxic for the brain?

Ifigeneia Faliagka (Greece)

Gender and Stress

Evangelia Papadimitriou (Greece)

09.30-11.00 SYMPOSIUM

INSIGHT IN SCHIZOPHRENIA

Chairperson: **Maria Samakouri** (Greece)

Insight in schizophrenia: Overview

Maria Samakouri (Greece)

Assessment of insight

Aikaterini Arvaniti (Greece)

Explanatory models concerning impaired insight in Schizophrenia

Georgios Avraam (Greece)

Consequences and treatment approaches of insight impairment in schizophrenia

Theofanis Vorvolakos (Greece)

11.00-12.00 SYMPOSIUM

ASPECTS OF BIPOLAR DISORDER

Chairperson: **Loukas Athanasiadis** (Greece)

Psychotherapeutic intervention in bipolar disorder: A review

Stefania Moysidou (Greece)

The neurocognitive functioning in bipolar disorder

Eirini Tsitsipa (UK)

Sunday, May 28th 2017

12.00-13.30 **SYMPOSIUM**

HIDDEN ASPECTS OF SCHIZOPHRENIA

Chairperson: **Konstantinos N. Fountoulakis** (Greece)

Psychodynamic issues and schizophrenia

Elias Andreoulakis (Greece)

Somatometric characteristics in patients with schizophrenia

Nicoleta Petalidou (The Netherlands)

Soft neurological signs in schizophrenia

Vangelis Karavelas (Greece)

Staging schizophrenia on the basis of cross-sectional clinical data

Elena Dragioti (Sweden)

13.30 **Closing Ceremony**



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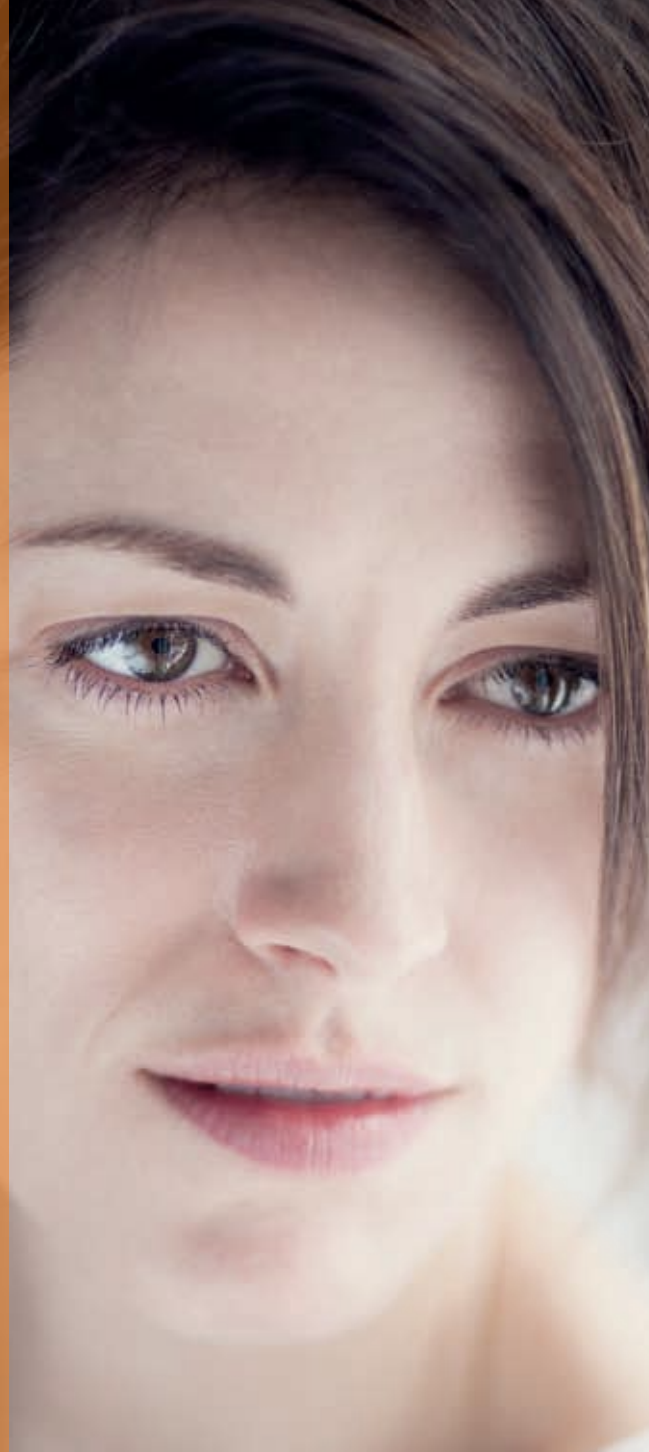
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Chalkidiki can be reached by arriving at “Macedonia” International airport and then by car or by bus. Bus transfers will be provided for group of 30 persons and over. The hotel is located 110 km (75 minutes drive) from the airport and 120 km (85 minutes drive) from the center of Thessaloniki or by public bus transportation (<http://www.ktel-chalkidikis.gr/index1.php>). Please visit the official website to see the city map for further information. The congress secretariat will be available during the congress for any further information concerning your transfers.

Official Language

English will be the official language of the Congress.

All printed material and poster presentations will be in English.

CME Accreditation

The congress has been accredited with **18 World Psychiatric Association Educational credits** for the main Congress Program.

Certificate of Attendance

Certificates of attendance can be received from the registration desk on Sunday May 28th 2017. Please note that a barcode system will be used and in order to obtain CME credits you must complete 60% participation of the scientific program.

E-Posters

All E-posters will be presented electronically, and they will be available also on-line. No hardcopies will be handed. The E-posters will be available to delegates throughout the Congress in the exhibition area.

Poster Awards

The International Society on Neurobiology and Psychopharmacology announces 5 awards for the 5 best posters which will be presented during the 2017 Congress. The winners will receive an honorary diploma.

All submitted posters are considered candidates for the awards, unless otherwise stated by the author(s).

Abstract Book

The scientific program will be available online (pdf format). The abstract book will be published as a hard copy and will be available online. The full posters will be available online (pdf format).

Exhibition

Within the Congress area there will be an exhibition of medical equipment and pharmaceutical products.



Presentations

Available audiovisual equipment for all presentations will be through power point presentation. For power point presentations, your presence to the “technical reception desk” is required one hour prior to the time of your presentation in order to check the compatibility of your cd or usb stick. Use of personal computers will not be permitted.

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* It applies only to the undergraduate students and not to the postgraduate students.

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For free registrations the congress bag will be provided according to availability.

All the scientific proceedings including book of abstracts will be available for free online in pdf format.

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We can not accept responsibility for any personal loss, accidents or damages to participants and/or accompanying persons. Participants are strongly advised to obtain personal insurance to cover any eventuality that may occur during the Congress.

Climate

Chalkidiki in May is splendid since the weather is not too hot yet, or too cold. The average temperature during May is 15°C -25°C or 59°F -77°F.

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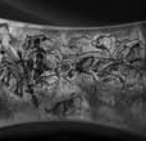


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PROCEEDINGS



Thursday, May 25th 2017

14.30-16.00 SYMPOSIUM

AUDITORY PERCEPTION IN LEARNING WITH IMPLICATIONS IN MENTAL HEALTH

Chairperson: **Vasiliki Iliadou** (Greece)

Representations and Recordings from Peripheral and Sub-cortical Auditory Structures: Opportunities and Challenges in Hearing and Learning

Konstantinos Pasiadis

Assistant Professor on Musical Acoustics, Psychoacoustics and Signal Processing, Department of Music Studies, Aristotle University of Thessaloniki, Greece

In the current presentation we overview various types of models and visualizations of peripheral auditory activity as well as types of recordings from sub-cortical auditory structures. We discuss several aspects of their value in hearing science together with potential applications in clinical practice, rehabilitation, signal processing and artificial intelligence.

Generally, one can obtain functional (a.k.a signal processing based) or biologically inspired models of auditory perception. These mathematical entities yield representations of estimated auditory activity which may be used for purposes of mimicking perception or predicting performance. Throughout the auditory paths, as we move from the periphery towards the cortex, our brain unfolds its information processing capabilities by more and more complex neuroanatomical structures and functionality. Despite the enormous progress in the fields of biology and imaging, this functionality still remains far from being perfectly understood and, consequently, we typically resort to several types of representations obtained by recording of electrical, magnetic, or biochemical activity.

Although there have been proposed some functional models of subcortical auditory activity, these have mostly been focused either on specific types of neuronal types and networks or on their possible role in specific types of auditory percepts (e.g. pitch).

With the advent of modern recording, signal acquisition, processing and analysis techniques, this assumed functionality can be cross validated with recorded compound potentials. Such a deployment of subcortical recordings, and especially from the brainstem (such as the cABR-EFR-FFR), facilitates better determination of feedback properties to the periphery and integration of proposed models of subcortical structures with detailed periphery function models, in order to provide a complementary and highly specialized approach in several fields of interest (e.g. signal processing, diagnosis, etc). Additionally, the subcortical recordings may well be suited as representations of neuronal activity which might be directly correlated to behavioral response and performance as well as to cortical activity which may be used to provide a means for describing and predicting specific aspects of cognition.

Brainstem responses are employed in depicting various aspects of hearing and auditory quantities such as audibility, pitch, and timbre. These responses can be obtained with either simple or more complex sound stimuli and used as an objective tool in clinical diagnosis. This particular property allows for significant flexibility and makes them a valuable tool in marking

therapeutic or rehabilitation approaches for hearing disorders and learning difficulties (APD). Natively, they also depict corticofugal effects which, by turn, afford interpretations of higher-level processing (e.g. reading and SIN perception), attention, etc.

In this presentation we consider, review current status and propose further advances of applications of combined use of peripheral and brainstem responses' modeling. Among others, we discuss on the following:

- As a tool for the description of information processing in the hearing mechanisms, it can be used in formulation and optimization of algorithms and processing techniques for hearing aids, music signal processing, education, etc.
- By obtaining and displaying auditory activity patterns, it may provide a method for visualization of intermediate activity which may be correlated to specific performance indices, thus avoiding more complex or time consuming testing procedures.
- In clinical practice (diagnosis and classification of various types of hearing and learning disabilities), and for maximizing its potential, it would be necessary to employ extended brainstem recordings under various types of sound stimuli and build an information-optimized test battery by determining specific tests which provide minimal redundancy.

Effect of rhythm in speech perception in children with learning disabilities

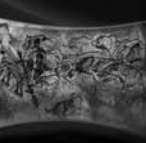
Christos Sidiras

PhD Candidate in Audiology and Psychophysics, Psychoacoustic Laboratory, 3rd Psychiatric Department, AHEPA, Aristotle University of Thessaloniki, Greece

Children with learning disabilities quite often (40%) present Central Auditory Processing Disorder (CAPD), resulting in deficits mainly in speech recognition in noisy environments, among other aspects of auditory perception. Deficits in CAPD may also include impaired perception of musical rhythm, which may be part of pathology of one (or both) of two newly discovered timing mechanisms, i.e. 'absolute' and 'relative'. Timing as part of current theories of speech recognition will be also discussed.

Empirical data on rhythm perception in children with learning disabilities will be overviewed, and compared to those of typically developing children. Data include test results on the following skills: a) detection of subtle differences in timing within isochronous beat sequence, b) detection of periodic changes of contour (timbre) or intensity of tones, and c) effect of rhythm on speech in noise recognition as measured by Word-Recognition Rhythm Component (WRRRC). WRRRC is newly developed test in our laboratory, in collaboration with the Ear Institute (UCL). In this test, one of three types of short sequence of beats with different rhythm characteristics, precedes a word in noise that is to be recognized.

Correlations of the aforementioned tests with classical speech in noise recognition and other indicators of auditory perception will be overviewed. A discussion of the role of 'absolute' and 'relative' timing mechanisms on speech perception in light of current aforementioned theories will also be made.



Status and Perspectives on Music and Learning Disabilities

Elli Ziaziari

B.Sc. Philosophy, Pedagogy and Psychology, UoA, M.Sc. Language Disorders and Intervention, Aristotle University of Thessaloniki, Greece

Many studies have focused on the area of learning disabilities and the interaction that can exist in music education. Taking this as a starting point, the presentation aims to review the similarities and differences between speech and music. The neurophysiological mechanisms will form the beginning of this examination, as they have shown interesting activation in both skills (language and music occupation). The review will deepen through case studies, as well as through much detailed and rigorous studies on the influence that is exerted by the music on the average normal individuals and also to individuals with learning disabilities.

Further, the presentation focuses on Dyslexia, which has been an interesting issue in the field. The detection and discrimination of difficulty from other learning difficulties make the need for a thorough review in this field even more urgent; additionally, successful or unsuccessful teaching methods and treatments will be presented. The music will first be investigated as an educator and facilitator in individual cases for non-dyslexic individuals and foremost as a treatment; and then as a diagnostic tool for specific difficulties.

Children's musical performances with learning problems are examined in the light of the investigation of possible problems faced by the student, trying to explain if the difficulties are normal for every learning and cognitive development. Finally, the scope for new musical therapeutic approaches which exploit common speech-music features and peculiarities will be analyzed, such as those that arise through the intensity, rhythm, emotional awareness and strengthening weaknesses both in purely cognitive, and the neurophysiological piece.

Hyperacusis in Autism Spectrum Disorder

Vasiliki Iliadou

Associate Professor of Psychoacoustics, Medical School, Aristotle University of Thessaloniki, Greece

Auditory perception in humans formulates development of speech and language, influences cognitive abilities and has an impact on social and emotional inclusion. Perception of auditory stimuli commences in utero, matures through adolescence and starts declining in the elderly. Hearing screening of neonates is mandatory in the Western World as early diagnosis and management of hearing loss will minimise speech delays, language deficits, cognitive issues and academic problems. Apart from hearing sensitivity (i.e. pure tone audiogram), evaluation of how a person processes auditory information is important in ensuring accurate representation of messages conveyed through the auditory modality. This later representation impacts cognition.

Hyperacusis defined as heightened sensitivity to sound, with aversive or pained reactions to normal environmental sounds is known to be present in sensorineural hearing loss and tinnitus.

Abnormal reactions to sensory stimuli are a typical symptom of Autism Spectrum Disorder (ASD) and are particularly evident in hearing. ASD individuals perceive certain auditory stimuli as being extremely stressful for them. However, these reactions although included in the DSM-5 under the second criterion for ASD diagnosis they are referred to as “hyper- or hypo-reactivity to sensory input” and are described to be manifested by “adverse response to specific sounds” for the auditory modality. In this lecture it will be argued that both hyper-reactivity and hypo-reactivity to sounds may be explained in a subgroup of ASD children as a consequence of a deficit in cochlear function or central auditory processing disorder and thus the term hyperacusis should be used.

Awareness should be raised to the fact that current research during the last decade has substantial evidence of deficit central auditory processing in ASD. The prevalence of ASD children exhibiting co-morbid Auditory Processing Disorder (APD) is not known and may be revealed if ASD diagnosed children with hyperacusis are evaluated for central auditory processing disorder. It is easily extrapolated that this is not common clinical practice as these children may be challenging in the audiological clinic. Audiological evaluation of ASD children may require extensive time of examination with multiple visits, familiarisation techniques, objective cochlear testing and electrophysiological examination. It is reported that hidden hearing loss may also be revealed, as hearing evaluation may have been unsuccessful in the past. These auditory perceptual deficits may further impact on ASD children’s management and learning skills

16.00-17.30 SYMPOSIUM

**MEDICATION AND COGNITIVE BEHAVIOR THERAPY FOR ANXIETY DISORDERS:
ALONE OR IN COMBINATION?**

Chairperson: **Gregoris Simos** (Greece)

Medication and cognitive behavior therapy for panic disorder / agoraphobia

Meropi Simou^{1, 2} & Gregoris Simos^{2, 3}

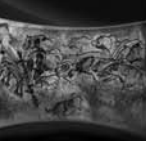
¹*1st Psychiatric Department, Aristotle University of Thessaloniki, Papageorgiou General Hospital, Thessaloniki, Greece*

²*Greek Association for Cognitive Behavioral Psychotherapies*

³*Department of Educational and Social Policy, University of Macedonia, Thessaloniki, Greece*

Pharmacotherapy and Cognitive Behavior Therapy (CBT) are efficacious treatments for Panic Disorder with or without Agoraphobia. Inevitable limitations of these treatment modalities have created a new interest in the enhancement of their efficacy and consequently in the search for a possibly greater efficacy of combined treatment.

Contemporary research on the psychopharmacotherapeutic management of Panic Disorder with or without Agoraphobia (PD±Ag) has offered adequate evidence for the efficacy of SSRIs and venlafaxine (first line medication), as well as TCAs and benzodiazepines (2nd line medication) and less evidence for other drugs like mirtazapine and certain antipsychotics. Concerning more resistant forms of PD±Ag there is no data supporting superior efficacy of certain medication over other.



CBT has been described as the golden standard of psychological therapies for PD±Ag. Research data shows that 75-90% of panic/agoraphobia patients remain panic free at the end of therapy, while treatment gains remain as far as two-year follow ups. CBT has been found to be also affective in panic/agoraphobia related problems like depression and quality of life.

Review of existing research and most recent findings show that the combination of CBT with medication is more effective than either treatment modality alone. Combined therapy seems to relate to comparatively faster rate of improvement in core symptoms of PD±Ag and to treatment gains that persist after the end of treatment. Combined CBT and medication therapy is also reported to facilitate antidepressant and benzodiazepine taper and discontinuation and also seem to better protect patients from possible relapse.

Nevertheless, efficacy of combined therapy seems to be a topic of controversy for some researchers.

Medication and cognitive behavior therapy for generalized anxiety disorder

Nestoras Papathanasiou

Greek Association for Cognitive Behavioral Psychotherapies, Greece

Generalized Anxiety Disorder (GAD) is a common anxiety disorder with a lifetime prevalence of approximately 6%. GAD is associated with substantial functional impairment and a high prevalence of comorbid mental and physical disorders. Therefore, appropriate treatment of GAD is of paramount importance. Pharmacotherapy, as well as cognitive behavior therapy (CBT) are two good treatment options.

We conducted a systematic search of relevant databases on the efficacy of medication and CBT for GAD. Studies on medication alone or CBT alone, as well as those where medication and CBT were combined were our main focus.

Pharmacotherapeutic approaches were found to be an effective first line option for the treatment of GAD with a response rate of 44 to 81%. First-line medication options include an SSRI, an SNRI or other antidepressant such as agomelatine or the anticonvulsant pregabalin. Second-line pharmacotherapeutic approaches include TCA's, benzodiazepines, Quetiapine XR and other medications, like vortioxetine. CBT is an effective first-line option for the treatment of GAD with a response of 47-75% and is as effective as pharmacotherapy. Several CBT protocols have been developed and have been proven effective for the treatment of GAD. Both internet-delivered and computer-based CBT for GAD have shown encouraging results too.

There are limited research data about the effectiveness of a psychopharmacotherapy and CBT combination for the treatment of GAD. Recent research evidence does not support the routine combination of CBT and pharmacotherapy, but when patients do not benefit from CBT, a trial of pharmacotherapy is advisable, and vice versa.

Medication and cognitive behavior therapy for social anxiety disorder

Panagiotis Athanasias

Greek Association for Cognitive Behavioral Psychotherapies, 1st Psychiatric Department, Aristotle University of Thessaloniki, Papageorgiou General Hospital, Thessaloniki, Greece

Social anxiety disorder (SAD) is characterised by an intense and persistent fear of social or performance situations where the individual is exposed to possible scrutiny from others. SAD is very common (approximate lifetime prevalence of 12%), and is also a chronic and a very debilitating condition. Cognitive behavioral therapy (CBT) and the selective serotonin reuptake inhibitors (SSRIs) are considered the mainstay treatment of this disorder, but other also agents may be considered.

This systematic review provides an overview of the empirical literature investigating the efficacy of medication, CBT or their combination. Efficacious medication treatments for SAD consist of a variety of medications including many antidepressants, some benzodiazepines and anticonvulsants, and some antipsychotic medication. Augmentation of an SSRI with other compounds can be beneficial.

Psychotherapy, mainly CBT for SAD, is a rather multi-level therapeutic process, since it has to effectively manage all three aspects of anxiety- physical, cognitive, behavioral- through an array of treatment techniques- systematic exposure to feared social situations, modification of related dysfunctional beliefs, and social skills training when necessary. CBT for SAD is also offered in a group format, something that facilitates the sharing of experiences, a sense of acceptance by others, and the undertaking of behavioral challenges in a trusted environment. When patients do not respond favorably to CBT or in case of significant comorbidities, medication seems to be the treatment of choice.

Although psychotherapy and antidepressant medication seem to be almost equally effective for SAD, there is some evidence that combined treatments may be more effective than either treatment alone.

18.00-19.30 SYMPOSIUM

A WORD OF CRISIS AND DISASTERS. THE ROLE OF PSYCHIATRY AND THE CONSEQUENCES IN MENTAL HEALTH

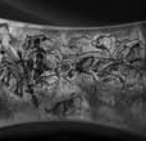
Chairpersons: **Konstantinos N. Fountoulakis** (Greece),
Martin Hatzinger (Switzerland)

Crisis-Crisis Management - Communicational Crisis Management

Georgios Karampoutakis

Scientific Associate of the University Department of Psychiatry National & Kapodistrian University of Athens, Greece

By the term “crisis” we mean whichever “fact”, “action”, “physical or artificial activity” which threatens directly, the organization, the structure and prosperity of sociological entirety, with



impact in local, national or international level with short-term and long-term results most of the times.

According to researchers the life time prevalence of the exposition to disaster amounts to the percentage of 39%, while every year in the USA the 6 to 7% of the population is being exposed to disastrous event. The crisis management is an activity which includes the timely scheduling and preparation, the acknowledgement of a crisis, the confrontation and its settlement. In an effective crisis management a very important role also constitutes the communicational crisis management.

The communicational crisis management is the “dialogue” between the organization and the public, before, during and after the negative event. Mass media constitute the main mean for broadcasting messages to the public.

The goals of the communicational crisis management are to win the trust of the public and mass media, to persuade for the effectiveness of measures so as to make known the social responsibility of the organization with farther purpose the avoidance of panic.

The communicational crisis management is a runny process which demands flexible policy management, it is complicated and demands methodic ways, it needs a multilevel approach, it demands inter-scientific collaboration and most of all it demands inter-functionality.

The impact of disasters in mental health. Evidence from current experience

Achilleas Oikonomou

Psychiatrist - Psychotherapist, Greece

Disasters, as a phenomenon, follow humanity throughout its history. The science of history has already studied many dimensions concerning disasters, such as the financial, the nationalistic etc. During the 20th century, many scientists working in mental health have started to notice the subsequences of disasters in it. Up to now there are numerous studies which indicate clearly the impact of disasters on mental health, especially on affective and anxiety disorders. Wars, financial crisis, natural disasters like earthquakes and floods affect mental health in various and common ways. In the last decades, a lot of studies have been conducted which help us to understand deeply this phenomenon.

Mental Health of Child & Adolescent refugees: the hidden momentum and an urgent call for action

Eirini Rera

Psychologist, Msc, Thessaloniki, Greece

Over one per cent of the world's population are currently uprooted. Over half of the world's displaced population are children. There is considerable evidence that refugee children are at

significant risk of developing psychological disturbance as they are subject to a number of risk factors. These stressors also affect their families. Moreover, consistent research findings show that as the number of risk factors accumulates for children, the likelihood that they will develop psychological disturbance dramatically increases. Traumatic events can have an effect on a child's emotional, cognitive, and moral development because they influence the child's self-perceptions and expectations of others. The multidimensional effects of trauma on children and their families are compounded by forced uprooting, multiple losses, and the myriad changes brought about by migration. Mental health services can be key to restoring basic psychological functioning and to supporting resilience and positive coping strategies for children, adolescents and adults. Refugee children are a silent group that is easily overlooked. Our attitude toward young refugees and their families will determine the burden of trauma, not only on their adult future but also on our community. An empathic and mentalizing attitude, secure sheltering, addressing health and educational needs will create a sense of stability and confidence. This is the very first step to favor, for these future adults and their families, either a productive integration in our heritage of strength and diversity, or the potential to rebuild and stabilize their native countries for those who will return.

Working with refugees: the psychiatrist's experience in primary care

Anastasia Diakoumopoulou

Psychiatrist of DEVELOP ATHENS, Greece

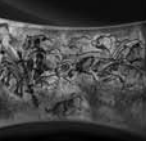
Working with individuals from refugee backgrounds (in this case with refugees from Syria) presents psychiatrists with a unique set of challenges that distinguish refugees' mental health service needs from those of other populations.

Their experiences of persecution, physical and emotional trauma, and forced relocation predispose many of them to symptoms of psychological disturbance prior to and following resettlement and make their experiences different from those of voluntary migrants. Moreover, the time-limited services to which they have access following resettlement must work to support refugees psychologically, educationally, financially and socially which demands integrative care and flexibility.

Common mental health diagnoses associated with refugee populations include post-traumatic stress disorder (PTSD), major depression, generalized anxiety, panic attacks, adjustment disorder, and somatization.

Specific challenges in working with refugees include communication difficulties because of language and cultural differences; the effect of cultural shaping of symptoms and illness behavior on diagnosis, coping and treatment; differences in family structure and process affecting adaptation, acculturation and intergenerational conflict. At the same time working effectively with interpreters, whose presence is essential, involves a collaborative process and specific skills.

Overall refugees are a unique population, working with them therapeutically is beyond traditional psychiatry.



19.30-20.00 LECTURE

Chairpersons: **Athanasios Douzenis** (Greece), **Gregoris Simos** (Greece)

A critical review of the history of the development of treatments for mental disorders

Konstantinos N. Fountoulakis

Associate Professor of Psychiatry, Aristotle University of Thessaloniki, AHEPA University Hospital, Thessaloniki, Greece

Attempting to develop a cure for mental illness begins since antiquity and until the middle ages it is dominated by an admixture of religious, pagan and philosophical beliefs and ideas together with primitive medicinal practices, at proportions depending on the identity and the orientation of the healer. With Renaissance and the Enlightenment, humanistic approaches and theories were developed as a priority along with treatments of the type of milieu and occupational. To a large extent the treatment and management of mental disorders depended on the wider sociopolitical processes which generally concerned humanism and the attitude of the society towards 'madness'. Moral treatments and attempts for rehabilitation co-existed with seclusion and incarceration practices as well as with aggressive treatments having as the aim to cause 'shock' since it was believed that madness was a matter of choice. The modern era begins with a dramatic condition in mental asylums in the late 19th century, partially because of the disappointment from the treatment approaches of the 18th and 19th century. However, the impressive advance in medicine as well as in the natural sciences and more specifically in organic chemistry (dyes techniques) give their first results with the early use of lithium but also of sedative agents in the late 19th century. The development of modern psychotherapeutic methods at the same period, follows the scientific currents of the period. Simultaneously cardiasol and insulin shock treatments appear and eventually electroconvulsive treatment as a result of a long incubation which begins with the concept of 'shock' and results in the artificially induced epileptic seizures for therapeutic reasons. Soon after the end of WWII, bitter conflicts arise between the followers of somatic treatments vs. psychoanalysts, but also among different psychoanalytic schools. The development of antipsychotics causes the deinstitutionalization of a great number of patients and heralds the beginning of the era of community psychiatry. In the 1960s a strict regulatory frame for the development and marketing of medications emerges for the first time while also research regulations also become stricter. Antipsychiatry appears as well as an accompanying unrest in the frame of the 'civil rights movement' which reach their zenith during the 1960-70s. During the last 30 years the field of psychiatric therapeutics faces a number of multiple and complex challenges concerning the sociopolitical and econometechnical place and status of mental health, the patients' rights but also the emergence of Evidence Based Psychiatry which disputes the efficacy of previously established treatment options after decades of being unchallenged. However, the most important problem and challenge is that in reality we have essentially exhausted and completed the cycle of existing treatment approaches which are based on current psychological and biological theories on the etiopathogenesis of mental disorders and we are facing with a vacuum which causes multiple types of disinvestment in the field. In the past, similar conditions had led to a relative retreat of mental health and psychiatry, however the objective conditions today are radically different and permit a certain degree of optimism.

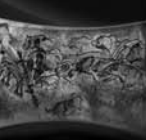
Friday, May 26th 201708.30-10.00 **SYMPOSIUM****THE KALEIDOSCOPIC IMAGE OF MENTAL DISORDERS**Chairpersons: **Loukas Athanasiadis** (Greece), **Anastasia Konsta** (Greece)**General medical conditions associated with mental disorders****Odysseas Kyriazis***Psychiatrist, Greece*

In recent decades medicine and especially psychiatry, has taken significant steps forward in understanding the biology, physiology and genetics of mental illness, and researchers have gained a deeper understanding of the complexity of severe mental disorders and their possible association with medical conditions. Extrapyrarnidal side-effects, tardive dyskinesia, hyperprolactinaemia, weight gain, cardiotoxicity and sexual dysfunction have all been associated with different classes of psychotropic drugs, and although some of these effects are clearly caused by the medication, other side-effects appear to be an integral part of mental disorders themselves, and are only unmasked by psychotropic medications. For example rapid changes in thyroid hormone levels, in particular, can unsettle emotions. The prevalence of diabetes is increased 2- to 3-times in patients with schizophrenia (specifically type 2 diabetes), high blood pressure and hypertension were found to be higher among inpatients with schizophrenia in comparison with those of the general population, as well as the prevalence of hyperlipidemia was higher in schizophrenic patients. The using of statins has proven to be associated with a decreased risk of depression in patients with hyperlipidemia. Although anxiety doesn't cause long-term hypertension, episodes of anxiety can cause dramatic, temporary spikes in blood pressure. These are just a few examples of the most common pathological semiology found in patients with mental disorders.

Aging with mental disorders**Anastasia Konsta***Assistant Professor of Psychiatry and Psychogeriatrics, 1st Psychiatric Clinic "Papageorgiou" General Hospital, Aristotle University of Thessaloniki, Greece*

In almost every country the proportion of people aged over 65 years is growing faster than any other growing group, as a result of both longer life expectancy and decline fertility rates. Mental health disorders adversely affect physical health and ability to function, especially in older adults.

Geriatric Psychiatry is concerned with the identification, assessment, diagnosis and treatment in the elderly with mental disorders. The major syndromes in psychogeriatrics are depression, neurocognitive disorders and behavioral and psychological symptoms of dementia. Delirium in old age is the most frequent complication following hospital admission and may be regarded as



a marker of medical care. Depression is one of the most common disorders of the elderly. The etiology of depression in the elderly is a combination of multifactors and it is a heterogeneous disorder. Persistent depression is a risk factor for dementia in the elderly. Alzheimer disease, vascular dementia, dementia with Lewy bodies and frontotemporal dementia are the commonest type of dementia seen. Pharmacological and non pharmacological management of neurophychiatric symptoms of dementia is a matter of utmost importance.

The emergence of services for psychogeriatric patients is a primary focus. Quality and effective care should be comprehensive, accessible, responsive, transdisciplinary, individualized, accountable and systemic.

Sexual life and mental disorders

Loukas Athanasiadis

Associate Professor in Psychiatry-Psychosexuality, 1st Psychiatric Dep., Papageorgiou General Hospital, Medical School, Aristotle University of Thessaloniki, Thessaloniki, Greece

Mental Disorders may severely impair sexuality and social-interpersonal relationships. Sexual Dysfunctions are common in Mental Disorders. They may be due to the Mental Disorder per se, somatic/psychogenic comorbidity, sexual/non sexual and psychiatric/non psychiatric medication side effects, interpersonal and psycho-social factors, drug dependence factors or the result of the interaction between multiple aetiological factors.

In schizophrenia low libido, sexual arousal and other sexual problems may be present. In depression low libido and other sexual difficulties are common. In bipolar disorder sexual disinhibition may be present during the manic states. In anxiety disorders, dementia, personality and other mental disorders, sexuality may also be impaired.

Sexual dysfunction due to the use of psychotropics is common and may jeopardize adherence to therapy. In some cases the changes in sexual function are welcomed (eg SSRIs may delay ejaculation in patients who also present premature ejaculation).

Psychiatric treatment planning should take into account the complex issue of sexual and relationship difficulties.

The biology of emotional memories' retrieval in psychotherapy

Orestis Giotakos

Psychiatrist, Greece

One of the most important functions of the CNS is to convert the product of neural activity into stable memories. The initial *encoding* occurs within unimodal areas and provides the perceptual information that can mediate *implicit memory*. The construction of consciously accessible memories necessitates a transformation of these isolated fragments into *coherent multi-*

modal representations. The multimodal binding that subserves this process is coordinated by the hippocampo-entorhinal complex and related limbic structures. Newly encoded memories remain more heavily dependent on the integrity of limbic connections for months to years as they gradually become consolidated through extensive associative linkages. Once memories are *consolidated*, the binding of their constituents becomes more dependent on trans-modal areas outside of the limbic system and they become less vulnerable to limbic lesions. Fronto-temporal structures may be involved in the **retrieval of old memories (ecphory)**. The prefrontal contribution in this process of *ecphory* may involve the willed initiation and mobilization of the relevant networks, the selection of information among competing alternatives, and possibly the postretrieval monitoring processes. The **temporopolar** regions, through their **limbic connections**, may coordinate access to *engrams* encoded within association cortices. The retrieval of a memory of an emotional event will cause an individual to experience the same emotional state that they experienced during that event. Neuroscientists suggest that emotions, such as *anger, fear, joy* and so forth, are represented in memory as *central units of information* (“*nodes*”) that are linked to other units that represent other ideas that are associated with the emotion. According to the model, the experience of an emotion activates its unit in memory. Activation then spreads from the central unit to related information, thereby potentiating the use of that information in ongoing processing. Thus, if a person **retrieves** an emotional type of memory, they will experience at least some of the **original emotion**. The retrieval of emotional memories in a pallid way - a way that does not focus on the emotional parts of the experience, but still accurately describes the situation - does not reactivate the original emotion, but a retrieval that involves attention to the vivid emotional aspects of the situation tends to reactivate the original emotion. During psychotherapy the transformation of traumatic imagery into *symbolic imagery* and the integration of resulting *discursive symbols* with *analogic symbols* and affect, form the coherent narrative of *autobiographic memory*.

10.00-10.30 LECTURE

Chairperson: **Maria Samakouri** (Greece)

The use of Long Acting Inject able Antipsychotics in Schizophrenia: Dealing with the gaps between Guidelines and Clinical practice

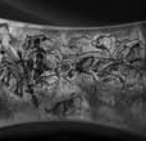
Petros Fotiadis

Director of Military Community Mental Health Center, at rank of Lieutenant Colonel, 424 General Military Hospital, Thessaloniki, Greece

The already known treatment guidelines for the use of long acting inject able antipsychotics in patients with schizophrenia gives a plenty of data based information's and recommendations, but there are a lot of thinks that a clinician had to consider in practice.

There is no doubt that LAIs Antipsychotics enhance the adherence and reduce the risk of relapse, but it is also truth that there is limited use of them.

Issues as who is the right patient, when the doctor informs and when he recommends the use



of LAIs, and even more how he deals with patients resistant's to use them in a share decision-making process, need to be answered with more details.

In addition there are a lot of things to discuss about tolerability, side effects and safety. Clinicians have to deal with problems in titration and dosing.

The excitant health professionals' and patients' attitudes to long-acting injectable antipsychotic gives a lot of limitations in their use, which have to be overcome, thinking the best for our patient in terms of functioning, quality of life and cost effectiveness.

10.30-11.00 LECTURE

Chairperson: **Ioanna Ierodiakonou-Benou** (Greece)

Nature and Nurture from vulnerability to plasticity: importance of gene x environment interactions in the understanding and treatment of affective disorders

Xenia Gonda

*Department of Psychiatry and Psychotherapy, Semmelweis University Budapest
MTA-SE Neuropsychopharmacology and Neurochemistry Research Group of the Hungarian Academy of Sciences and Semmelweis University, Hungary*

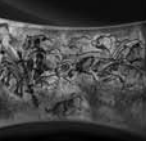
Our scientific and clinical understanding of psychiatric disorders has been cyclically dominated by fashions preferring either biology and genetics, or environmental influences and acquired characteristics. Presently we consider the key role of both genes and environment in the background of these illnesses, the majority of genetic effects manifested in interaction with environmental influences. There are several different hypotheses and concepts regarding the relationship between these two factors and also regarding the outcome of their mutual effects. While some postulate that genes play a primary role determining psychiatric disorders and the environment only modulates its expression, others hypothesise that psychiatric illnesses arise as a result of adverse environmental effects and sensitivity towards these effects is what is genetically determined. Besides, based on the evolutionary approach to mental disorders we aim to consider mental illnesses and related genetic variants not only as pathogenic, increasing vulnerability, but to discover and understand their positive and adaptive sides and effects as well. Several genetic variants have been described both to lead to an increased risk of illnesses in interaction with environmental effects and to yield a positive and protective effect without exposure or when exposed to different types of environmental influences. Thus gene x environment studies increasingly shift from vulnerability to plasticity, which may bring about a major step forward in understanding psychiatric disorders, especially given that according to latest results not only manifestation of such disorders, but also their response to treatment is a function of gene x environment interactions.

11.30-13.00 SYMPOSIUM**NEUROPSYCHOLOGICAL AND NEUROIMAGING SIGNATURE OF BIPOLAR DISORDER AND ITS MODULATION BY EARLY LIFE STRESS**Chairpersons: **Athanasios Douzenis** (Greece), **Panagiotis Ferentinos** (Greece)**Neurocognitive impairments across the bipolar spectrum****Kalliopi Tournikioti***2nd Department of Psychiatry, National & Kapodistrian University of Athens, Attikon General Hospital, Greece*

There is compelling evidence over the past decade that many bipolar patients show significant deficits in various cognitive domains with impairments in verbal memory and executive functions featuring among the most replicated findings across all phases of the disease as well as in euthymia. Cognitive impairment is related to non-adherence to medication, worse outcomes, poor quality of life and psychosocial disability. The identification of factors affecting neurocognitive functioning in Bipolar Disorder (BD) has received therefore much attention with research focusing mainly on clinical and neurobiological factors. Several clinical factors appear to influence neuropsychological function in BD. The presence of affective symptoms and indices of illness chronicity such as duration of illness and number of previous episodes are suggested to be the strongest determinants of poor cognition in the literature. Furthermore, most studies support a detrimental effect of psychotic symptoms on cognition although there are also some negative reports. Apart from clinical factors, treatment-related variables such as medication may influence cognition. Unfortunately, the majority of studies does not control for use of medication. Nonetheless, the use of antipsychotic medication was shown to have an adverse effect on general and working memory in BD type I whereas there are conflicting results regarding the impact of mood stabilizers. Lastly, there is evidence showing gender-related differences in neurocognitive functioning in BD and gender will be discussed as a plausible predictor of neurocognition.

Understanding the structural neuroanatomy of bipolar disorder using advanced neuroimaging techniques**Efstratios Karavasilis***2nd Department of Radiology, National & Kapodistrian University of Athens, Attikon General Hospital, Greece*

Current findings from advanced neuroimaging studies on gray matter (GM) and white matter (WM) in bipolar disorder (BD) do not yet allow for the precise identification of neuroimaging-based phenotypes with clinical utility. However, there is no doubt that advanced neuroimaging techniques and post-processing methods (including voxel-based morphometry, cortical thickness and diffusion tensor imaging [DTI] and tractography) have unveiled early developmental and later neurodegenerative processes that may play a role in BP pathophysiology. Despite several shortcomings of available cross-sectional and few longitudinal studies, there is evidence



for abnormalities in critical brain GM regions and WM tracts that are involved in structural neuronal circuits. Specifically, GM abnormalities are detected in key emotional processing and mood regulation regions, such as anterior cingulate, prefrontal cortex, superior frontal and anterior temporal regions, insula, claustrum, and temporal cortex. DTI findings support altered microstructural integrity in callosal and frontal-limbic WM connectivity in line with the disconnection hypothesis of BD. On the other hand, the disintegration of temporo-parietal long association WM tracts has been linked to the cognitive rather than affective symptoms in BD. Shared and distinct neuroimaging features have been found in BD patients with different subtypes based on predominant polarity, rapid-cycling, pharmaceutical treatment, comorbidity, and family history. By overcoming current methodological limitations, advanced structural neuroimaging techniques can emerge as a promising tool to study BD pathophysiological mechanisms while by transferring research evidence from group-studies to single-patient characteristics in clinical practice, these techniques may represent a valuable tool to aid clinical diagnosis and disease monitoring.

Understanding the functional neuroanatomy of bipolar disorder using task-related and resting-state methods

Foteini Christidi

1st Department of Neurology, National & Kapodistrian University of Athens, Aeginition Hospital, Greece

Functional neuroimaging studies with either task-related or resting-state functional magnetic resonance imaging (fMRI) examine the functional integrity of neural circuitries relevant to neuropathophysiological processes in bipolar disorder (BD) at group-level, by measuring regional activity and functional connectivity of several gray matter regions. Despite the fact that the heterogeneity of existing literature is large, both task-related and resting-state fMRI findings suggest abnormal emotion processing, mood regulation and reward processing. Specifically, in task-related fMRI studies there is evidence of abnormally elevated amygdala activity to emotional stimuli (i.e. emotional processing), abnormally reduced activity in lateral and medial prefrontal cortices (i.e. mood regulation) and abnormally increased activity in ventral striatum and orbitofrontal and ventrolateral prefrontal cortex (i.e. reward processing) during related tasks. Resting-state fMRI studies mostly support an abnormally decreased functional connectivity among frontal, temporal, limbic/paralimbic and subcortical regions in BD, probably related to a decoupling of resting connectivity among these regions. In addition to the cortico-limbic functional connectivity at rest, there is scarce evidence of different connectivity between cortical regions and striatum and cerebellum, which fits with the striatal and cerebellar activity in mood regulation. This abnormal functional connectivity between cortico-subcortical brain regions renders BD patients' emotional homeostatic system vulnerable to extreme mood states. Even though far from providing individual-level markers of disease pathophysiology and facing several methodological limitations at group-level studies, fMRI findings have clearly demonstrated the involvement of specific functional neuronal circuits related to patients' affective pathology.

The neuropsychological and neuroimaging footprint of early life stress in bipolar disorder

Panagiotis Ferentinos

Assistant Professor of Psychiatry, 2nd Department of Psychiatry, National & Kapodistrian University of Athens, Attikon General Hospital, Greece

History of early life stress (ELS)(childhood trauma; physical or emotional abuse or neglect and sexual abuse) has been overreported in patients with major psychiatric or severe personality disorders, being at the same time a well-known causative and adverse prognostic factor. In bipolar disorder (BD), ELS correlates with earlier onset, more recurrences, higher rates of suicidality, lifetime psychosis and psychiatric comorbidity, adverse prognosis and treatment resistance. Polymorphisms in several genes (BDNF, 5HTTLPR, TLR2, CLOCK) moderate the association of ELS with early onset and suicidality in BD. History of ELS has additionally been linked to executive function, working memory, inhibitory control, affective recognition and regulation deficits, emotional instability, impulsivity and hostility. Furthermore, BD patients with a history of ELS have smaller amygdala, dorsolateral prefrontal cortex and thalamus volumes, increased amygdala activation in emotional recognition tasks and reduced prefrontal-limbic functional connectivity. BDNF genetic variation has been reported to interact with ELS history in predicting neuropsychological performance, right hippocampal volume and lateral ventricular volume bilaterally. Potential mechanisms underlying the association of ELS with BD include neuroplasticity, inflammation, circadian rhythm and HPA axis disturbances, epigenetic effects, and telomere length shortening. Future challenges should be increased recognition of ELS history in BD patients and the development of effective management strategies.

13.00-13.30 **LECTURE**

Chairperson: **Panagiotis Ferentinos** (Greece)

Effect of Comorbid Diseases on Cognitive Decline & Dementia Prevention

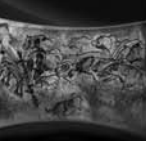
Istvan J.E. Boksay

Clinical Professor of Psychiatry, School of Medicine, New York University (NYU), U.S.A

Patients with mild to moderate dementia progress to end stage dementia faster if they have more medical conditions (MC's) at their baseline evaluation than those who have less MC's. Other recent studies have noted that cognitive function of elderly people with subjective cognitive impairment (SCI) is 5 times more likely to further decline than those without SCI.

Our aim was to determine 1) whether the prevalence of medical comorbidities contribute to more rapid decline in cognitive functioning and 2) whether the prevalence of medical conditions and the use of medications are different in patients with and without SCI.

