Center for Applied Neuroscience

University of Cyprus
Center for Applied
Neuroscience

CAN

9th Annual Scientific Conference

ADVANCES IN RESEARCH METHODOLOGIES IN NEUROSCIENCE

October 04, 2019
University of Cyprus

CAN@UCY.AC.CY

+357 22895190

CENTER FOR APPLIED
NEUROSCIENCE

@CANUNICYPRUS

CENTER FOR APPLIED NEUROSCIENCE

Πανεπιστήμιο Κύπρου
Τμήμα Ψυχολογίας

NEO
PRISM·C

Neurodevelopmental Optimal-predictors Risk
Factors And Intervention From A Systems Approach
To Maladjustment In Children

Center for Applied Neuroscience

University of Cyprus
Center for Applied
Neuroscience

CAN

9th Annual Scientific Conference

ADVANCES IN RESEARCH METHODOLOGIES IN NEUROSCIENCE

Conference Program

Time	Session
09:00-09:20	**Welcome:** Prof. Tasos Christophides, Rector, University of Cyprus Prof. Savvas Katsikides, Dean, Faculty of Social Sciences and Education, University of Cyprus Prof. Fofi Constantinidou, Professor of Psychology & Director, Center for Applied Neuroscience, University of Cyprus
09:30-10:30	*The Development and Implications of Research Domain Criteria in Mental Health Research* Dr. Bruce Cuthbert, Director of the Research Domain Criteria (RDoC) Unit at the National Institute of Mental Health
10:30-11:20	*Ethics in pediatric research* Dr. Christopher Bartlett, Associate Professor of Pediatrics and Mathematical Medicine at the Research Institute at Nationwide Children's Hospital at the The Ohio State University, USA
11:20-11:50	**Coffee Break & Poster Viewing**
11:50-12:40	*Methods in Cognitive Neuroscience: How to deal with critical questions about the developing brain?* Dr. Valéria Csépe, Professor at Research Centre of Natural Sciences (RCNS) of the Hungarian Academy of Sciences (HAS), Technical University of Budapest and University of Pannonia.
12:45-13:45	**Datablitz of accepted posters**
13:45-14:00	**Closing comments**
14:00-15:00	**Poster Viewing and Lunch**

CENTER FOR APPLIED
NEUROSCIENCE

Πανεπιστήμιο Κύπρου
Τμήμα Ψυχολογίας

NEO
PRISM·C
Neurodevelopmental Optimal-predictors Risk
Factors And Intervention From A Systems Approach
To Maladjustment In Children

Center for Applied Neuroscience

University of Cyprus
Center for Applied
Neuroscience

CAN

9th Annual Scientific Conference

ADVANCES IN RESEARCH METHODOLOGIES IN NEUROSCIENCE

Dr. Bruce Cuthbert

Title:
The Development and Implications of Research Domain Criteria in Mental Health Research

Abstract:
The pace of advances in treatment and prevention for mental disorders has lagged noticeably compared to other areas of health. An emerging consensus suggests that a significant cause of this situation stems from the dependence of clinical research on a diagnostic system based on presenting symptoms, and that mental disorders as currently conceived are not specific disease entities but heterogeneous syndromes that lack validity. In response, the US National Institute of Mental Health initiated the Research Domain Criteria project (RDoC) in order to foster alternative approaches to research. RDoC is a research framework that calls for studies based on the rapidly accelerating knowledge about basic dimensions of behavior (such as fear or working memory) and the structure and functioning of the brain. Psychopathology is then viewed in terms of varying degrees of abnormality relative to the normal distribution of functioning. This presentation will provide an overview of the RDoC framework and its approach to issues such as the mind-body problem, dimensionality of disorders, new treatments and clinical trials, and new ideas for prevention and pre-emption of disorders. Particular emphasis will be given to the important role of development and environmental influences as they relate to the development of psychopathology.

