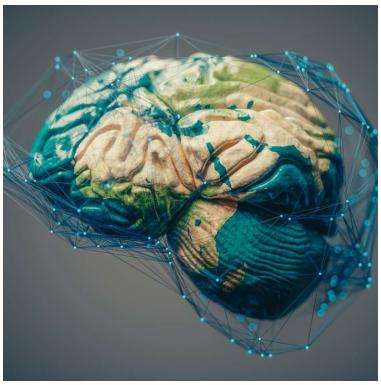
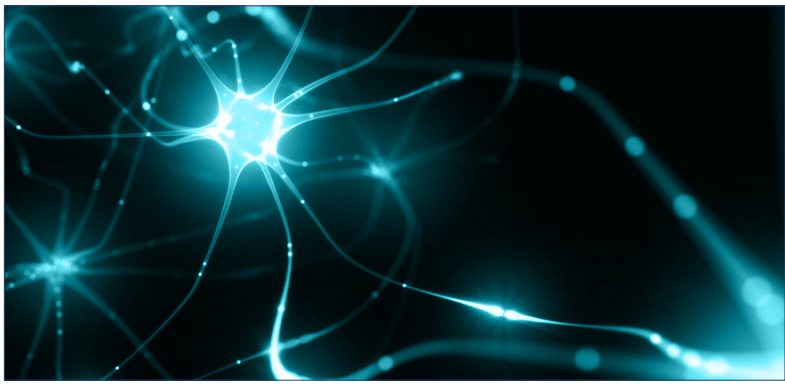
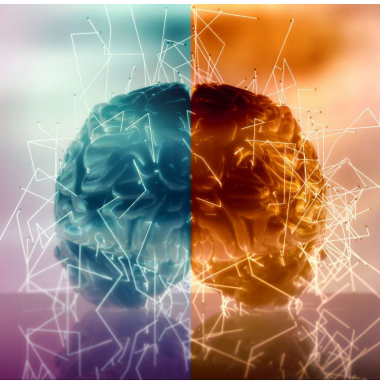
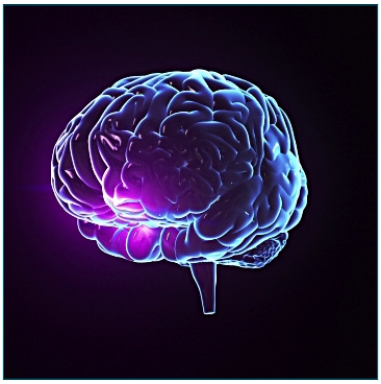
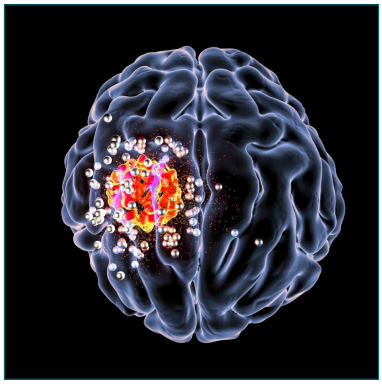
Keynote Forum
August 23, 2018

Neurology 2018

18th International Conference on

Neurology and Neurological Disorders

August 23-24, 2018 | Paris, France

Robert L Burton

Plantronics Inc., USA

Turning Stress into focus with Soundscaping

Stress is the generic term for a subjective cognitive experience, and a psychological and physiological synthesized state generates under a variety of perceptions, thoughts, and behaviors, and environmental factors. In general, stress responses can be categorized into Angry, Protected, Sad, Surprised, Fear, and Unconcerned, 6 types of negative emotions. Stress is often created under the influence of mood, personality, temperament, purpose, and environmental factors. It can also be affected by hormones and neuro transmitters. While stress can have many trigger, events caused by personal and environmental factors, focus is the result of motivation working in harmony with the environment. Although some stress related emotional behavior appears take place inadvertently, conscious reactions to environmental stimuli plays an important role in producing stress reactions. A focused state is where emotions are suppressed to allow a task or multiple tasks to be performed. In a focused state the brain works in harmony with the environment, instead of reacting to it. This paper from the perspective of cognitive neuroscience investigates difference of human brainwave of 6 types of stress triggered emotions i.e. Angry, Protected, Sad, Surprised, Fear, and Unconcerned. The experiment uses acoustic stimuli to initiate the transition between a stressed state and a focused state in the test subjects. Electroencephalogram (EEG) hardware and software is used to extract frontal lobe brainwaves. The extracted brainwaves are further transformed into frequency domain signal where sub-band energy is calculated, characterized, and finally digitally encoded for analysis. The encoded characteristic brainwaves for stress reactions are compared for their difference. Audio induced transitional waveforms that indicate a focused state, can be effectively identified by the proposed emotional brainwave digital encoding technique.