Our preliminary evaluation shows that medical conditions markedly influence the decline of cognitive functioning even in the elderly with normal baseline cognitive function and elderly with SCI have significantly more MC's and take more medications than those without SCI.



13.30-14.00 LECTURE

Chairperson: Athanasios Douzenis (Greece)

Non invasive point of care diagnostic tests for personalizing psychiatric drug therapy

Anil S. Modak

Associate Director of Medical Products Research & Development, Cambridge Isotope Laboratories Inc., Tewksbury, USA

Over the last decade stable isotope labeled substrates have been used as probes for rapid, point of care, non invasive and user friendly phenotype breath tests to evaluate activity of drug metabolizing enzymes¹. These diagnostic breath tests can be potentially used as Companion diagnostics (CDx) by physicians to personalize medications with narrow therapeutic windows, to monitor the progress of disease severity or medication efficacy and to study *in vivo* the pharmacokinetics of xenobiotics. Several genotype tests have been approved by the FDA over the last 15 years, however, they have not been cleared for use in personalizing medications since they fall woefully short in identifying all non responders to drugs especially for the CYP450 enzymes.

We have developed the non invasive, rapid (60 min), *in vivo* phenotype diagnostic dextromethorphan-¹³C breath test (DM-BT) to evaluate the polymorphic **cytochrome P450 CYP2D6** enzyme activity by measuring exhaled ¹³CO₂ as a biomarker in breath. CYP2D6 is among the most extensively studied drug metabolizing enzyme, involved in the metabolism of approximately 25% of FDA approved drugs in clinical use, associated with large individual differences in medication efficacy or tolerability. Clinicians could select among various treatment options the optimal medication and dosage for the optimal clinical outcome (greatest efficacy and minimal side effects) for an individual patient based on his or her genetic profile. However, the patient's current CYP2D6 functional status (ie, phenotype) is clinically **more relevant** than the genotype in personalizing medication. Thus, application of personalized medicine requires understanding and consideration of the implications of relevant non-genetic factors in addition to genetic factors. Genotype does not alter throughout life, but the phenotype constantly changes throughout life due to non-genetic factors like age, diet, environment, liver disease, metabolic disorders and most importantly **co-medications causing drug drug interactions resulting in phenoconversions**. Ideally the physician needs to evaluate the phenotype instead of **predicting** it from existing medications and genotype, which grossly underestimate the number of poor metabolizers, to personalize the selection of the right drug and both the initial and subsequent maintenance dose for optimal efficacy and minimal toxicity. The DM-BT which evaluates the CYP2D6 phenotype has recently been shown to be just as effective as gold standard plasma therapeutic drug monitoring (TDM) which is invasive, laborious and time consuming and far superior to genetic tests for precision medicine³⁻⁶.

The FDA has placed pharmacogenomic test labels on several drugs to identify poor metabolizers (PM's) and ultra rapid metabolizers (UM's) of CYP2D6 enzyme to adjust the dosage or alter the drug², **however, there is not a single diagnostic test that can definitively identify these patients that need dose or drug alterations!** The incidence of CYP2D6 PM status based on phe-

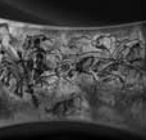
notype is almost 7 times higher than that expected based on genotype in the psychiatric patient population⁷. The DM-BT as a CDx would rapidly identify all non responders to drugs at the point of care setting thus enabling the physician to personalize medications based on their current CYP2D6 phenotype. The DM-BT will address the clinically unmet need for a potentially massive therapeutic market since CYP2D6 is a polymorphic enzyme that metabolizes almost 80% of **psychiatric** medications (48 million patients in US), **breast cancer** endocrine therapy (250,000 new patients in US per year), **analgesic** therapy (24 million patients in US) and **cardiovascular** medications (30 million patients in US).

It is virtually impossible for physicians to select the initial and maintenance dose of psychiatric drugs (most commonly prescribed being CYP2D6 inhibitors) and **current dosing strategies rely predominantly on trial and error**. At the very same dose, a more than 20-fold interindividual variation in the medication's steady state concentration in the body may result, as patients differ in their ability to absorb, distribute, metabolize and excrete drugs due to concurrent disease, age, diet, concomitant medication or genetic peculiarities. Preskorn et al⁷ have shown there is a huge genotype-phenotype discordance in patients taking psychiatric drugs for treating major depressive disorder (MDD) which has massive clinical implications due to drug-drug interactions. The alteration of CYP2D6 phenotype at steady state (usually 8-12 days) post initiating psychiatric medication necessitates dose alteration based on the extent of phenoconversion for each individual. The rapid (50 min) DM-BT can evaluate CYP2D6 enzyme activity (phenotype) prior to initiating psychiatric therapy to select the **optimal initial drug and dose**. After 8-12 days of therapy when steady state of drug is reached the DM-BT will be repeated to detect any phenoconversion and adjust the **maintenance dose** to avoid toxicity due to increasing plasma drug levels while retaining efficacy.

The DM-BT can be used as **Companion diagnostic tests (CDx)** for **existing FDA approved drugs** and for **innovative drugs** in phase II and III clinical trials that are metabolized by CYP2D6 enzyme to identify responders/non responders. This would facilitate FDA approval of the drugs by drastically lowering costs of clinical trials and dramatically increasing prospects of FDA approval for a targeted population. The DM-BT would enable physicians to personalize various medications to improve the quality of life of patients and substantially reduce the cost of healthcare by increasing the efficacy and tolerability of drugs while substantially lowering side effects. The DM-BT as a CDx for prescribing personalized psychiatric medications would radically altering the trial and error paradigm of practicing medicine.

References

1. An Update on ¹³C-BreathTests: The Transition to Acceptability into Clinical Practice in Volatile biomarkers: non-invasive diagnosis in physiology and medicine p 245-262. A Amann and D Smith (Eds), Elsevier **2013**.
2. <http://www.fda.gov/Drugs/ScienceResearch/ResearchAreas/Pharmacogenetics/ucm083378.htm>
3. Leeder JS, Pearce RE, Gaedigk A, Modak A, Rosen DI. Evaluation of the [¹³C]-DM Breath Test to Assess CYP2D6 Phenotype *J Clin Pharmacol* **2008**;48:1041-1051.
4. Opdam FL, Dezentje VO, den Hartigh J, Modak AS, Vree R, Batman E, Smorenburg CH, Nortier JW, Gelderblom H, Guchelaar HJ. The use of the ¹³C-Dextromethorphan breath test for phenotyping CYP2D6 in breast cancer patients using tamoxifen: Association with CYP2D6



genotype and serum endoxifen levels *Cancer Chemotherapy and Pharmacology* **2013**, 71(3), 593-601.

5. Safgren SL, Suman VJ, Kosel ML, Gilbert JA, Buhrow SA, Black JL, Northfelt DW, Modak AS, Rosen D, Ingle JN, Ames MM, Reid JM, Goetz MP .Evaluation of CYP2D6 enzyme activity using a Dextromethorphan Breath Test in Women Receiving Adjuvant Tamoxifen *Pharmacogenetics and Genomics* **2015**, 25(4):157-63.
6. Opdam FL, Modak AS, Gelderblom H, Guchelaar HJ. Further characterization of a ¹³C- dextromethorphan breath test for CYP2D6 phenotyping in breast cancer patients on tamoxifen therapy. *J Breath Res.* **2015** Apr 20;9(2):026003
7. Preskorn SH, Kane CP, Lobello K, Nichols AI, Fayyad R, Buckley G, Focht K, Guico-Pabia CJ. Cytochrome P450 2D6 Phenoconversion Is Common in Patients Being Treated for Depression: Implications for Personalized Medicine *J Clin Psychiatry.* **2013**;74(6):614-21.

15.30-17.00 **SYMPOSIUM**

ANXIETY SYMPTOMS IN DAILY LIFE. CAN WE AFFORD TO IGNORE THEM?

Chairperson: **Charalampos Touloumis** (Greece)

Rethinking use of benzodiazepines and/or antidepressants in the daily clinical treatment of anxiety disorders

Charalampos Touloumis

NHS Director, Psychiatric Hospital of Attiki, Athens Greece

Benzodiazepines are widely prescribed for 50 years, mainly to treat anxiety and insomnia. Almost from their introduction the BZDs have been controversial, with polarized opinions, advocates pointing out their efficacy, tolerability and patient acceptability, opponents deprecating their adverse effects, dependence and abuse liability. Alternative and usually safer medications, such as antidepressants has opened up the debate. We performed a thorough search of the literature in databases such as Medline, Embase and Cochrane Collaboration databases, using the codeword 'benzodiazepine(s)', alone and in conjunction with various terms such as 'dependence', 'abuse', 'treatment', 'adverse effects' etc. Adverse effects continued to cause concern, such as cognitive and psychomotor impairment and dependence/abuse issues remain serious problems. Despite warnings and guidelines, usage of these drugs remains at a high level. The practical problems with the benzodiazepines have persisted for 50 years, but have been ignored by many practitioners and almost all official bodies. The risk-benefit ratio of the benzodiazepines remains positive in most patients in the short term (2-4 weeks) but is unestablished beyond that time, due mainly to the difficulty in preventing short-term use from extending indefinitely with the risk of dependence. In recent review benzodiazepines were associated with increased suicide risk, consistent across various populations and different types of research, including a placebo-controlled crossover trial, a laboratory model of suicidal behavior, case-control studies regarding completed suicides on inpatient units, and large naturalistic studies. Further discussion on the appropriate use of benzodiazepines and antidepressants in daily clinical practice of anxiety disorders are discussed in detail taking into consideration issues such as long-term brain changes, benzodiazepine withdrawal feasibility in

younger and older population, versus the benefits and sustainability of these interventions.

Lader M. **Benzodiazepines revisited--will we ever learn?** *Addiction*. 2011 Dec;106(12):2086-109.

Dodds TJ. **Prescribed Benzodiazepines and Suicide Risk: A Review of the Literature.** *Prim Care Companion CNS Disord*. 2017 Mar 2;19(2).

Reeve E. **A systematic review of interventions to deprescribe benzodiazepines and other hypnotics among older people.** *Eur J Clin Pharmacol*. 2017 Apr 30

Role of oxytocin and other neuropeptides in anxiety symptoms and disorders

Maria Dimitraka¹, Panagiota Papadimitriou², Angelica Gatopoulos³

¹*Psychiatrist in Adult General Psychiatry, Psychotherapist, Greece*

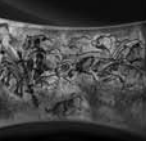
²*Resident in Adult General Psychiatry, Greece*

³*Psychiatry Resident, Psychiatry Hospital of Attika, Greece*

Anxiety disorders, such as generalized anxiety disorder (GAD), posttraumatic stress disorder (PTSD), and social anxiety disorder (SAD), are among the most common psychiatric illnesses with a lifetime prevalence of approximately 30%. In addition to the classical neurotransmitters, neuropeptides represent an important class of modulators for affective behaviors and associated disorders, such as anxiety disorders. There is a large body of evidence suggesting that brain neuropeptides participate in stress physiology, and may have clinical relevance. Many neuropeptides are abundantly expressed in brain regions involved in emotional processing and anxiety behaviors. Moreover, risk factors for anxiety disorders such as stress modulate the expression of various neuropeptides in the brain. We attempt to summarize the latest evidence obtained using animal models for anxiety and mood disorders, and discuss neuropeptides such as corticotropin-releasing factor, urocortins, vasopressin, substance P, neuropeptide Y and galanin, pituitary adenylate-cyclase activating polypeptide, neuropeptide S and oxytocin. The neuropeptide oxytocin (OXT) has been revealed as a profound anxiolytic effect at the brain, along its prosocial and reproductive effects. Animal and human studies support the hypothesis of imbalance of the endogenous brain OXT system, as consequence of chronic OXT treatment resulting in a dose-dependent reduction in OXT receptor availability and increased anxiety, in the etiology of anxiety disorders. Due to the high prevalence of anxiety disorders and yet limited treatment options, there is a clear need for more effective therapeutics. In this regard, the various neuropeptides represent exciting candidates for new therapeutic designs.

Inga D. Neumann. **Oxytocin in General Anxiety and Social Fear: A Translational Approach** *Biological Psychiatry* Volume 79, Issue 3, 1 February 2016, Pages 213–221

Viktória Kormos. **Role of neuropeptides in anxiety, stress, and depression: From animals to humans** *Neuropeptides* Volume 47, Issue 6, December 2013, Pages 401–419



Association of contemporary city life with mental illness.

Christos Tsopelas¹, Dimitra Karadima²

¹*Consultant Psychiatrist in Adult Psychiatry, Psychiatric Hospital of Attica, Athens, Greece*

²*Resident in Psychiatry, Psychiatric Hospital of Attica, Greece*

Psychiatric disorders were found to be significantly higher in urban areas compared with rural areas. Living in an urban environment is known as a risk factor for psychiatric diseases such as depression or schizophrenia. Urbanization, and lifestyle changes have diminished possibilities for human contact with nature in urbanized societies. Although infrastructure, socioeconomic conditions, nutrition and health care services are clearly better in cities than in rural areas and could appear to be protective factors, there is also higher stress exposure. It may be experienced as social evaluative threat, or as chronic social stress, both of which are likely to occur as a direct consequence of high population densities in cities. Living in crowded areas, social disparities become much more prominent in cities and can impose stress on the individual. Research has shown that specific pooled rates for mood disorders and anxiety disorders were also significantly higher in urban areas, while rates for substance use disorders did not show a difference. There is research involving different areas of the brain such as amygdala and the perigenual anterior cingulate cortex (pACC) with conflicting results. Reviewing that research here, we consider research on pathways between nature and health involving physical environment, air quality, physical activity, social cohesion, and stress reduction. Finally, we discuss methodological issues and priorities for future research, as well as allocation of mental health services and preventive factors. Knowledge of the psychological benefits of nature experience supports efforts to better integrate nature into the architecture, infrastructure, and public spaces of urban areas.

Peen J The current status of urban-rural differences in psychiatric disorders

Acta Psychiatr Scand 2010; 121: 84–93

Mazda Adli. Urban Stress and Mental Health. November 2011 <https://lsecities.net/media/objects/articles/urban-stress-and-mental-health/en-gb/>

Hartig T Nature and health.

Annu Rev Public Health. 2014;35:207-28.

Hartig T Living in cities, naturally.

Science. 2016 May 20;352(6288):938-40.

17.00-18.30 SYMPOSIUM

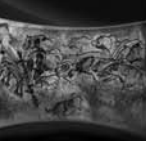
FACIAL AFFECT RECOGNITION AND THEORY OF MIND IN PSYCHOTIC DISORDERSChairperson: **Anca-Livia Popescu** (Romania)**The Role of Social Cognition In Everyday Life****Cristina Bredicean^{1,2}, Ion Papava^{1,2}, Ruxandra Barboianu², Ioana-Alexandra Ravis², Madalina Cristanovici³, Catalina Giurgi-Oncu^{1,4,5}**¹*Discipline of Psychiatry, Department of Neurosciences, 'Victor Babes' University of Medicine and Pharmacy Timisoara*²*"Victor Babes" University of Medicine and Pharmacy, Timisoara, Romania*³*Bethlem Royal Hospital, London, United Kingdom*⁴*NHS Mersey Care, Liverpool, United Kingdom*⁵*Global Mental health MSC, Institute of Health and Wellbeing, University of Glasgow*

What is social cognition? What is its utility in our daily life? The social dimension of cognition is a newer field of research in contemporary psychiatry, with its approach being achieved over time through different perspectives as well, such as social psychology, cognitive psychology or neuroscience.

If we try to define social cognition, we can say that it is a neurobiological process that allows the person to adequately interpret social stimuli and, therefore, respond in an appropriate manner. This was seen as an intermediary between neurocognition and social functioning. Most of the studies show that social cognition has an important impact on the overall functioning of any person, whether they have a psychiatric diagnosis or not.

Social cognition can be divided into several areas: the facial recognition of emotions, social perception, theory of mind and attributional style. The anatomic substrate of social cognition consists of: the prefrontal cortex, the amygdala, the insula and the somatosensory cortex. The recognition of facial emotions involves the ability to recognize and understand the emotions of others and it has four components: identifying emotion, facilitating emotion, understanding emotion, management of emotion. Social perception represents a persons' ability to identify social roles, the rules of the society in which they live, their social context. Theory of mind refers to the ability of a person to comprehend the intentions, the mood and beliefs of others. Attributional style is a person's ability to attribute the causality of negative or positive events either to themselves, or other causes.

In everyday life, everyone uses social cognition, due to its important role in social functioning through its involvement in how daily activities are carried out, both in the professional environment, as well as in the family. In psychiatry, social cognition represents one of the elements that can be modified through psychotherapy.



Theory of Mind Particularities in Bipolar Affective Disorder

Ioana-Alexandra Ravis¹, Zsolt Popovici², Ruxandra Barboianu¹, Cristina Bredicean^{1,3}

¹*"Eduard Panfil" Psychiatric Clinic, Timisoara, Romania*

²*Outpatient Private Clinic, Timisoara, Romania*

³*"Victor Babes" University of Medicine and Pharmacy, Timisoara, Romania*

Introduction: At the foundation of any social interaction stands a cognitive ability called "Theory of mind", which represents the capability of an individual to pinpoint and attribute distinct mental states as belonging to oneself or others.

Objectives: This study aims to evaluate the degree in which the Theory of Mind-'Mind reading through the eyes' tests are modified in patients diagnosed with Bipolar Affective Disorder. The purpose of this research is to assess the capacity of emotion recognition and to determine whether the demographic aspects have been modified by this factor. Also, we shall determine the type of emotion that is easier to pinpoint.

Material & Methods: We analyzed a sample of 34 patients diagnosed with Bipolar Affective Disorder (according to ICD10 criteria). We considered various parameters, such as: professional status, marital status, the ability to attribute emotions and the type of emotions that were recognized the most. The tests were applied to patients in remission. The data obtained was processed in SPSS.

Results: The study found that 0% of the patients had a high capacity of emotion recognition, while 79.41% of the patients demonstrated a low capacity and 20.59% a normal capacity ($p=0.001$). All the patients recognized significantly more often the negative emotions (88.2%), while only 11.8% detected positive ones.

Also, our research pointed out that there is a direct correlation between the professional status and the patients' capacity of emotion recognition ($p=0.047$).

Conclusions: In itself, a history of Bipolar Affective Disorder is directly related to a diminished ability to attribute emotions. Moreover, this shortcoming affects the socio-professional aspects of the patients' life.

What Aggravates Emotion Recognition Ability In Psychosis? Depression, Somatization and Dissociation

Anca-Livia Popescu^{1,2}, Claudia Homorogan², Iris Drut^{2,3}, Marinela Hurmuz¹, Ion Papava^{2,3}, Cristina Bredicean^{2,3}

¹*University of Medicine and Pharmacy, Tîrgu Mures, Romania*

²*"Eduard Panfil" Psychiatric Clinic, Timisoara, Romania*

³*"Victor Babes" University of Medicine and Pharmacy, Timisoara, Romania*

Introduction: Emotion Recognition is associated with empathy and the quality of human inter-

action, being indirectly linked with quality of life. Emotion recognition is known to be impaired in psychotic spectrum disorders (among other disorders) with a pick in Schizophrenia but present in all spectrum, including first degree relatives at very high risk for psychosis. Also, emotion recognition impairment is present in depressive and dissociative disorders as well. How all three are related is an objective for this project.

Materials and Method: On a small lot of 28 subjects suffering from psychotic spectrum disorders, in accord with ICD-10 criteria, a set of tests were applied: Emotion Recognition Task, based on POFA photo set and research developed by Ekman &co., the SCL-90, the Beck depression inventory and the DES (Dissociative Experience Scale).

Results: The ability to recognize emotions is negatively correlated with Beck's depression index and with the somatization index of SCL-90 but no significant correlation between DES scores and Emotion Recognition levels. Sex makes no difference when talking about depression for this lot.

Conclusion: Depression is linked with emotion recognition impairment and it seems it has a significant importance even if the main disorder is a psychotic spectrum one. When we know that psychotic disorders bring emotion recognition impairment by themselves and that secondary depression is under diagnosed we can add with this date new reason for treating secondary disorders in psychosis these having a complex impact on social functioning even if the symptoms are mild to moderate.

Key words: Psychosis, Emotion Recognition, Depression, Somatization, Dissociation

What Aggravates Emotion Recognition Ability in Psychosis? Psychotic Symptoms, Age and Global Functioning

Claudia Homorogan¹, Anca-Livia Popescu^{1,2}, Iris Drut^{1,3}, Marinela Hurmuz², Ion Papava^{1,3}, Cristina Bredicean^{1,3}

¹"Eduard Panfil" Psychiatric Clinic, Timisoara, Romania

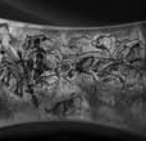
²University of Medicine and Pharmacy, Tîrgu Mures, Romania

³"Victor Babes" University of Medicine and Pharmacy, Timisoara, Romania

Introduction: Patients diagnosed with a psychotic spectrum disorder have a deficit in identifying facial emotions expressions. The severity of clinical symptoms (including both positive and negative symptoms) is associated with difficulties in processing facial emotions. Social abilities, like emotion recognition, are important for the quality of life of the patient.

Aims: To examine the correlation between the PANNS scores, global functioning scores and the Facial Emotion Recognition task in patients diagnosed with a psychotic spectrum disorder.

Methods: Patients included in the study were hospitalized in the Psychiatric Clinic of Timisoara, in the last 6 months of 2016, and then monitored in the outpatient clinic. They were diagnosed with a psychotic spectrum disorder, according to ICD-10 criteria. All patients were medicated



on antipsychotic drugs. All patients were tested with the Positive and Negative Symptom Scale (PANNS) and with Facial Emotions Recognition task, which includes 28 images of the basic emotions (happiness, surprise, anger, fear, sadness, disgust, neutral) and were scored for global functioning with the GAFS.

Results: Some emotions were also harder to identify, in decreasing order: disgust, fear, surprise, sadness and happiness. Emotion recognition task scores were correlated with age but not with the duration of the disorder. A positive correlation was found between the emotion recognition task scores and global functioning scores. No significant correlation was found for the PANSS scores.

Conclusions: Although the literature shows that symptoms are important in both emotion recognition ability and global functioning, we can argue that social abilities may be of a greater importance.

Key words: Psychosis, Facial Emotion Recognition, PANSS, global functioning

19.00-19.30 **LECTURE**

Chairperson: **Ioannis Nimatoudis** (Greece)

Stress and Pediatric Obesity: Neurobiology and Behavior

Panagiota Pervanidou

Assistant Professor in Developmental and Behavioral Pediatrics, Head of the Unit of Developmental and Behavioral Pediatrics, First Department of Pediatrics, School of Medicine, National and Kapodistrian University of Athens, "Aghia Sophia" Children's Hospital, Athens, Greece

Chronic stress commonly coexist with obesity in children and adolescents. Stress, the state of threatened homeostasis, is associated with the acute activation of the hypothalamic–pituitary–adrenal axis and the sympathetic nervous system. However, the chronic activation of hypothalamic–pituitary–adrenal and sympathetic nervous system axes during chronic or intense stress can lead to a variety of psychopathological and physical conditions, including obesity and the metabolic syndrome. Behavioral and neurobiological mechanisms link chronic stress with pediatric obesity, in a bidirectional relation. Chronically stressed individuals are characterized by low adherence to a healthy lifestyle and by disturbed eating behaviors, whereas alterations in the secretion of stress hormones might also contribute to obesity and obesity-related complications. Obesity could lead to increased social distress, low self-esteem, and anxiety, thereby contributing to a vicious cycle between distress and obesity and increasing further the risk of cardiometabolic morbidity.

19.30-20.00 LECTURE

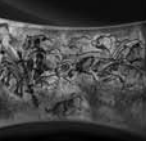
Chairpersons: **Charalampos Touloumis** (Greece), **Christos Tsopelas** (Greece)**Performance deficits for action- but not mental state- verb fluency in schizophrenia spectrum disorders****Daria Smirnova^{1,2}, Melanie Clark¹, Assen Jablensky¹, Johanna C. Badcock¹**¹*Centre for Clinical Research in Neuropsychiatry (CCRN), Division of Psychiatry, Faculty of Health and Medical Sciences, University of Western Australia, Perth WA 6000, Australia*²*Department of Psychiatry, Narcology, Psychotherapy and Clinical Psychology, Samara State Medical University, Samara, Russia*

Action (verb) fluency deficit in schizophrenia has previously been proposed as a potential endophenotypic marker. The degree to which this impairment reflects difficulties generating verbs in different semantic categories is unknown.

Our study examined the action fluency test performance of 46 patients with schizophrenia spectrum disorders and 76 healthy controls from the Western Australian Family Study of Schizophrenia. Verb responses (n=2219) were evaluated according to their relevant semantic properties and classified as action (e.g. to run) or mental state (e.g. to think) verbs, using standard taxonomies. The word length, frequency, age of acquisition, valence and concreteness of the verbs were evaluated. Participants' cognitive abilities and clinical symptom traits were also examined.

Independent inter-rater agreement of semantic categorization was high. The percentage of action verbs produced was significantly lower in patients than controls, whilst the percentage of mental state verbs did not differ. Patients' action verbs were significantly less concrete (more abstract) than controls, reflecting a lower precision of encoding or reactivation of the sensory, motor and affective information associated with the core verb meaning. This deficit in action fluency was positively correlated with memory and intelligence but not with executive function, medication dose or clinical symptoms. Conversely, difficulty generating action (but not mental state) verbs was negatively correlated with interpersonal schizotypy traits denoting an increased sense of psychological distance from others.

Impaired action verb, but intact mental state verb generation is consistent with the neural separability of these processes and points to a specific relationship between action-related language, memory/intelligence and poor interpersonal functioning in schizophrenia.



Saturday, May 27th 2017

08.30-10.00 SYMPOSIUM

NOVEL APPROACHES IN THE NEUROBIOLOGY OF SCHIZOPHRENIA

Chairpersons: **André Aleman** (The Netherlands), **Kenneth Hugdahl** (Norway)

Is schizophrenia a neuroinflammatory disorder?

Iris Jonker

Psychiatrist, University Medical Centre of Groningen, The Netherlands

Schizophrenia is a chronic brain disease characterized by disturbances in thinking, perception and emotions, affecting approximately 1% of the human population. It causes a considerable degree of disability and the economic burden is high. Treatment of schizophrenia is still inadequate, which is related to the fact that the etiology and pathophysiology remain unknown. Schizophrenia research has mainly been focused on disturbances in neurotransmission and genetics. So far this did not lead to significant improvements in the diagnosis and treatment of schizophrenia. New concepts in the biological research are therefore needed. It has been suggested that alterations in the immune system are involved in the pathophysiology of schizophrenia.

During the recent years changes in peripheral immune cells and in immune related genes have been reported, and evidence was provided for the presence of focal neuroinflammation in schizophrenic patients. However, the results on the role of neuroinflammation in schizophrenia have been conflicting as some studies could not confirm the presence of a neuroinflammatory process. This could be the consequence of differences in patient selection and methodology used to determine the presence of neuroinflammation, and of the presence of specific subgroups of schizophrenic patients. As understanding the role of neuroinflammation in schizophrenia can lead to new treatment approaches further research into this process is needed.

Neuroinflammation can be measured in vivo using the non-invasive imaging technique positron emission tomography (PET), using radioligands for the translocator protein (TSPO). The expression of TSPO is increased in microglia cells, the hallmark cells of neuroinflammation. Using the TSPO ligand [11C]-PK11195 we have reported the presence of neuroinflammation in the hippocampus of a small group of schizophrenic patients during psychosis¹. With a recently performed PET study we increased our sample size and aim to give more insight into possible subgroups of schizophrenia patients.

Taken together, we will give an overview of the studies that have been performed on the role of neuroinflammation in schizophrenia, complemented with very recent work.

¹Doorduyn J, de Vries EF, Willemsen AT, de Groot JC, Dierckx RA, Klein HC. Neuroinflammation in schizophrenia-related psychosis: a PET study. *J. Nucl. Med.* 2009; 50:1801-1807

Neuroimaging and auditory verbal hallucinations

Kenneth Hugdahl

Professor of Biological Psychology, University of Bergen, Norway

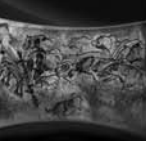
Auditory verbal hallucinations (AVHs) are one of the most frequent and severe symptoms of schizophrenia, and in a sense “defines” a psychotic episode. AVHs are however also reported to occur in non-psychotic individuals in the general population. Thus, the experience of AVH is a general property of cognitive functioning, and as such should have neurobiological correlates. Neuroimaging research over the last 20 years have shown great progress with regard to outlining the neuronal correlates of AVHs, both structurally and functionally, and in recent years also starting to describe the underlying neurochemistry. Although there have been contradictory results over the years, I will focus my talk on findings from essentially MRI studies where we are at least approaching a consensus. fMRI-studies have shown spontaneous hyper-activation in the primary and secondary auditory cortices in the temporal lobe, preferably on the left side during active AVHs, thus implicating the speech processing areas in the upper posterior temporal lobe. The functional findings have their structural correlates in reduced grey matter volume, and in particular cortical thickness, in the same regions in the temporal lobe. Interestingly, this state-dependent activation is reduced, or blocked, when AVH patients are tested with an external auditory stimulus. More recent studies have in addition shown increased glutamate levels in the temporal lobe in patients with frequent hallucinations, which could point to the underlying neurochemistry. A final area that will be reviewed is the connectivity between fronto-parieto-temporal areas, and the relation to bottom-up versus top-down processing influences on AVHs.

BCI neurofeedback as a tool to improve cognitive dysfunctions in schizophrenia

Stefanie Enriquez-Geppert

Assistant Professor, Department of Clinical and Developmental Neuropsychology, University of Groningen, The Netherlands

Distinctive consequences of schizophrenia are work absence, early retirement and poor every day activities which seem to be associated with disturbed executive functions. Executive functions are associated with so-called frontal-midline (fm) theta oscillations, which are suggested as a common mode for the communication of local computation within the larger network supporting these functions. This brain mechanisms seems to be disturbed in schizophrenia. From a rehabilitation perspective the question arises, if disturbed oscillations can be directly targeted with neuroscientific approaches, such as with a BCI for EEG-neurofeedback, in order to influence associated disturbed cognition in schizophrenia. BCIs rest on the measurement of brain activity and produce signals that are often directed at assisting, enhancing or repairing cognitive or sensory-motor functions. Regarding EEG-neurofeedback, operant conditioning is considered as one learning mechanism underlying the self-regulation of brain activity. In my talk I will first present a study using this EEG-neurofeedback approach to enhance fm-theta which led to increased behavioral performance in healthy young participants. Then I introduce a study which explored the specific fm-theta disturbances of schizophrenic patients. Finally I present a study testing a personalized five training session fm-theta neurofeedback with schizophrenic patients. Here an experimental group was compared with an active control group to control repetition-related and non-specific effects.



Noninvasive neurostimulation to target brain circuits underlying positive and negative symptoms in schizophrenia

André Aleman

Department of Neuroscience, University Medical Center Groningen, University of Groningen, The Netherlands

Recent years have seen an increase of published studies regarding noninvasive brain stimulation (NIBS) using electromagnetic fields in psychiatric disorders. Such NIBS has been applied in patients with schizophrenia to alleviate both positive and negative symptoms, albeit at different locations and different frequencies of stimulation. The two forms of NIBS that have been studied in several trials are repetitive transcranial magnetic stimulation (rTMS) and transcranial direct current stimulation (tDCS). For auditory hallucinations, rTMS has been directed at the left temporoparietal junction (at 1 Hz). Mixed results have been reported, although recent meta-analyses report an average significant reduction of hallucination severity. In this presentation, data regarding effect of temporoparietal rTMS on brain activation as measured with fMRI will be presented. For negative symptoms, studies with rTMS have focused on the lateral prefrontal cortex, at 10 Hz or higher. A meta-analysis of recent findings will be presented that suggests that treatment with noninvasive magnetic brain stimulation may ameliorate negative symptoms. Such stimulation has previously been shown to target circuits with dopaminergic innervation. We conducted a trial of prefrontal rTMS for negative symptoms and measured brain activation with fMRI before and after 3 weeks of treatment. Changes in activation of frontal regions were observed. The results of NIBS studies have clinical implications and may aid the development of novel treatment strategies.

10.00-10.30 **LECTURE**

Chairpersons: **Angelos Halaris** (USA), **Giuseppe Tavormina** (Italy)

Role of growth factors in neurogenesis and depression

Anne Clark-Raymond¹, Angelos Halaris²

¹*Department of Psychiatry, Cornell University School of Medicine, New York, NY, USA*

²*Department of Psychiatry, Loyola University Chicago Stritch School of Medicine, Chicago, Illinois, USA*

The neurotrophic model of depression postulates a role of Growth Factors (GF), such as Brain-derived Neurotrophic Factor (BDNF) and Vascular Endothelial Growth Factor (VEGF), in major depressive disorder (MDD). A stress related decline in neurotrophins may cause atrophy of limbic structures resulting in depression while antidepressant treatment can restore neurotrophins and reverse this atrophy. The model suggests that this decline in neurotrophins may potentially cause atrophy of some of the limbic structures that control mood, resulting in symptoms of depression, and that antidepressant treatment can reverse this atrophy and restore the levels of neurotrophins. Recent studies have reported alterations of VEGF in MDD, as well as a key role for VEGF in mediating successful response to antidepressant treatment. VEGF plays a role in

hippocampal neurogenesis and response to stress, as well as in exerting neuroprotective effects and influencing synaptic transmission. Additionally, its role in synaptic plasticity is involved in hippocampus-dependent processes, such as learning and memory. The neurogenic role of VEGF is potentially critical in the pathogenesis of MDD and in the efficacy of treatment with antidepressants. The role of VEGF in depression has been hypothesized under the neurotrophic model of depression, which is based on the finding that stress can cause a decreased level of neurotrophins, such as BDNF and VEGF. We will report on plasma VEGF as a potential biomarker for depression, as well as predictor of response to antidepressant treatment. A baseline VEGF value greater than 6.60 pg/ml differentiated MDD patients from healthy control subjects with a sensitivity of 64% and a specificity of 76%. A VEGF value above 7.50 pg/ml can distinguish patients who respond to antidepressant treatment from non-responders with a sensitivity of 60% and a specificity of 100%. By elucidating the role of VEGF in depression, we can better understand the pathophysiology of MDD and the mechanism of action of its treatment modalities. Plasma levels of VEGF could prove to be a useful biomarker in the service of personalized psychiatry.

10.30-11.00 **LECTURE**

Chairperson: **Thomas G. Schulze** (Germany)

Stress, Stress-Related Disorders (SR-Ds) and Resilience

Uriel Halbreich

Chair, WPA Section on Interdisciplinary Collaboration.

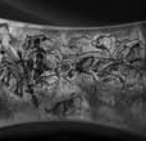
Director of BioBehavioral Research, Professor of Psychiatry, UB -The State University of New York (SUNY), USA

Currently man-inflicted and Nature-effected stresses and their consequences are a world-wide major problem that effect many civilians in diversified countries.

Stress should be addressed as a whole body process. Brain-based mechanisms interpret situations as being negatively stressful or challenging. Adaptation is a key to individual's handling of stress, it is centrally coordinated. Mal-adaptation may result in failure of integration and maintenance of balance (homeostasis) among multiple systems. Stress may be manifested as a plethora of diversified Central Nervous System (CNS) mood and behavioral symptoms as well as multiple peripheral physical symptoms and disorders. Resilience is a healthy adaptation. It is the process of adapting well in the face of adversity, trauma and threats, as well as responding effectively to sources of continuous stress and potential attrition of routine life.

Clinically, the concept of resilience and vulnerability should be operational, addressing the question why some people crumble under stress and develop (or regress to) PTSD, hypertension and other symptoms in response to same events that toughen others. Individual's vulnerability to develop a particular manifestation of Stress-Related Disorders (S-R Ds) is diversified, in some it may be behavioral, as PTSD or other anxieties and dysphorias, in others it may be physical-increased blood pressure, metabolic syndromes, asthma, autoimmune disorders etc.

Identification of vulnerable Geo-political situations and Nature-prone disasters and then-iden-



tification of vulnerable people among vulnerable populations –those with low resilience, is a first step towards development of preventative interventions to enhance resilience and prevent individuals from becoming Victims-Patients.

11.30-13.00 **SYMPOSIUM**

COMPLEXITIES IN THE TREATMENT OF MOOD DISORDERS AND BIPOLARITY

Chairpersons: **Giuseppe Tavormina** (Italy), **Nicolas Zdanowicz** (Belgium)

Reasoned use of BZD in depressive disorder

Nicolas Zdanowicz, Christine Reynaert, Denis Jacques, S. de Mesmaeker

Professor, Head of Clinic of the Psychosomatic and Psycopathologic Department, Mont-Godinne University Hospital, Belgium

Background: As from the 90s benzodiazepines (BZD) have been highly criticized. What place do they have in the 2015 especially for depressive disorders? What are the strict guidelines for their prescription and reasoned use?

Method: Literature review and clinical research on benzodiazepine use at Mont-Godinne University Hospital.

Results: In France and Belgium, benzodiazepine (BZD) use remains high. In 2013, among 16,821 hospitalizations, more than 1 out of 2 patients have been treated with BZDs. These figures show the magnitude of the gap between guidelines and clinical practice. The lack of sufficiently effective alternatives is, at least to some extent, responsible for this discrepancy. These situations make the BZDs useful in the treatment of anxiety disorders. If anxiety disorders are present in 10% of the population, anxiety is also present in more than 1/2 depressive patient and in more than 25% of manic patients.

Conclusion: Although the guidelines recommend antidepressants to be used as first-choice drugs for the treatment of anxiety disorders or anxiety in depressive states, it is still impossible to date to do without BZDs. Their rational use of BZDs should allow us to administer them with maximum effectiveness while reducing the risk of addiction and overall consumption.

Risk and effectiveness of cognitive functions with atypical antipsychotics augmentation in BD II: a three-years observational study

Francesco Franza

Director of Psychiatric Department, Mental Health Department “Villa dei Pini”, Avellino, Italy

The Bipolar Disorder (BD) has been consistently associated with cognitive dysfunction across a broad range of cognitive domains. In a recent review, the authors (Tsitsipa - Fountoulakis 2015) found the presence of a neurocognitive deficit in BD in almost all neurocognitive domains. The

correct identification of the objective of the cognitive dysfunction is important in the clinical activity on monitoring treatment effectiveness and efficacy of treatments in cognitive dysfunction, although a common criticism to this research line is both the unspecific cognitive deficits and the difficult to administer the most effective and most useful tools. Another critical aspect is the indirect effects on cognitive symptoms in BD of drugs such as lithium, anticonvulsants or antipsychotics. Atypical antipsychotic drugs (SGAs) represent an efficacy antipsychotic strategy in these diseases. However, the data on the possible effect of antipsychotics on neurocognition are rare and conflicting. The aims of our study were to examine the use of some second-generation antipsychotics (aripiprazole, asenapine, olanzapine, quetiapine) in Bipolar Disorder clinical practice, on valuing the effects of cognitive functions in inpatients. In addition, we evaluated the efficacy of the cognitive diagnostic tools (as: PHQ-9, DSST, PDQ-5 items, EpiTrack®) in their manageability and simplicity of use.

References

1. Tavormina G. An approach to treat bipolar disorders mixed states. *Psychiatr Danub*. 2016 Sep;28(Suppl-1):9-12.
2. Harrison PJ, Cipriani A, Harmer CJ, Nobre AC, Saunders K, Goodwin GM, Geddes JR. Innovative approaches to bipolar disorder and its treatment. *Ann N Y Acad Sci*. 2016 Feb;1366(1):76-89.
3. Cardenas SA, Kassem L, Brotman MA, Leibenluft E, McMahon FJ. Neurocognitive functioning in euthymic patients with bipolar disorder and unaffected relatives: A review of the literature. *Neurosci Biobehav Rev*. 2016 Oct;69:193-215.
4. Tsitsipa E, Fountoulakis KN. The neurocognitive functioning in bipolar disorder: as systematic review of data. *Ann Gen Psychiatry* 2015, 1;14:42. doi: 10.1186/s12991-015-0081-z.

Mixed states: beyond the diagnoses, towards a differentiation of the clinical subtypes

Giulia Menculini¹, Valentina Del Bello¹, Norma Verdolini²⁻³, Patrizia Moretti³, Alfonso Tortorella³

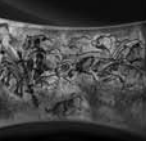
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Mixed states represent a diagnostic area which has often been ignored so far but with important clinical and therapeutic implications.

Even though researchers and clinicians tried to identify symptoms and features of mixed states, the current diagnostic criteria are widely criticized and the heterogeneity of their clinical presentations constitute a challenge, mainly because dedicated psychometric scales are still lacking.



In the present study we compare clinical presentations of mixed states diagnosed according to the strict DSM-IV-TR definition with the wider DSM-5 classification, considering the so-called “mixed features” specifier. The aim is to better define mixed states and to assess their psychopathological characteristics not only in bipolar disorder but also in unipolar depression, in the attempt to go beyond the nosography, towards a better definition and differentiation of the different clinical subtypes of mixed states.

Patients admitted with a diagnosis of Bipolar Disorder (BD-I and BD-II) or Major Depressive Disorder, to the Psychiatric Inpatient Unit of the University / General Hospital “Santa Maria della Misericordia” in Perugia Italy) from January 2015 to February 2017, underwent a clinical evaluation.

Clinicians administered the Hamilton Rating Scale for Depression (HRSD), the Young Mania Rating Scale (YMRS), the Brief Psychiatric Rating Scale (BPRS) and Questionnaire for Mixed States and Bipolar Disorders created by Prof. Mark Agius. Socio-demographic and clinical information were also collected. The sample has been divided into groups according to the presence/absence of mixed features and defined according to the main diagnosis; the differences between the groups have been analyzed.

The study hypothesizes a clinical differentiation of the mood disorders with/without mixed features as postulated by Kraepelin and lying on a continuum of symptoms polarity and severity.

Key Words: Mixed Features Specifier, Bipolar Disorder, Major Depressive Disorder, DSM-5

An approach to treat bipolar disorders mixed states: proposals for a guideline

Giuseppe Tavormina

President of the Psychiatric Studies Centre, Italy

Introduction: Very often clinicians meet great difficulties in making a correct diagnosis of mood disorders which they are assessing, above all when mixed states are present: this because the patients mainly focus on their own symptoms of depressive uneasiness; mixed symptoms can insidiously infiltrate into the mood and life of the patients causing a chronic and worsening clinical state.

Steps for the clinicians: First step - It is essential at the beginning of the clinical interview to evaluate the present clinical situation which led the patient to consult the psychiatrist, and to assess what had led up to the present situation, including when the first symptoms of mood disturbance started

Second step – It is essential to use the “G.T. Mixed States Rating Scale” (or “G.T. MSRS” - *Tavormina, 2015*) administering it to the patient, to conduct (or not) the clinician to a “generic” diagnosis for a mixed state in the bipolar spectrum.

Third step – It is essential to have defined the diagnosis of the mixed state, and thence to choose the adequate mood stabiliser/s, adding a small dosage of antidepressant in consequence of the intensity of the depressive symptoms measured both by the GT-MSRS and the clinical interview.

Fourth step – In consequence of the diagnosis of mixed states and their symptoms presented in the patients, the clinicians has to select the mood stabiliser more indicated to be used.

Concluding remarks: The “mixture” of depressive phases (that are the most insidious symptoms of overlapped depression-restlessness-irritability) can cause increased risk of suicidality (*Akiskal H, 2007*); besides, the co-presence of various types of somatisation symptoms, as well as the abuse of substances, should suggest the possibility of a “mixed state” of the bipolar spectrum: to treat it as well begins crucial for the clinicians.

13.00-13.30 **LECTURE**

Chairperson: **Konstantinos N. Fountoulakis** (Greece)

Social Functioning as an outcome variable in schizophrenia

Afzal Javed

WPA Secretary for Sections

Consultant Psychiatrist & Visiting Clinical Associate Professor University of Warwick, UK

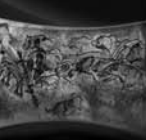
Introduction: Schizophrenia is a chronic and disabling psychiatric illness, with the majority of patients experiencing multiple relapses during the course of the illness. This illness is characterised not only by its florid and extraordinary positive symptoms, but also negative and disorganisation symptoms that affect almost all aspects of social functions as well.