Dr. Bruce Cuthbert directs the Research Domain Criteria (RDoC) Unit at the National Institute of Mental Health, which leads NIMH's development of a research framework for psychopathology based upon dimensions of behavior and neural systems. He also served as NIMH Acting Director from 2015 to 2016. Dr. Cuthbert has led the RDoC project since its inception in 2009, also leading the Division of Adult Translational Research from 2009-2014. He returned to NIMH in 2009 following four years as a professor at the University of Minnesota, and was previously Chief of the NIMH Adult Psychopathology Branch. Prior to joining NIMH he served for eleven years as an investigator in the US Army studying combat-related stress and biological rhythms, and for seventeen years on the faculty at the University of Florida. Dr. Cuthbert received his Ph.D. in clinical psychology and psychophysiology from the University of Wisconsin, and is known for his translational research on emotions and anxiety disorders. He is a fellow of the Association for Psychological Science and a past-president of the Society for Psychophysiological Research.

CAN@UCY.AC.CY

+357 22895190

CENTER FOR APPLIED NEUROSCIENCE

@CANUNICYPRUS

CENTER FOR APPLIED NEUROSCIENCE

Πανεπιστήμιο Κύπρου
Τμήμα Ψυχολογίας

NEO PRISM·C
Neurodevelopmental Optimal-predictors Risk Factors And Intervention From A Systems Approach To Maladjustment In Children

Center for Applied Neuroscience

University of Cyprus
Center for Applied
Neuroscience

CAN

9th Annual Scientific Conference

ADVANCES IN RESEARCH METHODOLOGIES IN NEUROSCIENCE

Dr. Christopher Bartlett

Title:
Ethics in pediatric research

Abstract:
The pathology of childhood developmental disorders, as a phenomenon, occurs at multiple levels of measurement spanning genetic, brain, cognitive, and behavioral domains. Successfully spanning these measurement domains is the underlying goal of many childhood development researchers though the task is difficult due to both the nature of subject matter and the challenging nature of modeling in general. Using the genetics of cognition, specifically the genetics of reading and language along with the complications that can arise with comorbid autism spectrum disorder, here we will examine alternative conceptual modeling approaches to determine relationships that are may be otherwise overlooked when using more general approaches. From defining heritable characteristics that predispose children's developmental trajectories to isolate factors that are important for treatment and remediation, the sina qua non of good models is that they are deliberate, conceptual, and clever. In this talk, we will discuss some of the challenges in childhood development through illustrative example in real datasets. Through these examples, it is hoped that a better understanding of the causes of heterogeneity and comorbidity can be gained.

Christopher Bartlett, Ph.D. is Associate Professor of Pediatrics and Mathematical Medicine at the Research Institute at Nationwide Children's Hospital at the The Ohio State University, in USA. His long-term goal is to understand the molecular neurobiology of human language. However, moreso than any other cognitive neuroscience topic, the neurobiology of language is quite resistant to use of animal models except in extremely circumscribed ways. Christopher's approach is to use "forward genetics" whereby we map language and related traits into the human genome in language impaired patient and family studies using a mix of statistics and genomics. This work entails three levels of basic research and experimentation that feed into the larger project. 1) Statistical genetics research where we develop the statistical methods necessary to directly model and thereby answer our specific research questions. This work involves both analytical and computational methods. 2) Molecular genetic methods and assay development to generate the raw data used in our analyses. 3) Studies of gene expression in the human brain using methods that are similar to those for mapping cognitive traits, but these research questions involve finding directly functional genomic elements that are active in the human brain, such polymorphisms are good candidates biomarkers and mediators of cognitive performance.

CENTER FOR APPLIED NEUROSCIENCE

Πανεπιστήμιο Κύπρου
Τμήμα Ψυχολογίας

NEO PRISM·C
Neurodevelopmental Optimal-predictors Risk Factors And Intervention From A Systems Approach To Maladjustment In Children

Center for Applied Neuroscience

University of Cyprus
Center for Applied
Neuroscience

CAN

9th Annual Scientific Conference
ADVANCES IN RESEARCH METHODOLOGIES IN NEUROSCIENCE

Dr. Valéria Csépe

Title:

Methods in Cognitive Neuroscience: How to deal with critical questions about the developing brain?