Speaker Biography

Robert L Burton has received BS in Biochemistry and Mathematics from Georgetown University Washington D.C. in 1974 and his M.D. and Ph.D. in Physical Quantum Biochemistry in 1978 from George Washington University in 1978. He has done residency for internal medicine at Saint Francis Hospital University of Hawaii, and Case Western University Cleveland Ohio, where he also received the Liliha Cancer research grant, for work on estrogen receptor detection with radio immune assay. He did his subspecialty in Oncology and Pediatrics at Georgetown University and has received a Sc.D. in Bioengineering at George Washington University in 1985. He has done research with N.A.S.A. in the pathfinder program and helped design a biochemical analysis package for the Mars Rover. He was in private practice for 15 years, then worked at University of Chicago Hospitals. He supposedly retired to Carmel California and then found a great position at Plantronics Inc. Where he is one of the 2 medical doctors working on innovations in the wireless industry.

e: robert.burton@plantronics.com

Notes:

allied academies

18th International Conference on

Neurology and Neurological Disorders

August 23-24, 2018 | Paris, France

Bernadete Marcia Voichcoski[1]

Machado, V. N.[1], Sovierzoski, M.A.[1], Sbalqueiro, R.[2] and **Liberalesso, P.B.N.[3]**

[1]Technological Federal University of Parana/Electronica, Brazil
[2]San Julian Hospital, Brazil
[3]Pequeno Principe Hospital, Brazil

Spatial reasoning skills in the male brain: The risk of losing it

The Schizophrenia Spectrum has the characteristic of to cause impairments in spatial reasoning in the brain. The spatial reasoning is developed more strongly in the first years of life and throughout life for healthy persons and is breached when the schizophrenia spectrum is installed. This abnormality occurs in the encephalon because important cognitive neuronal losses happens over the years, causing even, behavioral changes. The suffering with hallucinations and depression is worst if the person is not treated and a multidisciplinary treatment gives better results. A cognitive comparison between a group of patients with schizophrenia spectrum in treatment and a group of healthy volunteers is the aim of this study. A survey was conducted by applying of a psychological test of objective nature, in two groups of volunteers, being a group composed of 9 patients with schizophrenia spectrum, organized, owners of their mental faculties and treated; and the other group of 16 healthy persons external to the hospital environment. The mean age is 40.22 and 36.87 years respectively. All tests were applied and corrected by a qualified and accredited professional in accordance with the rules in force in the country. In Figure 1, it is possible to visualize the differentiation about performances between the groups with 95.6% confidence interval and p-value between 0.5513 and 0.5522, not discarding the hypothesis of equality between groups, in despite of the difference between the means being 21.44 and 31.56 respectively. It was preoccupant result because a better result was expected about the healthy volunteers. Would be the growing use of technology? It is easier for the brain to use shortest way and not exercise the thought. All things, all views are ready for the direct use. Is not necessary to think again and it is very good to save time, but it has his price to development of reasoning in the brain and its performance.

Speaker Biography

Bernadete Marcia Voichcoski is MSc in Biomedical Engineering at Neurological Area. She is MBA in Information and Communication Management, undergraduate at Electrical Engineering and Electronic Technician and has worked nineteen years with electronic systems at industry. She is invited professor at Federal Technological University of Parana, Curitiba, Brazil, where teaches about Security of the Intellectual Capital for MBA Graduate Course and teaches about Processes of the Manufacturing of the Electronical Systems for undergraduate course Electronic Engineering. She studies brain, neuroscience and neurological system since 2002 and had published six papers in six Congress.

e: berna_voich@uol.com.br

Radu Mutihac

University of Bucharest, Romania

Spatiotemporal dynamics of the human effective connectome in Neurological disorders