Outcome in Schizophrenia is often conceptualised in terms of remission, recovery and relapse. An adequate definition of recovery in schizophrenia has long been elusive; with very different definitions occurring in the scientific and patient’s perspectives. However importance of social functioning, financial autonomy and reintegration into community highlights recovery as a process toward achieving, among other things, empowerment, hope, and respect.

The majority of persons with schizophrenia, even those who benefit from medication, continue to have disabling residual symptoms and impaired social functioning. They are also likely to experience a relapse despite medication adherence, hence requiring integration of empirically validated psychosocial treatment programmes into the standard of care for this population.

Objectives: This presentation will highlight the importance of empowerment and financial autonomy for improving social functioning of Schizophrenic patients through an innovative programme that is being practiced in a developing country. Based on the concepts of micro-finance, this project has provided a new direction for a successful and sustained recovery process while improving social and financial aspects of day to day life of patients attending this Psychos-social rehabilitation programme in Lahore, Pakistan.

The presentation will also give a brief account of this programme, its relevance, application and appropriateness for developing better services for patients with long term needs.



Learning Points:

- Conceptual framework of Recovery & Social Functioning
- Practical aspects of practicing Recovery model
- Use of innovative measures especially in countries with limited and less resources in mental Health

Keywords: Schizophrenia; Relapse; social functioning; financial autonomy

15.30-17.00 **SYMPOSIUM**

**ADVANCES IN UNDERSTANDING MOLECULAR AND CELLULAR MECHANISMS
RELEVANT TO BIOLOGICAL PSYCHIATRY**

Chairpersons: **Thomas G. Schulze** (Germany), **Dimitrios Dikeos** (Greece)

Current understanding of the biological substrate of schizophrenia

Evangelia Tsapaki

Director of the "Aghios Charalambos" Mental Health Clinic, Heraklion, Crete, Greece

Schizophrenia affects approximately 1% of the population worldwide. It is ranked among the top ten causes of disability-adjusted life years and reduces life expectancy by 10 years, with death often by suicide. There is compelling evidence that schizophrenia is a disease of the brain with a high degree of heritability. In this talk, an up-to-date account of the four major research approaches that have yielded results converging to plausible final common pathways accounting for the pathophysiology of schizophrenia will be presented; neuropsychopharmacology, brain imaging, genetics and post-mortem studies of the brains of affected individuals.

Understanding brain function through circadian rhythms

Agorastos Agorastos

Assoc. Professor for Psychiatry and Psychotherapy, Senior Physician, University Medical Center of Hamburg, Germany

The human circadian system creates and maintains cellular and systemic rhythmicity essential to temporal organization and coordination of physiological processes to promote homeostasis and environmental adaptation. The suprachiasmatic nucleus (SCN) is the primary pacemaker of the central circadian system, while a peripheral oscillating network of different Zeitgebers creates a more complex circadian hierarchy, orchestrating biological functions. A critical loss of this time order at different organizational levels is defined as chronodisruption and fundamentally affects the organism in a both molecular and macrophysiological level and, thus, may play a central role in the development of mental disorders. Nevertheless, sleep disturbances are still often clinically assessed as secondary symptoms in most disorders, neglecting the important supraordinate pathophysiological role of circadian system. Recent pathophysiological findings from human and animal research suggest circadian-system-linked neuroendocrine, immune,

metabolic and autonomic dysregulation with blunted diurnal rhythms, specific sleep pattern pathologies and cognitive deficits, as well as altered circadian gene expression in several mental disorders. Evaluation and treatment of sleep and circadian disruption should thus be among the first steps in the management of mental disorders. State-of-the-art methods of circadian rhythm assessment should be applied to bridge the gap between clinical significance and limited understanding of the relationship between mental health and circadian system.

Logistical, technical, and ethical issues in longitudinal biological psychiatric research: comprehensive phenotype assessment and biobanking, broad consent, and one's right not to know

Thomas G. Schulze

Institute of Psychiatric Phenomics and Genomics (IPPG), Medical Center of the University of Munich, Munich, Germany

Large-scale longitudinal biological psychiatric research poses several logistical challenges: patient ascertainment; re-contacting of patients; long-term storage and biobanking of comprehensive phenotype data and biomaterial, respectively; multi-center efforts; robust medical informatic frameworks for ID management, pseudonymization, proband management; and the investigator-proband relationship in light of potential incidental findings and a proband's right not to know. Here, I will discuss solutions to these issues, based on experience from a German-wide longitudinal cohort study (www.PsyCourse.de) on schizophrenia, bipolar disorder, and major depression. Initial phenomic and genomic findings on disease trajectories will also be presented.

17.00-18.30 **SYMPOSIUM**

TREATING COGNITIVE DYSFUNCTIONS IN DEPRESSION: THE CHALLENGE FOR REMISSION

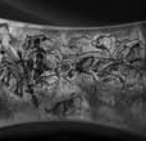
Chairpersons: **Edith Holsboer-Trachsler** (Switzerland),
Constantin Soldatos (Greece)

Cognitive dysfunction in depression: Pathophysiological mechanisms and phytotherapeutic approaches

Anne Eckert

Professor of Experimental Psychiatry, University of Basel, Psychiatric University Clinics Basel, Switzerland

Recent work demonstrates that major depression is intimately associated with changes in cognitive functioning, including memory, attention, verbal fluency, and other aspects of higher-order cognitive processing. Cognitive deficits persist in a significant proportion of patients even in remission, compromising psychosocial functioning and workforce performance. With accumulating frequency and duration of depressive episodes, cognitive deficits can become



enduring, being evident even when mood improves. Of note, the biological underpinnings of depression have substantial overlaps with those of neurodegenerative conditions, including a diminished neurotrophic support, decreased antioxidant defenses, an increase in oxidative and nitrosative stress, inflammation (e.g., enhanced production of pro-inflammatory cytokines), as well as mitochondrial dysfunction. These evolving changes over the course of depressive episodes drive the association of depression with neurodegenerative conditions. As such, the changes in cognitive functioning in depression have important consequences for the treatment of depression. New insights from basic neurobiological research as well as perspectives for the development of possible future therapeutic approaches will be outlined. In addition, this presentation will provide an overview of current research results in connection with phytotherapeutic agents in depression treatment.

Physical activity as a treatment option for cognitive dysfunction in depression and its relationship to sleep regulation

Martin Hatzinger

Director Psychiatric Services soH

Chairman Clinics of Psychiatry, Psychotherapy and Psychosomatics

Professor of Psychiatry, University of Basel and Psychiatric Services Solothurn, Switzerland

Treatment of depression usually encompasses a multimodal treatment approach including psychotherapy and psychopharmacotherapy with antidepressants. Although the treatment outcomes have shown a 60 to 70% response rate, cognitive symptoms of depression often persist and do not respond to these therapies. So far, aerobic exercise has been investigated as add-on treatment option in mild to moderate depression pointing to be beneficial also for cognitive symptoms. Thus, a project was started in order to evaluate the effect of aerobic exercise on cognitive variables in depressed in-patients. Hypothalamic-pituitary-adrenocortical (HPA) axis activity as well as sleep regulation - both reflecting widely accepted biomarkers of depression - were assessed as well. In the presentation the interrelation of depression with sleep, HPA activity and cognitive functioning are outlined and discussed especially in view of ameliorating cognitive functioning.

Disclosure: The study was financed by grants of the Gottfried & Julia Bangerter-Rhyner Foundation, the Helsana health insurance company and the canton of Solothurn.

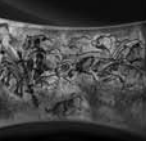
20.00-20.30 LECTURE

Chairpersons: **Ioannis Diakogiannis** (Greece),
Konstantinos N. Fountoulakis (Greece)

Modulation of inflammation may arrest neuroprogression in treatment resistant bipolar depression**Angelos Halaris**

Professor of Psychiatry, Department of Psychiatry, Loyola University Chicago Stritch School of Medicine, Chicago, IL, USA

The significant clinical implications of neuroprogression in psychiatric disorders as well as the biological mechanisms underlying neuroprogression, are being increasingly recognized. Likely pathophysiological substrates include a sustained proinflammatory state, increased oxidative stress and deficits in neuroprotection and neuroplasticity. There is also a complex interplay with the monoaminergic, cholinergic, glutamatergic and gabaergic neurotransmitter systems that require further elucidation. The possibility of ameliorating or even reversing such pathophysiological mechanisms through pharmacologic, non-pharmacologic or combined interventions should be explored and the need to arrest neuroprogression could be seen as an emerging new priority in treating psychiatric and neuropsychiatric disorders. Incomplete or unsatisfactory treatment responses in bipolar disorder (BD), especially the depressed phase, are well established. Immune system dysregulation in BD has been described. We hypothesized that modulation of the inflammatory response in BD by co-administration of the COX-2 inhibitor, celecoxib, would reverse treatment resistance, augment overall response and show a faster onset of antidepressant drug action. We report that modulation of the inflammatory response reversed treatment resistant depression (TRD) and produced a statistically significantly better antidepressant response and a statistically significant week-1 antidepressant response in subjects on escitalopram + celecoxib as compared to those subjects receiving escitalopram + placebo. Remissions were significantly higher on the combination. Anxiety scores also showed a significantly greater improvement with the combined treatment. Specific inflammation biomarkers (hsCRP and IL1 β) correlated with treatment response in the combined treatment group only. We conclude that addition of a COX-2 inhibitor reverses treatment resistance in BD while achieving an augmented and accelerated antidepressant response. Modulation of inflammation in depression is of major clinical significance and scientific interest in biological psychiatry and clinical neuroscience.



20.30-21.00 **LECTURE**

Chairpersons: **Ioannis Nimatoudis** (Greece),
Konstantinos N. Fountoulakis (Greece)

**The wide scope of Psychiatry and its consequent claims on Sleep Disorders
Medicine**

Constantin Soldatos

*Emeritus Professor of Psychiatry, Director of the Mental Health Care Unit, Evgenidion Hospital,
University of Athens, Greece*

Psychiatry encompasses almost every aspect of mental content and behavioral manifestations relevant to the mind-body interrelationship, be it in wakefulness or during sleep. The advent of the psychophysiological study of sleep, which started in the mid 50's, allowed the scientific approach of disturbed sleep in most psychiatric disorders as well as that of the presence / role of psychopathology in the course of various sleep disorders. Insomnia and other sleep-wake cycle disturbances are among the cardinal symptoms of many psychiatric disorders, while polysomnographic findings in patients suffering from these disorders reveal underlying psychophysiological mechanisms which may have both disorder-specific and transdiagnostic characteristics.

On the other hand, the extensive study of psychopathology in various sleep disorders resulted in identifying its mainly primary causative nature for some of them (insomnia, nightmares, night terrors) and its secondary occurrence as a consequence of the physical problems in some others (narcolepsy, sleep apnea, REM behavior disorder). No wonder that by now the official psychiatric diagnostic systems (DSM, ICD) list almost every sleep disorder within their respective nosologies. Yet, the non-psychiatrists sleep clinicians do not seem to be adequately aware of the most important role of psychopathology in their patients' disorders. Thus, it is up to the psychiatrists to sensitize and even educate accordingly their non-psychiatric counterparts dealing with the sleep-wakefulness disorders.

Sunday, May 28th 2017**08.00-09.30 SYMPOSIUM****ASPECTS OF STRESS**Chairperson: **Konstantinos N. Fountoulakis** (Greece)

Life Events and Psychosomatic health

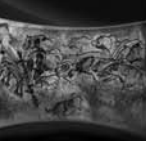
Efstratia-Maria Georgopoulou*4th year Medical Student, National and Kapodistrian University of Athens, Greece*

Since Hans Selye coined the term “stress” in the middle of the 20th century, researchers have been trying to identify its relation to human disease. Stress plays a key role in psychopathology and interferes with a number of highly heterogeneous psychological conditions. There has been strong evidence that the Autonomic Nervous System (ANS), the Hypothalamus-Pituitary-Adrenal (HPA) axis and the Immune System (IS) interact. This suggests that stressful life events (as triggers of the ANS and HPA axis) shall play an important role in the malfunction of the IS resulting into disease susceptibility. It also indicates a common pathophysiological substrate in the pathogenesis of somatic and psychologic disease. Life events, as measured with the Holmes-Rahe Schedule of Recent Events may contribute to the pathogenesis of psychosomatic illness as stress inductors. Major psychopathology seems to emerge in a stressful context. However, methodological restrictions leave little room for definitive results. As far as psychosomatic events are concerned, supporting evidence correlate depression and adverse cardiac events in men with acute coronary artery disease as well as worsening of the disease course of patients suffering from HIV, type 2 diabetes mellitus and rheumatoid arthritis. Patients with cancer show controversial research results. The challenge in psychosomatic medicine is to clarify the trigger of the disease entity and treat the patient collaboratively.

Psychoneuroendocrinology of stress

Anna Eleftheriades*2nd year Medical Student, National & Kapodistrian University of Athens, Greece*

Stress is a state of threatened homeostasis, and also a biological and psychological response to intrinsic or extrinsic adverse forces, which are called stressors. Stress activates an intricate repertoire of physiologic and behavioral responses aiming to maintain the optimal body equilibrium. Key components of the stress system are the hypothalamic-pituitary-adrenal (HPA) axis and the autonomic nervous system (ANS), which interact with other, and through which the brain regulates the complex, adaptive responses of an organism to threatening stimuli. The ANS is the primary mechanism in control of the fight-or-flight response, which occurs after a threat to survival. Reactions to stress are associated with enhanced secretion of a number of hormones including glucocorticoids and catecholamines. The prolonged, excessive or deficient response of the Stress System to stress, however, may lead to a state of cacostasis, which is associated with physical and mental health problems. Stress exposures during critical periods



of development - fetal life, childhood and adolescence- may have permanent negative effects, altering brain structures and functions.

Is stress toxic for the brain?

Ifigeneia Faliagka

Medical Student, Aristotle University of Thessaloniki, Greece

Stress has always been a part of human life. Based on its duration, causes and effects, it is considered to be positive, tolerable or toxic. A physiological stress response, which is excessive or prolonged reflecting the person's inability to control stress, hyper stimulates the stress system and thus it may provoke toxic stress, especially to young children. Toxic stress induces potentially permanent changes in gene expression due to epigenetic modifications, disruption of brain development and behavioral allostasis. To be more specific, the hyper-stimulation of the stress system leads to elevated concentrations of stress hormones and might have chemically toxic effects on brain regions such as amygdala, hippocampus and prefrontal cortex. Stressors that may trigger toxic stress responses, are related to early adversity and include physical or emotional abuse, chronic neglect, caregiver substance abuse or mental illness, exposure to violence, and the accumulated burdens of family economic hardship. Individual characteristics such as underlying anxiety levels, sex, age, or other biological and genetic factors and prior stress experiences may increase children and youth's vulnerability to stress. Concerning genetic factors, genetic associations are reported for the GR gene, the GABA 6 receptor subunit gene and for a nonsynonymous exon single-nucleotide polymorphism(SNP) of the MOR 1 gene. The role of the brain-derived neurotrophic factor (BDNF) in stress is remarkable, as BDNF is protective to neurons in conditions of chemical stress and his expression also can be regulated in the brain by stress. The lifelong costs of toxic stress are enormous, affecting learning, behavior, lifestyle and health, which prompts an urgent call for innovation strategies to prevent toxic stress.

Gender and Stress

Evangelia Papadimitriou

Senior Medical Student, Aristotle University of Thessaloniki, Greece

Stress is defined by the threatened integrity of an individual resulting in physiological and behavioral responses. Gender is an important determinant of human health, affecting various mental and physical conditions. Men are more susceptible to infectious diseases, hypertension, aggressive behavior, and drug abuse, whilst autoimmune diseases, chronic pain, depression, and anxiety disorders are more prevalent amongst women. Research has shown that the autonomic nervous system and the hypothalamic-pituitary-adrenal (HPA) axis, are stimulated differently between the genders, with men reporting greater acute HPA and autonomic responses. Estrogens weaken the sympathoadrenal and HPA responsiveness, leading to slow cortisol feedback and thus, lesser/delayed containment of the stress response.

During neuroimaging studies, achievement-task-stressors caused asymmetric prefrontal

activity in males and limbic activation in females. Persistent Dorsal Anterior Cingulate Cortex activation was observed in female subjects, possibly predisposing women to mood disorders and depression, if not regulated by the right Parieto-Frontal Cortex and Amygdala. Studies by the University of Michigan indicate that although women are more likely than men (28% - 20%) to report strain, it is men who are at greater risk of clinical depression as a response to Stressful Life Events (SLEs) 25 years later. Studies have concluded that 5-HTTLPR s-allele and mental health response to SLEs are associated, and men with the l'/l' genotype have higher depressiveness in association with higher exposure to SLEs.

Traits like “disapproval angst” and “need for control” pose significant depression risk factors to both genders equally. Interpersonal issues in the proximal network, along with ruminative thinking, have a stronger depressogenic effect on women. Regarding stress-coping strategies, men seem to “fight-or-flight” while women “tend-and-befriend”. Men may implement adaptive coping strategies, including positive reappraisal and maintenance of hope, while women tend towards religious/avoidant coping, social support and emotion expression.

The neurobiological substrates of why the genders react differently to stress continue to be explored. In the future, as our research furthers, we will hopefully be able to prevent the various disorders stemming from SLEs that today require our intimate care.

09.30-11.00 **SYMPOSIUM**

INSIGHT IN SCHIZOPHRENIA

Chairperson: **Maria Samakouri** (Greece)

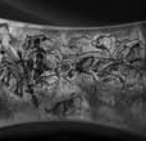
Insight in schizophrenia: Overview

Maria Samakouri

Associate Professor of Psychiatry and Head of the Department of Psychiatry, Medical School, Democritus University of Thrace, University General Hospital of Evros, Alexandroupolis, Greece

Insight, in psychiatry, refers to the “conscious awareness and understanding of one’s own psychodynamics and symptoms of maladaptive behavior.” Its evaluation is part of the routine mental status examination. Although in the past, insight was considered as an all-or-none, unitary phenomenon, it is now thought as a multidimensional, continuous construct that encompasses (a) awareness of having an illness, (b) recognition of the symptoms of that illness, (c) attribution to that illness of its consequences and (d) understanding the need for treatment. This later, more complex conceptualization of insight led to the development and use of multidimensional rating scales for assessing it.

As far as schizophrenia is concerned, most people suffering from the disorder are thought to have impaired insight which may fluctuate among the complete denial of illness and its considerable cognitive and emotional awareness. Although literature is not conclusive, insight impairment in schizophrenia has been associated with positive, negative and disorganized symptoms, illness severity, duration of untreated psychosis, lower premorbid intellectual functioning and specific cognitive deficits. Recent reports relate impaired insight with Theory of Mind deficits. Insight



seems to worsen within an acute psychotic episode and improve with recovery. In addition, better insight has been traditionally related to higher levels of depression in schizophrenia sufferers, point of view supported by some recent data as well. Finally, insight impairment in schizophrenia has been suggested to lead to poorer adherence to medication, although data on this issue are not unequivocal.

Assessment of insight

Aikaterini Arvaniti

Assistant Professor in Psychiatry, Department of Psychiatry, Medical School, Democritus University of Thrace, University General Hospital of Evros, Alexandroupolis, Greece

A lot of research has been carried out in recent years into the conceptualization and assessment of insight, as well as into its relationships with prognosis, compliance, neuropsychological impairment and severity of psychopathology in schizophrenia. However, these studies have yielded inconsistent results. Insight is a multidimensional concept and that could be an explanation for the aforementioned lacking of consistency. Reporting “poor” or “good” insight does not demonstrate its complex nature and makes it appear as a unique structure. Insight has many dimensions and its level vary across a) the many manifestations of the illness, b) the phase of the disorder (e.g. acute or not) c) cultural explanatory models.

The assessment of insight is incorporated in many clinical scales (e.g. Hamilton Depression Rating Scale, PANSS). Standardized tools for the assessment and quantification of insight have been developed over the past 15 years. Among the most well-known and widely used ones are: the Insight and Treatment Questionnaire Attitudes (ITAQ), the Schedule for the Assessment of Insight (SAI), the Scale to Assess Unawareness of Mental Disorder (SUMD). It has been suggested that self-report measures of insight may be more sensitive and appropriate for patients with poorer communication skills and lower intelligence.

Explanatory models concerning impaired insight in Schizophrenia

Georgios Avraam

Psychiatrist, PhD candidate, Department of Psychiatry, Democritus University of Thrace, Greece

There have been two major models proposed to explain poor insight observed in psychotic patients, the psychological and the neuropsychological model. In the first model it is suggested that impaired insight reflects a psychological process of denial to cope with the negative consequences of illness. Cognitive theories propose that insight is a concept that includes a set of attributions or beliefs about mental illness. The neuropsychological model suggests that lack of insight in schizophrenia is similar to anosognosia in neurological disorders, postulating that lack of insight is related to brain damage and cognitive functioning. The neuroimaging approaches support a neurological etiology of insight deficits in schizophrenia and suggest that the multidimensional construct of insight has multiple neural determinants. These two models possess validity and explanatory power.

Consequences and treatment approaches of insight impairment in schizophrenia

Theofanis Vorvolakos

Assistant Professor of Psychiatry Democritus University of Thrace, Greece

Lack of insight is a phenomenon that is observed often in patients suffering from schizophrenia, it is classified as a symptom and it is quite frequent. Literature is not conclusive regarding the nature or the causes of it. There are many indications that it is a multidimensional symptom, which is influenced by many factors like education and the severity of the disease as well as the duration of the disease and the duration of treatment. It is also associated with depression in the sense that presence of insight can cause depression.

Studies around the above mentioned matters have methodological weaknesses and are difficult to be replicated so there are lots of controversy around this symptom the causes and the treatment of it.

Nevertheless there is a consensus that lack of insight affects greatly treatment adherence, recovery prospects and increases violent behavior including suitability.

The aim of this announcement is to prompt clinician's focus in this symptom its significance its diagnosis and treatment, and to demonstrate how fundamental this is for schizophrenias treatment and recovery efforts.

11.00-12.00 **SYMPOSIUM**

ASPECTS OF BIPOLAR DISORDER

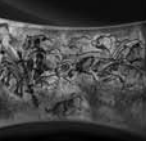
Chairperson: **Loukas Athanasiadis** (Greece)

Psychotherapeutic intervention in bipolar disorder: A review

Stefania Moysidou

Psychologist, Psychotherapist and Research Associate, Greece

Bipolar disorder (BD) is a chronic disorder with a high relapse rate, significant general disability and burden and with a psychosocial impairment that often persists despite pharmacotherapy. This indicates the need for effective and affordable adjunctive psychosocial interventions, tailored to the individual patient. Several psychotherapeutic techniques have tried to fill this gap, but which intervention is suitable for each patient remains unknown and it depends on the phase of the illness. The current review identified papers located in PubMed/MEDLINE through May 1st 2015 with a combination of key words. The review followed the recommendations of the Preferred Items for Reporting of Systematic Reviews and Meta-Analyses statement. The search returned 7,332 papers; after the deletion of duplicates, 6,124 remained and eventually 78 were included for the analysis. The literature supports the usefulness only of psychoeducation for the relapse prevention of mood episodes and only in a selected subgroup of patients at an early stage of the disease who have very good, if not complete remission, of the acute episode. Cognitive-behavioural therapy and interpersonal and social rhythms therapy could have some



beneficial effect during the acute phase, but more data are needed. Mindfulness interventions could only decrease anxiety, while interventions to improve neurocognition seem to be rather ineffective. Family intervention seems to have benefits mainly for caregivers, but it is uncertain whether they have an effect on patient outcomes. In conclusion, the current review suggests that the literature supports the usefulness only of specific psychosocial interventions targeting specific aspects of BD in selected subgroups of patients.

The neurocognitive functioning in bipolar disorder

Eirini Tsitsipa

Psychologist, NHS, UK

There are robust data indicating the presence of a neurocognitive impairment in almost all domains in Bipolar Disorder (BD). The neurocognitive deficit is a core characteristic of BD rather than being secondary to other factors like the mood state. Its origin remains unclear. Although it's been shown that this deficit is qualitative comparable, but less severe, to that observed in schizophrenia, there haven't been reported differences between BD subgroups. The impairment in neurocognitive function in BD is either heightened or constricted by a number of components like the disease phase, psychiatric and somatic comorbidity, alcohol and/or substance abuse, long-term exposure to medication, specific personal characteristics of the patients (age, gender, education, etc.), current symptomatology (especially with the presence of psychotic characteristics) and long-term course. Galantamine, pramipexole, adjunctive intranasal insulin, adjunctive mifepristone and ECT seem to have a beneficial effect in particular neurocognitive domains.

12.00-13.30 **SYMPOSIUM**

HIDDEN ASPECTS OF SCHIZOPHRENIA

Chairperson: **Konstantinos N. Fountoulakis** (Greece)

Psychodynamic issues and schizophrenia

Elias Andreoulakis

Psychiatrist, Greece

Psychopharmacology undoubtedly represented a major breakthrough in the treatment of Schizophrenia. Psychoanalysis, on the other hand, has failed to be established among the first-line and self-efficient treatments for Schizophrenia. That said, it is now increasingly recognized that a psychoanalytic point of view can contribute not only to a deeper understanding of the illness but also to a more integrated therapeutic approach.

Psychodynamic issues that could be clinically meaningful to address involve elucidation of the interplay between certain defense mechanisms, the personal meaning each patient ascribes to his new condition as well as transference and countertransference issues in the broad sense (not restricted to the analytic situation).

Awareness of the constellation of defense mechanisms in play might shed further light to the evolution of psychotic symptomatology as well as the identification of those defenses that might have served as the “last line of defense” against psychotic breakdown.

Psychoanalytic viewpoint, without disregarding the biological or constitutional vulnerability factors, might help go beyond by addressing questions such as “why now” and “why this?” (kind or content or intensity of symptoms) which could in turn help identify the factors associated with a psychotic episode. From a psychodynamic viewpoint, triggers might often be latent, i.e. not readily identifiable in external reality.

Identification of transference issues is important because these might undermine the therapeutic alliance and patient’s adherence to treatment. Countertransference is important in order to protect clinicians from undue feelings of frustration, inclination for withdrawal or dismissal or over-intensification of treatment, often evoked by patient’s intense projective identification.

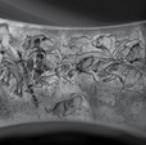
Psychodynamic psychotherapy with certain modifications of analytic technique might contribute to a more integrated therapeutic approach of schizophrenia. Research findings are promising though limited.

Somatometric characteristics in patients with schizophrenia

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Mental disorders constitute serious health problems and an important issue are the concomitant somatic characteristics and diseases. The aim of the study was to investigate the possible presence of differences in height, weight and BMI in patients with schizophrenia, and other mental disorders vs. normal controls. The study sample included 1116 subjects, of which 788 were normal control subjects, 76 patients with unipolar depression, 16 patients with schizoaffective disorder, 122 patients with schizophrenia and 78 patients with other mental disorders. The group of other mental disorders included a mixture of severe forms of OCD, psychotic and mood disorders other than the before mentioned as well as severe personality disorders. The MANOVA results suggested an effect of age ($p < 0.001$) and diagnosis ($p < 0.05$) but not of sex ($p > 0.1$) but also of the interaction between diagnosis and sex ($p < 0.01$). Significant differences in terms of height between unipolar depressive males and normal females ($p < 0.05$), normal males ($p < 0.05$), and males with schizophrenia ($p < 0.05$), with unipolar depressive patients being shorter in comparison to the other groups. In terms of weight there were no significant differences among groups. In terms of BMI, UD females had significantly higher BMI in comparison to normal females ($p < 0.001$) and males with schizophrenia ($p < 0.05$). These results suggest there the important differences in somatometrics in mental patients are restricted to male depressives being shorter and to female depressives having a higher BMI.



Soft neurological signs in schizophrenia

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The term was firstly used by Bender in 1947. Several studies followed since that suggested brain deficits without specific location. Patients with schizophrenia show 50-65% prevalence compared to control groups. It seems that they are the result of a degenerative process that takes place after the first episode. They are related with negative symptoms and they have trait-like characteristics. They are part of the diagnosis but issues still remain.

Staging schizophrenia on the basis of cross-sectional clinical data

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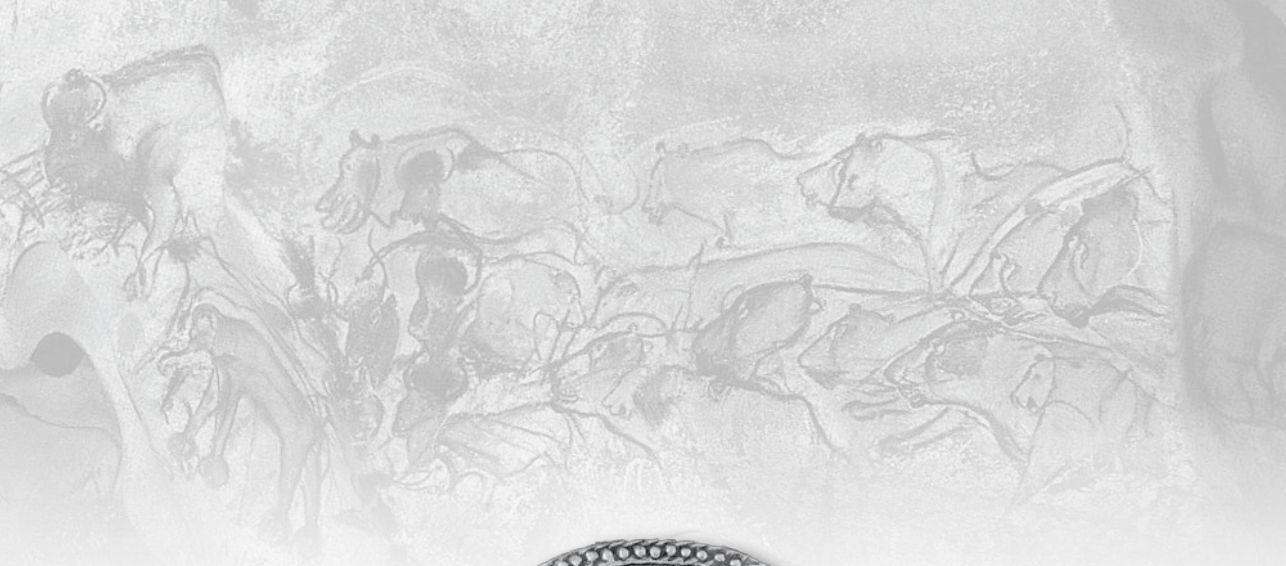
Background: The staging of schizophrenia is an important element in clinical practice because it determines prognosis and assists in the therapeutic design. However, no clinical tool is available for screening stages in schizophrenia in daily practice.

Objectives: To empirically devise a staging approach (according to an approximation based on age) in a sample of stabilized patients with schizophrenia.

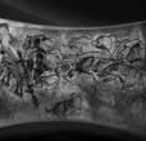
Methods: One hundred and seventy patients aged ≥ 18 years (mean =40.7; SD=11.6) diagnosed by DSM-5 criteria were evaluated with the Positive and Negative Syndrome Scale (PANSS). Principal components analysis (PCA) with varimax rotation was used. The model was examined in the total sample and separately across a hypothesized stage of illness based on three age groups: a) 18-34 years, corresponding to early stage of illness, b) 35-44 years, corresponding to middle stage of illness and c) 45 years and above, corresponding to advanced stage of illness.

Results: PCA revealed a six factor structure for the total sample while in all other subsamples seven factor structures were emerged. The separate PCAs by stage of illness revealed dissimilar patterns and quality of symptomatology. A clear delusional hostility factor and two different factors of depression in the patients at early stages of illness were found. At middle stages two residual negative disorganization factors were more prominent, while at advanced stages a clear neurocognitive dysfunction was predominant.

Conclusions: This study suggests that a progress from a preserved insight and more coherent mental functioning to disorganization and eventually neurocognitive impairment might exist.



E-POSTERS



P01 The sphingosine-1-phosphate receptor 1 as a new target for Alzheimer's disease treatment

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Background: Recent evidence suggest that global activation of sphingosine-1-phosphate receptors (S1PR) by the compound fingolimod can be beneficial for neurons in animal models of Alzheimer's disease (AD). However, the few in vitro studies on the subject revealed that above a certain threshold this drug can accentuate Tau-Ser262 phosphorylation in neurons (1), which is an important component of AD pathology. Here, the influence of more specific S1PR agonists on Tau properties was examined on acute hippocampal slices.

Materials and methods: Transverse rat hippocampal slices were prepared with a McIlwain tissue chopper and placed on a nylon mesh in a liquid-gas interface chamber. They were treated for a period of 3 hours with S1PR-1 (SEW2871) and S1PR-3 (CYM5541) agonists. Tau phosphorylation was then estimated by Western blotting procedures.

Results: We noticed an important reduction in Tau-Ser262 phosphorylation after hippocampal slice treatments with the S1PR-1 agonist SEW2871. In terms of molecular mechanisms, SEW2871-induced Tau-Ser262 dephosphorylation seems to be dependent on AMPK (AMP-activated protein kinase) inactivation, a process involving the protein phosphatase PP2A. Comparable experiments indicate, however, that neither Tau nor AMPK were influenced by the S1PR-3 agonist CYM5541.

Conclusions: Collectively, the present results call for additional examination into S1PR-1 as a potential new target for the prevention of Tau hyperphosphorylation in AD and other tauopathies.

Acknowledgements: This work was partly supported by the Canadian Research Chair in Molecular Neuropharmacology (Michel Cyr).

References:

1. S Attiori Essis, ME Laurier-Laurin, E Pépin, M Cyr, G Massicotte : GluN2B-containing NMDA receptors are upregulated in plasma membranes by the sphingosine-1-phosphate analog FTY720P. Brain Research 2015, 1624:349-358.

P02 Side effects of Epilepsy drug: Effect of Phenytoin and aging on regulation of 3 enzymes of gingival fibroblasts in pediatrics and adults

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Background: Epidemiologic data has shown that gingival overgrowth as a side effect of Phenytoin, one of the major drugs against Epilepsy is more common in pediatrics than in adults. The alteration of cytokine balance is suggested to exert greater influence on gingival overgrowth compared to the direct effect of drug on the regulation of extracellular matrix metabolism or proliferation of gingival over growth. Current study was performed to evaluate the Phenytoin effect on the regulation of Collagen, Lysyl oxidase and Elastin in the gingival fibroblasts in pediatrics and adults.

Materials and methods: Normal human gingival fibroblasts (HGFs) were obtained from 4 healthy children and 4 adult. Samples were cultured with phenytoin. MTT test was used to evaluate the proliferation and ELISA was performed to determine the level of IL1 β and PGE2 production by HGFs. Total RNA of gingival fibroblasts was extracted and RT-PCR was performed on samples. The Analysis of proliferation was assessed by Independent ANOVA; Kruskal-Wallis was used to assess the production of mediators with an alpha error level less than 0.05.

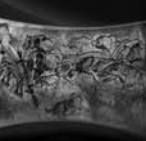
Results: There was significant difference in the expression of Elastin between the controls and treated samples in both adult and pediatric groups and also in the Lysyl oxidase expression of adult controls and treated adult. No significant difference was found between the Collagen expressions in adults.

Conclusions: The only significant difference was in the Elastin and Lysyl oxidase expression between adult and pediatric samples indicating the significant effect of age in their production of both control and experimental groups.

Acknowledgements: Shahid Beheshti University of medical Sciences

References:

1. Segal MM, Douglas AF. Late sodium channel openings underlying epileptiform activity are preferentially diminished by the anticonvulsant phenytoin. *J Neurophysiol* 1977; 6:3021-34.
2. Angelopoulos AP, Goaz PW. Incidence of diphenylhydantoin gingival hyperplasia. *Oral Surg Oral Med Oral Pathol* 1972; 34(6): 898-906.
3. Ouzel MI, Kantarci A, Hong HH, Uygur C, Sheff MC, Firatli E, Trackman PC. Connective tissue growth factor in drug-induced gingival overgrowth. *J Periodontol* 2001; 72:921-931
4. Black SA Jr, Palamakumbura AH, Stan M, Trackman PC. Tissue-specific mechanisms for CCN2/CTGF persistence in fibrotic gingiva: interactions between cAMP and MAPK signalling pathways, and prostaglandin E2-EP3 receptor mediated activation of the c-JUN N-terminal kinase. *J Biol Chem* 2007; 282: 15416-15429



P03 Selfie addiction scale

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Background: The aim of this study was to develop a self-diagnostic Selfie Addiction Scale. In addition, the reliability and validity of the Selfie Addiction Scale was demonstrated. Background This is probably first Selfie Addiction Scale developed according to different sources.

Materials and methods: A total of 200 participants were recruited from July to September 2015 to complete a set of questionnaires including 47 items. The participants consisted of 88 boys and 112 girls; with ages ranging from 18 to 28 years (Mean=21.15, SD=2.95 years).

Factor analysis, t-test, ANOVA, and correlation analysis were conducted to verify the reliability and validity of this scale. For concurrent validity we used Smartphone Addiction Scale-Short Version (SAS-SV), Internet Addiction Test (IAT) by Dr. Kimberly Young, Measure of Body Apperception (MBA), Visual Analogue Scale (VAS), Barratt Impulsiveness Scale (BIS-11), Rosenberg-self Esteem Scale, Narcissistic Personality Inventory (NPI16), CAGE questionnaire and substance dependence and abuse diagnosis of DSM-V.

Results: The internal consistency and concurrent validity of selfie addiction scale were verified cronbach alpha was 0.962. Selfie Addiction Scale and its sub-scales were significantly correlated with other scales. The visual analogue scale of each factor also showed a significant correlation with each sub-scale.

Conclusions: As selfie is becoming a new form of addiction among people in the community, Selfie Addiction Scale which showed good reliability and validity for the assessment of selfie addiction can be used efficiently for the evaluation of selfie addiction in the community and for the research purposes. In addition, it also showed correlation with related psychopathology of the respondent in study population. This scale also covers different domains like narcissistic personality, feeling of self worth, body apperception and body dysmorphic disorder. Ultimately it will help to prevent harmful effects of selfie addiction.

Acknowledgements: i acknowledge all the participants for their sincere efforts.

P04 The relationship between psychological wealth, self concept and conscientiousness with job performance among medical sciences staff

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Background: Just as individuals have a sense of how well their lives are going, they can have psychological wealth. self concept is closely related to conscientiousness and it is considered one of the strongest predictors of job performance. Prior literature examines the relationship between conscientiousness and self concept. This article explores the relationship between psychological wealth, self concept and conscientiousness with job performance among medical sciences staff in city of Bam.

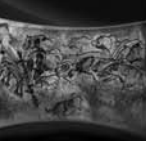
Materials and methods: The research method was descriptive and correlational. The investigation included 66 medical sciences staffs. All participants will be assured of confidentiality their responses. To gathering data Paterson job performance (1970), Rogers self concept(1961) Lotaz psychological wealth (2007) and Neo personality character conscientiousness section (1992) questionnaires were used. Data were analyzed using Pearson correlation coefficient and regression analysis.

Results: The results reveal that there was significant relationship between psychological wealth, self-concept and conscientiousness with job performance. Additionally, it was found that in multivariate relationship, psychological wealth, self concept and conscientiousness, had the highest correlation with the job performance, respectively.

Conclusions: Therefore, it can be said that individuals with high self concept, conscientiousness and psychological wealth are likely to have high job performance.

References:

1. PL Hill, NA Turiano, MD Hurd, DK Mroczek, BW Roberts. Conscientiousness and longevity: An examination of possible mediators. *Health Psychology* 2011, 30:536-541
2. C Hertzog, JR Nesselroade. Assessing psychological change in adulthood: An overview of methodological issues. *Psychology and Aging* 2003, 18:639-657
3. NW Hudson, BW Roberts, J Lodi-Smith. Personality trait development and social investment in work. *Journal of Research in Personality* 2012, 46:334-344
4. J Lehnart, FJ Neyer, J Eccles. Long-term effects of social investment: The case of partnering in young adulthood. *Journal of Personality* 2010, 78:639-670



P05 Modified method for the administration of intranasal drugs in rats

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Background: Intranasal delivery is a method used for the administration of a variety of drugs with a potential therapeutical effect, directly to the central nervous system, and it can be non-invasive by allowing large molecules that do not cross the blood-brain barrier to reach the CNS [1].

Materials and methods: We will present here a modified version of the Hanson et al. group method published in 2013 in J Vis Exp for administrating drugs intranasally in rats (as the aforementioned research group used mice in their experiments [2]), without any use of anesthetics, which could affect of course the behavioral tasks utilized for studying the variety of rat models used in replicating some human neuropsychiatric disorders.

Results: This method of administration, which implicates different types of behavioral and gentle mechanical manipulation of rats, is less invasive and performed on animals which did not receive any type of anesthetics, as compared to the classical ones which were performed on anesthetized rats, by using a cannula into the trachea to maintain respiration, while the esophagus is occluded by another cannula inserted in the direction of the throat [2]. This method also reduces systemic exposure and unwanted systemic side effects.

Conclusions: Intranasal delivery of drugs (e.g. oxytocin [3]) in rats without any anesthetics could increase our understating for the therapeutical potential of some molecules, allowing to better evaluate their behavioral effects or the pharmacokinetic distribution and efficacy of these substances.

Acknowledgements:

This research was supported by PN-II-RU-TE-2014-4-1886 grant called "A complex study regarding the relevance of oxytocin administration in some animal models of neuropsychiatric disorders", number 120 from 01/10/2015).

References:

1. Hanson LR, Fine JM, Svitak AL, Faltese KA. Intranasal administration of CNS therapeutics to awake mice. J Vis Exp. 2013 Apr 8;(74).
2. Uchida M, Katoh T, Mori M, Maeno T, Ohtake K, Kobayashi J, Morimoto Y, Natsume H. Intranasal administration of milnacipran in rats: evaluation of the transport of drugs to the systemic circulation and central nervous system and the pharmacological effect. Biol Pharm Bull. 2011;34(5):740-7.
3. Ciobica Alin, Balmus Ioana Miruna, Padurariu Manuela, Is oxytocin relevant for the affective disorders? Acta Endocrinologica, 2016, 12 (1): 65-71.

P06 The Relationship between, self-esteem and Resilience with Post-Traumatic Symptoms among drivers

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Background: A growing number of drivers have experienced traumatic events that have resulted in Post-Traumatic Stress Disorder (PTSD). Resilience is a psychological function whereby individuals recover after experiencing adversity or traumatic events using a successful response to a self-adjusting mechanism. self-esteem is to help people monitor their resilience. However, existing studies tend to focus on the factors influencing PTSD, and studies on the relationships between self-esteem, resilience and post-traumatic symptoms are still rare.

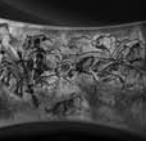
Materials and methods: This was a cross-sectional study, conducted in the Zarand city. In this study, 184 drivers participated and were interviewed for measuring of post-traumatic symptoms, self-esteem, and resilience using Trauma Inventory (TI), a modified version of the Self Esteem Questionnaire (SEQ), and the Resilience Scale (RS). Pearson's correlations, multiple linear regression analyses and structural equation modeling (SEM) were applied to analyze the data.

Results: Of the drivers, 12.69% had been exposed to traumatic events during their lives. The prevalence of probable PTSD at the time of the interview (one-month-prevalence) was 3.14%. self-esteem and resilience were negatively associated with post-traumatic symptoms. Self-esteem had a significant direct effect on resilience ($-0.61, P < 0.01$) and post-traumatic symptoms ($-0.19, P < 0.05$), and resilience had a significant direct effect on the post-traumatic symptoms ($-0.38, P < 0.01$). Furthermore, self-esteem had a significant indirect effect ($-0.36 \times 0.70 = -0.25, P < 0.01$) on the post-traumatic symptoms through resilience.

Conclusions: Self-esteem and resilience have significant effects on drivers post-traumatic symptoms. Health centers and social related departments could share knowledge on the impact of self-esteem and resilience with psychologists enabling them to improve their own parenting style and their children's resilience and ability to respond effectively to traumatic events.