Abstract:

Cognitive neuroscience is an interdisciplinary field of research with an exceptional potential to answer critical questions about the neural substrates of human behavior across the cognitive, affective, and social domains. This research field has a promising and challenging area called developmental cognitive neuroscience. Here the growing number of methods provide a special insight into several processes by using different measures either causal or correlative in nature. By studying the child brain under maturation (biological constrain) and development (impact of the social environment) we may better understand trajectories and mechanisms of the typical and atypical development. Moreover, we may or should aim at translating this knowledge to the prevention and treatment of neurodevelopmental disorders and emerging psychopathologies. However, in order to reach our goals, we have to be aware, how central this methodological issue is to our endeavor. The presentation will highlight all the techniques employed to examine the brain across development, including electrophysiology, structural, functional, and diffusion magnetic resonance imaging (s-, f-, -d MRI), as well as the functional near infrared spectroscopy (NIRS). The presentation will address the strengths and limitations of each method and emphasize how important is to develop guidelines for data acquisition, experimental design, data analysis and a development focused interpretation

Valéria Csépe, Ph.D. is research Professor at the Research Centre of Natural Sciences (RCNS) of the Hungarian Academy of Sciences (HAS), Professor of Cognitive Psychology and Neuroscience (Technical University of Budapest, University of Pannonia), and member of the Hungarian Academy of Sciences and the Academia Europaea. Her research focuses on the behavioral and brain correlates of typical and atypical cognitive development from infancy to adulthood. The research group of Neurocognitive Development founded by her at the Brain Imaging Centre of RCNS HAS, investigates brain correlates related to the development of spoken and sign language, reading acquisition and disorders, spatial navigation, music as well as executive functions and probabilistic learning with various brain and behavior methods. She served as deputy secretary General of the Hungarian Academy of Sciences, elected for two terms (2008–2014), being the first female in such a high position there. Between 2012 and 2018 she worked for the strategic committee of the International Council of Science (ICSU) as elected member and took part in the preparatory works of the International Science Council (merger of ICSU and ISSC). She is president, appointed in 2016 and 2018, of the Hungarian High Education Accreditation Committee. As of 2017 she is principal investigator of the national curriculum redesign and implementation EU project in Hungary, member of the Education 2030 focus group as well as invited expert of The Research Precariat Scoping Group of the OECD.

CENTER FOR APPLIED NEUROSCIENCE

Πανεπιστήμιο Κύπρου
Τμήμα Ψυχολογίας

NEO PRISM·C
Neurodevelopmental Optimal-predictors Risk Factors And Intervention From A Systems Approach To Maladjustment In Children

Center for Applied Neuroscience

University of Cyprus
Center for Applied Neuroscience

CAN

9th Annual Scientific Conference
ADVANCES IN RESEARCH METHODOLOGIES IN NEUROSCIENCE

Scientific Posters

#	Title	Authors
1	Narrative Structure and Complexity of typically developing Tagalog-English Bilingual Children and Adults	Kathleen Kay Amora, Rowena Garcia, Natalia Gagarina & Irina Sekerina
2*	Examining the underlying Psychological Inflexibility/Psychological Flexibility model components by using network analysis	Andria Christodoulou, Michalis P. Michaelides & Maria Karekla
3*	Modulation Effect of Prestimulus Alpha Power on Event Related Potentials with and without tACS	Ariane Tretow
4*	CUREX: A Platform for Secure and Privacy-Preserving Exchange of Research Health Data	Demetris Perdikos & Christos Laoudias
5	Developmental changes in constructing and updating spatial representations	Christos S. Michaelides & Marios N. Avraamides
6	A New Means to An End: Brain Stimulation Efficacy of LDLPFC to improve Language of People with Aphasia - A single case study	Despina Kranou- Oikonomidou & Maria Kambanaros
7	The relationship between brain volume and MMSE scores in older adults without dementia	Eleni Kallousia, Eva Pettemeridou & Fofi Constantnidou
8	Insecurity in the Marital Attachment and Child Adjustment Difficulties: The Mediating Role of Coparenting	Emmanouela Milaki & Theodoros Giovazolias
9	Intelligent Patient Assessment & Monitoring System: Differentiating Amongst Various Emotional States via Empatica E4.	Eva Pettemeridou , Georgiou, P., Nikolaou, F., Theocharides, T. & Constantinidou, F.