Connectivity studies using resting-state functional magnetic resonance imaging (rsfMRI), diffusion tensor imaging (DTI), and, more recently, diffusion spectroscopic imaging (DSI) have enhanced our knowledge on the organization of large-scale structural and functional brain networks, which consist of spatially distributed, but functionally linked regions that continuously share information with each other. Brain's energy is largely consumed at rest during spontaneous neuronal activity (~20%), while task-related increases in metabolism energy are minor (<5%). Spontaneous ultralow-frequency fluctuations in BOLD-based rsfMRI signals (<0.01Hz) at the level of large-scale neural systems are not noise, but orderly and organized in a series of functional networks that permanently maintain a high level of temporal coherence among brain areas that are structurally segregated and functionally linked in resting state networks (RSNs). Some RSNs are functionally organized as dynamically competing systems both at rest and during tasks. The default mode network (DMN), the most important RSN, is even more active during rest and involved in realization of tasks like memory retrieval, emotional process, and social cognition. Cortical connectivity at rest is reportedly altered in several neurological and psychiatric disorders. Most recently, human brain function has been imaged in fMRI, and thereby accessing both sides of the mind-brain interface (subjective experience and objective observations) have simultaneously been performed. As such, functional neuroimaging moves onto new potential applications like reading the brain states, brain-computer interfaces, lie detection, and so forth. The presentation aims to review and evaluate the most current approaches and findings on early detection and classification of cognitive impairments and dementia, particularly among syndromes with relatively similar behavioral effects, on the basis of alterations in brain connectivity at rest explored by fused rsfMRI, DTI, and DSI.

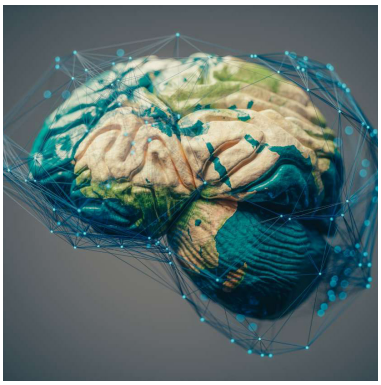
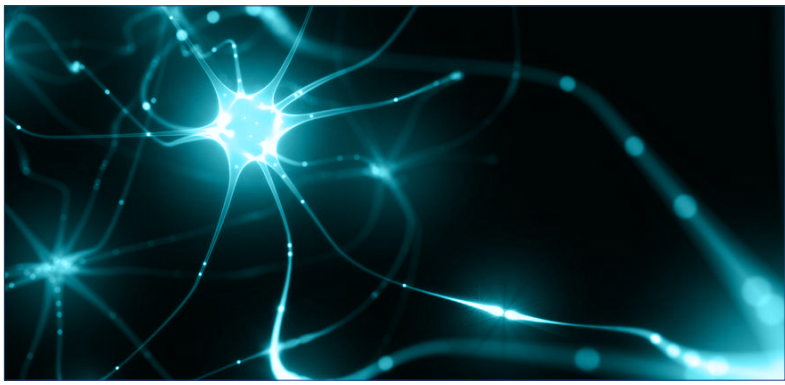
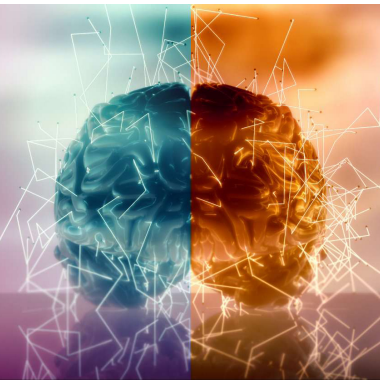
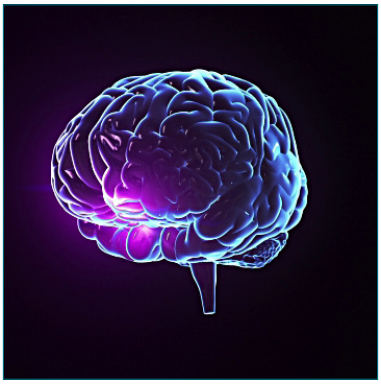
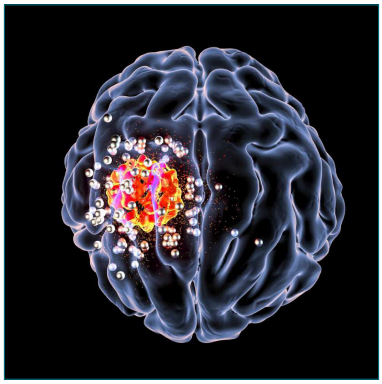
Speaker Biography

Radu Mutihac is Chair of Medical Physics Section, University of Bucharest, and works in Neuroscience, Signal Processing, Microelectronics, and Artificial Intelligence. As postdoc/research associate/visiting professor/full professor he has run his research at the University of Bucharest, International Centre for Theoretical Physics (Italy), Ecole Polytechnique (France), Institut Henri Poincaré (France), KU Leuven (Belgium). Data mining and exploratory analysis of neuroimaging time series were addressed during two Fulbright Grants in Neuroscience (Yale University, CT, and University of New Mexico, NM, USA). His research in fused biomedical imaging modalities was carried out at the Johns Hopkins University, National Institutes of Health, and Walter Reed Army Institute of Research, MD, USA.