References:

1. V Khamis. Post-traumatic stress disorder among school age Palestinian children. *Child Abuse Negl* 2005, 29(1):81-95
2. TN Alim, A Feder, RE Graves, Y Wang, J Weaver, M Westphal, et al. Trauma, resilience, and recovery in a high risk African-American population. *Am J Psychiatry* 2008, 165(12):1566-1575
3. LM Scheier, GJ Botvin, KW Griffin, T Diaz. Dynamic Growth Models of Self-Esteem and Adolescent Alcohol Use. *Journal of Early Adolescence* 2000, 20:178-209
4. AS Masten, JE Herbers, JJ Cutuli, TL Lafavor. Promoting competence and resilience in the school context. *Professional School Counseling* 2008, 12(2):76-84



P07 The relationship between coping strategies, family performance and meta-cognition with aggression

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Background: The coping strategies that people use, may influence their life. Extensive literature confirms the link between emotional coping strategy and aggression. Prior research identifies that aggression are associated with family performance. Few studies have tested the association of family performance and coping strategies with aggression. The aim of this study was to investigate the relationship between coping strategies, family performance and metacognition with aggression among the Applied Sciences University students, in city of Kerman, Iran.

Materials and methods: A correlational study was conducted between November 2015 and December 2015. Total 165 students selected by random sampling and responded to Buss and Perry aggression scale(1992) deal with stressful situations Endler and Parker questionnaire(1990) meta-cognition Abedy and Onill inventory(1996) family practice Epstein et al questionnaire(1983). Pearson coefficients and analysis of regression was done to assess the correlations between variables.

Results:

The results showed there was significant relationship between coping strategies, family performance and meta-cognition with aggression. According to the multiple linear regression analysis, family performance, emotional coping strategic, were the significant predictors of aggression.

Conclusions: Overall, to think about aggression, may help to clarify past findings and to guide future research and interventions. Furthermore, higher levels of family performance, and lower level of emotional-focused coping turned out to be risk factors for aggression. In particular, the evaluation and development of problem-focused coping strategy is indicated as a goal for therapists having aggressive people as clients.

References:

1. C Cooper, C Katona, M Orrell, G Livingston. Coping strategies, anxiety and depression in caregivers of people with Alzheimer's disease. *International Journal of Geriatric Psychiatry* 2008,23:929-936
2. C Eisenbarth. Coping profiles and psychological distress: A cluster analysis. *North American Journal of Psychology* 2012,14(3):1-6
3. CS Carver, J Connor-Smith. Personality and coping. *Annual Review of Psychology* 2010,61:679-704
4. S Barnow, M Lucht, H Freyberger. Correlates of aggressive and delinquent conduct problems in adolescence. *Aggressive Behavior* 2005,31:24-39

P08 Is self-injuring associated with school bullying victimization in the young? A systematic evaluation of the data

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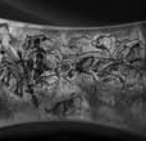
Background: Identifying self-injury in the young, including both suicidal and non-suicidal acts, and its relationship with bullying victimization is an important public health issue.

Materials and methods: A systematic review exploring the evidence on the association between self-injuring and school bullying victimization in young people, as well as the mediating effect of depressive symptoms on this association was performed. The Prisma guidelines for systematic reviews were applied. An advanced search in the following electronic databases was conducted in September, 2016: PubMed/ Medline; CINAHL; PsycInfo; PsycArticles; Science Direct; Scopus and Cochrane Library. The studies that fulfilled the inclusion criteria were further assessed for their methodological integrity. The NOKC tool was applied for cross-sectional studies and the CASP instrument for the cohort studies. Empirical quantitative studies published during the last decade (2007-2016), in the English language and in a peer reviewed journals, aiming to explore the association between self-injury and school bullying victimization in community-based schoolchildren of a mean age less than 20 years were included.

Results: The reviewed studies herein (20), both cross-sectional and cohort in design, confirmed a positive association between wide-ranging/non-suicidal self-injury and school bullying victimization, whilst this association remained statistically significant when controlled for the main confounders. The mediating role of depressive symptoms in the association between wide-ranging self-injuring and school bullying victimization was confirmed. In contrast, a dose-response effect independent from depressive symptoms was shown in the association between NSSI and school bullying victimization.

Conclusions: This review revealed a prospective association between exposure to school bullying victimization and self-injuring in the young. Thus, targeted interventions aiming to eliminate victimization behaviors within school context are proposed, as well as interventions empowering healthy parenting styles for schoolchildren. Moreover, school health care professionals need to screen those students involved in bullying for self-injury.

Acknowledgements: The research team wishes to thank the librarian Michael Ktori from the Cyprus University of Technology for his support to data collection of the present study.



P09 Cognitive impairment in schizophrenia, its alleviation under antipsychotic treatment, and a link with activity of an energy metabolism platelet enzyme

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Background: Purpose of study is testing a hypothesis, is there a link between platelet cytochrome c-oxidase activities (COX) of patients with schizophrenia and dynamics of their clinical patterns and quality of cognitive functioning under antipsychotic treatment.

Materials and methods: Comparative estimation of COX in healthy controls (n=25, men) and in patients (n=27, men) with acute paranoid schizophrenia (ICD-10 F20.0) under antipsychotic treatment with risperidone, and evaluation of links between COX and clinical (PANSS) and neurocognitive assessments before and after the treatment course.

Results: COX baseline activity in patients was significantly lower than in controls (Mann-Whitney U-test, $p = 0.000001$). When total patient group was divided by baseline COX mediana, patients with baseline COX activity \geq mediana demonstrated more prominent reduction of psychotic symptoms, than those with lower COX baseline activities, and significant improvement in results Psychomotor speed (Symbol coding), Total Executive Time of Tower of London (TOL), Middle Total Executive Time of TOL, and Psychomotor Speed. No significant changes in results of clinical assessments were found in patients with baseline COX activity $<$ mediana, however, a significant improvement was observed in Working memory and Verbal memory reconstruction. Significant correlation was found in the total patient group between COX activity and time spent on planning tests after the treatment course ($R = -0.44$, $p < 0.03$: the higher is COX activity, the easier patient fulfills these tests after the treatment).

Conclusions: Measurement of platelet COX activity may have some prognostic value for prediction of individual efficacy of medication with risperidone in patients with schizophrenia in terms of clinical state and cognitive improvement.

References:

1. Burbaeva GSh, Boksha IS, Kaleda VG, Barkhatova AN, Turishcheva MS, Omelchenko MA, Tereshkina EB, Savushkina OK, Starodubtseva LI, Prokhorova TA, Vorobieva EA (2011) Glutamine synthetase-like protein, glutamate dehydrogenase, and cytochrome c-oxidase in platelets of patients with the first episode psychosis in the course of treatment. *Zh Nevrol Psikhiatr Im S S Korsakova* 111:61-66. [in Russian]
2. Burbaeva GSh, Boksha IS, Turishcheva MS, Savushkina OK, Beniashvili AG, Rupchev GE, Morozova MA (2011) Platelet cytochrome c-oxidase activity in patients with acute schizophrenia in the course of their treatment with risperidone. *Health* 3:13-19. DOI: 10.4236/health.2011.31003
3. Burbaeva GSh, Boksha IS, Savushkina OK, Turishcheva MS, Tereshkina EB, Starodubtseva LI, GavriloVA SI, Fedorova IaB, Zhuravin IA (2012) Platelet cytochrome c-oxidase and glutamine synthetase-like protein in patients with mild cognitive impairment. *Zh Nevrol Psikhiatr Im S S Korsakova* 112:55-58. [in Russian].
4. Rice MW, Smith KL, Roberts RC, Perez-Costas E, Melendez-Ferro M (2014) Assessment of cytochrome c oxidase dysfunction in the substantia nigra/ventral tegmental area in schizophrenia. *PLoS One*. 9(6):e100054. doi: 10.1371/journal.pone.0100054.

P10 Misuse of Pregabalin amongst illicit substance users

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Background: Pregabalin is a medication, acting via the alpha-2-delta subunit of voltage-gated calcium channels, which has been used to treat epilepsy, fibromyalgia, generalised anxiety disorder and neuropathic pain. Although Pregabalin was initially seen as having a low risk for abuse, there appears to be a growing illegal market for it. We aim to review literature for Pregabalin's misuse.

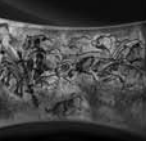
Materials and methods: Review of the electronic database of Medline and the UK government guides, using the key words "Pregabalin" and "dependence" or "misuse".

Results: 6 articles were retrieved from the electronic database. NHS England and Public Health England published an advisory document in 2014, "Pregabalin and gabapentin: advice for prescribers on the risk of misuse"(3). We identified the following as main results from our search: a. Pregabalin has clear benefit when used for neuropathic pain and generalised anxiety disorder. b. Users with propensity to abuse substances, especially opiates, present more likely to abuse Pregabalin; Pregabalin combined with other psychoactive substances has been involved in deaths from overdoses in secure settings. c. There are alternative drugs for the indications of Pregabalin and clinicians are called to assess if a person is at risk for abusing Pregabalin.

Conclusions: Clinicians need to be aware of the risk of misuse when prescribing Pregabalin. Further research is required to explore those pharmacological characteristics of the medication which link to dependence.

References: Evoy KE, Morrison MD, Saklad SR: Abuse and Misuse of Pregabalin and Gabapentin. Drugs. 2017 Feb 1. doi: 10.1007/s40265-017-0700-x.

PHE publications gateway number: 2014586; NHS England publications gateway number 02387.



P11 Can Mozart's music improve spatial-temporal capacity? A theoretical approach

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Background: The investigation of the effect that passive classical music listening has on cognition (Mozart Effect), since its first scientific reference in 1993, has opened a new field to research in music psychology. This review summarizes the recent scientific literature on the Mozart Effect. The aim in undertaking this study was to investigate the influence of Mozart's music on human spatial-temporal performance.

Materials and methods: 11 primary studies-published articles coming from PubMed/Medline were included in this review. The research took place from January 2016-March 2017. An inclusion criterion was that in each study the experimental design had to present an examination of the participants after listening to a music condition of Mozart's Allegro con spirito (K.448). Between and within subjects designs could be included. The Stanford-Binet IV: Paper Folding and Cutting and Raven's Progressive Matrices were the neuropsychological tests that were used.

Results: Although there is a trend in recent research efforts to emphasize that specific music characteristics are able to improve cognitive and learning capacity, results in this review indicated that there is little support for the Mozart's Effect as none of the studies found a statistically significant effect.

Conclusions: The majority of included studies employed the Paper Folding and Cutting tasks following the procedure originally introduced in the initial paper of Rauscher et al.[1], thus rendering the conclusions restricted to this type of test. More studies are needed in order to define other aspects of visuospatial reasoning that may be affected.

Acknowledgements: This research was funded by a Reg and Molly Buck Award made by the Society for Education, Music and Psychology Research (SEMPRE) to VG.

References:

1. FH Rauscher, GL Shaw, KN Ky: Music and spatial task performance. Nature 1993, 365(6447): 611

P12 Evaluation of upper-limb motor skills in children with Attention Deficit Hyperactivity Disorder (ADHD)

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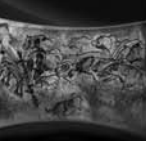
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Background: Movement dysfunctions associated with Attention Deficit Hyperactivity Disorder (ADHD) include both fine motor (1) and gross motor impairments (2) and refer to individual motor parameters, such as velocity, coordination, balance and also contralateral voluntary free movements (3).

Materials and methods: We designed and used an application program called "Input Device Evaluation Application" (IDEA). We analyzed 9 variables derived from the use of mouse in two separate tasks. One Dimension task (1D): 85 children of normal intelligence, 6-14 years of age, divided into two groups, the [ADHD] group (N=42) and the [Typical Development -TD] group (N=43) were assessed. Two Dimensions task (2D): 83 children from the same sample, 6-14 years of age, divided into two groups, were assessed: [ADHD] (N=41) and [TD] (N=42).

Results: 1D: The ADHD group showed significantly higher score, compared to the TD group, in the variable of Movement Variability [mean±SD: 34,13±19,15(ADHD) vs 25,09±10,62(TD), p=0,008]. 2D: The ADHD group scored significantly higher to the following variables: Movement Variability [mean±SD: 23,78±6,53(ADHD) vs 21,12±4,10(TD), p=0,029], Movement Offset [mean±SD: 19,35±4,25(ADHD) vs 17,60±3,26(TD), p=0,038] and Movement Error [mean±SD: 22,45±5,33(ADHD) vs 19,83±3,40(TD), p=0,009].

Conclusions: Children with ADHD were less accurate and more variable in their upper limbs' movements than healthy controls. Motor difficulties are common in children with ADHD and may be related to the core symptom of attention deficit or to higher order cognitive functions impairment associated with locomotion or even be associated with poor behavioral response inhibition (3). Comparable results have also been reported in previous studies indicating that ADHD patients tend to display difficulties in the upper limb fine motor assessments (4).



References:

1. Brossard-Racine, M., et al., et al.: Handwriting capacity in children newly diagnosed with Attention Deficit Hyperactivity Disorder. *Research in Developmental Disabilities*. 2011, 32: 2927-2934.
2. Chen, Y. Y., et al., et al.: Timing perception and motor coordination on rope jumping in children with attention deficit hyperactivity disorder. *Physical Therapy In Sport*. 2013, 14: 105-109.
3. Licari, M. and Larkin, D.: Increased associated movements: Influence of attention deficits and movement difficulties. *Human Movement Science*. 2008, 27: 310-324.
4. Scharoun, S M., et al., et al.: Motor skills in Czech children with attention-deficit/ hyperactivity disorder and their neurotypical counterparts. *Research in Developmental Disabilities*. 2013, 34: 4142-4153.

P13 The shared genetic background of comorbid migraine and depression

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Background: There is a well-known comorbidity between migraine and depression [1], and patients with both conditions show worse headache-related symptoms and higher risk for migraine chronification [2]. Therefore, it's important to identify underlying factors of comorbidity between the two diseases.

Materials and methods: Shared genetic background is one of the main known components contributing to this comorbidity. Here we present a review of the main findings regarding this topic.

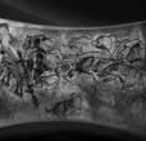
Results: Twin studies suggest that 20% of the variability in migraine and depression is due to shared genes [3]. Some also propose that heritability of migraine is higher when it is not accompanied by comorbid depression [3]. Genetic findings support the role of altered serotonin neurotransmission in the pathomechanism of comorbidity of these disorders: the short form of 5HTTLPR is associated with higher risk of depression [4] and migraine [5]. Link between dopamine dysfunction and depression is well established, and dopaminergic symptoms are often presented in migraine too, however, the literature on alterations in dopamine genetics in migraine shows highly mixed results [6]. The endocannabinoid system also seems to have a role in the comorbidity of migraine and depression according to genetic studies: CNR1 is a risk factor for depression and also migraine [7,8,9].

Conclusions: The better understanding of the biological pathways of the comorbidity between migraine and depression can lead to better treatment of patients with this phenotype.

Acknowledgements: The study was supported by the MTA-SE-NAP B Genetic Brain Imaging Migraine Research Group (KTIA_NAP_13-2-2015-0001); by the National Development Agency (KTIA_NAP_13-1-2013-0001), Hungarian Brain Research Program (KTIA_13_NAP-A-II/14); and the MTA-SE Neuropsychopharmacology and Neurochemistry Research Group.

References:

1. Ligthart L, Hottenga JJ, Lewis CM, Farmer AE, Craig IW, Breen G, Willemsen G, Vink JM, Middeldorp CM, Byrne EM, et al: Genetic risk score analysis indicates migraine with and



without comorbid depression are genetically different disorders. *Human genetics* 2014, 133:173-186.

2. Buse DC, Silberstein SD, Manack AN, Papapetropoulos S, Lipton RB: Psychiatric comorbidities of episodic and chronic migraine. *Journal of neurology* 2013, 260:1960-1969.
3. Ligthart L, Nyholt DR, Penninx BW, Boomsma DI: The shared genetics of migraine and anxious depression. *Headache* 2010, 50:1549-1560.
4. Caspi A, Hariri AR, Holmes A, Uher R, Moffitt TE: Genetic sensitivity to the environment: the case of the serotonin transporter gene and its implications for studying complex diseases and traits. *The American journal of psychiatry* 2010, 167:509-527.
5. Juhasz G, Zsombok T, Laszik A, Gonda X, Sotonyi P, Faludi G, Bagdy G: Association analysis of 5-HTTLPR variants, 5-HT_{2a} receptor gene 102T/C polymorphism and migraine. *Journal of neurogenetics* 2003, 17:231-240.
6. Akerman S, Goadsby PJ: Dopamine and migraine: biology and clinical implications. *Cephalalgia : an international journal of headache* 2007, 27:1308-1314.
7. Juhasz G, Chase D, Pegg E, Downey D, Toth ZG, Stones K, Platt H, Mekli K, Payton A, Elliott R, et al: CNR1 gene is associated with high neuroticism and low agreeableness and interacts with recent negative life events to predict current depressive symptoms. *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology* 2009, 34:2019-2027.
8. Juhasz G, Lazary J, Chase D, Pegg E, Downey D, Toth ZG, Stones K, Platt H, Mekli K, Payton A, et al: Variations in the cannabinoid receptor 1 gene predispose to migraine. *Neuroscience letters* 2009, 461:116-120. [9] Juhasz G, Csepany E, Magyar M, Edes AE, Eszlari N, Hullam G, Antal P, Kokonyei G, Anderson IM, Deakin JF, Bagdy G: Variants in the CNR1 gene predispose to headache with nausea in the presence of life stress. *Genes, brain, and behavior* 2017, 16:384-393.

P14 When is a person with dementia in need of palliative care? Preliminary data

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Background: No research so far addresses beliefs of university students and professionals in the social, medical and other science fields in South East Europe regarding the need of the elders with a diagnosis of dementia for palliative care. The objective of this study is to explore when students and professionals, consider a person with dementia in need of palliative care.

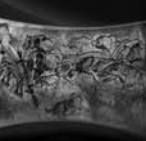
Materials and methods: A questionnaire was used based on an existing case-vignette [1]. A sample of 350 participants [175 from Northern Greece (147 women; 158 not having a relative diagnosed with dementia; 29 student nurses, 34 professional nurses, 52 psychology students, 22 professional psychologists, and 38 students of non-relevant sciences; Mage = 27.72, SDage = 9.61; and for the 55 professionals Myears of professional working experience = 11.76, SDyears of professional working experience = 6.50) and 175 participants from Southern Bulgaria (150 women; 159 not having a relative diagnosed with dementia; 29 student nurses, 34 professional nurses, 52 psychology students, 22 professional psychologists, and 38 students of non-relevant sciences; Mage = 28.39, SDage = 10.50; and for the 55 professionals Myears of professional working experience = 13.24, SD years of professional working experience = 9.42)] participated voluntarily in this study.

Results: The open responses to the “when” question revealed the categories: after her diagnosis/after the first symptoms; when she and her family cannot cope; at the advance of symptoms; all the time; when she behaves aggressively; I am not sure/there is no specific point. Unexpectedly, age, professional status and field of studies were not found to be significant predictors, but only the country of origin was found to contribute to differences in the participants’ answers regarding the start of palliative care.

Conclusions: Although professional-student status and relevancy of subject did not predict opinions, the country of origin predicted controversies for the proposed time point of considering a person with dementia in need of palliative care.

References:

1. J van Riet Paap, E Mariani, R Chattat, et al.: Identification of the palliative phase in people with dementia: A variety of opinions between healthcare professionals. BMC Palliative Care 2015, 14(1): 56.



P15 Time to relapse in bipolar patients: comparison of electroconvulsive therapy (ECT) and medication

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²Shahid Beheshti University of Medical Science

Background: Various studies have demonstrated that relapse rate in patients after ECT is very high (1). The effect of ECT on relapse prevention has been neglected in bipolar patients.

Materials and methods: In this study time between discharge from hospital and the next admission was compared between the two groups in bipolar I patients: patients on medication with or without ECT.

Results: Eighty two subjects were eligible. 49 patients had received only medication on their previous admission and 33 had received medication and ECT. Duration of illness was more in the group received medication only and this difference tend to be significant ($p= 0.061$). The average remission time was longer in the medical treatment group without ECT (22.06 vs. 17.36 months) but this difference was not statistically significant. Only the number of ECT sessions did demonstrate a significant correlation with remission time.

Conclusions: ECT cannot prevent future relapses without other maintenance strategies. Patients who received more numbers of ECT had longer remission duration. The possible reason is reminding of missed residual signs in those who received less ECT sessions.

References:

1. Sackeim HA, Haskett RF, Mulsant BH, Thase ME, Mann JJ, Pettinati HM, et al. Continuation pharmacotherapy in the prevention of relapse following electroconvulsive therapy: a randomized controlled trial. JAMA. 2001 Mar 14;285(10):1299-1307

P16 Psychotherapy in women with alcohol dependence type III in the context of Lesch's typology

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Background: Generally female alcoholism is socially stigmatized by assigning more guilt than men. Dependent women are abandoned by their husbands in contrast to dependent men who are cared for by their wives [1]. Even in the clinical relationship of these women, medical staff and significant others create more often difficulties in the process of treatment, because of general negative attitudes towards alcoholism in women [2].

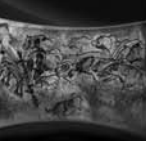
Materials and methods: Fifty three Bulgarian women (Mage = 43.85, SDage = 9.48, age range 27-71) were examined with the use of the Lesch Alcoholism Typology Questionnaire [3].

Results: When analyzing the results of alcohol dependence following Lesch's typology in women, a number of differences related to gender is found when compared to a larger sample including men with similar demographics from the same area [4]: There are no women with alcohol dependence who meet the criteria of belonging to type I Lesch (n = 0); there exists a higher motivation for treating alcohol dependent women type III compared to alcohol-dependent men from type III; alcohol dependent type III (model "alcohol as an antidepressant") establishes a significantly higher frequency of drinking against depression in women (75%) than men (64%).

Conclusions: The above remind us that these characteristics must be taken into account in the psychotherapy of alcohol dependent women type III. The emphasis is on the need to develop a successful psychotherapeutic system based on specific psychological principles and of the objectives of individual change, consistent both with gender characteristics and peculiarities of the female alcoholism type III.

References:

1. VL Lindbeck: The woman alcoholic: a review of the literature. *International Journal of the Addictions* 1972, 7(3): 567-580
2. LJ Beckman, H Amaro: Personal and social difficulties faced by women and men entering alcoholism treatment. *Journal of Studies on Alcohol* 1986, 47(2): 135-145
3. OM Lesch, H Walter, W Bonte, M Gruenberger, M Musalek, R Sprung: Chronic alcoholism: subtypes useful for therapy and research. In *Alcoholism: A Molecular Perspective*, Nato Asi Series A: Life Sciences, 1991, Palmer, T. N. ed. Plenum Press, New York
4. S Toteva, V Jenkov, V Nikolov, V Georgieva, D Ivanova, V Marinova, M Popov, V Urumov, P Terziivanova, G Kayryakova, T Kundurzhiev: Distribution and characteristics of Lesch types in Bulgarian population. Presentation at ESBRA Nordmann Award Meeting 2014, Sofia, Bulgaria, 3-5 September 2014



P17 The Effectiveness of a Stress Management Intervention Program on Performance in Mathematics, Reading and Writing Tests, in Perceived Stress and Behavior in Children 5-8 Years Old with Learning Difficulties

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Background: An early intervention stress management program (SMP) in children at risk or currently presenting Learning Difficulties (LD) may achieve an optimal outcome, before a possible consolidation of academic difficulties occurs.

Materials and methods: Children 5-8 years with LD were randomly assigned to undergo either an 8 weeks SMP [Intervention group (IG), N = 17] with diaphragmatic breathing, progressive muscle relaxation and imagery guided or not [Comparison Group (CG), N = 15]. Standardized tests for the assessment of mathematics, reading difficulties writing, perceived stress and the Child Behavior Checklist (CBCL) were used. Also, 3 diurnal salivary cortisol samples were collected before and after the intervention in both groups.

Results: Children in the IG achieved statistically significant differences in: performance in given works of learning difficulties, perceived stress levels ($\Delta=0.005$), wellness ($\Delta=0.001$), physical activity ($p=0.002$), thought problems ($p=0.043$), attention skills ($p=0.043$), aggressive behavior ($p=0.042$), total ($p=0.024$) and attention deficit/hyperactivity problems ($p=0.013$) compared to the CG.

The IG achieved higher performance in: "Utrecht Early Mathematical Competence Test" ($p=0.006$ for performance; $p=0.0005$ for Classification Proficiency Level), "Psychometric Assessment Test for Reading Difficulties" ($p=0.019$, $p=0.008$, $p=0.002$, $p=0.004$, $p=0.012$, $p=0.007$, $p=0.0005$ in certain reading scales) and "Athena Test» for LDs" ($p=0.014$ for copy shapes).

Conclusions: An early intervention SMP in children with LDs improves certain domains of academic performance and behavior and perceived stress.

P18 Association between decreased serum L-arginine and L-citrulline levels in major depression as a possible mechanism for increased cardiovascular risk

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Background: It has been suggested that endothelial dysfunction caused by a decreased endothelial production of nitric oxide (NO) may contribute to the consistently observed increased risk of developing cardiovascular disease (CVD) in physically healthy patients suffering from major depression (MD). NO is a gas synthesized from L-arginine (a conditionally essential amino acid) and oxygen by endothelial nitric oxide synthase (e NOS). The end products of NO production include both NO and L-citrulline. NO is rapidly reduced to the anions nitrite and nitrate, classically referred to as NO metabolites. Their measurement has been used as a surrogate measurement for endothelial NO production. We and others (Chrapko et al, 2004, 2016; Ikenouchi-Sugita, Selley 2004) have shown decreased levels of NO metabolites in the serum of MD patients. The mechanism of this decreased production of NO by the endothelium has not yet been elucidated.

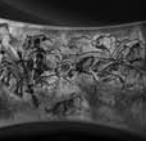
Materials and methods: Serum levels of L-arginine and L-citrulline were measured in 35 un-medicated physically healthy MD patients and 36 healthy controls (HCs).

Results: L-arginine and L-citrulline concentrations were significantly lower in MD patients than in healthy controls (73.54 + 21.53 umol/L and 84.89 + 25.16, $p=0.04$ umol/L and 31.58 + 6.05 umol/L and 35.19 + 6.85 umol/L, $p=0.03$ respectively).

Conclusions: The decrease in L-arginine levels in MD patients is a possible explanation for the observed decrease in NO metabolites observed in MD patients and therefore may contribute though endothelial dysfunction to the increased CV risk observed in MD.

References:

1. Chrapko W., Jurasz P., Radomski M. W., Lara N., Archer S. L., Le Melleo J-M. 2004. Decreased platelet nitric oxide synthase activity and plasma nitric oxide metabolites in major depressive disorder. *Biol. Psychiatry*. 56, 129-134.
2. Chrapko W., Jurasz P., Radomski M. W., Archer S. L., Newman S. C., Baker G., Lara N., Le Melleo J-M. 2006. Alteration of decreased plasma NO metabolites and platelet NO synthase activity by paroxetine in depressed patients. *Neuropsychopharmacology*. 31, 1286-1293.
3. Ikenouchi-Sugita A., Yoshimura R., Hori H., Umene-Nakano W., Ueda N., Nakamura J. 2009. Effects of antidepressants on plasma metabolites of nitric oxide in major depressive disorder: Comparison between milnacipran and paroxetine. *Prog. Neuropsychopharmacol. Biol. Psychiatry*. 33, 1451- 1453.
4. Selley M. L. 2004. Increased (E)-4-hydroxy-2-nonenal and asymmetric dimethylarginine concentrations and decreased nitric oxide concentrations in the plasma of patients with major depression. *J. Affect. Disord*. 80, 249- 256.



P19 Computer assisted depression screening in elders: Preliminary data

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Background: Computer-assisted or computer-based psychological testing is a new promising way of assessment, which satisfies the increasing need for fast and efficient testing expressed by mental health experts [1]. Geriatric Depression Scale (GDS) is a clinical depression test. The aim of the present paper is the assessment of an electronic version of GDS, by comparing the observations obtained during the electronic administration with those obtained during the administration of the traditional printed form.

Materials and methods: Fifty volunteers from Northern Greece (aged 60-70 years old, 20 men and 30 women) participated in the study. The participants claimed to have good knowledge of computer use and did not have a history of neurological or psychiatric diseases. Each participant was examined twice, once with the electronic and once with the printed version of each test in random order and after a one-week follow-up interval between the two administrations.

Results: A statistically significant strong positive correlation was found between the two conditions (printed and electronic version) for the GDS ($r = 0.843$, $p = .000$).

Conclusions: The data, although preliminary, suggests that an electronic version of GDS seems to be a credible alternative of the traditional printed form for the group of individuals who have a high educational level and claim to have familiarity with computers. In conclusion, computer-based assessment offers benefits over paper-and-pencil measures in the form, ease of administration and data collection, of millisecond timing accuracy, reliable and randomized presentation of stimuli over multiple trials and repeat administrations, and unobtrusive measurement of cognitive skills and response times during all aspects of the assessment process [2].

References:

1. McMinn MR, Trey Buchanan T, Ellens BM, Ryan MK. Technology, professional practice, and ethics: Survey findings and implications. *Prof Psychol-Res Pr.* 1999; 30: 165-172
2. Schatz, P, Browndyke, J. Applications of computer-based neuropsychological assessment *Journal of Head Trauma Rehabilitation*, 2002; 17(5): 395-410

P20 Computer assisted written word fluency testing in elders: Preliminary data for the condition beginning with letter Alpha

Vaitsa Giannouli

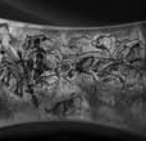
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Background: Language functions can be measured by many tests, but the written word fluency task serves as an easy to administer and score instrument. The aim of this research is the assessment of an electronic version of the written word fluency task-condition starting with letter A (Alpha), by comparing the observations obtained during the electronic administration with those obtained during the administration of the traditional printed form.

Materials and methods: Fifty participants from Northern Greece (aged 60-70 years old, 20 men and 30 women) were examined. All participants were native Greek speakers and could write without aid. The participants claimed to have good knowledge of computer use and did not report a history of neurological disorders or psychiatric diseases. Each participant was examined twice, once with the electronic and once with the printed version of the written word fluency task in random order and after a one-week follow-up interval between the two administrations.

Results: A statistically strong positive Pearson correlation was found between the two conditions (total scores of the printed and electronic version) for the condition of spontaneous word production beginning with letter Alpha ($r = 0.824$, $p = .000$).

Conclusions: The data, although preliminary, suggests that an electronic version of written word fluency task-condition beginning with the commonly-used letter Alpha seems to be a credible alternative of the traditional printed form for the group of individuals who have a high educational level and claim to have familiarity with computers.



P21 Computer assisted written word fluency testing in elders: Preliminary data for the condition beginning with letter Sigma

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Background: Language functions can be measured by many tests, but the written word fluency task serves as an easy to administer and score instrument. The aim of this research is the assessment of an electronic version of the written word fluency task-condition starting with letter Σ (Sigma), by comparing the observations obtained during the electronic administration with those obtained during the administration of the traditional printed form.

Materials and methods: Fifty individuals from Northern Greece (aged 60-70 years old, 20 men and 30 women) participated voluntarily in the study. All participants were native Greek speakers and could write without aid. The participants claimed to have good knowledge of computer use and did not have a history of neurological disorders or psychiatric diseases. Each participant was examined twice, once with the electronic and once with the printed version of the written word fluency task in random order and after a one-week follow-up interval between the two administrations.

Results: A statistically positive Pearson correlation was found between the two conditions (scores of the printed and electronic version) for the condition of spontaneous word production beginning with letter Sigma ($r = 0.709$, $p = .000$).

Conclusions: The data, although preliminary, suggests that an electronic version of written word fluency task-condition beginning with letter Sigma seems to be a credible alternative of the traditional printed form for the group of individuals who have a high educational level and claim to have familiarity with computers.

P22 Computer assisted written word fluency testing in elders: Preliminary data for the condition beginning with letter Chi

Vaitsa Giannouli

Bulgarian Academy of Sciences, Sofia, Bulgaria

Background: Computer-assisted neuropsychological testing is a promising way of assessment, which satisfies the increasing need for fast and efficient testing expressed by mental health experts [1, 2]. Language functions can be measured by many tests, but the written word fluency task serves as an easy to administer and score instrument. The aim of the present paper is the assessment of an electronic version of the written word fluency task-condition starting with letter X (Chi), by comparing the observations obtained during the electronic administration with those obtained during the administration of the traditional printed form.

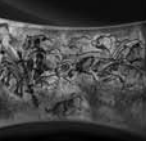
Materials and methods: Fifty volunteers from Northern Greece (aged 60-70 years old, 20 men and 30 women) participated in the study. All participants were native Greek speakers. The participants claimed to have good knowledge of computer use and did not have a history of neurological disorders or psychiatric diseases. Each participant was examined twice, once with the electronic and once with the printed version of the written word fluency task in random order and after a one-week follow-up interval between the two administrations.

Results: A statistically significant strong positive correlation was found between the two conditions (scores of the printed and electronic version) for the condition of spontaneous word production beginning with letter Chi ($r = 0.930$, $p = .000$).

Conclusions: The data, although preliminary, suggests that an electronic version of written word fluency task-condition beginning with letter Chi seems to be a credible alternative of the traditional printed form for the group of individuals who have a high educational level and claim to have familiarity with computers.

References:

1. McMinn MR, Trey Buchanan T, Ellens BM, Ryan MK. Technology, professional practice, and ethics: Survey findings and implications. *Prof Psychol-Res Pr*. 1999; 30: 165-172
2. Schatz, P, Browndyke, J. Applications of computer-based neuropsychological assessment *Journal of Head Trauma Rehabilitation*, 2002; 17(5): 395-410



P23 Computer assisted written word fluency testing in elders: Preliminary data for the semantic category 'Fruits'

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Background: The aim of this study is to assess an electronic version of the written word fluency task regarding the total number of words produced-written on the category 'Fruits', by comparing the observations obtained during the electronic administration with those obtained during the administration of the traditional printed form.

Materials and methods: Fifty participants from Northern Greece (aged 60-70 years old, 20 men and 30 women) were examined. All participants were native Greek speakers and could write without aid. The participants claimed to have good knowledge of computer use and did not report a history of neurological disorders or psychiatric diseases. Each participant was examined twice, once with the electronic and once with the printed version of the written word fluency task in random order and after a one-week follow-up interval between the two administrations.

Results: A statistically strong positive Pearson correlation was found between the two conditions (scores of the printed and electronic version) for the condition of spontaneous word production of the category 'Fruits' ($r = 0.877$, $p = .000$).

Conclusions: The data, although preliminary, suggests that an electronic version of written word fluency task-category 'Fruits' seems to be a credible alternative of the traditional paper-and-pencil form for this sample of Greeks who have a high educational level and claim to have familiarity with computers.

P24 Computer assisted written word fluency testing in elders: Preliminary data for the semantic category 'Animals'

Vaitsa Giannouli

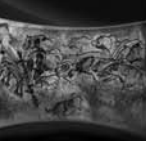
Bulgarian Academy of Sciences, Sofia, Bulgaria

Background: This study aims to assess an electronic version of the written word fluency task regarding the total number of words produced-written on the category 'Animals', by comparing the observations obtained during the electronic administration with those obtained during the administration of the traditional printed form.

Materials and methods: Fifty participants from Northern Greece (aged 60-70 years old, 20 men and 30 women) were examined. All participants were native Greek speakers and could write without aid. The participants claimed to have good knowledge of computer use and did not report a history of neurological disorders or psychiatric diseases. Each participant was examined twice, once with the electronic and once with the printed version of the written word fluency task in random order and after a one-week follow-up interval between the two administrations.

Results: A statistically strong positive Pearson correlation was found between the two conditions (scores of the printed and electronic version) for the condition of spontaneous word production of the category 'Animals' ($r = 0.972$, $p = .000$).

Conclusions: The data, although preliminary, suggests that an electronic version of written word fluency task-category 'Animals' seems to be a credible alternative of the traditional paper-and-pencil form for the group of Greeks who have a high educational level and claim to have familiarity with computers.



P25 Computer assisted written word fluency testing in elders: Preliminary data for the semantic category 'Objects'

Vaitsa Giannouli

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Background: This study aims to assess an electronic version of the written word fluency task regarding the total number of words produced-written on the category 'Objects', by comparing the observations obtained during the electronic administration with those obtained during the administration of the traditional printed form.

Materials and methods: Fifty participants from Northern Greece (aged 60-70 years old, 20 men and 30 women) were examined. All participants were native Greek speakers and could write without aid. The participants claimed to have good knowledge of computer use and did not report a history of neurological disorders or psychiatric diseases. Each participant was examined twice, once with the electronic and once with the printed version of the written word fluency task in random order and after a one-week follow-up interval between the two administrations.

Results: A statistically strong positive Pearson correlation was found between the two conditions (scores of the printed and electronic version) for the condition of spontaneous word production of the category 'Objects' ($r = 0.915$, $p = .000$).

Conclusions: These results, although preliminary, suggest that an electronic version of written word fluency task-category 'Objects' seems to be a credible alternative of the traditional paper-and-pencil form for this sample of Greeks who have a high educational level and claim to have familiarity with computers.

P26 Aripiprazole-induced Persistent Hiccups: A Case Report

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Background: Aripiprazole is an antipsychotics medication that is widely used in clinical practice thanks to its safety profile and minor side effects, however, hiccups are rare adverse event founded in aripiprazole users. Hiccups can emerge from various origins including idiopathic, psychogenic and organic causes. Certain neurotransmitters are believed to be an etiology of hiccups especially dopamine and serotonin.

Materials and methods: In this case report, author will demonstrate a 15-year-old male adolescent with diagnosis of major depressive disorder with psychotic feature who developed persistent hiccups after initiating aripiprazole.

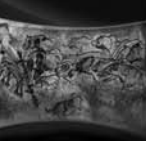
Results: The author will discuss possible explanations of this incident with clinical implication.

Conclusions: Even though antipsychotics are credited to be an option of hiccups therapy, clinicians should be aware of antipsychotic-induced hiccups especially aripiprazole.

Acknowledgements: The author wants to thank patient and his family for their time and beneficial information. I also appreciate kindness from colleagues from Faculty of Medicine Srinakharinwirot University for their knowledge and experience.

References:

1. Hori H, Nakamura J. Hiccups associated with switching from olanzapine to aripiprazole in a patient with paranoid schizophrenia. *Clin Neuropharmacol.* 2014 May-Jun;37(3):88-9.
2. Silverman MA, Leung JG, Schak KM. Aripiprazole-associated hiccups: a case and closer look at the association between hiccups and antipsychotics. *J Pharm Pract.* 2014 Dec;27(6):587-90.
3. Ray P, Zia Ul Haq M, Nizamie SH. Aripiprazole-induced hiccups: a case report. *Gen Hosp Psychiatry.* 2009 Jul-Aug;31(4):382-4.
4. Yeh YW. Persistent hiccups associated with switching from risperidone to aripiprazole in a schizophrenic patient with cerebral palsy. *Clin Neuropharmacol.* 2011 Jul-Aug;34(4):135-6.



P27 Intranasal oxytocin administration reduces memory, anxiety and depression-related deficits in a valproic acid-induced rat model of autism

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Background: Lately there is an increased interest for the beneficial effect of the intranasal oxytocin in the neuropsychiatric disorders, including autism [1,2]. Also, one important animal model of autism in rodents is based on the perinatal administration of valproic acid [3]. Thus, we studied the relevance of intranasal oxytocin administration in this valproic acid-induced rat model of autism, as tested on some behavioural tasks relevant for memory, anxiety or depression-like manifestations.

Materials and methods: The model of autism was induced through the intraperitoneally administration of valproic acid (500mg/kg) in the 12,5 day of gestation. The offspring were weaned on postnatal day 21 and after that male animals (n=15) received intranasally administrated oxytocin (Sygma) for 10 consecutive days (20 IU), while controls received intranasal saline (3 groups: control, valproic acid and valproic acid+intranasal oxytocin). Memory functions were tested through Y-maze, anxiety behaviour through elevated-plus-maze, while depression was analyzed through the forced-swim-task, during the last 3 days of treatment (days 8, 9 and 10).

Results: We showed an increased in the immediate working memory (e.g.spontaneous alternation behavior) in the valproic acid+intranasal oxytocin group, as compared to valproic acid alone in the Y-maze test. Moreover, the time spent in the open arms of the elevated-plus-maze and the mobility time in the forced-swim-test were increased in the valproic acid+intranasal oxytocin group, as compared to valproic acid alone rats, suggesting facilitatory effects in anxiety and depression-related behaviours.

Conclusions: 10 days of intranasal oxytocin administration in a valproic acid-induced rat model of autism seems to reduce some associated memory, anxiety and depression-related deficits.

Acknowledgements: This work is supported by a PN-II-RU-TE-2014-4-1886 grant called "A complex study regarding the relevance of oxytocin administration in some animal models of neuropsychiatric disorders", number 120 from 01/10/2015.

References:

1. Yatawara CJ, Einfeld SL, Hickie IB, Davenport TA, Guastella AJ. The effect of oxytocin nasal spray on social interaction deficits observed in young children with autism: a randomized clinical crossover trial. *Mol Psychiatry*. 2016 Sep;21(9):1225-31.
2. Guastella AJ, Ward PB, Hickie IB, Shahrestani S, Hodge MA, Scott EM, Langdon R. A single dose of oxytocin nasal spray improves higher-order social cognition in schizophrenia. *Schizophr Res*. 2015 Nov;168(3):628-33.
3. Schneider T, Przewlocki R. Behavioral alterations in rats prenatally exposed to valproic acid: animal model of autism. *Neuropsychopharmacology*. 2005 Jan;30(1):80-9.

P28 Case study: Adjusted left ischemic stroke cognitive rehabilitation

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Background: Ischemic stroke is a clinical syndrome characterized by acute and post-acute symptoms that cause significant problems on the patients' everyday functioning, including neuropsychological disorders. Cognitive deficits in verbal working memory, verbal semantic memory and language skills are frequently established, especially after left cerebral artery infarct. Recent research findings regarding left stroke cognitive rehabilitation, recommend cognitive-linguistic therapies as practice standards for language deficits. However, there are no definite research conclusions relatively to the rehabilitation of both verbal and working memory deficits.

Materials and methods: In the present case study is included a 31 year old female left stroke patient, who presented cognitive deficits in both semantic and phonological verbal fluency, vocabulary knowledge, working memory and most aspects of verbal memory. She immediately began a 2 month cognitive rehabilitation program and was reassessed at its conclusion. During this period, she was taught to use internal metacognitive strategies, such as semantic categorization and visual imagery, to remediate her impaired verbal memory. Furthermore, she completed a series of specific cognitive exercises with the primary goal of remediating working memory and language skills.

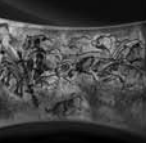
Results: The reassessment showed a significant improvement in all cognitive fields. More specifically, the patient's performance in the majority of neuropsychological tests was above the impaired range. Only phonological verbal fluency remained impaired.

Conclusions: Our findings suggest a remarkable recovery with respect to the patient's former cognitive status. The extent to which this progress should be attributed either to the effectiveness of our program or to the normal neurobiological process of recovery, remains unclear.

References:

Cicerone, Keith D., et al. "Evidence-based cognitive rehabilitation: updated review of the literature from 2003 through 2008." *Archives of physical medicine and rehabilitation* 92.4 (2011): 519-530.

Tegos, Thomas J., et al. "Stroke: epidemiology, clinical picture, and risk factors: Part I of III." *Angiology* 51.10 (2000): 793-808.



P29 Serotonin Syndrome during the onset of antidepressant combination treatment switching: A case report

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Background: Serotonin syndrome can be a life-threatening adverse drug reaction that challenges psychiatrists and primary care physicians. Overdose or combination of drugs that alter serotonin metabolism and plasma concentrations are thought to be common causes, whereas therapeutic doses of single drugs are rare causative factors. It develops rapidly, usually in less than 12 hours. Prompt symptomatic, supportive care, removal of the implicated drugs and probably 5-HT_{2A} antagonists are the proper management.

Materials and methods: We describe a case of serotonin syndrome induced at the onset of combination of paroxetine with clomipramine while mirtazapine, previously administered, was gradually withdrawn, with concomitant clozapine. Thus, we would like to aware and remind physicians about this emergent, rare yet predictable adverse reaction. To estimate interactions between the suspected drugs, we prospectively applied the methodology of Böhm R, et al.

Results: Mr. TD is a 41-year old patient diagnosed with atypical psychosis (ICD 10: F 28) for over 10 years with multiple, long-term hospitalizations, who was in good physical and mental condition just before admission. His longstanding treatment was clozapine 400mg/d, paroxetine 30mg/d and mirtazapine 30mg. His treating specialist was materializing a switch from mirtazapine to clomipramine. Thus, the day before admission the patient received the last dose of mirtazapine 15mg (half-life 20-40hours) and the day of admission he took the first dose of clomipramine 25mg.

Approximately 6 hrs after clomipramine administration, the patient was admitted for sudden onset and rapid deterioration of mental status (confusion, disorientation and agitation), polydipsia-polyuria, autonomic instability (diaphoresis, diarrhea, tachycardia 100bts/min, hypertension 180/160 mmHg), and neuromuscular changes (generalized tremor, progressive muscle rigidity, trismus). Patient's inability to cooperate talk and walk, was evident. Further physical examination revealed absence of EPS, SpO₂ 92%, normal temperature (36,4oC).

Diazepam 5mg I.M. was administered at once. 15' afterwards, BP has fallen to 147/74mmHg and heart rate at 68 bts/min, while slight muscle relaxation was perceived. Urgent laboratory work up demonstrated severe hyponatremia (113mg/dl) and increased white blood cells count (19.780/μl), along with creatine phosphokinase at 3,800 IU/L.

Two hours after admission, the patient developed generalized tonic-clonic seizures and was admitted to Intensive Care Unit (ICU). Brain computerized tomography showed cerebral edema (due to hyponatremia).

Based on the medication history, the acute onset of the clinical triad: mental status changes,

autonomic hyperactivity, neuromuscular changes and after ruling out infection and cerebrovascular factors, serotonin syndrome was considered. Malignant neuroleptic syndrome (due to clozapine) was also ruled out due to absence of slow onset, bradykinesia and hyperthermia.

Sedation with propofol and BZDs, mechanical ventilation, hyponatremia correction and rhabdomyolysis management (CPK reached 50,000 IU/L) constituted the supportive care along with discontinuation of the psychiatric treatment. Cyproheptadine, a strong antagonist of H1, 5-HT1A and 5-HT2A, was sought as selection treatment but proved impossible due to withdrawal of the particular preparation from the market.

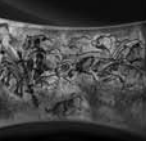
After 4-day intensive treatment and 10-day subsequent treatment in the Internal Medicine Department due to aspiration pneumonia, Mr. TD was fully recovered.

Conclusions: Combination treatment may emerge potential risks, when both drugs have documented significant interactions. Paroxetine and clomipramine, both inhibitors of CYP2D6, present strong pharmacokinetic and pharmacodynamic interactions (increased plasma concentrations of TCA, increased adverse effects and increased risk of serotonin syndrome). Additionally in our case, mirtazapine with a half-time 20-40 hours, as substrate, could interact with a single dose of clomipramine and paroxetine. Clozapine, as a potent 5-HT2A antagonist, might have a protective function from serotonin syndrome according to several lines of evidence.

In the context of antidepressant therapy, clinical manifestations such as increased gastrointestinal motility, agitation and/or diaphoresis, tremor and muscle rigidity, should orientate physicians also towards serotoninergic syndrome, as it consists solely a clinical and exclusion diagnosis, in order to promote prompt treatment in a potential life threatening situation. Cardiorespiratory and thermal abnormalities are correlated with syndrome severity and they should guide therapeutic management. Thus, psychiatrists should carefully prescribe drugs that promote serotoninergic signaling.

References:

1. Boyer, E. W., & Shannon, M. (2005). The Serotonin Syndrome. *N Engl J Med*, 352, 1135-1142.
2. Canan, F., Korkmaz, U., Kocer, E., Onder, E., Yildirim, S., & Ataoglu, A. (2008). Serotonin syndrome with paroxetine overdose: a case report. *Primary Care Companion to the Journal of Clinical Psychiatry*, 10(2), 165-7.
3. Stevenson, E., Schembri, F., Green, D. M., & Burns, J. D. (2013). Serotonin syndrome associated with clozapine withdrawal. *JAMA Neurology*, 70, 1054-5.
4. Böhm, R., von Hehn, L., Herdegen, T., Klein, H.-J., Bruhn, O., Petri, H., & Höcker, J. (2016). OpenVigil FDA - Inspection of U.S. American Adverse Drug Events Pharmacovigilance Data and Novel Clinical Applications. *PLOS ONE*, 11(6)



P30 5-hydroxytryptamine receptor and Hypocretin-2 receptor polymorphisms and their correlation to triptan treatment response and cluster headache susceptibility

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Background: Cluster headache (CH) is a primary neurovascular headache with an increased hereditary risk. The less common A allele of the CH associated HCRT2 gene polymorphism rs2653349, seems to reduce disease susceptibility. The GNB3 gene polymorphism rs5443 was associated with positive triptan treatment response. Carriers of the mutated T allele are more likely to respond positively to triptans compared to C:C homozygotes.

Materials and methods: DNA from 1464 non related individuals was collected and analysed from buccal swabs. The frequency distribution of these gene polymorphisms was determined. The genotypes of HCRT2 and GNB3 polymorphisms were determined by real time polymerase chain reaction. The hybridization is analysed by melting curve analysis software. The genotypes were classified as homozygote for wild type (G or C) allele, heterozygote (G:A or C:T) and homozygote (A or T) allele for rs2653349 or rs5443 polymorphisms, respectively.

Results: Gene distribution for the polymorphism rs2653349 was G:G=77.8%, G:A=20.3% and A:A=1.9%. The frequency of wild-type G allele was 92.3%. The frequencies for rs5443 polymorphism were C:C=44.8%, C:T=41.9% and T:T=13.3%. The frequency of wild-type C allele was 70.0%. The odds ratio of male vs. female volunteers for rs2653349 exhibited no statistically significant difference, but for rs5443 polymorphism a statistically significant difference ($p=0,0292$) between the genders could be demonstrated.

Conclusions: Comparison of this study population polymorphism frequencies vs. other populations showed that rs2653349 A allele appeared only 7.7% while in global and in European population the frequency was 12,1% and 18,4% respectively. Further, we observed that male homozygotes for the protective mutant allele are 2-fold more than female. Results indicate that investigated Greek population has great similarity to the European population regarding rs5443 allele and genotype distribution. Based on our results we could assume that the pathophysiology of CH is affected by multiple factors, therefore, the genotyping analysis of polymorphisms may play a significant role in the diagnosis and treatment of CH suffering patients.

References:

1. Katsarou M., Papasavva M., Latsi R., Toliza I., Drakoulis N., "Triptan treatment response and Cluster Headache susceptibility in association to HCRT2 and GNB3 gene polymorphism, Metagene, in press

P31 “Musical Ear” Syndrome in a 92-year-old woman: A case report

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Background: We present a case of a 92-year-old woman with late-onset musical hallucinations. The aim is to inform health care professionals about this rare clinical condition.

Musical hallucinations (MH) are a type of auditory hallucinations characterized by perception of musical sounds in the absence of any external source of music. Their content is often familiar and can be instrumental, vocal or both.

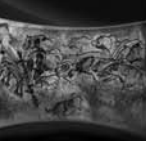
Materials and methods: Ms. MP is a retired piano teacher, who lives alone. In 2014 she received a treatment with Duloxetine 60mg for a depressive episode. The same year, she was consulted to use hearing aid, because of hearing impairment, but she didn't do so.

Results: In September 2016, she realized she was hearing piano songs that no one else could hear. She was terrified thinking “I am going crazy”. She visited a psychiatrist and revealed that she had been hearing classical piano pieces for the past two years. A Mini Mental State Evaluation (MMSE) test was admitted and she scored 30. CT scan showed mild ischemic encephalopathy. In the following week, supportive psychotherapeutic interventions and reassurance, had prominent effect in her condition. A hearing aid was used, resulting in a reduction of the symptoms. Two months later she reported rare incidents of MH.

Conclusions: Musical hallucinations are best treated by directing our intervention at the etiological mechanism responsible for their mediation. Interventions may range from behavioral modifications to pharmacological treatment. However not all patients need treatment, as MH may be self-limiting. In some cases reassurance may be enough.

References:

1. Coebergh, J. A. F., Lauw, R. F., Bots, R., Sommer, I. E. C., & Blom, J. D. (2015). Musical hallucinations: review of treatment effects. *Frontiers in Psychology*, 6, 814.
2. Focseneanu, B., & Marian, G. (2015). Musical hallucinations - a challenge for psychiatric therapeutical management. Case report. *Journal of Medicine and Life*, 8(4), 533-535.
3. Sacks O. (2013). Hallucinations of musical notation. *Brain* 136 (7): 2318-2322.



P32 Hypoactivation of the Hypothalamic-Pituitary-Adrenal axis in children with Attention Deficit Hyperactivity Disorder

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Background: Evidence suggests dysregulation of the stress system, in individuals with Attention Deficit Hyperactivity Disorder (ADHD). The main effectors of the Stress System are the hypothalamic-pituitary-adrenal (HPA) axis and the sympathetic/adrenomedullary system (SNS). We aimed to describe, simultaneously, diurnal rhythms of both HPA axis and SNS, and to explore the relations between stress system circadian variations and behavioral components, in children with ADHD. Moreover, we attempted to investigate their stress system response to a physical stressor, the venipuncture.

Materials and methods: Sixty- two prepubertal children with ADHD combined (ADHD-C) or inattentive (ADHD-I) type and 40 typically developing children provided saliva samples at six specific time points during a day, and before and 10 minutes after a scheduled morning venipuncture. Salivary cortisol and α - amylase were determined as biomarkers for HPA axis and SNS function.

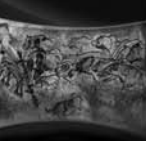
Results: Children with ADHD-C had lower mean cortisol values at 30 minutes after awakening and before sleeptime compared to controls ($p=0.002$ and $p=0.025$ respectively) as well as lower mean Cortisol Awakening Response (CAR) and Area Under the Curve (AUC) values for cortisol ($p=0.004$, $p=0.002$ and $p=0.001$, respectively). Also, mean CAR and AUC were lower in children with ADHD-I compared to the control group ($p=0.034$ and $p=0.038$ respectively). A-amylase increases during time measurements were associated with cortisol correspondent changes ($p<0.001$). Venipuncture elicited significant increase only in α - amylase in the control group ($p=0.003$).

Conclusions: These findings suggest a hypofunction of the HPA axis in children with ADHD.

References:

1. Korpa T, Pervanidou P, Angeli E, Apostolakou F, Papanikolaou K, Papassotiriou I, Chrousos GP, Kolaitis G. Mothers parenting stress is associated with salivary cortisol profiles in children with attention deficit hyperactivity disorder. *Stress*. 2017 Mar 28;1-10. doi: 10.1080/10253890.2017.1303472
2. Chrousos, G.P., Pervanidou, P., 2014. Stress and Endocrine Physiology. *Ref. Modul. Biomed.*

- Res. 4, 325-332. doi:10.1016/B978-0-12-801238-3.03751-X
3. McCarthy, A.M., Hanrahan, K., Scott, L.M., Zemblidge, N., Kleiber, C., Zimmerman, M.B., 2011. Salivary cortisol responsivity to an intravenous catheter insertion in children with attention-deficit/hyperactivity disorder. *J Pediatr Psychol* 36, 902-910. doi:10.1093/jpepsy/jsr012
 4. Ma, L., Chen, Y.H., Chen, H., Liu, Y.Y., Wang, Y.X., 2011. The function of hypothalamus-pituitary-adrenal axis in children with ADHD. *Brain Res.* 1368, 159-162. doi:10.1016/j.brainres.2010.10.045



P33 Investigate the relationship between Irrational beliefs and religious attitudes with life expectancy among women with breast cancer in city of Kerman

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Background: Irrational beliefs has several negative effects, especially among women with cancer. Also, religious attitudes are one of the factors to enhance the mental health during this illness. Therefore, the aim of current study was to investigate the relationship between Irrational beliefs and religious attitudes with life expectancy among women with breast cancer in city of Kerman.

Materials and methods: This research was descriptive correlational. This study was conducted in 108 patients with breast cancer referred to the Kerman hospital. Patients were chosen according to convenience sampling. The measuring instruments were Allport Religious Attitudes (1987) Jones Irrational Beliefs (1969) and Schneider life Expectancy (1991). Information analyzed using Pearson correlation and multivariate regression.

Results: The results indicated that the relationship of total score of Irrational beliefs and religious attitudes with life expectancy were statistically significant ($p < 0.001$). Also, the total score of religious attitudes with life expectancy were statistically significant ($p < 0.003$). In addition, Irrational beliefs and religious attitudes could be predicted -19.8% and -16.3% of the life expectancy respectively.

Conclusions: With regards to the high frequency of low life expectancy among patients with cancer and their impact on patients' compliance, rational beliefs and religious attitudes are very essential to enhance the mental and social health of breast cancer patients.

References:

1. D Y Lee , N H Sohn , S H Park S. H. Adolescents' peer-rated mental health, peer-acceptance, and irrational beliefs. *Psychol Rep* 2004 ,94 1144-1148. 10.2466
2. F A Sava , L P Maricutoiu , S Rusu , I Macsinga , D Virga . Implicit and explicit self-esteem and irrational beliefs. *J Cogn Behav Psychother* 2011,11 97-111
3. D M Ediev. Life expectancy in developed countries is higher than conventionally estimated: implications from improved measurement of human longevity. *J Popul Ageing* 2011,4:5-32
4. G Pennycook. Evidence that analytic cognitive style influences religious belief: Comment on Razmyar and Reeve *Intelligence* 2014, 43, 21-26

P34 Neuropsychological deficits in patient with possible Creutzfeldt-Jakob Disease: A Case Study report

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Background: The main purpose of this poster is to present the neuropsychological profile of a 50-year-old woman who was recently diagnosed with possible Creutzfeldt-Jakob disease (CJD). Creutzfeldt-Jakob Disease is a rare, neurodegenerative and fatal disease, belonging to a group of diseases of the central nervous system known as Transmissible Spongiform Encephalopathies or Prion Diseases. Most frequent symptoms are dementia, muscular coordination problems, behavioral changes and hallucinations.

Mrs. M.P. -a 50-year-old woman- has shown progressive difficulty in gait, instability and falls. Last September she experienced a self-destructive episode, some hallucinations and was nursed in a Psychiatric Clinic without receiving any diagnosis. Since then, she has been presenting apathy, social withdrawal, reduced speech production, urinary incontinence, fatigue and difficulty swallowing.

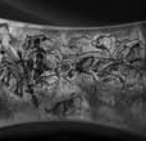
Materials and methods: A neuropsychological assessment was carried out in order to describe her cognitive impairment. Neuropsychological tests, clinical interview and questionnaire for brief assessment of anxiety and depression were used for this case.

Results: Results showed impairment mainly in visuospatial perception, in retaining and retrieving visuospatial information. Furthermore, the patient had reduced psychomotor speed and exhibited an impaired performance on measurements for the assessment of executive functions. In contrast, verbal memory and selective attention were intact.

Conclusions: Despite the heterogeneity and rareness of the neuropsychological findings in CJD, most of the present results come in agreement with other research regarding verbal fluency impairment, executive function deficits and almost intact verbal memory, orientation and awareness. The variety in cognitive findings necessitates the improvement in differential diagnosis through neuropsychological assessment and highlights the uniqueness of the individual.

References:

1. Rafii, M. S., & Cochrane, T. I. (2015). First aid for the neurology boards (second ed.). McGraw-Hill Education.
2. Cordery, R. J., Hall, M., Cipolotti, L., Al-Sarraj, S., O'Donovan, D. G., Davidson, L., Adlard, P., & Rossor, M. N. (2003). Early cognitive decline in Creutzfeldt-Jakob disease associated with human growth hormone treatment. *Journal of Neurology, Neurosurgery & Psychiatry*, 74(10), 1412-1416.
3. Snowden, J. S., Mann, D. M. A., & Neary, D. (2002). Distinct neuropsychological characteristics in Creutzfeldt-Jakob disease. *Journal of Neurology, Neurosurgery & Psychiatry*, 73(6), 686-694.



P35 Schizophrenia and Stewart Morel Syndrome

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Background: Hyperostosis frontalis interna (HFI) is a condition of bony overgrowth of the frontal region of the endocranial surface appearing in the scientific literature as early as 1719 (1). HFI was associated with Stewart-Morel syndrome (HFI, obesity, neuropsychiatric disorders) (2)

Materials and methods: Case:Our case is a 39 years old patient with schizophrenia whose follow-ups are carried out by our clinic. Hyperostosis frontalis interna (HFI) is detected in the cranial MRI. The patient has also obesity. These lead us to think of Stewart Morel syndrome. Therefore, we wanted to present this case.

Results: Stewart Morel syndrome is a rare syndrome can be overlooked.We wanted to present this case to highlight the importance of neuroimaging in patients who were diagnosed as schizophrenia.

References:

1. Moore S. Hyperostosis Cranii. Springfield, Illinois: Charles C. Thomas. 1955; 3-195.
2. HersHKovitz I, Greenwald C, Rothschild BM, Latimer B, Dutour O, Jellema LM, Wish-Baratz S. Hyperostosis frontalis interna: an anthropological perspective. Am J Phys Anthropol. 1999; 109: 303-325.

P36 Broader autism phenotype in parents of children with autism spectrum disorder: self-report of parents and their informant spouse

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Background: Although autism is a discrete clinical diagnosis, autistic traits exist along a continuum that extends into the general population (Ruzich et al., 2016). The finding that relatives of individuals with autism show mild autistic traits is referred to as the broader autism phenotype (BAP). This study aimed to identify the rate of BAP features in parents of children with autism spectrum disorder (ASD).

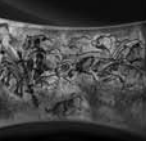
Materials and methods: Using self-report we compared 40 parents (20 couples) who had a child diagnosed with ASD to 40 parents (20 couples) of typically developing children, across personality and language development features. The self-constructed questionnaire assessed domains of difficulties during childhood and adulthood related to ASD: sociability, empathy, systemizing and developmental language delays. Questions related to behaviour in adulthood were administered to the parents as a self-report and as an informant (spouse)-based measure. Responses were scored using a 5 Likert scale.

Results: We found an increased rate of developmental language delay in the ASD group. 20% of ASD parents have spoken after the age of two in comparison with 2.5% of parents of typically developing children. The socialization during childhood was perceived difficult by a higher percentage of ASD parents. They reported fewer friendships, lower empathy and social skills. 12.5% of ASD parents found difficult to adapt to the elementary school vs. 7.5% of controls, 26% of ASD parents were uneasy in interaction with peers and 72.5% had no close friends in contrast with respectively 10% and 0% of the controls. A quarter of ASD parents reported being not active in social organizations during school years vs. 7.5% of controls. A higher rate of ASD parents described themselves in adulthood as not talkative, less sociable and highly systemized persons in comparison with controls.

Conclusions: The parent of children with ASD in this sample reported elevated rates of a set of traits (socially reticent and highly systemized in adulthood, less empathic, sociable and language delay during childhood) that suggest genetic liability to autism. Differences between self-report and informant scores were not significant.

References:

1. Ruzich E., Allison C., Smith P., Ring H., Auyeung B., Baron-Cohen S. (2016). The Autism-spectrum quotient in siblings of people with autism. *Autism Research* 10 (2): 289-297. Wiley.



P37 Correlations between Gastro-intestinal symptoms and Autistic Manifestations - a Review

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Background: Although autism is a neurodevelopmental disorder consisting mainly in serious cognitive deficiencies such as the lack of sociability and communication or the abnormal repetitive behaviour, it is now generally accepted that the gastrointestinal disturbances are also frequently reported in autistic children.

Materials and methods: Thus, digestive symptoms, such as constipation, diarrhea, abdominal bloating and pain, food allergies are among the most common medical comorbidities associated with this complex disorder. In this way, despite controversies regarding this matter, gastro-intestinal symptoms could be relevant for the various maladaptive behaviours in autistic children, such as irritability, social withdrawal, stereotypy, hyperactivity and even language regression. Moreover, recent studies are indicating that the gastrointestinal (GI) symptoms in autism are involving besides the physical digestive discomfort, a direct metabolic action through the metabolites synthesized by the altered microbiota on the neural processes.

Results: Also, the brain-gut connection, an intrinsic circuit assuring the chemosensorial transmission from visceral tissues to the brain has been suggested as a mechanism for these modifications. In addition, inflammatory and immune reactions, intestinal hyperpermeability, dysbiosis of the intestinal microbiota may also lead to GI disturbances in autism.

Conclusions: Although there are a lot of debates about the exact connection between GI disturbances and autism, the evidences presented so far by recent studies are suggesting that a better understanding of these aspects in autism could also result in a positive management of the disorder.

Acknowledgements: Lefter Radu is supported by an internal grant GI- 2015-13 from "Alexandru Ioan Cuza" University, Iasi.

P38 Procyclidine: misuse and sleep disturbances

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Background: Procyclidine is an anticholinergic drug mainly used for the treatment of drug-induced parkinsonism, although not as effective in idiopathic Parkinson's disease. Procyclidine has known side-effects, including anxiety, euphoria and restlessness. Insomnia is not specifically described as a side effect on the British National Formulary. Procyclidine is identified by many clinicians in UK as a drug that can be potentially abused for recreational reasons. The extend of its abuse is not clarified.

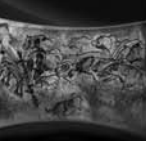
Materials and methods: Review of the clinical files of the patients of a medium secure unit for male adults with primary diagnosis of personality disorders in the North East of UK, for the period January 2017 - March 2017. Interview with them and documentation of any stimulant effect experience with Procyclidine.

Results: From 16 patients reviewed, 7 were prescribed Procyclidine for side effects of antipsychotic medication. All of the 7 patients were transferred from prison and 6 had history of substance abuse. Three patients admitted they experience a stimulant effect from Procyclidine and four admitted that Procyclidine was causing disturbing their sleep.

Conclusions: Clinicians need to be aware of the risk of misuse when prescribing Procyclidine especially for patients with a history of misuse of substances or medication. Prescribers should also consider the possible stimulant effect of Procyclidine and consider the risks in patients with affective disorders. Moreover prescribers should be mindful when administering the medication at night.

References:

1. British National Formulary 72, 9/2016-3/2017. Substance use and Misuse, second edition 2012. Centre for Pharmacy Postgraduate Education.



P39 Unique and shared gray matter and white matter changes in non-demented amyotrophic lateral sclerosis patients with or without overt cognitive impairment: An advanced neuroimaging study

Foteini Christidi¹, Efstratios Karavasilis², Panagiotis Ferentinos³, Ioannis Zalonis¹, Georgios Velonakis², Sophia Xirou¹, Michalis Rentzos¹, Vasiliki Zouvelou¹, Nikolaos Kelekis², Ioannis Evdokimidis¹

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Background: Only few studies so far simultaneously examine gray matter (GM) and white matter (WM) changes in patients with amyotrophic lateral sclerosis (ALS). Thus, we applied high-resolution magnetic resonance imaging (MRI) at 3T with a multimodal approach to investigate GM and WM changes in non-demented ALS patients with and without cognitive impairment in order to identify unique and shared changes compared to healthy controls (HC).

Materials and methods: Nineteen ALS patients with and 31 ALS patients without cognitive impairment [ALS-motor and ALS-plus, respectively] and 25 HC underwent 3D-T1-weighted and 30-directional diffusion-weighted imaging, followed by voxel-based morphometry and tract-based spatial-statistics analysis to examine GM volume changes and WM differences in fractional anisotropy (FA), axial and radial diffusivity (AD, RD, respectively).

Results: Compared to HC, a) ALS-motor patients showed decreased GM volume in frontal and cerebellar areas and increased GM volume in right supplementary motor area, and b) ALS-plus patients showed diffuse GM atrophy in motor cortex bilaterally, frontotemporal regions, cerebellum and basal ganglia. Further, compared to HC, a) ALS-motor patients had decreased FA and increased RD in the corticospinal tract bilaterally, the corpus callosum and several extra-motor tracts, and b) ALS-plus patients had decreased FA and increased AD and RD in motor and all commissural and major associative (extra-motor) WM tracts.

Conclusions: Multimodal neuroimaging in non-demented ALS highlights motor WM abnormalities irrespectively of patients' cognitive status and similar anatomical pattern of extra-motor WM changes which are more severe when cognitive impairment co-exists. In addition, it reveals early GM changes in extra-motor areas in ALS patients without overt cognitive impairment and widespread motor and extra-motor GM changes when cognitive impairment is evident.

Acknowledgements: F.C. was supported by the IKY FELLOWSHIPS OF EXCELLENCE FOR POSTGRADUATE STUDIES IN GREECE - SIEMENS PROGRAM (SPHA:11118/13a) and IKY SHORT TERMS PROGRAM (2013-ΠΕ2-SHORT TERMS-18671). We acknowledge Odysseas Benekos, Giannis Spandonis and the Philips Medical System for providing all necessary research keys for MRI sequence acquisition. We also acknowledge the radiologists-technologists of Research Radiology & Medical Imaging Department (Ioannis Gkerles, Christos Lioulis, Anestis Passalis, Efsthios Xenos) for conducting and facilitating participants' MR scanning. Finally, we would like to thank patients with ALS and their families, as well as healthy volunteers for their willingness to participate to the present study.

P40 Pathological laughing and crying is driven by a distributed gray matter and white matter network: evidence from multimodal neuroimaging in amyotrophic lateral sclerosis

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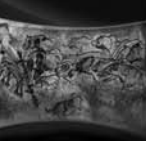
Background: Pathological laughing and crying (PLC) is present in several neurological and psychiatric diseases. From an anatomo-patho-physiological point of view, it has been related to a lack of inhibition from the frontal cortex, altered processing of sensory inputs at the brainstem level and dysfunction of cortico-pontine-cerebellar circuits. By applying multimodal neuroimaging approach, we examined the anatomical substrate of PLC in a sample of non-demented patients with amyotrophic lateral sclerosis (ALS), considering its high prevalence in ALS.

Materials and methods: We included 56 ALS patients and 25 HC. PLC was measured in ALS using the Center of Neurologic Study Lability Scale (CNS-LS; cut-off score: 13); depressive symptoms were measured with the ALS-Depression Inventory (ADI-12). All participants underwent 3D-T1-weighted and 30-directional diffusion-weighted imaging, followed by voxel-based morphometry and tract-based spatial-statistics analysis to examine gray matter (GM) and white matter (WM) differences between ALS patients with and without PLC. Comparisons were restricted to regions where anatomical differences already existed between ALS and HC, by controlling for demographic, total intracranial volume and the presence of clinically significant depressive symptoms (ADI-12≥29).

Results: Compared to those without PLC, ALS patients with PLC showed decreased GM volume in left orbitofrontal cortex, frontal operculum, and putamen and bilateral frontal poles. They also showed decreased fractional anisotropy in left cingulum bundle and posterior corona radiata, and increased radial diffusivity in left corticospinal tract, with WM abnormalities being also detected in ponto-cerebellar tracts when a more liberal threshold ($p < 0.005$ uncorrected) was applied.

Conclusions: Based on a multimodal high-resolution neuroimaging approach, our findings implicate that PLC is driven by both GM and WM abnormalities which further highlight the role of circuits rather than isolated centers in the emergence of cognitive/behavioral symptoms. ALS is also suggested as a useful natural experimental model to study PLC.

Acknowledgements: F.C., E.K., P.F. shared equal contribution to the study. F.C. is supported by the IKY FELLOWSHIPS OF EXCELLENCE FOR POSTGRADUATE STUDIES IN GREECE - SIEMENS PROGRAM (SPHA:11118/13a) and IKY SHORT TERMS PROGRAM (2013-ΠΕ2-SHORT TERMS-18671). We acknowledge Odysseas Benekos, Giannis Spandonis and the Philips Medical System for providing all necessary research keys for MRI sequence acquisition. We also acknowledge the radiologists-technologists of Research Radiology & Medical Imaging Department (Ioannis Gkerles, Christos Lioulis, Anestis Passalis, Efstathios Xenos) for conducting and facilitating participants' MR scanning. Finally, we would like to thank patients with ALS and their families, as well as healthy volunteers for their willingness to participate to the present study.



P41 Investigate the relationship between parenting styles with social self-esteem and social support of their students in the Zarand Applied-Scientific University.

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Background: One of the long-term consequences of the parenting styles is the effect on the social self-confidence of the children. An association between the basic psychological need satisfaction with parenting styles and social relationship of their children has been approved. The purpose of this study was to investigate the relationship between parenting styles with social self-esteem and social support of their students in the Zarand Applied-Scientific University.

Materials and methods: The research method was descriptive and correlational. According to Morgan table, 170 subjects were selected and finally 164 responded completely. Participants responded to Lawson et al social self-esteem (1989) and Sherborne and Stewart social support (1991) and their parents responded to Baumrind parenting style (1973) questionnaires. Data analyzed by Pearson correlation coefficient and multivariate regression.

Results: The results indicated that the authoritative parenting style had a positive significant association with social self-esteem and social support of their students, whereas the authoritarian and permissive styles used by parents had a negative significant association with social self-esteem and social support of their students. Based on multivariate relation, authoritative, authoritarian and permissive had the highest correlation with the social self-esteem and social support, respectively.

Conclusions: As a result of warmer relations of mother and child and parents involvement in childrens various activities may increase social self-esteem and social support. It seems that the authoritative and warmth of the mothers parenting style would play an important role in prediction of social relationship.

References:

1. J Y Ghazwani, S N Khalil, R A Ahmed. Social anxiety disorder in Saudi adolescent boys: Prevalence, subtypes, and parenting style as a risk factor. *J Family Community Med* 2016,23:25-31
2. B F Piko, M A Balázs. Authoritative parenting style and adolescent smoking and drinking. *Addict Behav* 2012, 37:353-6
3. M C Benchaya, N K Bisch, T C Moreira, M Ferigolo, H Barros. Non-authoritative parents and impact on drug use: the perception of adolescent children. *J Pediatr* 2011,87:238-44
4. K Newman, L Harrison, C Dashiff, S Davies. Relationships between parenting styles and risk behaviors in adolescent health: an integrative literature review. *Rev Latinoam Enferm* 2008, 16:142-50

P42 Cognition in amyotrophic lateral sclerosis: from extra-motor to extra-executive dysfunction

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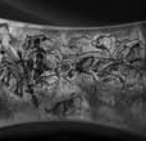
Background: Amyotrophic lateral sclerosis (ALS) was traditionally regarded as a pure motor neuron disease with any extra-motor involvement being described only in frontal areas and characterized by mild executive dysfunction or behavioral changes according to the ALS-Frontotemporal Dementia continuum. However, it is now accepted that extra-motor changes are widespread by means of neuroanatomy and may appear as multiple cognitive impairments by means of phenomenology. We herein examine the cognitive profile of non-demented ALS patients from a Greek ALS University Reference Centre.

Materials and methods: We included 75 patients with sporadic ALS without dementia and administered a comprehensive neuropsychological assessment for executive functions, attention & working memory, learning-memory, expressive language, visuospatial-constructive dexterities and symbolic reasoning. All patients were also evaluated for the presence of severe clinical depressive symptoms. Based on normative data for each neuropsychological test and according to widely-used criteria for ALS-related cognitive impairment (cut-off score for impairment: 2.3rd %ile), all patients were categorized into two subgroups: a) pure motor involvement without cognitive impairment and b) motor involvement and cognitive impairment.

Results: More than 65% of ALS Greek patients showed cognitive impairment. Executive functions were mostly affected: 47% of patients had executive impairment, 20% showed pure executive impairment (single-domain) whereas 27% showed multidomain executive impairment (including executive and non-executive cognitive functions). Pure memory impairment without executive or other cognitive impairment was detected in 20% of patients. Regression analysis revealed that executive performance was associated with memory performance in the total ALS sample but accounted only for 9% of the variance in memory performance. Among neuropsychological scores, verbal learning was a negative prognostic factor, with reduced verbal learning ability being related to faster progression rate.

Conclusions: Our findings identify a multifaceted extra-motor profile in ALS with executive and non-executive cognitive impairment, support the need for multidomain neuropsychological assessment even in non-demented ALS patients and highlight the prognostic role of memory impairment in disease progression rate.

Acknowledgements: F.C. is supported by the IKY FELLOWSHIPS OF EXCELLENCE FOR POST-GRADUATE STUDIES IN GREECE - SIEMENS PROGRAM (SPHA:11118/13a) and IKY SHORT TERMS PROGRAM (2013-ΠΕ2-SHORT TERMS-18671). We would like to thank patients with ALS and their families, as well as healthy volunteers for their willingness to participate to the present study.



P43 Outpatient use of clozapine at General Hospital of Santorini: Results and cost-effectiveness report

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Background: Clozapine is an atypical antipsychotic drug, which seems to be up to 60% more effective against resistant schizophrenia than other antipsychotic drugs. Up to this date, the start of treatment with this particular medication in Greece happens mainly in inpatients due to its possible severe adverse effects and compliance issues.

Materials and methods: We subscribe the drug to outpatients, in order to keep patients, in the community and next to the reference service. To achieve this we tried to adapt the international guidelines of outpatient initiation of clozapine, exploiting the flexibility of a rural hospital and the advantages of a closed community. For the outpatient administration we needed 30 days for titration at 350 mg. We arranged frequent visits at the outpatient psychiatric unit with equally frequent blood tests and vital point checks while ensuring the timely diagnosis of possible myocarditis by cardiological screening (ECG, US) and frequent measurement of TPO CRP. To ensure compliance we worked with the patient and his/her family, while involving the local community to avoid non show. In addition to the psychiatric unit, patients attended a consultation with a dietitian to explore whether their BMI was affected by the treatment. We initiated administering the medication to three patients who had previously shown resistance to other schizophrenia treatments. They had tried typical and atypical antipsychotic drugs and at the minute of initiation they were on depot treatment (thus excluding unsatisfactory response due to non compliance).

Results: PANSS negative and positive symptoms significantly improved, with an average clozapine dose of 383mg. GAF scale score was also improved and a statistically mild raise in BMI was observed. Estimated economic gain for the national health care system was 4.620 euro per patient (13.860 total) for outpatient care with an annual benefit estimate for medication change at 3.613 euro per patient (10.839 total).

Conclusions: Knowing that the medication cost is approximately 16% of the total cost of usual treatment for resistant schizophrenia and observing the improvement at PANSS and GAF scores to which we anticipated an improvement after up to 2 years following the initiation of clozapine treatment, we conclude that the use of such or similar tactics are necessary to occur at outpatient clinics or psychiatric health centers.

P44 Psychological effect of Semi-permanent tattooing rehabilitation in patients with Mastectomy in 12 months period

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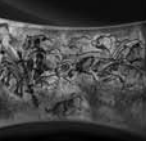
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Background: Breast cancer is the most common cancer type in Greek women, more than 4000 new cases are diagnosed every year. 70% of those patients perform a type mastectomy. The breast has a societal and social connotation of femininity, motherhood, and sexuality. Several studies support that exist relation between psychological problems and mastectomy surgery. Body image and Feminine self-concept also seems to influence quality of life of those women, considering breast association of femininity, motherhood, and sexuality. During this study we try to investigate how a non psychiatric intervention might influence the mental state and the quality of life of those women.

Materials and methods: A clinical interview was performed in 53 women with partial or total mastectomy before, 3 and 52 weeks after the rehabilitation with the method of semi-permanent tattooing.

Data were collected during the personal interviews using Hamilton anxiety rating scale (Ham-A), Body Image Scale and Sexual Activity Questionnaire.

Results: Moderate levels of anxiety were identified before the rehabilitation, associated with poor body image scale scores and sexual difficulties. Both Ham-A and body image score meliorates after 3 weeks with unchanged sexual behavior. One year after rehabilitation Anxiety scale score raises close to initial values, body image remain unchanged comparing with the 3rd week interview and significant improvement noticed in sexual activity.



P45 A case report of comorbid Munchausen type factitious disorder with bipolar II disorder

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Background: Factitious disorder is an uncommon, but probably underdiagnosed, condition associated with considerable morbidity, mortality, and health care expenditure.

Materials and methods: We present an uncommon case of a forty-six year old woman suffering from Munchausen type factitious disorder comorbid with bipolar II disorder. The patient was diagnosed with Major depression disorder 4 years ago during her hospitalization in the internal medicine department after a suicide attempt and ssri was prescribed. Since the onset of the disorder the patient started complaining for physical symptoms, migrating from hospital to hospital seeking pathological and surgical interventions, fabricating her medical history. In the last 3 years the patient visited the emergency room of University hospital of Ioannina 85 times and she was hospitalized in internal medicine or surgical clinics 16 times, performing 19CR, 11 CT and 4MRI. Many times she turned to the police suing the treating doctors. During her hospitalizations she refused psychiatric evaluation.

Results: Twelve months ago the patient finally visited a psychiatrist, bipolar II disorder was diagnosed and administered quetiapine with good results to both, mood and ER visits (7 visits in one year and 1 hospitalization). During the analysis of her mood switches we observed non-euphoric hypomanic episodes and association of the hypomanic phase with the factitious behavior.

Conclusions: This case report reinforces the importance of maintaining a clinical suspicion of major psychopathology co-existence with factitious disorder

P46 Thiol/Disulphide Homeostasis in Patients with Schizophrenia

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Background: The aim of the study was to investigate dynamic thiol/disulphide (SH/SS) homeostasis in patients with schizophrenia.

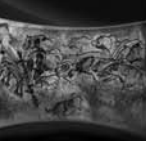
Materials and methods: Blood thiol/disulphide homeostasis status, which reflects native thiol-disulphide exchanges, was investigated in 44 patients, and the obtained results were compared with 33 healthy controls. For Thiol/disulfide homeostasis parameters; concentration of native thiols, total thiol were measured using a new development full automated colorimetric method in the patient and control sera and then disulfide bond, disulfide/native thiol, native thiol/total thiol and native thiol/total thiol ratios were calculated from these measured parameters. (1)

Results: Serum native thiol and the total thiol concentration were significantly lower, in patients with schizophrenia compared with the control group ($p < 0.001$). Calculated, disulfide/native thiol and disulfide / total thiol ratio was significantly higher in schizophrenia patient than healthy control and native thiol/the total thiol ratio was significantly lower in the patient group than in the control group.

Conclusions: The identification of oxidative molecules for schizophrenia patients may be useful, especially in the treatment of disease and in reducing morbidity. Although there is not enough evidence yet, it can be said that thiol and disulfide levels are important for BD according to literature and our study. These markers are also promising therapeutic targets in terms of future pharmacological modulation.

References:

1. O Erel, S Neselioglu: A novel and automated assay for thiol/disulphide homeostasis. Clinical Biochemistry 2014 47:326-32



P47 Aerobic exercise in the treatment of clinically depressed adult patients. A systematic review and meta-analysis

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Background: This review set to examine the antidepressant effect of aerobic exercise as an add-on intervention.

Materials and methods: Eight e-databases were searched for randomized controlled clinical trials comparing aerobic exercise to conventional antidepressant treatments in clinically depressed patients (18-65 years) referred by health services. A random effects model using Hedges'g pooled post-depression scores. The I² and Cochrane Q measured heterogeneity. Funnel plot visual inspection, the Begg-Mazumbar Kendall's tau and Egger tests investigated for publication bias. Coding included intervention/patient characteristics (duration, frequency, intensity, symptom severity, outpatients, inpatients) and risk of bias for individual trials.

Results: Across 12 eligible RCTs, moderate intensity aerobic exercise showed a significantly large antidepressant effect-size (ES) with low and non-significant heterogeneity (ES=-0.83, 95% CI=-1.02, -0.62, I²=20.89%, PQ=0.226). Mazumbar Kendall's tau and Egger tests indicated no publication bias. Subgroup analyses revealed large or moderate to large ESs for exercise with low or moderate levels of heterogeneity (I² ≤40%; Cochrane Q p>0.05).

Conclusions: Moderate intensity aerobic exercise of 3times/week led depressed patients to an improvement in depression. Similar findings were found for both short- (1-4weeks) and longer-term (8-12weeks) aerobic exercise, across indoor or outdoor settings in both outpatient and inpatient samples regardless age range or symptom severity. Trials with lower risk of bias showed comparable effects. Our findings are congruent with a previous meta-analytic review with clinically depressed samples (Rethorst et al., 2009). Aerobic exercise is considered an effective antidepressant intervention.

References:

1. Rethorst, C.D., Wipfli, B.M., Landers, D.M., 2009. The antidepressive effects of exercise. *Sports Med* 39, 491-511.

P48 Clomipramine trial for treatment-resistant persistent genital arousal disorder: a case report

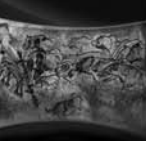
Gamze Erzin

Psychiatry Department, Ankara Dışkapı Training and Research Hospital, Ankara, Turkey

Background: Background: The aim of to present this case report is to show that patient with PGAD could be treated by clomipramine.

Materials and methods: 34 years old female patient without a psychiatric history applied to our clinic with complaint of persistent, involuntary stimulation and orgasm which has lasted for last 3 years. The genital arousal disorder diagnosis was made. Fluoxetine 20 mg/day treatment was started first which did not work out. The clomipramine 25 mg/day treatment was given and dose of clomipramine was increased day by day. The patient benefited from that.

Conclusions: According to results of this case report, clomipramine in combination with psychotherapy as the treatment of choice in PGAD is recommended and it is to be used before any invasive procedure.



P49 Tianeptine in treatment resistant dysthymia: A case report

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Background: We are reporting the case of a young male attending specialist mental health services in England, suffering from early-onset dysthymia with atypical features, namely anhedonia, emotional detachment and apathy. His response to antidepressant medication - including SSRI, TCA, SNRI, MAOI, NRI, NDRI - mood stabilisers, stimulants and antipsychotics has been suboptimal and the atypical features consistently failed to improve.

Materials and methods: Review of the case notes and assessment of the patient were completed as well literature review of evidence-based treatment for refractory depression on Pubmed, Maudsley guidelines and the British Association for Psychopharmacology guidelines.

Results: Tianeptine is an antidepressant agent with a unique neurochemical profile, in that enhances the serotonin uptake in the brain (SSRE) in contrast with most antidepressant agents. There is evidence it has equivalent antidepressant efficacy to several classical antidepressants and favourable tolerability and pharmacokinetic profile. The patient was initiated on Tianeptine 12.5 mg daily which was titrated upwards to 12.5 mg three times daily. The patient tolerated the new medication well and the eight-week follow up revealed substantial improvement in his clinical presentation.

Conclusions: Tianeptine is not licensed for antidepressant treatment in some countries including UK, however there is evidence base supporting its use, particularly where first-line treatments have failed.

References:

1. Tobe EH et al. Possible usefulness of tianeptine in treatment-resistant depression. *Int J Psychiatry Clin Pract* 2013; 17:313-316.
2. Woo YS et al. Tianeptine combination for partial or non-response to selective serotonin re-uptake inhibitor monotherapy. *Psychiatry Clin Neurosci* 2013; 67:219-227.

P50 Feasibility of diffusion tensor tractography in identifying structural connectivity pathways: evidence from the reconstruction of cortico-ponto-cerebellar white matter tracts in healthy adults

Efstathios Karavasilis¹, Foteini Christidi², Georgios Velonakis¹, Panagiotis Toulas¹, Panagiotis Ferentinos³, Efstathios Efstathopoulos¹, Ioannis Evdokimidis², Nikolaos Kelekis¹

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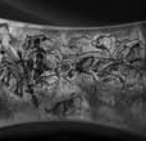
Background: Diffusion tensor tractography (DTT) is a non-invasive method to map tissue microstructural organization by identifying structural connectivity pathways and providing quantitative indices of water molecular translational diffusion through white matter (WM) tracts. We herein examine the feasibility of reconstructing cortico-ponto-cerebellar tracts in healthy adults using a novel fiber tracking methodology assumed to be highly accurate in the final 3D reconstruction of WM fibers based on anatomical gold standard.

Materials and methods: We included 50 healthy controls (15 male/35 female) aged between 22-60 years old without previous history of neurologic, psychiatric or other organic disorder. All participants were scanned in a 3T MRI scanner with a 30-direction diffusion weighted imaging (DWI) sequence. Multiple region-of-interest (ROI) method was applied for the reconstruction of the following cortico-cerebellar tracts bilaterally using the Brainance DTI Suite: fronto-ponto-cerebellar (FPC), parieto-ponto-cerebellar (PPC), temporo-ponto-cerebellar (TPC), occipito-ponto-cerebellar (OPC), spinocerebellar (SC) and dentate-rubro-thalamo-cortical (DRTC) tracts. Specific thresholds (fractional anisotropy: 0.15; angle degree: 70°) were applied. Qualitative evaluation of extracted tracts was performed by an experienced neuroradiologist. Mean fractional anisotropy (FA), and axial and radial diffusivity (Dax and Drad, respectively) were automatically extracted as quantitative indices for each tract. Inter-rater and intra-rater reliability were also examined to verify the feasibility of the protocol and software to reliably reconstruct cortico-ponto-cerebellar tracts.

Results: Cortico-ponto-cerebellar pathways were successfully reconstructed for all participants, except for the TPC where default DTT thresholds did not allow the tract reconstruction in all participants. Inter-rater and intra-rater reliability indices were high for all reconstructed tracts, except for the SC tract. Descriptive values for mean FA, Dax and Drad for left and right cortico-ponto-cerebellar tracts are presented for the total sample and anatomical variations for each tract are visually depicted projecting the reconstructed CPC pathways onto structural anatomical images.

Conclusions: DTT with multiple ROI tracking emerges as a valid and reliable method to in vivo reconstruct complex WM pathways, including cortico-ponto-cerebellar tracts, with high-impact implication in the study of structural connectivity in different brain pathologies. Difficulties in reconstructing specific WM tracts are discussed on the basis of possible tracking protocol and DWI and DTT pitfalls.

Acknowledgements: We acknowledge all participants of the present study.



P51 Delirium as a predictor of mortality in discharged patients, 2-Years Study

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Background: Delirium in the elderly is defined as an acute confusional state, with variation during the 24 hours period. Basic characteristics are: impaired consciousness, attention, thought processes, orientation, memory and altered behavior. Hospitalized patients over the age of 65 years that presents this organic psychosyndrome have a poorer prognosis than others.

Materials and methods: Patients with organic psychosyndrome older than 60 years, who were hospitalized in pathological clinics of the Hospital of Corfu and were diagnosed by the Psychiatric clinic.

The DRS scale was used during this study to recognize and stage the organic psychosyndrome. During the research, full medical records of the patients were revised and examined. Telephone calls were made for more complete monitoring at intervals of 3, 6, 12 and 24 months. The patients diagnosed with organic psychosyndrome neither suffered from a psychotic disorder in the past, nor previously preceded general anaesthesia in the context of physical disease.

Results: 61 patients (n=61) met the criteria of research. 14.7% (n=9) of patients died during hospitalization, in the first 3 months after diagnosis 27.8% (n=17) of the initially hospitalized patients, in 6 months 40.9% (n=25), in 12 months 47.5% (n=29) of the initial total patients, while in 24 months 49.1% (n=30).

Conclusions: Delirium is an independent predictor of poor outcomes in hospitalized elderly persons, with high sensitivity the first 6 months. Physicians must be aware of the significance of delirium in hospitalized patients.

P52 Memantine adjunction in pervasive developmental disorder

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Background: Memantine, a non-competitive NMDA receptor antagonist approved for Alzheimer's disease with good efficacy and tolerability, is increasingly being studied in a variety of non-dementia psychiatric disorders.

Materials and methods: According to the NMDA hypothesis we used memantine in 3 cases of comorbid Pervasive developmental disorder with impulsive aggression, non-responding to usual pharmaceutical practice.

Results:

Case 1

Patient with pervasive developmental disorder with multiple hospitalizations in psychiatric clinics due to serious domestic violence and impulsive behavior. Impulsive aggression and affective instability were present. Violence incidences were controlled with 10 mg of aripiprazole and 20mg of memantine.

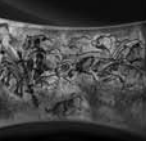
Case 2

Patient with Asperger syndrome, with compulsive buying demands which lead progressively to impulsive aggressive behavior. The behavior was controlled with 4 mg of risperidone and 10 mg of memantine.

Case 3

Patient with autism and comorbid psychosis, non-responder to medications, multiple hospitalizations due to serious domestic violence. Violence incidences were significantly reduced with the adjunction of 10mg of memantine to the anti psychotic treatment.

Conclusions: All cases showed significant improvement of Violence incidences, with good tolerability, indicating that there may be a potential for an adjunctive treatment strategy for pervasive developmental disorders. Further research is needed.



P53 Social and psychological interventions in treatment resistant schizophrenia

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Background: Treatment-resistant schizophrenia is defined by an inadequate response to a succession of pharmaceutical treatments. The impact of treatment resistant schizophrenia on the individual and his social environment can be managed in a multifactorial therapeutic context in which the combination of various therapeutic interventions (pharmacotherapy and psychotherapy) is in focus.

Materials and methods: We present the progress of the disorder of a patient who suffers from schizophrenia -disorganized type- over the past 22 years and in which psychosocial intervention was aimed towards the prevention of hospitalization and his best possible functionality.

The material used, is from the medical records of the patient in the last two decades. in the different structures of the Psychiatric Hospital of Corfu, as well as reports from both his family and the doctors who have attended him for the last two decades up to now. The first intervention was the independent living with the assistance of health visitors and a token - reward system to ensure the compliance of the patient. After that multiple psychoeducational and psychotherapeutic sessions were applied.

Results: The patient, supervised, independent living during the last 6 years, his participation in social activities and the encouragement by the medical team to make him become involved in new activities, has resulted in the prevention of his hospitalization to the Psychiatric Hospital and the reduction of the medication received into international guidelines. Patients improvement is also observed to GAF and PANSS scales.

Conclusions: Despite the pessimistic outlook that most people have in terms of their schizophrenic and "recovery", there are signs that people can improve their quality of life. A major step is the improvement of their communicative skills through which they can express themselves, interact and become independent again. It is our duty to eliminate the stigma and contribute to improving their quality of life, which will bring about an improvement in the overall social context in which we live and interact with our fellow humans.

P54 Current aspects in understanding the relevance of intranasal oxytocin in the management of depression

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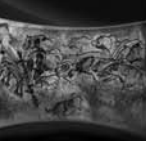
Background: The current progress in the understanding of depression has lately shifted from the classical monoaminergic hypothesis to other mechanisms and molecules which seem to be involved in depression, including the inflammation theory, immunological aspects, hypothalamic-pituitary-adrenal axis, oxidative stress status and lately also oxytocin.

Materials and methods: Thus, the importance of oxytocin in psychiatry is increasing and many recent studies have been discussing the possible relevance of oxytocin in most of the psychiatric disorders, including depression.

Results: Furthermore, the latest studies brought to attention the notion that oxytocin might be involved in many mechanisms of importance in depressive disorders. These include its solid connections both with neurotransmitters and the clinical markers relevant for depression, such as affected sleep and sexual functions, appetite loss, cognitive impairment or suicidal behavior.

Conclusions: The present paper reviews the current knowledge on the connection between oxytocin and depression.

Acknowledgements: Padurariu Manuela and Ciobica Alin are supported by a PN-II-RU-TE-2014-4-1886 grant called "A complex study regarding the relevance of oxytocin administration in some animal models of neuropsychiatric disorders", number 120 from 01/10/2015.



P55 Cancer patients and behavioral symptoms. Review of the literature

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Background: Behavioral symptoms are a common side effect of cancer diagnosis and treatment and include disturbances in energy, sleep, mood, and cognition. These symptoms cause serious disruption in patient's quality of life. The most common behavioral sequelae of cancer are: fatigue, sleep disturbance, depression and cognitive impairment. Behavioral symptoms may also have implications for treatment adherence, morbidity and mortality. Aim: The most common side effects of cancer diagnosis and treatment which may endure months or years after treatment completion.

Materials and methods: Review in literature, Pubmed, data of cancer patients in radiation oncology departments.

Results: Fatigue is recognized as one of the most common and distressing side effects of cancer treatment. Prevalence estimates of fatigue during treatment range from 25% to 99% depending on the study sample and method assessment; in the majority of studies, 30% to 60% of patients report moderate or severe fatigue symptoms. A lot of studies have shown an increase in fatigue symptoms among cancer patients undergoing radiation therapy or chemotherapy, although fatigue is typically more pronounced and more disruptive during chemotherapy. Studies have confirmed that the intensity and duration of fatigue experienced by cancer patients and survivors is significantly greater than healthy controls and causes greater impairment in quality of life. In a lot of studies is reported that sleep problems are common among cancer patients during and after cancer treatment with radiation and or chemotherapy and among patients with both early-stage and metastatic disease. Insomnia is a clinical syndrome characterized by complaints of difficulty with initiating or maintaining sleep, or nonrestorative sleep, which last for at least one month and cause clinically significant distress or impairment in important areas of functioning. Sleep disturbance causes significant disruption in cancer patient's quality of life and is associated with problems with daytime fatigue, depressed mood, pain and general ability to function.

Depression is the best studied behavioral side effect of cancer treatment. Major depressive disorder is a clinical syndrome that lasts for at least two weeks and causes significant impairment in normal functioning. Depression has a detrimental effect on all aspects of quality of life in cancer patients and is associated with poorer medical adherence and more barriers to cancer care. There is also evidence of increased morbidity and possibly mortality in depressed cancer patients.

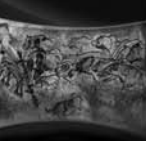
Reports of cognitive disturbance are common among cancer patients during and after chemotherapy. This is often referred to as "chemobrain" has been the focus of empirical research since

the 1990s. Chemotherapy related cognitive changes are apparent across multiple cognitive domains, including language, verbal and nonverbal memory, spatial ability and motor function, suggesting a pattern of generalized cognitive impairment.

Conclusions: Behavioral symptoms are common in cancer patients and survivors. There is evidence that fatigue, sleep disturbance, depression and cognitive impairment are elevated in patients relative to healthy controls and that these symptoms may persist for months or years after successful treatment in a substantial minority of cancer patients. Behavioral disturbances cause serious disruption in patients quality of life and require careful attention from physicians. For this reason would be helpful a number of treatment options which are available for managing behavioral symptoms in cancer patients. Behavioral and psychological interventions have demonstrated efficacy in improving fatigue and depressive symptoms, with promising preliminary results for sleep and cognitive disturbance

References:

1. Lawrence DP, Kupelnick B, Miller K, et al. Evidence report on the occurrence, assessment, and treatment of fatigue in cancer patients. *J Natl Cancer Inst Monogr.* 2004;32:40-50.
2. Servaes P, Verhagen C, Bleijenberg G. Fatigue in cancer patients during and after treatment: prevalence, correlates and interventions. *Eur J Cancer.* 2002;38:27-43.
3. Gallo JJ, Bogner HR, Morales KH, et al. The effect of a primary care practice-based depression intervention on mortality in older adults: a randomized trial. *Ann Intern Med.* 2007;146:689-698.
4. Massie MJ. Prevalence of depression in patients with cancer. *J Natl Cancer Instgr.* 2004;32:57-71.



P56 Neurocognitive Functioning of Elderly Patients treated with Medicinal Cannabis

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Background: Recent scientific findings and clinical claims on the alleged therapeutic properties of Medicinal Cannabis/marijuana (MC) raised consistent attention on the opportunity to use cannabinoids to treat several conditions such as including chronic pain, chemotherapy side effects, spasticity, arthritis, etc. Most of these ailments are common in the elderly population. However, the inter-relations between cognitive functioning and cannabis use have been matter of concern in different studies. The optimal treatment protocols for use MC in aged people are still in development and the effectiveness and safety (especially neurocognitive) of MC use in such patients are not clear.

Materials and methods: As a part of work, we assessed 197 elderly patients, who applied to Israeli MoH in order to obtain a license for MC. The group consisted of patients with various somatic (mostly chronic pain) disorders and PTSD, and patients with PTSD/chronic pain comorbidity. We used Mini-Cog, CGI-I and QoLS as assessment instruments. Only part (about 50%) of patients was able to obtain the licenses for MC and they comprised the study group, which was followed up periodically, up to 8 years.

Results: In most cases a significant improvement in QoL and pain scores, with positive changes in QoLS scores was observed. Under this combine (MC and, in some cases, conventional medications) treatment, the patients reported a discontinuation or lowering the dosage of traditional pain killers and sedative pharmacological agents. The majority of improved elderly patients belonged to groups with either pain and/or depression comorbidity. No exacerbations or serious adverse events, such as deliriums, were reported. Cognitive scores were changed accordingly to the age and basic health status, without evidences for the forced, cannabis use related, decline.

Conclusions: This naturalistic observational study represents a first attempt to assess and to monitor the effectiveness and safety of the MC use in elderly patients. The results show good safety (including neurocognitive aspect) & tolerability and other benefits (especially in the QoL & CGI) of such flexible combine approach, especially in patients with either pain and/or depression comorbidity. Further investigations are needed to substantiate our observations and to elaborate most effective and safe therapeutic approaches to this difficult-to-treat group.

References:

1. Ben Amar M. Cannabinoids in medicine: A review of their therapeutic potential. *J Ethnopharmacol.* 2006;105:1-25.
2. Kogan NM, Mechoulam R. Cannabinoids in health and disease. *Dialogues Clin Neurosci.* 2007;9:413-30.

P57 Sleep disorders and anxiety in cancer patients. Review of the literature

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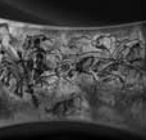
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Background: Anxiety is a common reaction to a cancer diagnosis and a normal response to perceived threats like loss of body functions, alterations in appearance, death e.t.c. Anxiety may persist throughout the disease process, affecting the patients quality of life significantly with depression in cancer patients. Sleep disorders are associated with the psychological impact of cancer as well as with the physical illness itself, pain, hospitalization and specific medical treatments. Altered sleep adversely affects emotional wellbeing and daytime performance, and may be an early sign of delirium in the oncology setting.

Materials and methods: Review in psycho-oncology literature, focusing on the anxiety and sleep disorders in cancer patients. Relevant data were summarized from the most recent systematic reviews, epidemiological studies, and intervention trials.

Results: Anxiety is defined as the apprehensive anticipation of future danger by feelings of dysphoria or somatic symptoms of tension. Frequently, anxiety increases as the disease progresses or as treatment becomes more aggressive. Patients receiving a cancer diagnosis, learning about a recurrence, usually experience initial shock followed by anxiety and depressive symptoms. Inability to concentrate diminished sleep, loss of appetite, irritability. In the United States 1-year prevalence for all anxiety disorders among adults in the general population exceeds 16% and in the United Kingdom reported prevalence in between 3% and 16%. Estimated current prevalence of anxiety disorders in oncology is within a range 15-28%. In Large studies using standardized psychiatric interviews and applying research diagnostic criteria, estimates abnormal anxiety in cancer populations ranged from 10% to 30%. A common symptom of anxiety are sleep disorders in cancer patients. Sleep disturbances occur about 10-15% of the general population and experience between one third and one half of cancer patients. These are usually associated with pain, hospitalization, medication. Anxiety and depression have been found to be highly correlated with insomnia. Patients with cancer report poor sleep quality and short sleep duration. Studies over the past 20 years have shown that sleep disturbance is positively correlated with fatigue, treatment-related factors, chemotherapy administration, medications such as opioid, sedatives, environmental factors (hospital routines). Characteristics of disturbed sleep, perception of significant others as to quantity and quality of patients sleep, and family history of sleep disorders should be taken into account, with emotional status, exercise and activity levels, diet and care - giver routines.

Conclusions: In cancer patients symptoms of anxiety often coexist with depression and mixed states, and are more common than anxiety alone. Patients with cancer report elevated levels of anxiety and sleep disturbances and symptoms are underestimated, despite the enormous adverse impact they have on patient's quality of life. Normal or successful adjustment is indi-



cated in patients who are able to minimize disruptions to life roles, regulate emotional distress and remain actively involved in aspects of life that continue to hold meaning and importance for them. Clinical practice shows that anxiety may also decrease as patients accept and come to terms with their medical situation, despite disease progression. To effectively adjust patient needs to optimal treatment interventions, health-care professionals must be able to distinguish normal adjustment to cancer from altered reactions to the disease. The most effective intervention for both anxiety and sleep disorders is combination of psychotherapeutic techniques with pharmacological treatment when is necessary for increasing the quality of life in cancer patients.

References:

1. Stark D., Kiely M., Smith A., Velikova G., House A., Selby P. Anxiety disorders in cancer patients: their nature, associations and relation to quality of life. *J Clin Oncol.* 2002;20:3137-3148.
2. Ibbotson T., Maguire P., Selby T. Screening for anxiety and depression in cancer patients: the effects of disease and treatment. *Eur J Cancer.* 1994;30a:37-40.
3. Vena C., Parker K., Cunningham M. Sleep-wake disturbances in people with cancer part I: an overview of sleep, sleep regulation and effects of disease and treatment. *Oncol Nurs Forum.* 2004;31:735-746.
4. Davidson J.R., MacLean A.W., Brundage M.D. Sleep disturbance in cancer patients. *Soc Sci Med.* 2002;55:313-322.

P58 Stress and cancer patients

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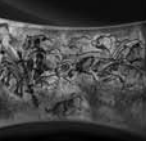
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Background: Stress describes what people feel when they are under mental, physical, or emotional pressure. People who experience high levels of psychological stress or who experience it repeatedly over a long period of time may develop health problems. There are questions about how can stress cause cancer and how does psychological stress affect people who have cancer.

Materials and methods: Review in literature, Pubmed, electronic literature.

Results: The human body responds to physical mental or emotional pressure by releasing stress hormones that increase blood pressure, speed heart rate. Studies have shown that people who experience intense and long term stress can have digestive problems, and a weakened immune system. Also, they are more prone to viral infections, and to have headaches, sleep trouble, depression and anxiety. The evidence that psychological stress can cause cancer is weak. There are studies which have indicated a link between various psychological factors and an increased risk of developing cancer. People under stress may develop certain behaviors, such as smoking, overeating, or drinking alcohol, which increase a person's risk of cancer. Someone who has a relative with cancer may have a higher risk of cancer because of a shared inherited risk factor, not because of the stress induced by the family member's diagnosis. People who have cancer may be finding the emotional, physical and social effect of the disease to be stressful. Studies have shown that those cancer patients who attempt to manage their stress with behaviors such as smoking or drinking alcohol may have a poorer quality of life after cancer treatment. People who are able to use strategies such as relaxation and stress management techniques, have been shown to have lower levels of depression, anxiety and symptoms related to the cancer and its treatment. There is evidence of experimental studies which suggest that psychological stress can affect a tumor's ability to grow and spread. Emotional and social support can help patients with stress (and cancer patients) to reduce levels of depression, anxiety and disease-related symptoms through: training in relaxation, counseling or talk therapy, cancer education sessions, and social support in a group setting, medication for depression or anxiety, exercise.

Conclusions: Psychological stress can be caused both by daily responsibilities as well as by unusual events, such as trauma or illness in oneself or a close family member. When people feel that they are unable to control changes caused by cancer or normal life activities, they are in distress which can reduce the quality of life in cancer patients. Clinical guidelines are available to help doctors and nurses assess levels of distress and help patients to manage stress. These patients who show moderate to severe distress are referred to a clinical health psychologist, social worker, chaplain or psychiatrist.



References:

1. Artherholt SB, Fann JR. Psychosocial care in cancer. *Current Psychiatry Reports* 2012;14(1):23-29.
2. Lutgendorf SK, Sood AK, Antoni MH. Host factors and cancer progression: biobehavioral signaling pathways and interventions. *Journal of Clinical Oncology* 2010;28(26):4094-4099.
3. Moreno-Smith M, Lutgendorf SK, Sood AK. Impact of stress on cancer metastasis. *Future Oncology* 2010;6(12):1863-1881
4. Segerstrom SC, Miller GE. Psychological stress and the human immune system: a meta-analytic study of 30 years of inquiry. *Psychological*

P59 What do Greeks believe about neurosurgery?

Vaitsa Giannouli, Nikolaos Syrmos

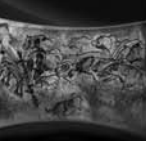
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Background: Attitudes towards neurosurgery and its applications have been little investigated in Greece.

Materials and methods: Two hundred and four participants (197 women, with ages ranging from 18-75 years and education years ranging from six to twenty years) from different geographical areas of Greece, replied to a new questionnaire related to their attitudes towards neurosurgery. All of the participants did not have an official or unofficial medical or paramedical education.

Results: Results revealed that there is poor awareness of neurosurgical options for problems of the brain and spinal cord, and although they think and feel in a negative way for diseases, they have a positive attitude towards neurosurgery and they appreciate the role of the neurosurgeon, because of its difficulties and the requested high level of education. In addition to that, the general public report that they actively seek more information on what is going on in a scientific and organizational level in neurosurgery clinics in the country.

Conclusions: Future research should examine cross-cultural data on attitudes and explain the factors that may influence attitudes towards this medical specialty.



P60 Treatment of acute back pain in amateur athletes using Meloxicam 15 mg versus Lornoxicam 16 mg

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Background: Aim of the study was to investigate the efficacy, meloxicam 15 mg versus lornoxicam 16 mg in cases with acute back pain (>1day) in amateur athletes

Materials and methods: This retrospective study included 10 amateur athletes suffering from acute back pain. 2 Female-20%, 8 Male -80%, with a mean age of 45 years, range 30-60 years. 4 of them (GROUP A) were treated with an oral intake ,meloxicam 15mg, of 1 time daily for as much as 14 days(2 weeks)

6 of them (GROUP B) were treated with an oral intake , lornoxicam 16 mg ,of 2 time (8 mg plus 8 mg) as much as 14 days(2 weeks)

Results: GROUP A -3 patients report satisfied results and only 1 patient poor results-GROUP B-5 patients report satisfied results and only 1 patient poor results

Conclusions: Further studies are warranted but seems that both two therapies are safe and effective.

P61 Oxytocin water exposure significantly increases social behavior and locomotor activity in a zebrafish animal model

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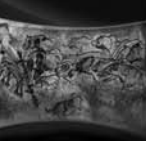
Background: Oxytocin is a neuropeptide was previously used in promising antipsychotic treatments of brain disorders. Several important effects of oxytocin administration were already emphasized such as anxiolytic effect, autistic symptomatology relief, and memory enhancement. Less exploited, but fitted for social behaviour impairments studies is the zebrafish animal model. This model is mainly characterized by increased social interaction and mobility performances which can be easily observed in behavioural tests. Although, zebrafish are naturally producing isotocin, previous research models reported single-dose intraperitoneal or intramuscular oxytocin administrations. Therefore, in our knowledge, this may be the first time direct exposure to oxytocin is used in zebrafish modelling.

Materials and methods: In this study a group of 15 wild type long-tail striped zebrafish (*Danio rerio*) was used. The test cohort was randomly selected from an adult population and kept in a 100 L tank in controlled conditions (21°C water temperature and 12 h light cycles). A 48 hour habituation period was performed in a 5 L aerated aquarium. Behavioural evaluation was performed using the T maze paradigm and multipurpose maze system (using EthoVision XT 11.5 software), both before and after oxytocin administration (33.2 ng ml⁻¹ oxytocin in 0.9% NaCl solution and 66.4 ng ml⁻¹ oxytocin in 0.9% NaCl solution, in small flasks up to 90 seconds).

Results: The behavioural data analysis revealed a high potential of oxytocin to be absorbed through gills and skin in a 90 seconds exposure trial. Mobility performance increased after oxytocin administration showing higher yielding in 66.4 ng oxytocin ml⁻¹ dose. Also, social interaction was significantly improved after oxytocin administration, as compared with salinetreated controls.

Conclusions: Although zebrafish are isotocin natural-producing organisms, a cross-reaction to oxytocin leading to a prompt response in regarding social interactions and mobility performances show an interesting possibility to new experimental designs in zebrafish modelling in neuropsychiatric research.

Acknowledgements: Most of the authors (except MN) were supported at some point by a research grant PN II PN-II-RU-TE-2014-4-1886 called "A complex study regarding the relevance of oxytocin administration in some animal models of neuropsychiatric disorders"



P62 Paternal and Maternal age as risk factors for schizophrenia: a case-control study

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Background: Advanced parental age might constitute a generic risk factor for mental and somatic disorders. The current study tested whether this concerns also patients with schizophrenia.

Materials and methods: The study included 231 patients with schizophrenia, 56 with other severe mental disorders and 204 normal controls. The diagnosis was put according to DSM-IV-TR on the basis of a semi-structured interview. The Analysis of Variance (ANOVA) was used to test for differences between groups with Scheffe as the post hoc test. The Relative Risk (RR) and the Odds Ratio (OR) were also calculated but only the OR values were taken in consideration to arrive at conclusions.

Results: Patients with schizophrenia manifested higher paternal (32.55 ± 6.35 vs. 29.42 ± 6.07) and maternal age (27.66 ± 5.57 vs. 25.46 ± 4.52), both significant at $p < 0.001$. Patients with other mental disorders had higher paternal (33.29 ± 8.35 ; $p = 0.001$) but not maternal age (26.69 ± 5.89 ; $p = 0.296$) in comparison to controls. There was no difference between the two patient groups concerning either paternal or maternal age ($p > 0.05$). There seems to be a higher risk for the development of schizophrenia in offspring with paternal age above 25 years and maternal age above 22 years at delivery.

Conclusions: The current study provides further support for the suggestion that advanced paternal age constitutes a risk factor (in a non-dose dependent and gender-independent way) for the development of schizophrenia but also for other mental disorders. In contrast, advanced maternal age characterizes schizophrenia specifically. The higher risk is evident after 25 years of paternal and 22 years of maternal age respectively.

P63 Higher than recommended dosages of antipsychotics in male patients with schizophrenia are associated with increased depression but no major neurocognitive side effects: Results of a cross-sectional pilot naturalistic study

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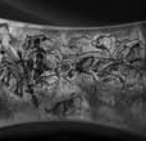
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Background: The current small pilot naturalistic cross-sectional study assesses whether higher dosages of antipsychotics are related to a satisfactory outcome concerning symptoms of schizophrenia but also to a worse outcome in terms of adverse events and neurocognitive function.

Materials and methods: 41 male stabilized hospitalized schizophrenic patients were assessed by PANSS, Calgary Depression Rating Scale, UKU and Simpson-Angus Scale and a battery of neurocognitive tests. Medication and dosage was prescribed according to clinical judgement of the therapist.

Results: Clinical variables and adverse events did not differ between patients in the recommended vs high dosage groups. Higher dosage correlated with depressive symptoms but there was no correlation with neurocognitive measures except for impaired concentration.

Conclusions: Results suggest that it is possible to achieve a good clinical response in refractory patients by exceeding recommended antipsychotic dosages at the price of depression and possible mild isolated concentration deficits but not other neurocognitive or extrapyramidal adverse events. Currently clinicians prefer first-generation antipsychotics when high dosages are prescribed, but considering the more favorable adverse effects profile of newer agents, it is important to study higher dosages of these agents and to test whether they should be preferably given when high dosages are necessary.



**P64 Differential correlation of suicide and homicide rates according to geographical areas:
A study with population-level data**

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Background: The current study investigated the relationship of suicide and homicide rates internationally.

Materials and methods: WHO database mortality data for 82 countries concerning suicide, homicides, and cancer and traffic accidents as controls were used. The analysis included Pearson correlation and multiple linear regression analysis.

Results: Worldwide homicidal rates explained 55.42%, 43.86% and 41.7% of male and 22.0%, 22.14% and 13.25% of female suicides for 2000, 2005 and 2010 respectively. In Europe there was a positive correlation between male suicide rates and all homicide rates including homicide rates in both genders, in male victims, and in female victims. In America there is no significant correlation. In Asia there is a significant correlation of male suicidal rates only with homicide rates of female victims. We observed marked and interesting differences in the pattern of association between Europe and the Americas.

Conclusions: Overall the current paper suggests that at least in some human populations, suicidality and homicidality share common etiopathogenetic substrates and could be triggered by the same internal or external events or might develop based on common genetic background. Empirically it has been suggested that suicide is related to higher living standards while murder is related to poor quality of life and lower living standards.

P65 Could PANSS be a useful tool in the determining of the stages of schizophrenia? A clinically operational approach

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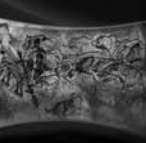
²3rd Department of Psychiatry, School of Medicine, Aristotle University of Thessaloniki, Thessaloniki, Greece. Background

Background: Staging in schizophrenia might be an important approach for the better treatment and rehabilitation of patients. The purpose of this study was to empirically devise a staging approach in a sample of stabilized patients with schizophrenia.

Material and methods: One hundred and seventy patients aged ≥ 18 years (mean = 40.7, SD = 11.6) from private clinics, diagnosed by DSM-5 criteria were evaluated with the Positive and Negative Syndrome Scale (PANSS). Principal components analysis (PCA) with varimax rotation was used. The model was examined in the total sample and separately across a hypothesized stage of illness based on three age groups and between the two sexes.

Results: The PCA revealed a six factor structure for the total sample: 1) Negative, 2) Positive, 3) Depression and anxiety, 4) Excitement and Hostility, 5) Neurocognition and 6) Disorganization. The separate PCAs by stage of illness and sex revealed different patterns and quality of symptomatology. The Negative and Positive factors were stable across all examined groups. The models corresponding to different stages differed mainly in terms of neurocognition and disorganization and their interplay. Catatonic features appear more prominent in males while in females neurocognition takes two forms; one with disorganization and one with stereotype thinking with delusions.

Conclusions: This study suggests that the three arbitrary defined stages of illness (on the basis of age) seem to reflect a progress from a preserved insight and more coherent mental functioning to disorganization and eventually neurocognitive impairment. Sexes differ in terms of the relationship of psychotic features with neurocognition. These results might have significant research and clinical implications.



P66 Bipolar I disorder in remission vs. schizophrenia in remission: Is there a difference in burden?

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Background: Bipolar disorder (BD) is considered to have a better outcome in comparison to schizophrenia. However, recent data dispute this notion. The current study aimed to compare the burden of patients with BD type I (BD-I) in remission with similar patients with schizophrenia (SZ) in remission.

Materials and methods: Patients with schizophrenia (n=75) and BD-I (n=54) aged 18-64 years were included in the study. The diagnosis was made with the SCID-I/P. Patients were assessed for sociodemographic variables, stigma, quality of life, disability, suicidality and current symptomatology. The statistical analysis included analysis of covariance (ANCOVA) and chi-square test.

Results: ANCOVA with age at onset as a covariate and marital status and diagnosis as grouping variables returned no significant difference.

Conclusions: The results of the current study suggest that when in remission, BD-I patients do not differ from patients with schizophrenia with regards to stigma, quality of life, disability level and suicidality. Also, when in remission, they do not differ regarding the severity of their psychopathology.

P67 Relationship of suicide rates with climate and economic variables in Europe during 2000-2012

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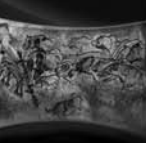
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Background: It is well known that suicidal rates vary considerably among European countries and the reasons for this are unknown, although several theories have been proposed. The effect of economic variables has been extensively studied but not that of climate.

Materials and methods: Data from 29 European countries covering the years 2000-2012 and concerning male and female standardized suicidal rates (according to WHO), economic variables (according World Bank) and climate variables were gathered. The statistical analysis included cluster and principal component analysis and categorical regression.

Results: The derived models explained 62.4 % of the variability of male suicidal rates. Economic variables alone explained 26.9 % and climate variables 37.6 %. For females, the respective figures were 41.7, 11.5 and 28.1 %. Male suicides correlated with high unemployment rate in the frame of high growth rate and high inflation and low GDP per capita, while female suicides correlated negatively with inflation. Both male and female suicides correlated with low temperature.

Conclusions: The current study reports that the climatic effect (cold climate) is stronger than the economic one, but both are present. It seems that in Europe suicidality follows the climate/temperature cline which interestingly is not from south to north but from south to north-east. This raises concerns that climate change could lead to an increase in suicide rates. The current study is essentially the first successful attempt to explain the differences across countries in Europe; however, it is an observational analysis based on aggregate data and thus there is a lack of control for confounders.

P68 Prevalence, impact and treatment of generalised anxiety disorder in bipolar disorder: a systematic review and meta-analysis

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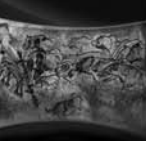
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Background: Recent data suggest that anxiety disorders are as often comorbid with bipolar disorder (BD) as with unipolar depression; however, less attention has been paid to comorbidity of anxiety disorders with BD. Generalised anxiety disorder (GAD) is one of the most prevalent anxiety disorders that is highly comorbid with other mental disorders. We carried out a systematic review and meta-analysis to assess the degree of comorbidity between GAD and BD.

Materials and methods: We searched for all studies, which included primary data concerning the existence of GAD in patients with BD. The literature search strategy, selection of publications and the reporting of results have been conducted with PRISMA guidelines. The meta-analysis calculated prevalence estimates using the variance-stabilising Freeman-Tukey double arcsine transformation. We applied the inverse variance method using both fixed-effects and random-effects models to estimate summary effects for all combined studies. Heterogeneity was assessed and measured with Cochran's Q and I(2) statistics, respectively.

Results: The current meta-analysis analysed data from 28 independent studies and a total of 2975 patients from point prevalence studies and 4919 patients from lifetime studies. The overall random-effects point prevalence of GAD in patients with BD was 12.2% (95% CI 10.9% to 13.5%) and the overall random-effects lifetime estimate was 15.1% (95% CI 9.7% to 21.5%). Both estimates reported significant heterogeneity (94.0% and 94.7%, respectively).

Conclusions: Published studies report prevalence rates with high heterogeneity and consistently higher than those typically reported in the general population. It is believed that comorbid GAD might be associated with a more severe BD course and increased suicidality, and it is unknown how best to treat such conditions. The current meta-analysis confirms that GAD is highly prevalent in BD and the rate is higher in comparison to those in the general population.



P69 A case-control study of Paternal and Maternal age as risk factors in mood disorders

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Background: Advanced parental age might constitute a risk factor for various disorders.

Aim of the study: tested whether this concerns also mood disorder patients

Materials and methods: The study included 314 subjects (42 bipolar-BD patients; 21 manics and 21 depressives, 68 unipolar-UD, and 204 normal controls-NC). The Analysis of Variance (ANOVA) and the calculation of the Relative Risk (RR) and the Odds Ratio (OR) were used for the analysis

Results: Paternal age differed between NC and UD patients (29.42 ± 6.07 vs. 32.12 ± 5.54 ; $p=0.01$) and manics (29.42 ± 6.07 vs. 35.00 ± 5.75 ; $p=0.001$) and maternal age between NC and manics (25.46 ± 4.52 vs. 31.43 ± 4.75 ; $p<0.001$) and manic and UD (31.43 ± 4.75 vs. 26.75 ± 6.03 ; $p=0.002$). The RR and OR values suggested that advanced parental age constitutes a risk factor for the development of mood disorders

Conclusions: In a non-dose dependent and gender-independent, advanced parental age constitutes a risk factor for the development of BD with index episode of mania (probably manic predominant polarity); only advanced paternal age constitutes a risk factor for the development of UD and BD with index episode of depression (probably depressive predominant polarity). This is the first study suggesting differential effect of advanced parental age depending on predominant polarity of BD.

P70 Heart rate variability and major depression

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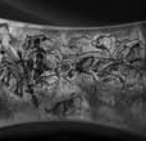
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Background: Many qualitative symptoms of depression may be reflective of autonomic nervous system (ANS) dysfunction. Heart rate variability (HRV) involves input from both divisions of the ANS and is linked to variations in respiration (Respiratory Sinus Arrhythmia). Quantification of RSA can be used to measure vagal tone and is considered a reliable indication of the high frequency (HF) domain of HRV. In this study, we obtained HRV measurements in patients with Major Depressive Disorder (MDD) in hope of establishing a physiological biomarker of MDD.

Materials and methods: Sixty-six MDD patients who met the inclusion/exclusion criteria and successfully completed the baseline evaluations were enrolled to receive either Escitalopram or Quetiapine monotherapeutically over 12 weeks. Forty-one patients completed the study and were assessed for response to treatment. A total of 36 healthy control (HC) subjects were also enrolled. Patients were assessed for HRV at baseline and end of study. RSA was quantified and corrected for artifacts using the CardioEdit and CardioBatch programs developed by Dr. Stephen Porges.

Results: No significant difference in baseline HRV was found between pre-treatment MDD patients and healthy controls. Baseline HRV for treatment responders ($\ln\text{RSA}=6.20$) was significantly higher than that of treatment non-responders ($\ln\text{RSA}=4.75$) ($p=0.01$). No significant change in HRV was found in patients receiving either Escitalopram or Quetiapine.

Conclusions: We propose that parameters of HRV may be predictive of antidepressant response in MDD patients.



P71 Anti-inflammatory treatment reduces stress perception and augments antidepressant response

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Background: There is a close association between stress, mood disorders and inflammation. Control of inflammation in conjunction with antidepressant therapy may augment antidepressant response and convert treatment-resistant patients to responders. We hypothesized that antidepressant response and perceived stress in treatment resistant bipolar depressed patients would decline significantly post-treatment with escitalopram and celecoxib vs. escitalopram alone. We also hypothesized that levels of perceived stress would correlate positively to severity of depression and anxiety pre-treatment and to a decline in severity of depression and anxiety post-treatment.

Materials and methods: Patients were randomized to receive escitalopram + celecoxib, or escitalopram + placebo. Subjects completed assessments at weeks 0, 1, 2, 4 and 8. Severity of depression and anxiety were quantified using the HAM-D, HAM-A, and MADRS rating scales. Perceived stress was assessed using the PSS-14 scale.

Results There was a statistically significant reduction in HAM-D mean scores in the active group ($p=0.0005$) vs. placebo ($p=0.145$), MADRS scores in the active group ($p<0.001$) vs. placebo ($p=0.172$) and HAM-A scores in the active group ($p=0.047$) vs. placebo ($p=0.756$) decreased as well. The PSS and HAM-D scores were positively correlated ($r=0.684$, $p=0.02$). There was a statistically significant decrease in post-treatment PSS scores in the active group ($p=0.049$) vs. placebo ($p=0.717$).

Conclusions: The interim analysis of this ongoing study reveals that scores on scales for symptoms of depression, anxiety, and perceived stress all significantly improved post-treatment when subjects were treated with the combination escitalopram + celecoxib versus escitalopram alone. These data suggest that controlling inflammation augments antidepressant treatment response.

P72 Pentaxin-3 - A Novel Biomarker for Major depression

Danika Prochaska, Angelos Halaris, Debra Hoppenstaed, Jawed Fareed

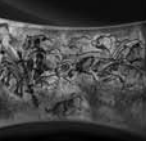
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Background: The pentraxin protein family is a group of acute phase reactants involved in immune response. *hsCRP* is a short-chain pentraxin produced in the liver and upregulated by cytokines during early inflammation. In contrast to *hsCRP*, Pentraxin 3 (PTX-3) is the only identified long-chain pentraxin and it is produced locally throughout the body by neutrophils and macrophages. While there is extensive literature on the role of *hsCRP* in MDD, there is little information on the potential role of PTX-3 in MDD.

Materials and methods: In two consecutively run studies, a total of 90 MDD patients who met inclusion criteria were enrolled. MDD patients and healthy controls ($N = 44$) were evaluated with structured interview and a series of standard depression and anxiety scales, pertinent family and medical history, blood chemistries to measure biomarkers, urinalysis, and toxicology screens. Biomarker levels, such as *hsCRP* and PTX-3, were obtained at the baseline visit prior to treatment. In the first study, MDD patients received Escitalopram with a flexible dose range between 10-60 mg/day determined at the discretion of the physician. In the second study, MDD patients were treated mono-therapeutically with quetiapine with a flexible dose range between 50-350 mg/day, also at the discretion of the physician. Patients returned for follow-up assessments and biomarker measurements at weeks 2, 4, 8, and 12. At the conclusion of the study, correlations between pre- and post-treatment biomarkers and rating scales, as well as correlations between MDD and healthy controls, biomarkers were assessed to further our understanding of the role of inflammation in MDD.

Results: Baseline *hsCRP* was significantly higher in patients with MDD compared to healthy controls ($p = 0.003$). A statistically significant elevation in PTX-3 at baseline was found in the MDD patients versus the healthy controls ($p = 0.013$). There was a negative correlation between baseline *hsCRP* and baseline PTX-3 suggesting there may be an interaction between these two pentraxin family reactants (Correlation coefficient = -0.439, $p = 0.012$).

Conclusions: Baseline PTX-3 levels may be another useful biomarker in clarifying the relationship between MDD and inflammation. With *hsCRP* being a short-chain pentraxin, and PTX-3 being a long-chain pentraxin, we postulate that a breakdown mechanism or feedback inhibition may be occurring. To our knowledge, this is the first study to correlate *hsCRP* and PTX-3 in MDD patients.



P73 Clinical particularities of depression and anxiety after birth

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Background: Breast-feeding provides many health benefits for both, baby and mother, and also for society. Depression and anxiety among mothers in the first 2 years after birth can lead to serious consequences for both mother and child. Despite the fact that there are many studies about the benefits of breastfeeding, its association with depression during the after-birth period remains uncertain.

Objective: The present work aims to determine relationship between the occurrence and severity of depression and anxiety in the period of breastfeeding, among mothers who are in the first two years of maternity.

Materials and methods: We studied a group of 315 women on maternity leave with a duration between 0 and 2 years. We applied two evaluation scales (GAD7-generalized anxiety scale and PHQ9-depression scale) and a questionnaire to assess the duration of breast-feeding.

Results: Mothers who have breastfed their babies within the first 6 months have lower scores of depression and anxiety compared with mothers who have not breastfeed their babies during this time. Mothers who continued breastfeeding from 6 months to 2 years shows percentages of depression and anxieties close to the scores of mothers who have disrupted breastfeeding children in this period.

Conclusions: Breastfeeding babies in the first 6 months is correlates with lower indices of anxiety and depression among mothers.

P74 Schizophrenia: Relation between emotion recognition ability and the clinical episodes

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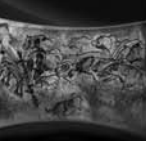
Background: Nowadays, during the involvement in social functioning of a person, emotion recognition in human expression is an area of major interest in psychiatry.

Objectives: This study aimed to identify the capacity of recognition the basic emotions of the subjects diagnosed with Schizophrenia but also the relationship with the number of clinical episodes.

Materials and methods: In this study we had 27 subjects selected from patients with a first admission to the Psychiatric Clinic Timișoara, with a diagnosis of Schizophrenia according to ICD-10 criteria. The evaluation was conducted during 2016, evaluating the socio-demographic and clinical parameters. All subjects made the test "Reading the Mind in the Eyes", containing 36 images, each with 4 types of emotion. Statistical analysis of data was performed with SPSS.

Results: The "Reading the Mind in the Eyes" test results revealed that all subjects have a low capacity to interpret the emotions from a person's eyes. The most easily recognized emotion was "dreaming" and the hardest recognized emotion was "mistrust". Also, we could not identify statistically significant correlation with the number of clinical episodes.

Conclusions: Subjects with schizophrenia have a decreased capacity in recognizing emotions from other people. This ability is not correlated with the number of clinical episodes.



P75 Onset Psychosis - Results of Therapeutic Approach in Romania

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Background: Psychosis refers to a loss of contact with reality, hallucinations, delusions and / or thought disorders. Psychotic symptoms are nonspecific and determined by a number of factors. In the last 20 years, the focus has been more on identifying, early diagnosis and treatment based on clinical staging models in psychotic disorders (McGorry & Yung, 2003). Early intervention paradigm is based on the view that the earliest possible detection and effective intervention for psychosis will provide the best outcome for patients and smaller costs for the healthcare system.

The aim of this study is to analyze protocols used in the mental health system in Romania for the onset of psychotic disorders.

Materials and methods: A retrospective analysis was conducted on 51 patients diagnosed with a first episode of psychosis, hospitalized in The Clinic of Psychiatry in Timisoara, the year 2016. Exclusion criteria were: personal history of pathological consumption of psychoactive substances and alcohol; inclusion criteria were: age between 18 and 60 years, first contact with psychiatric services. Participation in the study was voluntary. The diagnoses according with ICD-10 WHO.

Results: Subjects presented with a reduced period of hospitalization - averaging 17.6, a DUP index (duration untreated psychosis) averaging-116.5, but varying greatly between 5 days and 1,050 days, the need to use 2 antipsychotics during hospitalization in order to get therapeutic response within the time limits imposed by the health system, and a predominance of negative symptoms as DUP (duration untreated psychosis) increases.

Conclusions: The management of psychosis requires treatment to be initiated as early as possible, a multidisciplinary team that works flexibly, coherent, synergic in a less restrictive time framework and promoting prevention. An integrative approach refers to: coordination of systems and services, integrating several interventions in order to improve the quality of life. In Romania the resources used are mostly towards reducing symptomatology and not in relation to the quality of life for patients that would requires a multidisciplinary approach.