* Datablitz Presentation

CAN@UCY.AC.CY

+357 22895190

CENTER FOR APPLIED NEUROSCIENCE

@CANUNICYPRUS

CENTER FOR APPLIED NEUROSCIENCE

Πανεπιστήμιο Κύπρου
Τμήμα Ψυχολογίας

NEO PRISM·C
Neurodevelopmental Optimal-predictors Risk Factors And Intervention From A Systems Approach To Maladjustment In Children

Center for Applied Neuroscience

University of Cyprus
Center for Applied Neuroscience

CAN

9th Annual Scientific Conference

ADVANCES IN RESEARCH METHODOLOGIES IN NEUROSCIENCE

Scientific Posters

#	Title	Authors
10	Psychiatric Comorbitidies in Closed Traumatic Brain Injury: A Case Study	Evgenia Peristera Kouki, Mary H. Kosmidis & Eleni Aretouli
11	Discovering relationships between Greek HVLT-R with story recall and depressive symptoms	Flora Nikolaou & Fofi Constantinidou
12	The Effects of Acute and Subacute Rehabilitation of TBI Survivors in Cyprus: A Population Study	F. Demetriou, M. Kokkinou, D. Demetriou, A. Kardama & F. Constantinidou
13	Prediction Validity in Assessment of Violent Behavior. Psychologists Vs Social Workers	Anna H.Antoniou & George Metaxas
14	Adapting to Poverty: Parental Education and Proactive Control	Georgia Gerike & Nicolas Chevalier
15	Cognitive and neurobiological assessment of anti-social behavior in adolescents	Georgia Soursou, Alexandros Lordos & Kostas Fanti
16*	Mapping Gene Expression on the Brain Topology for Neuropsychiatric Diseases	Ioulia Solomou, Margarita Zachariou & George M Spyrou
17	Adaptation and Standardization of a Language Skills Test on Cypriot Population	Iouliani Pachiti & George Spanoudis
18	Attitude of Russian teachers towards the new educational standards	Daria Khanolainen, University if Jyväskylä, Kazan Federal University

* Datablitz Presentation

CENTER FOR APPLIED NEUROSCIENCE

Πανεπιστήμιο Κύπρου
Τμήμα Ψυχολογίας

NEO PRISM·C
Neurodevelopmental Optimal-predictors Risk Factors And Intervention From A Systems Approach To Maladjustment In Children

Center for Applied Neuroscience

University of Cyprus
Center for Applied
Neuroscience

CAN

9th Annual Scientific Conference

ADVANCES IN RESEARCH METHODOLOGIES IN NEUROSCIENCE

Scientific Posters

#	Title	Authors
19	Effectiveness of Attention Bias Modification treatment in socially anxious undergraduate students	Klavdia Neophytou & Georgia Panayiotou
20	Where do bi-dialectals lie in the bilingual-monolingual continuum? An investigation of their vocabulary and executive control skills	Kyriacos Antoniou & George Spanoudis
21*	Network-based multi-source integration as a backbone for network rewiring	Margarita Zachariou, George Minadakis, Anastasis Oulas & George M. Spyrou
22	Can Music Prime Nonwords?-An Experimental Study on Sound Symbolism	Maria Ioanna Zavogianni, Isabell Wartenburger & Natalie Boll-Avetisyan
23	Constructing situation models from comics	Marianna Pagkratidou & Marios Avraamides
24	Therapeutic effects of early harvest olive oil in primary (PPMS) & secondary (SPMS) progressive multiple sclerosis on cognitive functions and neuropsychiatric symptoms	Marios Kyprou, Greta Wozniak & Magda Tsolaki
25*	Electroencephalography as a marker of cognitive fluctuations in Lewy body dementia	Myrto Stylianou, Murphy N, Peraza LR, Graziadio S, Cromarty R, Killen A, O' Brien JT, Thomas AJ, LeBeau FEN & Taylor JP.
26*	Levels of Representation in a Deep Learning Model of Categorization	Olivia Guest & Bradley C. Love
27	Neurophysiological and Psychophysiological Correlates during Social Cognition Performance in Healthy Adulthood: A Lifespan Approach	Orestis Savva & Fofi Constantinidou

* Datablitz Presentation

CENTER FOR APPLIED NEUROSCIENCE

Πανεπιστήμιο Κύπρου
Τμήμα Ψυχολογίας

NEO PRISM·C
Neurodevelopmental Optimal-predictors Risk Factors And Intervention From A Systems Approach To Maladjustment In Children

Center for Applied Neuroscience

University of Cyprus
Center for Applied
Neuroscience

CAN

9th Annual Scientific Conference

ADVANCES IN RESEARCH METHODOLOGIES IN NEUROSCIENCE

Scientific Posters

#	Title	Authors
28	Exploring the Effect of Transcranial Magnetic Stimulation of Early Visual Cortex in Visual Short-Term Memory Capacity	Phylactou Phivos & Konstantinou Nicos
29	Wearable devices vs. Stationary equipment: Similar or different psychophysiological signals?	Pinelopi Konstantinou, Maria Karekla, Andria Trigeorgi, Chryssis Georgiou & Andrew Gloster
30	Integrating spatial memories encoded through haptics and language	Stephanie N. Pantelides, Christodoula Gavriel, Albert Postma & Marios N. Avraamides
31	The role of executive functions and transcription skills in writing: a cross-sectional study across 7 years of schooling.	Nayme Salas & Sara Silvente i Font
32	The Relation between Phonological Awareness, Vocabulary, and V-to-C Coarticulation in German Preschoolers and First Graders	Lisa Hintermeier, Aude Noiray & Barbara Höhle
33	Pre-literacy heterogeneity in Dutch-speaking kindergartners: Latent Profile Analysis.	Cara Verwimp, Pol Ghesquière & Jolijn Vanderauwera
34	Assessing psychopathic traits early in development: Testing potential associations with behavioral, affective, and contextual factors	Chara Demetriou & Kostas A. Fantis
35	The Effect of Handedness and Schizotypy on Creativity	Andriana Mytides & Deborah Serrien

* Datablitz Presentation

CENTER FOR APPLIED NEUROSCIENCE

Πανεπιστήμιο Κύπρου
Τμήμα Ψυχολογίας

NEO PRISM·C
Neurodevelopmental Optimal-predictors Risk Factors And Intervention From A Systems Approach To Maladjustment In Children

Center for Applied Neuroscience

University of Cyprus
Center for Applied Neuroscience
CAN

9th Annual Scientific Conference

ADVANCES IN RESEARCH METHODOLOGIES IN NEUROSCIENCE

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Center for Applied Neuroscience

University of Cyprus
Center for Applied
Neuroscience

CAN

9th Annual Scientific Conference

ADVANCES IN RESEARCH METHODOLOGIES IN NEUROSCIENCE

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Center for Applied Neuroscience

University of Cyprus
Center for Applied Neuroscience

CAN

9th Annual Scientific Conference

ADVANCES IN RESEARCH METHODOLOGIES IN NEUROSCIENCE

CENTER FOR APPLIED NEUROSCIENCE

Πανεπιστήμιο Κύπρου
Τμήμα Ψυχολογίας

NEO PRISM·C
Neurodevelopmental Optimal-predictors Risk
Factors And Intervention From A Systems Approach
To Maladjustment In Children