e: radu.mutihac@fizica.unibuc.ro

Keynote Forum
August 24, 2018

Neurology 2018

18th International Conference on

Neurology and Neurological Disorders

August 23-24, 2018 | Paris, France

Vivek Swarup

University of California, USA

Identification of evolutionarily conserved gene networks mediating Neurodegenerative Dementia

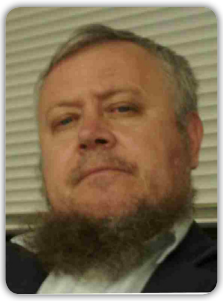
Mutations causing the most common form of early onset dementia, frontotemporal dementia, have been identified, but the subsequent disease mechanisms are not well understood. Rather than focusing on a priori selected genes, we apply a multi-stage, systems biology approach, reasoning that defining transcriptional networks would significantly advance mechanistic understanding. By taking genetic background into consideration, representing a variety of causal mutations in our transcriptomic analyses, coupled with gene co-expression network analysis, and validation in a dozen independent data sets, we bridged the species divide and identify disease-relevant gene networks representing specific molecular pathways. These networks are dysregulated not only across a variety of FTD mouse models involving different mutations and genetic backgrounds, but also in FTD patient iPSC-lines and more importantly, post mortem human samples. We further validate network predictions via proteomic studies in human brain and show that a hub of a putative regulatory miRNA module, miR-203, re-capitulates mRNA co-expression patterns associated with disease state and induces neuronal cell death. Moreover, we use disease-associated co-expression modules to identify probe compounds and show that they have the predicted protective effect. Collectively, we identify conserved, disease relevant co-expression networks representing convergent changes in dementia, and validate miR-203 as a novel regulator of core network components and neurodegeneration.

Speaker Biography

Vivek Swarup completed his PhD from Laval University, Quebec, Canada. He is the assistant professor at the Department of Neurobiology and Behavior, University of California, Irvine, USA. He has over 20 publications that have been cited over 1100 times, and his publication H-index is 15.

e: vswarup@uci.edu

Notes:



Vasily Kuvichkin

Russian Academy of Sciences, Russia

The role of lipids-nucleic acids interactions in nuclear pores assembly and in Alzheimer's disease origin

During the study of the ternary complexes-TC: nucleic acids - liposomes from zwitterionic lipids, in the presence of a number of divalent metal cations- (Ca, Mg, Fe, Co, etc), the author concluded about the uniqueness and widespread prevalence of such complexes in the cell. They are more labile than lipoplexes-complexes of cationic lipids with DNA, in addition have a more diverse structure and are more dynamic, capable of creating various organelle-like structures, or contacts between organelles in eukaryotes. In addition, TCs are not toxic to cells, unlike lipoplexes. The author suggested a possible scheme for the formation of nuclear pores involving liposomes from zwitterionic lipids and double-stranded DNA or triple-stranded hybrids DNA /low molecular weight RNA (lmw RNA), which, when untwisted in pore annuli, give one or two chains of ssDNA. The thermo-stability of DNA/lmw RNA triple helix is lower than the same sequence of DNA. That specifies preferential attachment of three-stranded hybrids to membrane vesicles.

The ssDNA in the pore annulus is the reason for the enhanced transcription of the genes attached to nuclear pore what shown only now, but we are written about that fact 30 years ago.

The ssDNA is attractive site not only for DNA polymerase but also is target for beta -amyloid (βA) too. For example, βA binding to ssDNA of nuclear pore prevents template activity of enzymes on the ssDNA. The β -amyloids concentrating in area ssDNA (pore annulus) result in the βA aggregates appearing. Lipids environment (nuclear envelope) as it known support the aggregation of βA. With time in pore annulus forms βA plaque, which could prevent RNA transport from nucleus to cytoplasm. Therefore, exist at least two unknown way of influence of nuclear pores on the regulation of cells gene activity resulting to Alzheimer's disease.

Speaker Biography

Vasily Kuvichkin is a Senior Staff Scientist in Laboratory of Mechanisms of Reception, Institute of Cell Biophysics of the Russian Academy of Sciences, Russia. His research interests include biophysics, molecular biology, lipid-nucleic acids interactions, spectroscopy (UV-VIS and fluorescence), microscopy (EM and fluorescent), nuclear pore assembly, system biology, evolution, aging. He has received many awards such as "Vanguard of Knowledge" by pharmacy company "Astra Zeneca" in the year 2012; Winner of Grant of the European Science Foundation: "Epitope map" from University College of Dublin, Ireland in the year 2011; Winner of Grant of the DAAD, Berlin, MDC-Buch, Germany in the year 2009; Winner of Japan Society for Promotion of Sciences grant by Shizuoka University, Japan. He has published many research articles and is an active member of many International Conferences.