P76 Panic and panic-like episodes and their relationship with anxiety sensitivity in a large non-clinical adult sample

Gregoris Simos, Meropi Simou, Paraskevi Bouzouka, Dimitra Graikou

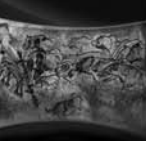
Department of Educational and Social Policy, University of Macedonia, Greece

Background: Anxiety sensitivity (AS) is a cognitive characteristic that refers to the fear of certain physical, mental and publicly observable symptoms and predisposes to the development of panic attacks. Purpose of this study was to examine the relationship of AS with panic or panic-like episodes in a non-clinical adult sample.

Materials and methods: Subjects were 1,446 adults (72% female) of a mean age of 22 years (SD = 4 years) who completed the Anxiety Sensitivity Index (a scale for the assessment of fear of bodily and mental symptoms, and the social consequences of anxiety) and an adapted version of the Panic Disorder Self-Report (a scale assessing panic disorder according to the DSM-IV criteria).

Results: Half of the subjects (47%) reported “one or more panic attacks or a sudden episode of intense fear or anxiety”. Comparison of this group with the group that didn’t report such episodes showed that the “panic” group had significantly higher scores on ASI and its subscales. Female subjects reported having such episodes more frequently than male ($P < 0.001$) and also experienced significantly higher levels of fear of physical symptoms, but not of psychological or social symptoms.

Conclusions: Present findings suggest that a panic or panic-like episode is quite common in young adults, confirm its higher incidence in females, and also the significant relationship of such episodes with Anxiety Sensitivity, and even more specifically with the fear of bodily symptoms of anxiety.



P77 Is there a place for intolerance of uncertainty in panic attacks or panic-like episodes?

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Background: Intolerance of uncertainty (IoU) is a predisposing characteristic associated with negative beliefs about uncertainty and its consequences. The probability of a negative event is considered destructive, no matter how likely it is to happen. Although IoU has repeatedly been associated with generalized anxiety, recent studies also reveal a relationship with other anxiety disorders. Aim of this study was to examine the relationship of intolerance of uncertainty with panic/ panic-like episodes in a non-clinical sample.

Materials and methods: Subjects were 1,444 adults (72% females) of a mean age of 22 years (SD = 4 years). Subjects completed the Intolerance of Uncertainty Questionnaire (IoU), the IoU Short Form (IoU-SF and its two subscales- IoU-SF-Anxiety and IoU-SF-Avoidance) and an adapted version of Panic Disorder Self-Report (questionnaire for the assessment of panic disorder according to the DSM-IV criteria).

Results: Female subjects had significantly higher scores on IoU-SF-Anxiety and IoU-SF. Participants who reported having at least one panic episode had significantly higher scores on IoU and IoU-SF (and subscales) than participants without a history of a panic episode. Correlation analyses showed that panic-related psychopathology significantly correlated with IoU and IoU-SF (and subscales).

Conclusions: Present findings agree with previous findings that intolerance of uncertainty, in addition to its connection with Generalized Anxiety Disorder, has an important relationship with episodes of intense anxiety or fear, or even panic in a non-clinical sample of young adults. These findings argue that, if uncertainty relates to anxious thoughts (worries) about various future events, it is also associated with anxious thoughts related to a panic episode.

P78 Biased interpretations: panic and panic-like episodes and the interpretation of physical sensations

Gregoris Simos, Paraskevi Bouzouka, Meropi Simou, Dimitra Graikou

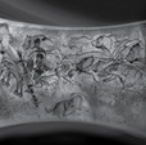
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Background: Cognitive theory of panic suggests that panic attacks are caused by the catastrophic misinterpretation of certain bodily symptoms. Research in both clinical and non-clinical populations has confirmed that panic disorder patients make significantly more negative interpretations associated with panic symptoms (e.g. racing heart) than patients with other anxiety disorders or healthy adults. Aim of this study was to examine the relationship between single panic episodes and a series of catastrophic misinterpretations in a non-clinical sample.

Materials and methods: Participants were 1,446 adults (72% women) of a mean age of 22 years ($SD = 4$ years) who completed three subscales of the Body Sensations Interpretation Questionnaire-BSIQ (questionnaire that evaluates negative interpretations in three areas: panic-related physical symptoms, social events, other events) and an adapted version of Panic Disorder Self-Report (questionnaire for the assessment of panic disorder according to DSM-IV criteria).

Results: The BSIQ subscales correlated positively with panic-related psychopathology, while the physical symptoms subscale was the only one that could predict such psychopathology. Regarding gender differences, female subjects showed more catastrophic misinterpretations of physical symptoms than male, but not of those related to social or other events. Subjects who reported one at least panic episode, had significantly higher scores on the BSIQ subscales (especially the physical symptoms subscale), than those without a history of a panic episode.

Conclusions: Although catastrophic misinterpretation of bodily symptoms is prominent in subjects with at least one panic episode, negative interpretations of social or other events are present as well. A possibly higher comorbid social anxiety or a general predisposition for catastrophic misinterpretations may explain the above finding, but further research is needed.



P79 A comparison between the intranasal and intraperitoneal effects of oxytocin administration in a valproic-acid induced rat model of autism

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Background: Lately there is an increased interest in the intranasal drug administration route in most of the neuropsychiatric disorders, as it can deliver in a relatively non-invasive and non-systemic way some potential therapeutical peptides such as oxytocin. However, the effects of intranasal administrated oxytocin, its mechanistics, as well as its pathways after the administration are far from being understood. There are also recent studies suggesting that intraperitoneal administrated oxytocin could also exert interesting effects, especially by affecting blood corticosterone levels and further on some superior behavioral manifestations, such as the social interactions in rodents [1,2].

Materials and methods: In this context, in the present study we were interested in studying the effects of intranasal and intraperitoneal administration on memory functions (Y maze task), anxiety (elevated plus maze) and depressive (forced swim test)-related behaviours in a rat model of autism generated by the perinatal administration of valproic acid-VPA (intraperitoneally administration, 500 mg/kg, in the 12,5 day of gestation). Oxytocin was administrated for 10 consecutive days in the same dosage in both intranasal and intraperitoneal groups (10 IU), with the tested being conducted in the last 3 days, in the aforementioned order. One group of nude VPA rats received saline and was considered as control.

Results: We observed a significant increase in the immediate working memory of the rats with VPA-induced autism treated with intranasal oxytocin, as compared to those VPA treated with intraperitoneal oxytocin, as showed by the increased spontaneous alternation in Y maze. Also, we report a decreased anxiety in the VPA rats treated with intranasal oxytocin, when compared to those VPA treated with intraperitoneal oxytocin, as demonstrated by the increased number of entries into the open arms of the elevated plus maze. However, there was a significant increase in the anti-depressive behaviour of the intraperitoneal oxytocin administration in the VPA group, as compared to the intranasal one in VPA group, in the forced swim test, as showed by the increased mobility time.

Conclusions: Regardless of the delivery route (intranasal vs. intraperitoneal), it seems that oxytocin affects complex behaviors related to memory, anxiety and depressive deficits exhibited in a rat model of autism, based on VPA perinatal administration.

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References:

1. Kent P, Awadia A, Zhao L, Ensan D, Silva D, Cayer C, James JS, Anisman H, Merali Z. Effects of intranasal and peripheral oxytocin or gastrin-releasing peptide administration on social interaction and corticosterone levels in rats. *Psychoneuroendocrinology*. 2016 Feb;64:123-30.
2. Valstad M, Alvares GA, Andreassen OA, Westlye LT, Quintana DS. The relationship between central and peripheral oxytocin concentrations: a systematic review and meta-analysis protocol. *Syst Rev*. 2016 Mar 31;5:49.

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I was born and raised in Chicago, Illinois. I graduated from Morgan Park Academy as Salutatorian of the Class of 2006. I attended the University of Chicago and graduated in 2010 being awarded a Bachelor of Arts with Honors - Double Major in Romance Languages and Literature (French) and Biological Sciences, specialization Neuroscience. I was admitted to Loyola University Chicago Stritch School of Medicine and received my MD degree in 2015. I was the recipient of a Medical Student Merit Scholarship for four years and a Medical Student Research Award in 2013 from the Loyola Department of Psychiatry and Behavioral Neurosciences. I was admitted to the Psychiatry Residency Training Program at Cornell University in New York in 2015 where I am presently a second year resident. My previous research experience includes positions as research assistant and research technologist at the University of Chicago. I have given research presentations at the Society of Biological Psychiatry and at the Stritch School of Medicine. I was the President of Women in Science, University of Chicago, September 2009-June 2010 and I am a member of the American Medical Association and the American Psychiatric Association. I have published as first author three original research articles in high impact journals. My research has focused on neurotrophins and depression.



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He did a fellowship in substance addiction treatment unit (S.A.T.U) Yale University-USA 1989-1990. From 1991-1998 he worked as a scientific associate in the Department of Psychiatry and in the Department of Pharmacology of the Aristotle University of Thessaloniki. Doctorate Degree in 1992.

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His research activities have focused on psychiatric genetics, sleep research, psychopharmacology and clinical studies in psychiatry. He has participated in various Multicentre Research Programmes in Europe and the U.S.A. such as: European Science Foundation, European Collaborative Studies of Affective Disorders, Johns Hopkins Genetic Epidemiology Schizophrenia Program, Meta-analysis of Sleep Laboratory Studies on Tolerance and Rebound Insomnia with Rapidly Eliminated Hypnotics, Maudsley Family Study, European Collaborative study by



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He is or has been member of various scientific and professional Societies and Boards, as well as member of the Executive Committees of the Hellenic Sleep Research Society, the International Neuropsychiatric Association, the Athens Medical Society, the Hellenic Society for the Advancement of Psychiatry and Related Sciences. He has also served as member of the Editorial Board of the “Archives of Hellenic Medicine”, he was the Assistant Editor of the “American Journal of Psychiatry - Greece Edition” and is a reviewer in many international Journals.

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Anne Eckert studied pharmacy at the University of Marburg, Germany, and received her Ph.D. in 1994 working on changes of intracellular calcium regulation in psychiatric disorders at the Central Institute of Mental Health, Mannheim, Germany. After completion of her thesis at the Univ. of Heidelberg, Dr Eckert joined Carl Cotman's Lab, University of California at Irvine, USA, working on cell death mechanisms in Alzheimer's disease.

The next step in her career was the move to the Dept. of Pharmacology at the University of Frankfurt am Main, Germany, as assistant professor.

Since 2004 she is the head of the Neurobiology Laboratory for Brain Aging and Mental Health at the Psychiatric University Clinics Basel and since 2008 Professor of Experimental Psychiatry at the University of Basel. She is author of more than 120 peer-reviewed publications, 21 review articles, 25 book chapters and > 200 abstracts (h-index: 42)



Eleftheriades, Anna

2nd year Medical Student, National
& Kapodistrian University of Athens,
Greece

Anna Eleftheriades is a second year medical student at the National and Kapodistrian University of Athens. In 2015 she graduated from Athens College and succeeded in the panhellenic examinations. Since 2015 she attended numerous medical conferences including the 1st Panhellenic Conference on ADHD, the 4th Panhellenic Conference on Developmental and Behavioral Pediatrics and Adolescent Medicine, and the 1st Panhellenic Conference on Developmental and Behavioral Pediatrics. In addition, she assisted at the organization of the 2nd Congress of Early Career Psychiatrists and the 1st Congress of the Institute of Stress Biology and Medicine. Also, she participated at the 22nd Scientific Congress of Greek Medical Students with an oral presentation regarding the physiology of the stress system and she worked as a paper reviewer for the Anatolia College Science and Technology Annual Conference. Furthermore, she is an active member of the Scientific Society of Greek Medical Students (ΕΕΦΙΕ) and the Hellenic Medical Students' International Committee (HELMSIC). Lastly, she speaks English and French fluently (Cambridge Proficiency and C1 respectively).



Enriquez-Geppert, Stefanie

Assistant Professor, Department of
Clinical and Developmental Neu-
ropsychology, University of Gronin-
gen, The Netherlands

Stefanie Enriquez-Geppert is an Assistant Professor at the Department of Clinical and Developmental Neuropsychology at the University of Groningen. The scope of her research is the specification of neurocognitive processes underlying executive (dys)functions in young and elderly participants, and in particular in patients with impaired executive control. In a substantial portion of her work, she develops and applies neuroscientific approaches (including neurofeedback and behavioural computerized training) to enhance executive functions. She studied at the University of Münster (Germany) psychology and graduated with an emphasis on cognitive neurosciences in 2007. During her PhD time she focused on the investigation of executive functions by EEG, structural and functional MRI and finished in 2010. After that she did a postdoc at the University of Oldenburg (Germany) and a second at the University of the Balearic Islands in Spain. She spent research stays at the Autonomous University of Mexico (Mexico), the University of Bergen (Norway), and the MRC in Cambridge (UK). Stefanie Enriquez-Geppert has an accredited teacher qualification for postgraduate training courses in neuropsychology, and was elected as “lecturers of the year”. In 2016 she received the Lienert-Foundation Award for Methods in Biopsychology. She serves as an Associate Editor for the Journal of Cognitive Enhancement and as a Scientific Advisor of an international non-governmental human rights organization.



Faliagka, Ifigeneia

Medical Student, Aristotle University
of Thessaloniki, Greece

Ifigeneia Faliagka was born in 5/5/1994 and is currently studying to acquire her bachelor of Medicine in the Aristotle University of Thessaloniki. She has graduated from Arsakeion High School of Thessaloniki with honors (2012) and she has been awarded with certificates of excellence for outstanding performance for all classes.

She is a proficient speaker of the English language (FCE, ECPE) and she possesses basic knowledge of the French language.

Moreover, she acquired work experience providing secretarial support and workforce management in the children's camp “Seagulls”. Thus, she works as a physician in sports venues.

She is an active volunteer for the NGO “Medecins du Monde”- Open Polyclinic in Thessaloniki, and she has been a provisor of Primary Medical Care at the refugee camp in Lagkadikia of Thessaloniki-as part of the MdM Program.

Concerning conferences and forums, she has participated in the conference “Emergency Situations in Internal Medicine” organized by the Hippocratic Hospital of Thessaloniki, presenting the “Diagnostic and Therapeutic Approach to Patients with Abdominal Pain”. Additionally, she has participated in the 22nd



Scientific Congress and the 10th International Forum of Hellenic Medical Students, presenting an overview of the “Psychological and Behavioral Symptoms of Dementia” and furthermore in the 21st, 20th Scientific Congresses and in the 9th, 8th International Forums of Hellenic Medical Students.

She has also participated in the 11th, 10th, 9th T-MUN and in the 5th ACMUN.

Elaborating on special educational seminars, she has attended the Educational Seminar on Transplants and Organ Donation by ETPOD and also the First Aid Training Seminar of the ERC concerning the Provision of Basic Life Support with the use of Automatic External Defibrillator.

Moreover, she participates in the Research Protocol of the 2nd Ophthalmological Clinic (Papageorgiou Hospital) of AUTH entitled “Effectiveness of the use of 5% hypertonic saline (SALZ5%®) in the postoperative corneal clearance after uncomplicated phacoemulsification”.



Ferentinos, Panagiotis

Assistant Professor of Psychiatry, 2nd Department of Psychiatry, National & Kapodistrian University of Athens, Attikon General Hospital, Greece

Dr Panagiotis Ferentinos is Assistant Professor of Psychiatry at Athens University Medical School, 2nd Department of Psychiatry, Attikon General Hospital, where he heads the Affective Disorders & Suicide Unit. He completed his sabbatical training at the Institute of Psychiatry, King's College London (Social Genetic and Developmental Psychiatry Center; 2012-2014), where he remains affiliated research associate. His research focuses on affective disorders and suicidality (neurocognitive functioning, sleep correlates, psychopharmacology, treatment-resistance, genetic aspects). Since 2006, he has been working for European multicenter pharmacogenetic studies of treatment-resistant depression. Dr Ferentinos has 43 international peer-review publications (h-index=12) and is a reviewer for several international journals.



Fotiadis, Petros

Director of Military Community Mental Health Center, at rank of Lieutenant Colonel, 424 General Military Hospital, Thessaloniki, Greece

Director of Military Community Mental Health Center, at rank of Lieutenant Colonel, 424 General Military Hospital, Thessaloniki, Greece.

Petros Fotiadis received his medical degree at Aristotle University of Thessaloniki (A.U.TH.), Greece in 1993. He was specialized in the 2nd Psychiatric department of A.U.TH, and completed his residency in psychiatry in 2002.

He served as consultant at rank of Major, Psychiatric department, 496 General Military Hospital, Didimoteixo, Greece (2002-2003), and as consultant at rank of Lieutenant Colonel, Psychiatric department, 424 General Military Hospital, Thessaloniki, Greece (2004-2012). He also works in his private practice (2002-Today).

He has received a 2 years Fellowship, 3rd Psychiatric department (A.U.TH), Greece (2012-2014), in “Neuropsychological Assessment of Cognitive deficits in Schizophrenia and other Organic Psychiatric disorders”. He is director of Military Community Mental Health Center of 424 General Military Hospital.

His areas of clinical and research interest are Schizophrenia, Bipolar spectrum disorders, Organic Psychiatric disorders, Military and Disaster Psychiatry and Psychopharmacology.

He is in charge on Depot-clinic of MCMHC.

He has participated in more than 100 International and Regional meetings and congresses, in some of which as a speaker for specific areas of interest.

He has authored and co-authored in more than 20 papers delivered in Greek and International congresses.

He is also in collaboration with the National and Kapodistrian University of Athens, Faculty Nursing, in Post Graduate program “Disaster Medicine and Crisis Management”.

He has participated at several Training Meetings and Master-classes and at the translation of *Judith S.Beck book “Cogniteve Therapy Basics and Beyond”* 1995 The Guilford Press.

Also participated in the preparation of therapeutic recommendations for schizophrenia, in the framework of the project « Psychodiabasi».

He is member of Hellenic Psychiatric Association and chairman of Military Psychiatry section.



Fountoulakis, Konstantinos N.

Associate Professor of Psychiatry,
Aristotle University of Thessaloniki,
AHEPA University Hospital,
Thessaloniki, Greece

Konstantinos N. Fountoulakis, MD, is Associate Professor of Psychiatry at Aristotle University of Thessaloniki, AHEPA University Hospital, in Thessaloniki, Greece.

Dr. Fountoulakis received his medical degree (1989), performed his residency in psychiatry (1998), and earned his doctorate in psychiatry (1999) at the Aristotle University of Thessaloniki under a research fellowship from the State Scholarships Foundation of Greece. Until 2003 he served as a medical officer in the Greek Armed forces retired with the rank of major. In 2005, Dr. Fountoulakis was a Research Fellow in the Department of Psychiatry, Division of Neuropsychiatry, at the University of Geneva in Switzerland. His areas of clinical and research interest include biological psychiatry, psychopharmacology, mood disorders, schizophrenia, geriatric psychiatry and personality disorders. He has coauthored more than 400 papers and 220 of them are published in international journals such as the *LANCET*, *BMJ*, *Am J Psychiatry*, *British Journal of Psychiatry*, *Biological Psychiatry*, *International Journal of Neuropsychopharmacology*, *Journal of Affective Disorders*, *Schizophrenia Research*, *Psychiatry Research*, *Bipolar Disorders*, and the *An-*



nals of General Psychiatry among others, with over 7500 citations and h=43 (Publish or Perish). He authored or co-authored a number of chapters in books including the Mood disorders chapter for the Wiki project of the World Psychiatric Association (WPA). He has authored the book 'Bipolar disorders: An Evidence-Based Guide to Manic Depression' (Springer-Verlag, 2015). He is Editor in Chief of *Annals of General Psychiatry* and served as Section Editor of *Current Opinion in Psychiatry* as well as guest editor in other international journals. He has organized and chaired a series of international congresses and events, most of them in collaboration with the WPA

He chairs the ISNP and since 2006, he served as Secretary, since 2008 as co-chair, and currently as Chair of the Private Practice Section and also currently is chair of the section of Evidence Based Psychiatry, of the World Psychiatric Association. He served as Chair of the CINP Credentials and Membership Committee (2010-2) and the Neuropsychological and Psychometric Instruments Section, of the Greek Psychiatric Association. He is an active member of a number of national and international professional organizations, including the EPA, APA, WPA, CINP, ECNP, ISAD, ISBD, EBF and others, peer referee for the Cochrane Collaboration. In 2009 was appointed member and in 2012-4 chair of the Greek Ministry of Health Committee for the Administrative, Economic and Scientific Supervision of the Mental Health Units of the deinstitutionalization project. In 2013 was appointed chair of the Independent Committee of Experts for the Assessment of Mental Health Services of the Greek Ministry of Health.

He has received a number of national and international research awards, including the 2012 Kraepelin-Alzheimer medal of the University of Munich and the 2015 Excellence in Education Award of the WFSBP. Since 2014 he is honorary member of the WPA.



Franza, Francesco

Director of Psychiatric Department,
Mental Health Department "Villa dei
Pini", Avellino, Italy

He was born in Naples February 29, 1960.

He graduated in Medicine and Surgery at the University of Naples; he specialized in Psychiatry in 1994 at Psychiatry Institute of Naples (Directed by Prof. Mario Maj).

Since 1992 he worked as a psychiatrist at Mental Health Dept. "Villa dei Pini", Avellino (Italy), where he began the director of the First Neuropsychiatric Division of the Psychiatric Department (in the year 2001). Currently, he is a Consultant and Director of Psychiatric Department at NeuroPsychiatric Centre "Villa dei Pini" in Avellino

He is now a member of several scientific associations (ECNP, EPA, Cent.Stu.Psi, WFSBP, AAS), and coordinator of scientific

research and organization scientific events. His main research fields include the adult psychiatric illnesses, the pharmacotherapy of bipolar disorders and schizophrenia, the approach to suicidal behaviour, the gambling disorders and substance abuse, in particularly the alcohol dependence, the burnout, the compassion fatigue and the dignity therapy. He's the author of several studies and articles.



Gatopoulos, Angelica
Psychiatry Resident, Psychiatry
Hospital of Attika, Greece

Personal Profile

Psychiatry Resident (Psychiatry Hospital of Attika) since 03/2014

Experience

04/2013 - 02/2014 Internist (Giagkos General Hospital)

02/2013 - 04/2013 Psychiatry Resident (L.V.R Klinik Krankenhaus - Bedburg Hau Deutschland)

08/2012 - 01/2013 Psychiatry Resident (Mental Health Center of Piraeus)

08/2010 - 08/2012 Internist (Giagkos General Hospital)

2008 - 2010 GP service with rotation in internal medicine, surgery, and cardiology (Panarkadiko Hospital of Tripolis)

Education

1996- 2002 Victor Babes University of Medicine and Pharmacy Timisoara Romania

2007 Academic and professional recognition of qualification (DOATAP)

Personal skills

Mother tongue(s) : Romanian, Serbian

Other language(s) : English (C1), German (B2)

Driving licence : B1

Good use of : Word, Excel, PowerPoint, Windows

Seminars/Conferences

- 06/2014- Psychiatry Masterclass VIII
- 09/2014-European program Leonardo da Vinci (Hopitaux Universitaires de Geneve)- On the job training for mental health professionals in old age mental health .
- 10/2014-International Congress of the World Federation for Mental Health & the Hellenic Psychiatric Association -Living with Schizophrenia.
- 11/2014- 3rd National Conference of Special Psychiatric Hospitals and 1st Conference of Holistic Treatment of Severe Mental Disorder - speaker (Omega-3 fatty acids, Negative symptoms of schizophrenia)
- 12/2014- National Conference of Forensic Psychiatry-speaker (Violent transgression of mentally ill)
- 4/2015-23rd National Conference of Psychiatry & 2nd Na-



tional Psychopharmacology Congress-speaker (Liver diseases and psychopathology & Inflammatory processes at mental illnesses - differential diagnosis)

- 6/2015-12th World Congress of Biological Psychiatry
- 10/2015-2nd Workshop "Risk Assessment for the Mentally Ill in Daily Clinical Practice".
- 4th East European Psychiatric Congress & 3th Preventive Psychiatry International Congress-speaker (Neurobiology of anger).
- 4-12/2015-4th phase study of Zypadhera.



Georgopoulou, Efstratia-Maria
4th year Medical Student, National
and Kapodistrian University of
Athens, Greece

Efstratia-Maria Georgopoulou was born in 1995 in Athens and is currently a 4th year Medical Student in the National and Kapodistrian University of Athens. She serves as Vice-President in the Scientific Society of the Hellenic Medical Student (SSHMS) a non-profit and non-governmental student organization and as Junior Project Manager in the wet lab course "Essential skills in the Management of Surgical Cases (ESMSC)". She is coauthor in 1 related to ESMSC publication PMIDs: 27611894. Her awards include winning the scholarship of the "Kritski" Legacy (Ministry of Education & Religious Affairs of Greece) after panhellenic competition (Nov 2015) and 2nd price award in the 71st Panhellenic Student Mathematics Competition "Euclides" held by the Hellenic Mathematics Society (March 2011). She has a list of presentations and posters in panhellenic congresses: 6 in the "Scientific Congress of the Hellenic Medical Students (May 2014-May 2016), 1 in the 37th Congress of the Hellenic Society of Social Pediatrics (Oct 2016) and 1 in the 3rd Panhellenic Congress of the Hellenic Academy of Neuroimmunology on Multiple Sclerosis (Nov 2015).



Giotakos, Orestis
Psychiatrist, Greece

Orestis Giotakos was Director in the Psychiatric Clinic of the Army Hospital of Athens, up to 2016. He graduated in 1985 from the Military Medical School, University of Thessaloniki, Greece, and he has been working as a Military Psychiatrist since 1992. In 1998, he obtained a M.Sc. in Neuroscience at the Institute of Psychiatry, University of London. In 2003 he received his doctorate at the Medical School, University of Athens. He is Research Fellow at the Adolescent Health Unit of Athens and the founder of the non-profit organization "obrela". He has conducted several investigations and has written a number of articles and books on psychopathology and prevention strategies.



Gonda, Xenia

Assistant Professor, Department
of Clinical and Theoretical Mental
Health, Semmelweis University,
Budapest, Hungary

Xenia Gonda MA PharmD PhD is a clinical psychologist and pharmacist currently working as assistant professor at the Department of Clinical and Theoretical Mental Health at Semmelweis University, Budapest. She is also affiliated with the Department of Pharmacodynamics at Semmelweis University, with the Neuropsychopharmacology and Neurochemistry Academic Research Group of Hungarian National Academy of Sciences and Semmelweis University, and the Laboratory for Suicide Research and Prevention of the National Institute of Psychiatry and Addictions. Currently she is recipient of the Bolyai Janos Research Fellowship of The Hungarian Academy of Sciences. She is engaged in full clinical work in addition to teaching at various universities and research. Her main research fields include the genetic background of personality and psychiatric illnesses, pharmacotherapy of bipolar disorders and biopsychosocial approach to suicidal behaviour as well as psychological aspects related to the female reproductive cycle. She is the author of more than 150 scientific publications, primarily on the biopsychosocial and genetic aspects of personality, mood disorders, and suicide.



Halaris, Angelos

Professor of Psychiatry, Department
of Psychiatry, Loyola University
Chicago Stritch School of Medicine,
Chicago, IL, USA

Dr. Angelos Halaris graduated from University of Munich School of Medicine and received research training at the Max-Planck Institute for Psychiatry in Munich. After year at Novartis in Switzerland he joined the University of Chicago where he trained in psychiatry and psychopharmacology. He subsequently accepted a professorship at UCLA School of Medicine. He was later appointed Vice Chair of Psychiatry at Case Western Reserve University and Department Chair at MetroHealth Medical Center in Cleveland, Ohio. From 1993 through 2003 he served as Chairman of the Department of Psychiatry at the University of Mississippi Medical Center. In 2003 he was appointed Chairman of the Department of Psychiatry at Loyola University Stritch School of Medicine in Chicago. He has received numerous research grants. He has published over 200 refereed articles, numerous chapters, and three books and co-edited "Inflammation in Psychiatry" with Dr. B. Leonard. He has received numerous awards and honors including the Kraepelin-Alzheimer's Medal from the University of Munich and the International Union of Angiologists. He is an Honorary Member of the Hellenic Society for Sleep Medicine, the Latin American College of Neuropsychopharmacology, and the Cuban College of Neuropsychopharmacology. He is a Lifetime Distinguished Fellow of the American Psychiatric Association. He was recognized with a Distinguished Service Resolution by the State of Mississippi Legislature for establishing an international



Research Mentor Program for CINP. He was recently elected to active membership in the European Academy of Sciences and Arts. His research focuses on biomarkers of inflammation in mood disorders and cardiovascular disease.



Halbreich, Uriel

Chair, WPA Section on
Interdisciplinary Collaboration.
Director of BioBehavioral Research,
Professor of Psychiatry, UB -The State
University of New York (SUNY), USA

Uriel Halbreich is Professor of Psychiatry and director of Bio-Behavioral Research at the State University of New York (SUNY) at Buffalo, NY, USA. He serves as Chairman of the World Psychiatric Association (WPA) Section on Interdisciplinary Collaboration.

Professor Halbreich was born in Jerusalem, Israel (then-the British Mandate of Palestine EI) in 11/1943. He received an MD from the Hebrew University, Hadassah Medical School, Jerusalem in 1968. He took Psychiatric Residency and diversified training in the Hebrew University affiliated Hospitals (1972-1978). Following Post-graduate studies of Psychiatry and Psychotherapy at the Sackler post-graduate School of Medicine he received diploma and certificate(1978).

Halbreich served as a Combat Doctor at the Golani Brigade, IDF, then he served as Vice-Chief Medical Officer of the Israeli Navy (1970-1972) and as a Chief Psychiatrist, Israeli Navy (1976-1978).

In 1978 Halbreich received a USA-NIH National Service award and came to the USA as a Research Psychiatrist and Assist. Professor of clinical Psychiatry at NYS Psychiatric institute and College of Physicians and Surgeons of Columbia University, NY.(simultaneously he also completed a Research Fellowship of Biological Psychiatry at Columbia University). In 1980 he joined Albert Einstein College of medicine (AECOM) NY as Director of Division of Behavioral Endocrinology which was later (1982) expanded to include Psychopharmacology as Division of Biological Psychiatry. He was Associate Professor at AECOM. In 1985 Halbreich became Professor and Director of Bio-Behavioral Research at the State University of New York at buffalo (SUNY-AB). Shortly thereafter he became also Research Professor of OB/GYN and established the Life Cycle Center (Division of Psychosomatic OB/GYN) at the department of OB/GYN, SUNY-AB. He was visiting Professor (1996-1998) and Executive Consultant (1998-2001) at Harvard University and visiting Professor for shorter periods in East Asia, Middle-East, Europe and Latin America.

Professor Halbreich received 7 grants and 2 contracts from the US NIH, over 50 contracts from Pharmaceutical Corporations and more than 95 grants from Private Foundations. He published 14 books, more than 350 papers in scientific Journals and books and well over 600 abstracts of presentations at Na-

tional and International Congresses.

Professor Halbreich was elected President of the International society of Psycho-Neuroendocrinology (ISPNE) (1999-2002), Founder and President of the International Association of Women's Mental Health (IAWMH) (2001-2004) and Hormones, Brain and NeuroPsychoPharmacology (HBN) (1993-2000). He was President and CEO of IN-CLINE RE&D (2006-2015), President of H&J Medinfor consultants (China) (2006-2009) and Chair of PEMRN(Psychiatric Eastern Mediterranean Research Network (2009-2013). In the 2000s he was chairman of 3 International congresses, 5 Regional congresses, 2 international networks for studies of women's health, Chaired and co-chaired over 20 International Education and Research Workshops on Mental Health as well as an International Consensus Form on PMS. He has been past and present Distinguished Life Fellow, Distinguished Fellow, Fellow or member of 23 societies, including 5 Colleges. He chaired committees in 11 of them. His distinctions and awards include the Ben-Gurion Award (1976), Yair Gon award (1978), NRSA(1978), Service award, ISPNE (2003), Honorary Fellow ,Hungarian College of Neuro-Psycho-Pharmacology (2008) and of the Hungarian Association of Psychopharmacology (2009) and Fulbright Award (2012).In 1984-2016 he had citations in approximately 15 Who's Who in America and the World as well as Top Psychiatrist, Top Doctor and Top Health Professional.

In late 2016 he initiated the Caucasus Interdisciplinary Collaborative Alliance-C-RICA.



Hatzinger, Martin

Director Psychiatric Services soH
Chairman Clinics of Psychiatry,
Psychotherapy and Psychosomatics
Professor of Psychiatry, University
of Basel and Psychiatric Services
Solothurn, Switzerland

In 1986 Prof. Dr. med. Martin Hatzinger graduated from the Medical Faculty of the University Basel, Switzerland, where he had subsequently his speciality training in psychiatry and psychotherapy. He also trained as resident for one year in surgery and several years in internal medicine including neurology at different cantonal Swiss hospitals. In 1996, he finished his training in a post-doc position at the Max-Planck Institute of Psychiatry, Munich, Germany (Prof. Florian Holsboer).

During his academic career he became senior registrar at the psychiatric university hospital of Basel where he completed his habilitation in 2005. Since 2009 he is chairman of the psychiatric services for adults in Solothurn, a University-affiliated hospital of Basel. In 2010 he became professor of psychiatry at the medical faculty of the University of Basel.

Besides his postgraduate specializations in general medicine as well as in psychiatry and psychotherapy he received certificates in electroencephalography (EEG), sleep medicine, old age psychiatry, consultation- and liaison-psychiatry, and in psy-



chomatic medicine. His scientific interest includes depression, anxiety disorders, sleep medicine, neuroendocrinology, and psychopharmacology. He has published more than 120 scientific articles, book chapters, and books and has received several research awards.

Prof. Hatzinger is member of many scientific national and international societies such as the Swiss Society of Biological Psychiatry (SSBP, President), the Swiss Society of Sleep Research, Sleep Medicine and Chronobiology (SSSSC, Vice-president), the World Federation of the Societies of Biological Psychiatry (WFSBP, Treasurer) and the World Psychiatric Association (WPA, Chair: Section of Sleep/Wakefulness-Disorders).



Holsboer-Trachsler, Edith

Head Physician, Clinic of Adult Psychiatry, UPK Basel, Head of the Center for Affective, Stress and Sleep Disorders and Center for Gerontopsychiatry, UPK Basel, Switzerland

1998 to 2010

Professor of Psychiatry at the University of Basel, Switzerland

since October 2010

Associate professor of clinical stress and trauma research, University of Basel

since 1996

Head of the Department for Depression Research, Sleep Medicine and Neurophysiology

since 2011

called Center for Affective, Stress and Sleep Disorders (ZASS), UPK Basel

since 2000

Head of the Center of Sleep Medicine of the University Hospitals of Basel, accredited by the Swiss Society of Sleep Research, Sleep Medicine and Chronobiology

since 2005

Head of the Education Center of EEG of the Psychiatric University Clinics Basel, accredited by the Swiss Society of Clinical Neurophysiology

2009 - 2013

Vice Medical Director, UPK Basel

since January 2014

Head Physician, Clinic of Adult Psychiatry, UPK Basel; Head of the Center for Affective, Stress and Sleep Disorders and Center for Gerontopsychiatry, UPK Basel

Major research focus

Prof. Holsboer-Trachsler is specialized in the research of affective disorders, stress hormone regulation and sleep. She is the author of more than 300 publications. She is co-author of the Guidelines of the WFSBP for bipolar disorders and unipolar depressive disorders, of the Swiss Guidelines for unipolar depressive and bipolar disorders as well as of the Swiss Guidelines for anxiety disorders.



Homorogan, Claudia
Resident in Psychiatry, "Eduard
Panfil" Psychiatric Clinic, Timisoara,
Romania

PRESENT APPOINTMENT

January 2013- Present: **Resident doctor in Psychiatry**
at "Eduard Pamfil" Psychiatric Clinic Timisoara.

QUALIFICATIONS

2015: M.D., "Victor Babeş" University of Medicine and Pharmacy, Timişoara, Romania

EDUCATION

2016 - Present: **Psychiatric training** at "Eduard Pamfil" Psychiatric Clinic Timisoara.

During the first year, I took care of patients with psychotic spectrum disorders, depressive patients and for those with personality disorders. Second year, since January 2017, I started working in a department of Child and Adolescent psychiatry, for 6 months.

2009 - 2015: **Basic Medical Training:** "Victor Babeş" University of Medicine and Pharmacy, Timisoara

2005-2009: "Sabin Dragoi" **High School**, Arad, Romania (High School for Architecture and Design).

PERSONAL SKILLS:

Foreign languages skills: Hungarian- Mother language, English - C1 level, German - A1 level;

Computer skills: Microsoft Office, Internet

MEMBERSHIP OF PROFESSIONAL ORGANIZATIONS:

Member of Romanian Association of Psychiatry Trainees

Member of Timisoara Psychiatric Association



Hugdahl, Kenneth
Professor of Biological Psychology,
University of Bergen, Norway

Professor of Biological Psychology, University of Bergen, Norway, and Adjunct prof. Departments of Psychiatry and Radiology, Haukeland University Hospital, Bergen, Norway. PhD in psychology, Uppsala University, Sweden, 1977. Postdoc Department of Psychology, University of Pennsylvania, USA 1979, Visiting professor UCLA, USA 1991, Visiting professor Max-Planck Institute Cognitive Neuroscience, Leipzig, Germany, 2002. More than 300 publications, h-index 56 in ISI Web of Science, 76 in Google Scholar Citations, and six books. Supervised 45 PhD candidates. Received numerous awards for his research, among them; 1988 Norwegian Research Council (NAVF) Award for "Distinguished Scientific Contributions" (highest award given by the NAVF); 2002 Elected to the Norwegian Academy of Science and Letters; 2002 Elected to the Finnish Academy of Science and Letters; 2006 Swedish Neuropsychological Association (SNA) Research Lecturer Award (highest award given by SNA); 2006 Western Norway Health Authority Award for "Distinguished Research Group"; 2009 Honorary Doctor (doctor honoris causa), University of Turku, Finland; 2009 Honorary Award for "Outstanding Research", Faculty of Psychology,



University of Bergen, (highest award given by the Faculty of Psychology); 2013 Association for Psychological Science (APS), USA, "The Faces and Minds of Psychological Science"; 2014 Meltzer Foundation Honorary Award for "Outstanding Research", University of Bergen, Norway, 2014 (highest regional award given by the University of Bergen); 2014 Research Council of Norway (RCN) Møbius Award for "Most Outstanding Research 2014" (highest award given by the RCN). Recipient of two consecutive ERC Advanced Grants, 2009 and 2015.



Ierodiakonou-Benou, Ioanna

Associate Professor of Psychiatry,
3rd Department of Psychiatry,
Aristotle University of Thessaloniki,
AHEPA University General Hospital,
Thessaloniki, Greece

Dr Ioanna Ierodiakonou-Benou was born in Thessaloniki in 1956, she graduated from the Medical School of Aristotle University of Thessaloniki in 1981 and she received her specialty in Psychiatry in 1988.

She attended a 4-year postgraduate course in Psychoanalysis and Psychoanalytic Psychotherapy in the Adolescent Unit of the Tavistock Clinic of London and she earned her PhD in 1994.

She has served as a Consultant of the National Health System in the Department of Psychiatry of the "Ippokration" General Hospital of Thessaloniki for 10 years. Since 2000 she works at the 3rd Department of Psychiatry, Aristotle University of Thessaloniki at AHEPA Hospital. Today is Assistant Professor of Psychiatry and in charge of the Psychotherapeutic Service of the Department.

Her clinical, teaching and research work focuses on the Psychoanalysis and the Psychoanalytic Psychotherapy in clinical psychiatry and on Consultation-Liaison psychiatry. Her main research interests include suicidal behavior, psychotherapy in the General Hospital, perinatal mourning and psychotherapy of chronically suffering patients.

She participated with presentations and scientific papers in International and National Scientific Meetings and with publications in International and National scientific journals.

Dr Ioanna Ierodiakonou-Benou is member in 7 International Scientific Societies and 5 Hellenic.



Iliadou, Vasiliki

Associate Professor of
Psychoacoustics, Medical School,
Aristotle University of Thessaloniki,
Greece

Dr Vasiliki (Vivian) Maria Iliadou is an Associate Professor of Psychoacoustics at the Medical School of Aristotle University of Thessaloniki, Greece. She is an ENT physician with a doctoral degree in Audiology. She was a faculty member in “Central Auditory Processing-Current Research and Implications for Clinical Practice” 2009 Masterclass in Advanced Audiology UCL Institute of Hearing & in the 1st & 2nd Global Perspectives of Central Auditory Processing Conference during AudiologyNOW American Academy of Audiology 2012, 2014.

Her main research and clinical practice interests are central auditory processing, genetics in hearing, speech in noise perception, dichotic listening, communication & learning disorders. She has established the first Auditory Processing Clinic in Greece for children and adults in AHEPA University Hospital, Thessaloniki. She is working towards developing an optimal testing battery for children and adults. She has been involved in the MRC Institute of Hearing Research for field test research on clinical testing of APD in school-aged children. She has been a research fellow in UCL, Lund University, OHIO State University, and Nottingham MRC-IHR Clinical Section.

Her scientific publications cover the area of Auditory Processing Disorders, Genetics in Hearing, Speech in noise perception & Psychometric evaluation. Her published work has received 408 citations in Google Scholar with an h index of 12. Among authoring several chapters and editing the first Greek book on APD, she has co-authored a chapter with Doris-Eva Bamiou on the Medical Perspective of CAPD in the Handbook of CAPD edited by Musiek & Chermak 2nd edition, Plural Publishing 2013.



Javed, Afzal

WPA Secretary for Sections
Consultant Psychiatrist & Visiting
Clinical Associate Professor University
of Warwick, UK

Dr. Afzal Javed is a Consultant Psychiatrist at Coventry & Warwickshire NHS Trust at Nuneaton. He is an Honorary Clinical Associate Teacher at Warwick Medical School, University of Warwick UK. He also holds the position of Chairman Pakistan Psychiatric Research Centre, Fountain House, Lahore (Pakistan).

He graduated from King Edward Medical College Lahore, Pakistan and received higher specialised training in Psychiatry from Pakistan and UK (from Royal Edinburgh Hospital, University of Edinburgh and Institute of Psychiatry & Maudsley Hospital London).

He has served the UK Royal College of Psychiatrists as Deputy / Associate Registrar, member Board of International Affairs of the College, Chairman of West Midlands Division of the College & one of the lead College office bearers for SAS doctors & Patients & Carers groups. He was also elected as executive committee member of the College Faculty of Rehabilitation and Social Psychiatry & represents the faculty at Education and Training Committee of the College.

His role in international psychiatry is highlighted by his involve-



ment with a number of professional organisations. He is currently working as:

- Secretary for Sections World Psychiatric Association (WPA)
- President Elect Asian Federation of Psychiatric Associations (AFPA)
- Immediate Past President World Association for Psychosocial Rehabilitation (WAPR)
- Advisor & Founder Secretary General of South Asian Forum on Mental Health & Psychiatry (SAF)
- Advisor SAARC Psychiatric Federation (SPF)
- Founding Secretary General Asian Federation of Psychiatric Associations (AFPA)
- Immediate Past Co Chairman / Founder office Bearers WPA Section on Psychiatry in Developing Countries
- Chairman Pakistan Psychiatric Research Centre, Fountain House, Lahore, Pakistan

His areas of special interest are Psychosocial Rehabilitation, Social and Transcultural Psychiatry and Psychiatric Research. His academic skills have been invaluable when publishing more than 110 scientific papers and being author of six books/monographs on different topics of psychiatry. He is currently involved in a number of projects on Schizophrenia and is completing audits in different clinical aspects of long term management of chronic mentally ill in the community.



Jonker, Iris
Psychiatrist, University Medical
Centre of Groningen,
The Netherlands

My name is Iris Jonker, I work as a psychiatrist at the University Medical Centre of Groningen, in an outpatient clinic for somatoform disorders. In addition, I am a PhD student, under supervision of prof. Robert Schoevers and prof. Judith Rosmalen. My PhD project is titled "Inflammation as a Transdiagnostic Factor in Psychiatry". This project focuses on causes of inflammation in different psychiatric diseases, for example stress, or viral infection. Another focus of this project is to study the effect of interventions that focus on inflammation in the treatment of different psychiatric diseases. We performed several epidemiological studies in a general population of adolescents. We also did an intervention study on the effects of addition of antiviral treatment in patients with schizophrenia. In this lecture I will focus on neuroinflammation in schizophrenia. I will get into the possible causes of neuroinflammation and I will give the preliminary results of our intervention study of antiviral treatment in patients with schizophrenia.



Karadima, Dimitra
Resident in Psychiatry, Psychiatric
Hospital of Attica, Greece

Studies:

2006: “Post Graduate Program in Health Management” under the auspices of Ministry of Health and Unesco

2006: Residency in Psychiatric Hospital of Attica

During my practicing I had several trainings in psychopharmacology, cognitive behavior and I was trainer at the medical students in my department.

2005: Doctor in National Health Care System at H.C of Kranidi

2004: Doctor in Internal medicine, Surgery and Cardiology at Hospital of Nauplion

June 2002: Graduation from the medical school of Semmelweis University of Medicine, Budapest, Hungary with the grade 4/5 “Very Good”

Diploma work: Fatty liver in alcoholic and non –alcoholic patients

Sept 1997: Entrance after examinations to the Medical University and study for twelve semesters .At the third semester I was awarded in the Physiology class and participated in Cardiovascular Research of the Department.

Sept 1996: Graduated from the International College in Budapest

Foreign languages :

English: Excellent

Hungarian: Good

Working experience :

September 2006 - December 2007 : product specialist at Aripiprazole team (BMS)

January 2008 - December 2010 :Disease Area Specialist at CNS (BMS)

December 2010 - November 2011: Scientific Advisor at Metabolics (BMS)

November 2011 - June 2012 :Senior Scientific Advisor at Metabolics (BMS)

December 2012 - December 2014 : Clinical Operations Manager (CRAXIS)

2015- :Resident in Psychiatry at Psychiatric Hospital of Attica



Karampoutakis, Georgios

Scientific Associate of the University
Department of Psychiatry National
& Kapodistrian University of Athens,
Greece

Professional with medical background and mediation skills. Works in Private Practice. **Phd Doctor for Crisis Management, Mass Destructions and Emergency Situations** specialized in the **Communicational Crisis Management**. Attendance with certification of **Executive Education: Leadership in Crisis** in **Harvard Kennedy School of Government**, Boston, Massachusetts, U.S.A. May 2009. Scientific Associate of the **University Department of Psychiatry National & Kapodistrian University of Athens** – General Tumor Hospital of Kifissia “Saint Anargi-roi”- Community Center of Mental Health of Zografos Municipality. Scientific Associate at **Henry Dunant Hospital Center**. Chairman of the Board of “**Mitos**” non-profit organization for mental health and psychosocial interventions. Expert of the district’s attorney office and court of Athens and Piraeus. Further, Accredited Mediator in the Ministry of Justice, Transparency and Human Rights. **Since** Febr 2005 to Dec 2015 **Medical Coordinator in Crisis Intervention in the National Health’s Operations Center of the Ministry of Health**. Also, since Aug. 2007 to Sept. 2009, member of the unofficial inter-ministerial committee for crisis management of the Greek Government (**Team of Zappeio**). Since Sept. 2012 to Oct. 2012, **Media and Communication Representative in Ministry of Health**, inter-operational action for matters of terrorism and social security by the code name “**Aspis Irakleous 2012**”, which was co-organized by the **Research Center for Security of the Hellenic Public Order Ministry and Protection of Citizens** and the **National Counterterrorism Center of the U.S.A.** Finally, specialty in psychiatry in **Aeginiteion University Hospital**, Athens in 2010 to 2013 and board member of the **Hellenic Association of Psychiatric Trainees, Hellenic Psychiatric Association** in May 2011 to Sept. 2013.



Karavasilis, Efstratios

Medical Physicist/MRI applications
specialist, 2nd Department of
Radiology, National & Kapodistrian
University of Athens, Attikon General
Hospital, Greece

Efstratios Karavasilis is a Medical Physicist/MRI applications specialist at Second Department of Radiology, National & Kapodistrian University of Athens (NKUA), Attikon General Hospital, with MSc and PhD in Medical Physics from NKUA Medical School. He is currently a post-doc researcher at Medical School of Democritus University of Thrace (Alexandroupolis, Greece) focused on advanced neuroimaging techniques in dementia and geriatric depression. He has an 8-year experience in MRI imaging applied in diverse clinical and research settings. His special research interests include the introduction of advanced MRI brain protocols and the application of conventional and state-of-the-art post-processing analysis methods for MRI neuroimaging data (MR Spectroscopy, functional MRI, DWI and DTI). His experience so far is translated in data quality process-

ing of more than 40.000 clinical cases and principal/assistant role in more than 20 research projects with national and international collaborations and dissemination of findings in peer-reviewed journals and conferences.



Karavelas, Vangelis

Research Associate, 3rd Department
of Psychiatry, Aristotle University of
Thessaloniki, Greece

He was born in Thessaloniki in 1976. He took his degree in Medicine in 2002 from the Medical school from the University of Ioannina in Western Greece. His specialty in Psychiatry was given to him from the 3rd Department of Psychiatry at the Aristotle University of Thessaloniki. He has contributed with presentations and posters to a number of National and International conferences. He is a PhD Student in the field of Neurosciences concerning Bipolar Disorder and a Research Associate in the 3rd Department of Psychiatry at the Aristotle University. He is a part of the committee that edited Treatment Guidelines for Bipolar Disorder in Greece. Since 2014 he is Secretary of the section on Private Practice psychiatry of the WPA. At the time he lives in Thessaloniki where he runs his private practice. He is the co-owner of the institute for mental health 'ENSYNAISTHISIS'



Konsta, Anastasia

Assistant Professor of Psychiatry and
Psychogeriatrics, 1st Psychiatric Clinic,
"Papageorgiou" General Hospital,
Aristotle University of Thessaloniki,
Greece

Anastasia Konsta is an Assistant Professor of Psychiatry and Psychogeriatrics at the First Psychiatric Clinic of the Aristotle University of Thessaloniki at "Papageorgiou" General Hospital. Her academic, clinical and research work focuses on the subject of Psychogeriatrics. She is responsible for the Psychogeriatrics inpatient and outpatient Unit of the Clinic. She has published in academic journals, as well as chapters in books. She participates as a speaker in conferences, seminars and educational programmes. She teaches the selective course "Psychogeriatrics" in the context of the undergraduate program of the Medical School of the Aristotle University of Thessaloniki



Kyriazis, Odysseas

Psychiatrist, Greece

Dr. Kyriazis is a psychiatrist. He graduated in 2005 from the Medical School of the Kapodistrian University of Athens and completed his residency in psychiatry in the 3rd Department of Psychiatry of the Aristotle University in Thessaloniki. He is also a PhD candidate with a thesis title: "Allele polymorphisms and genotype frequencies of inflammatory agents in patients with schizophrenia". He is a member of the Hellenic Society for the Biopsychosocial Approach to Health and the Hellenic Society for the Study of Addictive Substances. He is currently into private practice.



Menculini, Giulia

School of Specialization in Psychiatry,
Division of Psychiatry, Clinical
Psychology and Rehabilitation,
Department of Medicine, University
of Perugia, Italy

Giulia Menculini, M.D., graduated in Medicine and Surgery in October 2013 at the University of Perugia; actually she is a Resident in Postgraduate School of Psychiatry in the same University (Section of Psychiatry, Clinical Psychology and Psychiatric Rehabilitation - Department of Medicine).

She is a Member of the Psychiatric Studies Centre (Cen.Stu. Psi.) and also of the "Young-section" of the Italian Society of Psychiatry (SIP).

As psychiatrist in training she participated in some national and international conferences for the "poster-session", obtaining her first publication in the year 2016; she is involved in clinical trials concerning psychosis and bipolar disorder inside the University of Perugia.



Modak, Anil S.

Associate Director of Medical Products Research & Development,
Cambridge Isotope Laboratories Inc.,
Tewksbury, USA

Dr. Anil Modak, the Associate Director of Medical Products Research & Development at Cambridge Isotope Laboratories Inc. in Teksbury, MA, has been involved in the design, research and development of novel non invasive breath tests for personalized medicine using stable isotope substrates for the diagnosis of disease states and evaluation of enzyme activity. He is the author of several recent patents and publications and several presentations around the world. He has reviewed several papers for reputed journals and authored two book chapters. He serves on the Editorial board of the Journal of Breath Research, Journal of Pharmacogenomics & Pharmacoproteomics and International Journal of Clinical Pharmacology & Toxicology. His previous experience includes working for Ribozyme Pharmaceuticals in Boulder, CO and Monsanto in St Louis, MO. His postdoctoral research was conducted at the University of Iowa and Kings College London.

Research Interests

Design and develop novel, non invasive, phenotype breath tests using stable isotope substrates for identifying responders/non responders for various drugs metabolized by specific polymorphic P450 CYP enzymes to enable physicians personalize medication for patients.



Moysidou, Stefania
Psychologist, Psychotherapist and
Research Associate, Greece

Stefania Moysidou, is psychologist at *Hellenic Center for Disease Control & Prevention* and field manager for *HCDCP at Diavata Open Center of Temporary Reception*, psychotherapist at *Private Practice* and research associate with the *Aristotle University of Thessaloniki* and with *Hellenic Observatory of Corporate Governance (HOCG)*. She received her degree in psychology (2006) from the Aristotle University of Thessaloniki. She has training, clinical and research experience in the fields of Cognitive - Behavioral Psychotherapy and neuropsychology and psychometrics. She has worked for NGOs, Sport Academies and the Hellenic police (Division of Aliens and Border Protection, Department of illegal migration). She has participated as a speaker and a trainer in a number of Greek and International conferences and workshops, and as assistant in a number research projects.



Nimatoudis, Ioannis
Professor of Psychiatry, Director of
the 3rd Department of Psychiatry,
Aristotle University of Thessaloniki,
Vice Head of the Medical School
of the Aristotle University of
Thessaloniki, Greece

Ioannis Nimatoudis is Professor of Psychiatry, director of the 3rd Department of Psychiatry and vice head of the Medical School at the Aristotle University of Thessaloniki, Greece. He received his Medical degree from the Aristotle University Thessaloniki in 1979 and completed his residency in Psychiatry - Neurology in 1984. Since 1990 he is active member in Psychiatric Reform and rehabilitation in Greece, and specially devoted in the "Leros Programme" of the Regulation 815/84 of E.U. During 1991-2003 he served as scientific coordinator of rehabilitation units in Thessaloniki under the auspice of the N.G.O. "Society of Mental Health and Social Rehabilitation" in collaboration with the Ministry of Health and the E.U.

He has supervised 9 PhD that completed successfully in four of them been part of the three member committee. He is currently the main supervisor in 4 PhD that are in process. He is responsible for organising elective courses in Neuropsychiatry, he participates in education programmes of other Medical Universities in Greece and is responsible for organizing educational workshops in international conferences. His main research interests rely on neuropsychology, psychopharmacology, psychopathology and evaluation of psychiatric services. He served as member of the organizing committee of 13 international and 13 national conferences. He is an active member of 11 national and international scientific societies. He has participated in 83 Greek and International scientific conferences and in 58 round tables, lectures, and seminars as invited speaker. He is author or coauthor of more than 250 papers presented in conferences or published in national and international scientific journals.



Nissen, Christoph

Associate Professor,
Executive Medical Supervisor
(Geschäftsführender Oberarzt),
Department of Psychiatry and
Psychotherapy, University Medical
Center Freiburg, Germany

Curriculum Vitae:

- since 2015 Associate Professor
- since 2015 Executive medical supervisor
(Geschäftsführender Oberarzt), Department
of Psychiatry and Psychotherapy, University
Medical Center Freiburg
- since 2010 Medical director of the sleep laboratory, research
group leader "Sleep and plasticity", University
Medical Center Freiburg
- 2011 Habilitation
- 2009 German board certification for psychiatry and
psychotherapy
- 2007-2009 Resident and research associate at the
Department of Psychiatry and Psychotherapy,
University Medical Center Freiburg
- 2008 Resident at the Department of Neurology,
University Medical Center Freiburg
- 2005-2006 Research associate in the Sleep and Affective
Neuroscience Laboratory, Western Psychiatric
Institute and Clinic, Pittsburgh, PA, USA
- 2001-2004 Resident and research associate at the
Department of Psychiatry and Psychotherapy,
University Medical Center Freiburg
- 2001 Dissertation (summa cum laude)
- 2001 Medical degree
- Honors:**
- 2012 Award for Excellence in Teaching, Faculty of
Medicine, Freiburg
- 2011 Short list for tenure track position, Stanford
University School of Medicine, CA, USA
- 2011 Fellowship of the World Psychiatric Association
(WPA) for the World Congress of Psychiatry
- 2006 Young Researcher Award, Wisconsin Symposium
on Emotion
- 2001 Young Investigator Award, German Sleep
Research Society.



Oikonomou, Achilleas

Psychiatrist - Psychotherapist, Greece

Achilleas Oikonomou is a psychiatrist-psychotherapist. He works in the private sector in two Greek cities, Trikala and Grevena. He is a psychiatrist in the boarding house of EPAPSI, the boarding house of the General Hospital of Trikala and the Department of people with special needs in Trikala. He is President of the Young Psychiatrists Section of the Hellenic Psychiatric Association.



Papadimitriou, Evangelia
Senior Medical Student, Aristotle
University of Thessaloniki, Greece

Evangelia Papadimitriou, is senior medical student at the Aristotle University of Thessaloniki. She was born in 1993 in London UK, and was raised in Athens Greece where she attended local schools until 2011, when she began her medicine studies.

Throughout her studies, she has attended the seminars “Sexual Health: Anything you ‘d wish to ask about...” (2011), “SEX and the university” (2012). She was one of the coordinators for both. Also, “Troubled Mind in Troubled Times” (2014) by the International Society of Neurobiology and Psychopharmacology, “Medical Taboos and Myths” (2014), “Medical Residency Abroad: Should I stay or should I go?” (2014), in which she served as a key coordinator and, lastly, “Is there a perfect crime?” (2016) by the Medical Association of Thessaloniki, concerning forensic investigations. She attended and helped to coordinate both the 18th and the 20th Scientific Congress of Hellenic Medical Students.

She took a four-day first aid provision workshop by the Greek Red Cross (2011), joined the Medical Faculty’s anatomy assistants (2012) to teach a group of students neuroanatomy, and participated in a three-month programme called “Cerebra-tion” (2012) by the Hellenic Association of Alzheimer’s Disease. At the two-month programme “New Doctors Take the Lead” (2013) she worked with the Mediciens du Monde of Thessaloniki. Alongside fellow medical students a project for high school students on alcohol, narcotics, smoking and STDs was prepared to raise awareness. In 2015 she visited the private psychiatric clinic of Kastalia, Athens, to gain experience in the field of psychiatry.

Meanwhile, Evangelia is a devoted musician, with a degree in jazz – blues singing. She has studied the piano (both classical and jazz) for 12 years and been a member of multiple bands, her last one being the trio “Doremedy” consisting of two fellow medical students.



Papadimitriou, Panagiota
Resident in Adult General Psychiatry,
Greece

Dr Papadimitriou is a graduate of the Medical School of Palermo (Università degli Studi di Palermo, Italia). During Medical school, she practiced in specific programs of Internal Medicine, Forensic Medicine, Sports Medicine, and Neurosurgery. In 2012, she returned to Greece to practice medicine and for 1 year and a half she was a physician of rural service in Sperchiada, a village in Fthiotida’s countryside. After that time, she started her psychiatric internship at Kozani’s General Hospital, where she was trained 8 months in acute psychiatric disorders and 6 months in intercourse psychiatry. At the present, she is completing her psychiatric training in Psychiatric Hospital of Attica at the 5th Department. During her training time, she par-



ticipated in two neuropsychiatric seminars in Primary Health Care and attended the 23rd and 25th Pan-Hellenic Congress of Psychiatry. Specifically, in the 25th Congress she presented 2 posters, one concerning the impact of unemployment on mental health and the other about refugee migration crisis.



Papathanasiou, Nestoras
Psychiatrist, Greek Association
for Cognitive Behavioral
Psychotherapies, Greece

I received my Medical Degree from Aristotle University of Thessaloniki in Greece. I performed my residency in psychiatry at Papageorgiou General Hospital of Thessaloniki in Greece. In parallel I have been trained in Cognitive Behavioral Therapy at the training program of the Greek Association for Cognitive and Behavioral Psychotherapies (GACBP). Since then I am performing a PHD in psychiatry at Aristotle University of Thessaloniki focused in physiotherapy and psychosocial factors of drug and alcohol dependence in prisoners of Feli Grenena prisons and also I am a psychiatrist in the same prisons. From 2015 I have my own private practice in Thessaloniki, and recently I have undertaken the scientific management of a clinic in Drama named "Agia Eirini".



Pasiadis, Konstantinos
Assistant Professor on Musical
Acoustics, Psychoacoustics and
Signal Processing, Department of
Music Studies, Aristotle University of
Thessaloniki, Greece

Dr. Konstantinos Pasiadis graduated from the Department of Electrical & Computer Engineering, Aristotle University of Thessaloniki. He also concluded his post-graduate studies and received his Ph.D. on Voice/Speech Signal Processing from the same department (Laboratory of Electroacoustics, Music Technology and Television Systems). Currently, he is Assistant Professor on Musical Acoustics, Psychoacoustics and Signal Processing at the Department of Musical Studies, Aristotle University of Thessaloniki, and member of the Cognitive and Computational Musicology Group of AUTH. He received his degree on music from Yamaha Music Foundation and he is a piano and keyboards performer. He has published several research articles in the fields of Psychoacoustics, Perception & Musical Acoustics, Auditory Perception & Signal Processing, Voice/Singing Acoustics/Pathology. He participated in numerous funded research projects in the fields of Technology in Hearing Restoration, Music Perception, Acoustics of Voice, etc. His research and teaching interests on Psychoacoustics and Signal Processing include: psychophysical methods and applications in music perception, computational models in auditory physiology, perception and production of musical signals, tests/systems for the acquisition, processing and analysis of objective and behavioral data, signal processing/analysis with applications in music perception, and, of course, acoustics of musical instruments and singing/voice.



Pervanidou, Panagiota

Assistant Professor in Developmental and Behavioral Pediatrics, Head of the Unit of Developmental and Behavioral Pediatrics, First Department of Pediatrics, School of Medicine, National and Kapodistrian University of Athens, "Aghia Sophia" Children's Hospital, Athens, Greece

Dr Panagiota Pervanidou, MD, is currently Assistant Professor of Developmental & Behavioral Pediatrics and, since 2007, Head of the Center of Developmental & Behavioral Pediatrics, First Department of Pediatrics, University of Athens, School of Medicine, "Aghia Sophia" Children's Hospital, Athens, Greece. Dr Pervanidou is a graduate of Aristotle University of Thessaloniki, School of Medicine. She completed her residency in Pediatrics in the First Department of Pediatrics, University of Athens, School of Medicine, "Aghia Sophia" Children's Hospital, and a fellowship in Developmental & Behavioral Pediatrics in the First Department of Pediatrics, University of Athens and the Cincinnati Children's Hospital Medical Center, Cincinnati, USA. She has a Medical Doctorate in the Neuroendocrinology of Posttraumatic Stress Disorder in Children and Adolescents, from the First Department of Pediatrics and the Department of Child Psychiatry, University of Athens, School of Medicine. She is a member of the International Society for Developmental and Behavioral Pediatrics, SDBP, since 2008 and founding member of three Greek Societies. She has a great teaching experience in the pre-and postgraduate level and she has organized more than 20 Educational Seminars and Conferences. She has been a Reviewer in more that 25 International Scientific Journals. Clinical and Research Interests include: Stress, ADHD, Autism Spectrum Disorders, Eating Problems and their neuroendocrine and neurobiological mechanisms

Research Summary: peer reviewed (full) articles: 52; IF: 151.13; citations: 1.554; h-index:15; i10-index: 23 (google scholar); book chapters: 10; Invited Speaker in international conferences: 15; Invited Speaker in > 100 Greek Conferences; Presentations in International Congresses: 98.



Petalidou, Nicoleta

Research Associate, Department of Psychology and Neuroscience, University of Maastricht The Netherlands

My name is Nikoletta Petalidou. I have a BSc in Economical and Political Science from the University of Twente in the Netherlands. My second BSc is on Psychology from the University of Derby. After completing my studies there, I followed a Master of Science in Neuropsychology and Psychopharmacology in the University of Maastricht, in the department of Psychology and Neuroscience in the Netherlands. I currently work there as a research associate.



Popescu, Anca-Livia
Specialist in Adult Psychiatry,
University of Medicine and
Pharmacy, Tîrgu Mures, Romania

Anca-Livia Popescu is a Specialist in Adult Psychiatry and a Systemic Family Therapist since 2016, a Trainer in Systemic Family Therapy since 2017 and a student in the PhD program at the University of Medicine and Pharmacy Tîrgu Mures since 2013.

Anca's activities regard both clinical and research. Her main focus is on psychotic disorders with a perspective on functionality and prognosis. Her PhD theme is related to Facial Affect Recognition in Psychotic disorders with a Systemic perspective.

Her education in medicine begins in 2005 with the entering into medical school at "Victor Babeș" University of Medicine and Pharmacy Timisoara. Her basic psychiatric training was completed between 2011-2016 at the main psychiatric Clinic in Timisoara.

Doctor Anca Livia Popescu has participated to a numerous special courses with a recent focus on trauma and dissociation that were followed by an Erasmus exchange to Modum Bad, Vikersung, Norway but also psychopharmacology with a participation to the ECNP Neuropsychopharmacology Annual School in Oxford, United Kingdom.

Anca also participated and she sustained oral presentations and poster presentations to a large number of congresses and conferences and she was the president of two national such congresses after she was elected president of the national organization for psychiatric trainees - AMRPR.

Dr. Popescu has published in both fields - psychiatry and psychotherapy - as main author and co-author.

She is a member of a number of national and international professional associations.



Rera, Eirini
Psychologist, Msc, Thessaloniki,
Greece

Mrs. Eirini Rera graduated from the Department of Psychology of Aristotle University of Thessaloniki, Greece and continued with postgraduate studies in School Psychology in the University of Turin, Italy. She has acquired a diploma in Sport Psychology for Peak Performance from Ashworth College, U.S.A.

At the moment, she is completing the final semester in her second masters degree in Psychopathology of Children, in the Faculty of Medicine of Aristotle University of Thessaloniki, Greece.

For the last four years she has provided counseling and psychological support to F.C. PAOK Academy's coaches, athletes and parents. Also, she has been working in elementary and middle school education, as school psychologist and she's an associate researcher and psychotherapist trainee at Papageorgiou General Hospital of Thessaloniki.



Rivis, Ioana-Alexandra
"Victor Babes" University of
Medicine and Pharmacy, Timisoara,
Romania

Ioana Rivis started studying General Medicine in 2008 at the University of Medicine and Pharmacy 'Victor Babes' Timisoara, while also being a long-distance Finance and Banking student at 'Aurel Vlaicu' University Arad. After graduation she began her work, as a resident doctor in psychiatry, at 'Eduard Pamfil' Psychiatry Clinic in Timisoara. During these two years of residency, she achieved many important abilities in tending to patients. As part of her training, she worked in the Child Neuropsychiatry Department, Neurology and Internal Medicine departments, obtaining excellent results whilst acquiring essential qualities useful in clinical practice.

As a psychiatry resident, Ioana attended work-shops held by European Society for Trauma and Dissociation, congresses and symposiums in Timisoara, and has recently been awarded a grant for a poster which will be presented at the EPA 2017 Congress. She has recently started a post-graduate course on intervention techniques and social integration of drug users, hosted by West University Timisoara in collaboration with the Police Department Timisoara.

Ioana's objectives are to enhance her skills and gain experience by working in different environments all over the world, as well as continuing her research activity. She wishes to achieve as many abilities and experience as she can, in order to make a contribution to the scientific community and subsequently be able to share her knowledge.



Samakouri, Maria
Associate Professor of Psychiatry,
Head of the Department of
Psychiatry, Medical School,
Democritus University of Thrace,
University General Hospital of Evros,
Alexandroupolis, Greece

Maria Samakouri, MD, is Associate Professor of Psychiatry and Head (since 2013) of the Department of Psychiatry, Medical School, Democritus University of Thrace (DUTH) at the University General Hospital of Evros, in Alexandroupolis (UGHA)-Greece.

Dr. Samakouri graduated from the Medical School, University of Athens-Greece, in 1985. She received her Certificate of the Specialist Training in Psychiatry in 1991 and earned her Doctorate in Psychiatry, in 1994, from the Medical School, DUTH. She worked as a NHS psychiatrist in the Department of Psychiatry - UGHA, for ten years, and later (2001 up today) served as a faculty member (lecturer, assistant and associate professor) at the Medical School, DUTH & UGHA. The services offered by the Department of Psychiatry of the above Hospital form a network of inpatient, outpatient, community and rehabilitation mental health units. In 2012, Dr Samakouri spent her 6-month sabbatical at the Institute of Psychiatry, King's College London & South London and Maudsley NHS Foundation Trust, London, UK. Since 2013, Dr. Samakouri is the Head of the master degree program in Social Psychiatry, offered by the Medical



School, DUTH and since 2016 she serves as the director of the newly founded Students' Psychosocial Support Service of the same University.

Dr Samakouri has been teaching, to undergraduate students, clinical psychiatry, community psychiatry, medical psychology and psychosomatics, for more than 15 years. Moreover, the courses she teaches to post-graduate students include ethics in psychiatry, forensic psychiatry and psychopharmacology.

Dr. Samakouri clinical and research interests concern community psychiatry. She has been actively involved in the "Psychiatric Reform" in the catchment area served by the UGHA. She has been the founding Director of many community mental health services of that Hospital that have been funded by EU, during the last 15 years.

Dr.Samakouri has coauthored more than 40 papers and chapters published in national & international journals and books.



Schulze, Thomas G.

Institute of Psychiatric Phenomics and Genomics (IPPG), Medical Center of the University of Munich, Munich, Germany

Professor Thomas G. Schulze, born in 1969, studied medicine in Germany, the USA, and Catalonia. He trained as a psychiatrist and held positions in Germany (Bonn, Mannheim, Göttingen) and the USA (Chicago, Bethesda, Baltimore). Since 2014, he has held the position of Director of the Institute of Psychiatric Phenomics and Genomics at the Ludwig-Maximilians-University of Munich (IPPG). Dr. Schulze's research focuses on genotype-phenotype relationship in psychiatric disorders. He has authored close to 200 papers and received numerous awards. He serves as the President of the International Society of Psychiatric Genetics and is Past President of the American Psychopathological Association.



Sidiras, Christos

PhD candidate in Audiology and Psychophysics, Psychoacoustic Laboratory, 3rd Psychiatric Department, AHEPA, Aristotle University of Thessaloniki, Greece

Sidiras Christos is a PhD candidate in Audiology and Psychophysics in Medical School, Aristotle University of Thessaloniki. He also has a musical background as a performer and 15 years of musical education. He gained his master on Applications of Advanced Computer Systems, with emphasis on psychoacoustics, his bachelor degree on Music Studies and has attended two seminars on Central Auditory Processing Disorder. He is author of four peer-reviewed papers in the field of Audiology, reviewer in the Journal of the American Academy of Audiology and speaker in two conferences.

He has been working as a research assistant since 2014 in Psychoacoustic Laboratory, AHEPA, Aristotle University of Thessaloniki, and as music teacher for ten years in music, primary and high schools. He also is a professional musician for more than a decade and plays the acoustic and electric guitar, and several

east traditional string musical instruments, including bouzouki and oud.

His research and academic interests are influenced from his musical background and his occupational activity with young children. He is concerned with Central Auditory Processing Disorder (CAPD) in children, maturational effects on auditory skills in CAPD and neurotypical children, rhythm perception, auditory timing mechanisms and other aspects of temporal auditory processing.



Simos, Gregoris

Associate Professor of
Psychopathology, Department
of Educational and Social Policy,
University of Macedonia, Greece

Gregoris Simos graduated from the Medical School of the Aristotle University of Thessaloniki, from where he also earned his PhD. Dr Simos specialized on Neurology and Psychiatry, and he had postgraduate clinical training courses at the Institute of Psychiatry, University of London, and also at the Center for Cognitive Therapy/ University of Pennsylvania Medical School. Dr Simos is a Founding Fellow, a Diplomate and also a Certified Consultant/Trainer of the Academy of Cognitive Therapy. Dr Simos is the President of the Greek Association for Cognitive and Behavioral Psychotherapies and also the Head of its three-year CBT Training Program that is accredited by the European Association for Behavioural and Cognitive Therapies. Dr Simos has published in Greek and English and has been at the Editorial Board of various scientific Journals. He is currently an Associate Professor of Psychopathology at the Department of Educational and Social Policy, University of Macedonia, Greece.



Simou, Meropi

Psychologist, Scientific Associate,
1st Psychiatric Department,
Aristotle University of Thessaloniki,
Papageorgiou General Hospital,
Thessaloniki, Greece

Meropi Simou is a licensed psychologist, a Scientific Associate at the First University Department of Psychiatry at the Papageorgiou General Hospital in Thessaloniki, and she is also working on a voluntary basis in the Student's Counselling and Support Center of the University of Macedonia as well as in private practice.

Regarding her educational background, she graduated from the Department of Psychology, and she is currently finishing her three-year accredited training in Cognitive Behavior Therapy by the Greek Association for Cognitive and Behavioral Psychotherapies (GACBP). In the previous years, she has gained clinical experience by working voluntarily in various clinical settings, such as the Community Mental Health Center, Central District/Psychiatric Hospital of Thessaloniki, or the First University Department of Psychiatry at the Papageorgiou General Hospital.

She has attended several congresses, both as a participant and as a speaker, presenting her research work along with other colleagues. She also continues her clinical training by partici-



pating in various workshops and seminars, mostly in the field of diagnostics, clinical assessment and psychotherapy intervention.



Smirnova, Daria

Assistant Professor, Department of Psychiatry, Samara State Medical University, Russia, Visiting Research Fellow Centre for Clinical Research in Neuropsychiatry (CCRN), Division of Psychiatry, Faculty of Health and Medical Sciences, University of Western Australia, Perth, Australia

Currently I am an Assistant Professor of the Department of Psychiatry, Samara State Medical University (Russia) and Visiting Research fellow in the Centre for Clinical Research in Neuropsychiatry (CCRN), Division of Psychiatry, Faculty of Health and Medical Sciences, University of Western Australia. My career background includes basic training in Medicine with postgraduate course in Psychiatry (Samara State Medical University, Russia) and research experience (PhD in Psychiatry, Moscow Research Institute of Psychiatry, Russia). I also work as a consultant in psychiatry and a specialist in psychotherapy.

My research interests in psychiatry focus on affective disorders and schizophrenia. My scientific background includes the Russian PhD degree program on early recognition and management of depression. In 2012 I participated in an international project on studying schizophrenia among Russian immigrants to Israel, conducted in collaboration with Ben-Gurion University. In 2014 I was awarded Go8 European fellowship to continue my research on language and communication dysfunction in schizophrenia at the Centre for Clinical Research in Neuropsychiatry, University of Western Australia. In 2015 we started a multicentre project on approbation and validation of Russian version of Diagnostic Interview for Psychoses in patients with psychoses in 7 Russian sites. Since 2011 I am a Board Member of Russian Society of Psychiatrists.



Soldatos, Constantinos

Emeritus Professor of Psychiatry, Director of the Mental Health Care Unit, Evgenidion Hospital of the University of Athens, Greece

Professor C.R.Soldatos graduated from the Athens University Medical School, where he had subsequently his specialty training in Neurology and Psychiatry. He also trained for one year in Clinical EEG at the University of Manitoba Medical School, Winnipeg, Canada.

For the last 50 years, he has served as faculty member in the Departments of Psychiatry of the University of Athens, Pennsylvania State University and New York Medical College.

During his academic carrier, he became Associate Director of the Sleep Research and Treatment Center at Pennsylvania State University, Director of the Sleep Research Unit and Sleep Disorders Center at Athens University, Chairman of the 2nd Department of Psychiatry (Attikon Hospital) as well as the 1st Department of Psychiatry (Eginition Hospital) at the University of Athens. **He is currently Emeritus Professor of Psychiatry and Director of the Mental Health Care Unit at the Evgenidion Hospital of the University of Athens.**

Since June 2013 Prof. Soldatos served as President of the World Federation of Societies of Biological Psychiatry (WFSBP) for a two year term. He is now serving as a member of the Executive Committee of WFSBP in his capacity as the Past President for a two year period (2015-2017).

Over the years he has been Chairman of the Committee for Mental Health of the Central Health Council of Greece and Member of many other Committees of national and international Organizations. He was President of the International Neuropsychiatric Association (2006-2008) and of seven other scientific societies based either in Greece or abroad. Until now, he is President of the Hellenic Society for the Advancement of Psychiatry and Related Sciences as well as of the Hellenic Association of Biological Psychiatry, both of which he has founded. In addition, he served as Co Chair of the Operational Committee on Scientific Sections of the World Psychiatric Association (WPA) and he has been member of five more major committees of WPA and another seven of the WFSBP, two of which he chairs. He has been actively involved in the organization of more than 350 national or international congresses, having being President in 21 of them.

In 1967 completed his Doctorate Thesis and in 1989 his Dozent Thesis at the University of Athens Medical School. Also, he has been the Guest Editor of 3 International Psychiatric Journals and he has published 40 scientific books (10 in English) and about 500 journal articles or book chapters. His ISI journal articles have received 9602 citations, while his h-index is 51, as per Google Scholar in January 2017. Most of his research work pertains to Sleep Pathology and Pharmacology, particularly to the study of insomnia and its relationship to psychopathology. In recognition of his scientific contributions, Prof. Soldatos has received a number of distinctions from various scientific institutions; most notably, he is Doctor Honoris Causa of the Patras University, Honorary President of the Hellenic Sleep Research Society, which he founded in 1997, and Honorary Member of the World Psychiatric Association, the Polish Psychiatric Association, the Mexican Neuropsychiatric Association, the Argentinean Neuropsychiatric Association and the International College of Geriatric Psychoneuropharmacology. He is, also, the recipient of certain career awards, such as the Owl of Wisdom Prize and the Athens Hypnology Award. Finally, as of July 2014, he was elected Member of the European Academy of Sciences and Arts.



Tavormina, Giuseppe
President of the Psychiatric Studies
Centre, Italy

Dr Giuseppe Tavormina (born in 1963) is a Psychiatrist and works exclusively in Private Practice as a clinician since 1998.

He also worked in a Mental Health Institute for more than five years (from Oct 1992 to May 1998); before the hospital career, he worked for two years as Penitentiary Physician.

In the month of June 2000 he co-founded a no-profit Scientific Association of which he is the President ("Psychiatric Studies Centre", or "Cen.Stu.Psi." - www.censtupsi.org), that has its first purpose in encouraging and stimulating the scientific, clinical and diagnostic research while carefully gathering current studies of all psychiatric subject matters.

He has been, in the years 2006-2007, a Founding Member (and actually its General Secretary) of two NGO associations, the "European Depression Association" ("EDA", headquartered in Brussels, Belgium), and "EDA Italia Onlus – Associazione Italiana sulla Depressione" (headquartered in Provaglio d'Iseo, Italy): their main role and aim is to create and co-ordinate in all European countries and Italian regions the annual event called "European Depression Day".

He has been appointed, in the October 2007, for scientific merits as "Senior Research Fellow" of the Bedfordshire Center for Mental Health Research in association with the University of Cambridge.

He joined during past 15 years to more than 80 national and international congresses presenting personal scientific papers. He also is a Member of ECNP and EPA (in Europe), and SOPSI and SINPF (in Italy).

He is an Editorial Board Member of the scientific journals "Archives of Depression & Anxiety" and "Affective Disorders and Psychosomatic Research" journal; he is also a Peer-Reviewer of Dove Medical Press for the journal "Neuropsychiatric Disease and Treatment".

He is a Member of "Science Advisory Board".

He published 60 articles in national and international scientific magazines, mainly about bipolar spectrum topic, beginning actually one of the European experts in the field of bipolar spectrum mood disorders.

Mainly, he co-edited the issue "The management of bipolar spectrum disorder" of the "Psychiatric Edge Psychiatry in Practice" (SEPT, 2013 - CEPiP.org); he is the main author of the informative book directed to all population with the title "Throwing light on a dark problem - A short guide to mood disorders" (Sardini publisher, 2013 - www.sardini.it)



Touloumis, Charalampos
NHS Director, Psychiatric Hospital of
Attiki, Athens Greece

Dr. Touloumis was born in Chalkis of Evia, Greece. He graduated from Medical School of Athens University and received his specialty in Psychiatry from Psychiatric Hospital of Athens and Evangelismos Hospital.

Since 1987, he has been working as Psychiatrist in Psychiatric Hospital of Athens (nowadays in the position of Deputy Clinic Director in the 5th Psychiatric Department). He has published more than 50 scientific publications through greek and international biomedical magazines. He has made more than 70 scientific presentations in medical conferences. He is interested specifically in Clinical Psychiatry and Psychopharmacology.



Tournikioti, Kalliopi
Consultant Psychiatrist, 2nd
Department of Psychiatry, National
& Kapodistrian University of Athens,
Attikon General Hospital, Greece

Kalliopi Tournikioti is a consultant psychiatrist at the 2nd Department of Psychiatry, Attikon University Hospital (National and Kapodistrian University of Athens). She obtained her medical degree from the University of Rome "La Sapienza" in Italy and specialized in Psychiatry at the University of Verona, WHO collaborating centre for research and training in mental health. During her specialty training she was appointed as honorary senior house officer at the Institute of Psychiatry at the Maudsley Hospital in London, UK where she was involved in neuroimaging research.

She has a Msc in Health Promotion from the National and Kapodistrian University of Athens and a Master in Business Administration (MBA) from the Economic University of Athens. In 2014 she obtained her PhD in Neuropsychology of Bipolar Disorder and her main area of interest is the role of stress and the HPA axis in the neuropsychology of Bipolar Disorder. Dr Tournikioti has several publications in international peer reviewed journals and has received awards from the Hellenic Psychiatric Society in 2015 (best paper award) for Bipolar Disorder and from the European College of Neuropsychopharmacology in 2007 (poster award).



Tsapaki, Evangelia
Director of the "Aghios Charalampos"
Mental Health Clinic, Heraklion,
Crete, Greece

Dr Evangelia M Tsapakis is a Consultant General Adult Psychiatrist. Having earned a BSc(Hons) in Pharmacology from King's College London, she went on to study Medicine (MBBS) at St. George's London. She trained in Psychiatry at the Maudsley and Royal Bethlem Hospitals (MRCPsych, CCST General Adult Psychiatry) and earned the Diploma in Behavioural and Cognitive Therapy from St. George's Hospital, University of London. She was awarded the 2003 Royal College of Psychiatrists Travelling Fellowship to further train in neuropharmacology under the supervision of Prof Ross Baldessarini at Harvard Medical School. In 2006 she earned the Certificate in Clinical Psychopharmacology awarded by the British Association for



Psychopharmacology, and in 2007, she earned a MSc in Affective Neuroscience from the University of Maastricht. In 2009, she completed work at the Institute of Psychiatry, King's College London, towards a PhD in pharmacogenetics (on the role of metabolic enzyme variants in response to treatment with psychotropic agents) and pharmacogenomics (on the differential gene expression induced by antidepressants in juveniles). She is currently the Clinical Director of 'Aghios Charalambos' Mental Health Clinic in Heraklion, Crete, Greece, and a visiting research associate and collaborator at the International Bipolar Program at Harvard Medical School. Dr Tsapakis has received several prestigious awards, has co-authored several original articles, book chapters and a monograph titled "Handbook of Schizophrenia". She has so far been cited over 700 times, and has an h-index of 13.



Tsitsipa, Eirini
Psychologist, NHS, UK

Eirini Tsitsipa received her degree in Psychology (2012) from the Aristotle University of Thessaloniki. During her studies, she specialized in "dementias" at the Hellenic Association of Alzheimer's Disease and Related Disorders and she worked at the 1st Neurological clinic of the Aristotle University of Thessaloniki. She has a Diploma in clinical training of mental health provided by the 1st Psychiatric clinic of the Aristotle University of Thessaloniki and she is specialized in Cognitive – Behavioral Psychotherapy. She is competent in the use of neuropsychological and psychometric instruments. She has also participated in a number of psychiatric conferences. She used to work at Hellenic Police and between 2012 and 2015 she was working at the 3rd Psychiatric Clinic of AHEPA General University Hospital, Thessaloniki. She has been working in Psychiatric Hospitals and Research Units (NHS) in U.K since 2015. She is about to complete her MSc degree in neurodegenerative diseases at the Division of Psychiatry, University College of London.



Tsopelas, Christos
Consultant Psychiatrist in Adult
Psychiatry, Psychiatric Hospital of
Attica, Athens, Greece

Dr Tsopelas is a graduate of the Medical School of Athens. His psychiatric training was completed in Aeginition Hospital, Athens, and Charring Cross Psychiatric training Scheme, London, UK. He has worked in London in various posts, like Community Drug and Alcohol Teams and Crisis Resolution Home Treatment team. The last post was as Consultant psychiatrist in Community Mental Health Team at South London and Maudsley Trust before he returned to Greece in late 2005. Since then he has been part of Greek National Health system and worked for the last 5 years at the Psychiatric Hospital of Attica. He completed his MSc in Psychiatric Research at Institute of Psychiatry, London, UK. He is in the process of finishing his PhD.

He has training in Brief Solution Focused Therapy and Interpersonal Psychotherapy.

His special interests include Epidemiology, Forensic Psychiatry, patients' rights and community psychiatry. He has been secretary of Forensic Psychiatric Section of Hellenic Psychiatric Association and actively involved in organizing and teaching at European co-funded educational programs about de-institutionalization, community psychiatry and forensic psychiatry. Now he is also member of the Board of the Hellenic Psychiatric Association and Secretary of the newly formed Greek Forensic Psychiatric Association.



Vorvolakos, Theofanis

Assistant Professor of Psychiatry
Democritus University of Thrace,
Greece

Works as a Consultant Psychiatrist in Department of Psychiatry in Alexandroupolis University Hospital, this includes ward duties as well as community work. He is the head Psychiatrist of Old Age Psychiatry Clinic in the same department for the last seven years.

He is teaching in Democritus University Medical School as well as Social Workers School and also he is a lecturer in four Master in Science degrees in Democritus University Medical School as well as in one Master of Science degree in the Technological institute of Thessaly Nursing School His research work includes the supervision of a number of Thesis and he has published a number of papers in Greek and international medical journals and his research work have been announced in Greek and international medical conferences.



Zdanowicz, Nicolas

Professor, Head of Clinic of the
Psychosomatic and Psycopathologic
Department, Mont-Godinne
University Hospital, Belgium

Prof Nicolas Zdanowicz obtained his master in Psychiatry in 1993. He performed a part of his fellowship in Switzerland and in France at the hospital de la Salpêtrière. He presented his PhD thesis about Adolescent' Health in 2001. He became Professor at the Université Catholique de Louvain (UCL) in 2009 where he is already lecturer since 2003. After his researches in adolescents and young adults' psychiatry, he was nominated as Senior Research Fellow at the University of Cambridge in 2009.

Author of more than 150 articles, chapters of books and books he is Currently Head of Clinic of the Psychosomatic and Psychopathologic Department at Mont-Godinne University Hospital (UCL) in Belgium. He takes part in a lot of Editorial Boards, in the Executive Board of Cen.Stu.Psi. and in the European Expert Platform on Depression. He is also scientific advisor for the ministry of youth from the French Belgium Community and for the National Child Office.



Ziaziari, Elli

B.Sc. Philosophy, Pedagogy and
Psychology, UoA, M.Sc. Language
Disorders and Intervention, Aristotle
University of Thessaloniki, Greece

Ms. Elli Ziaziari graduated from the department of Philosophy, Pedagogy and Psychology at the National and Kapodistrian University of Athens in 2011, with a specialization in Special Education. She is at the final stage of a M.Sc. on “Language Disorders and Educational Intervention” at the Aristotle University of Thessaloniki, and currently she is also studying at the University of Groningen (RUG) under the Erasmus+ Program. She holds a diploma in singing and has also studied and performed classical guitar. Her research interests focus on learning disabilities and people with hearing deficits. Her professional experience ranges from teaching in primary and high-school students, as well as, participating in theatrical and musical performances in private schools and theatrical scenes. She has been engaged in teaching the Greek language to immigrants from 18 to 60 years old. She also had an internship at a psychology services firm, in which she occupied with theatrical games for children from 7 to 12 years old and consulting for unemployed youth.

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