e: vvkuvichkin@gmail.com

Notes:

allied academies

18th International Conference on

Neurology and Neurological Disorders

August 23-24, 2018 | Paris, France

Nahed Lubbad

Fahmi Al Senani, Mohammad Memone and Mohammad Al Hazzaa

King Fahad Medical City, Saudi Arabia

Optimizing safe and effective patient care focus on clinical pharmacist services and outcomes at the Medication Therapy Management Clinic: Stroke prevention

Introduction: According to the American Heart Association Heart Disease and Stroke Statistics 2017 updates, stroke ranks No. 5 among all causes of death, after diseases of the heart, cancer, chronic lower respiratory disease, and unintentional injuries/accidents. Globally, in 2013 there were 6.5 million stroke deaths, making stroke the second-leading cause of death behind ischemic heart disease. Approximately 795,000 strokes occur in the United States each year. Around 610,000 of these are first attacks, and 185,000 are recurrent attacks. About 60% of stroke deaths occurred outside of an acute care hospital.

Most of the stroke patients are on multiple medications which may lead to a several negative outcomes for both patients and healthcare facilities. These negative outcomes such as adverse drug effects, poor patient health, and hospitalizations, as well as economic outcomes by increasing drug expense and costs associated with increased utilization of health services.

In the past, physicians have full responsibility to manage their patients with chronic diseases and complex medication regimens. Nowadays, pharmacists are increasingly responsible for managing patients' medication regimens to enhance patient's adherence, preventing adverse drug reactions, improving patient quality of life and decreasing facility and drug costs.

Medication Therapy Management (MTM) Services in Pharmacy Practice is designed to enhance collaboration among pharmacists, physicians, and other healthcare professionals to optimize and promote safe and effective medication use to improve patient outcomes. During this service a comprehensive assessment and evaluation of patient's medication therapy regimen to prevent medication errors such as drug interactions, duplications, omissions, dosing errors, as well as to observe patients' compliance and adherence patterns.

In a large academic institution, MTM clinic is described as an important service to optimize patient care by providing patients with medications and disease states counseling. These identified benefits of MTM clinic lead to frequent patient referrals specifically for aid with medication adherence and disease state management. Also, a collaborative, pharmacist-led hypertension management service can help monitor BP, improve medication adherence, and optimize therapy in a step-wise approach. Other study showed the exposure of pharmacist with patients, and face-to-face Comprehensive Medication Management services resulted in improvement of medication adherence. A study at the medical center's ambulatory care clinics, the clinical pharmacist practitioner, have had a positive influence on improving patient and cost outcomes, through interventions contributing to reducing readmissions, and provide indirect revenue through cost avoidance, and creating new revenue through billing for patient visits.

Objective: To measure the outcome of clinical pharmacist attribute in medication therapy management clinic and intervention on patient's outcomes by optimizing patient care through enhancing appropriate drug use, increase adherence to medication therapy, and improve detection of adverse drug events to encourage patients' safety.

Methods: Study Design Prospectively, patients who will be seen by a clinical pharmacist in the medication therapy management

Notes:

Clinic which operated parallel to physician stroke prevention clinic will involve. Comprehensive medication profile reviews and patient interview will be performed. The interventions will be discussed with the physician. Patients with approved interventions related to antidiabetic agents or antihypertensive medication will be followed by telephone call one week later and four weeks after appointment.

Inclusion and exclusion criteria

Inclusion criteria:
All patients with appointment in the stroke prevention clinic who received approved clinical pharmacist intervention All patients with appointment in the stroke prevention clinic with poor medication adherence.

Exclusion criteria:
Patients with appointment in the stroke prevention clinic who are not on any medication.

Outcome Measures: Primary outcome: Measure the effects of clinical pharmacist interventions by reaching the target fasting and postprandial blood glucose level and target blood pressure according to the case.

Secondary outcomes: Feedback of clinical pharmacist intervention on patients reported adverse drug events. To measure improvement of patient's medication adherence by decreasing the number of missing doses per week.

Speaker Biography

Nahed Lubbad is currently working as a Clinical Pharmacist at King Fahad Medical City, Saudi Arabia. His experiences include Medication Therapy Management (MTM) Clinic, Stroke Prevention Clinical Pharmacist, Medication Utilisation Committee Coordinator, Clinical Pharmacist, Drug and Poison Information Clinical Pharmacist and Medication reconciliation Clinical Pharmacist at King Fahad Medical City from the year 2011 till present.

e: nlubbad@kfmc.med.sa

Notes: