

4<sup>th</sup> International Conference on Neurology and Healthcare

International Conference on Clinical and Experimental Neuropsychology & 3<sup>rd</sup> World Drug Delivery and Formulations Summit

June 24-25, 2019 | Rome, Italy

## Scientific Tracks & Abstracts





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#### Lipid-chitosan hybrid nanoparticles for controlled delivery of cisplatin

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Lipid-Polymer Hybrid Nanoparticles (LPHNP) are novel delivery systems for controlled drug delivery at tumor sites. The superior biocompatible properties of lipid and structural advantages of polymer can be obtained via this system for controlled drug delivery. In the present study, cisplatin- loaded lipid-chitosan hybrid nanoparticles were formulated by the single step ionic gelation method based on ionic interaction of positively charged chitosan and negatively charged lipid. Formulations with various chitosan to lipid ratio were investigated to obtain the optimal particle size, encapsulation efficiency and controlled release pattern. Transmission electron microscope and dynamic light scattering analysis demonstrated a size range of 181-245 nm and a zeta potential range of 20-30 mV. Compatibility among the components and the stability of formulation were demonstrated with FTIR analysis and thermal studies, respectively. The therapeutic efficacy and cellular interaction of cisplatin-loaded LPHNP were investigated using in vitro cell-based assays in A2780/ADR ovarian carcinoma cell line. Additionally, the cisplatin loaded LPHNP exhibited a low toxicity profile in rats. The in-vivo pharmacokinetics study also proved a controlled delivery of cisplatin with enhanced mean residual time and half-life. Our studies suggested that the cisplatin- loaded LPHNP being a promising platform for controlled delivery of cisplatin in cancer therapy.

#### **Biography**

Muhammad Muzamil Khan is a PhD research Scholar at Northeastern University, Boston, USA. He is working now on Folate-targeted Lipid-polymer Hybrid Nanoparticles for the targeted and controlled delivery of cisplatin for effective treatment of ovarian cancer. He is interested in Co- delivery of siRNA and chemotherapeutic agents for the effective treatment of cancer.

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#### Social cognition impairments in women with breast cancer

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**Statement of the Problem:** Previous studies have reported basic cognition impairments in patients with breast cancer. However, no studies have assessed social cognition abilities in patients with breast cancer. The aim of this study was to assess social cognition abilities (i.e., basic emotion recognition, moral emotions recognition, theory of mind and empathy) in women with breast cancer, compared to a control.

**Methodology:** We also assessed basic cognition abilities as well as several socio-emotional factors (i.e., depression, anxiety, quality of life). Sixteen women with breast cancer and sixteen healthy women matched by age and educational level participated in this study. Women with breast cancer were in initial stages of hormonal or chemotherapy treatments.

**Findings:** Results showed that women with breast cancer exhibited a lower performance than controls in moral emotions recognition and theory of mind tasks. Impairments in these domains were associated with higher levels of anxiety and lower perceived quality of life in women with breast cancer. No differences between groups were found in basic cognition abilities.

**Conclusion & Significance:** This is the first study in assessing social cognition abilities in women with breast cancer. Our results suggest that social cognition domains may be considered in the cognitive assessment of patients with breast cancer as well as in the design of non-pharmacologic strategies. Future studies should investigate whether these social cognition changes are associated with treatment effects.

#### **Biography**

Sandra Baez is professor of Psychology and Neuroscience at Los Andes University. She holds a degree in Psychology, a Master in Neuropsychology, and a Ph.D. in Psychology. She conducted her postdoctoral and received training in functional and structural neuroimaging at the Max Planck Institute for Human Cognitive and Brain Sciences. She has experience in neuropsychological assessment and cognitive stimulation techniques for patients with neurological and psychiatric disorders. Her interests and research experience are focused on neuropsychological aspects as well as neurophysiological and neuroanatomical correlates of social cognition domains in patients with neuropsychiatric disorders. She has more than 50 publications in leading journals, such as Nature Human Behavior, Neurology, Brain, JAMA Neurology, among others. She is associate Editor of Journal of Alzheimer's Disease and Affectome Project.

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#### Hepatoprotective study of delphinium zelil

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raditionally in India, China and Japan herbal medicine are use for liver disease treatment. A common pathological mechanism that cause initiation and progression of hepatic damage is Oxidative stress. Traditionally Delphinium zelil was use for liver inflammation, diuretic and anodyne. Present study was to assess the phytochemical and hepatoprotective activity of ethanolic and n-hexane extracts of whole dried plant of Delphinium zelil against paracetamol intoxicated albino rats. The phytochemical investigation was carried on the both extracts of *Delphinium zelil*. Results revealed the presence of following active constituents such as alkaloids, tannins, phenols, glycosides, steroids and flavonoids in n-hexane extract and absence of tannins in ethanolic extract. Two hepatoprotective studies were performed using paracetamol intoxicated method. In study A animals were pretreated for 7 days with ethanolic and n- hexane extracts at doses of 200 mg/kg and 400 mg/kg daily by oral rout. On 8<sup>th</sup> day hepatoxicity was induced by administering a single oral dose of paracetamol (1g/kg).In study Bhepatoprotective activity of ethanolic extract at doses of 200 mg/kg and 400 mg/kg was assessed by concurrent administeration of sub-acute dose of paracetamol (500 mg/kg) daily dose by oral rout. Results showed that there was significant decrease in biochemical parameters (AST, ALT, ALP and bilirubin) values of Delphinium zelil ethanolic and n-hexane extracts 200 mg/kg and 400mg/kg dose treated rats when compared with paracetamol intoxicated rats serum biomarkers Histopathological findings on toxic models showed necrosis, fibrosis, inflammation with sinusoidal and portal vein congestion and central vein dilation. Both extracts of Delphinium zelil ethanolic and n-hexane 200 mg/kg and 400 mg/kg doses treated rats histopathological results revealed these altered parameters towards normal values which were compared with silymarin. This study supports the use of active phytochemical constitutents from Delphinium zelil ethanolic and n-hexane extracts against in liver diseases. Thes phtochemicals may be developed as drugs for the treatment of liver diseases.

#### **Biography**

Bushra sadaf is a Pharmacologist. Currently teaching Physiology and Pharmacology in Leads college of Pharmacy. She has experience as clinical and Hospital pharmacist in shaukat khanaum memorial cancer hospital and research centre and in Cardiac Hospital. Free radical is major cause of many major disease in human. In Pakistan out of 10 one is a hepatic patient. She follows ancient uses of herbs and then she adopts lab tests and phytochemical analysis reveal antioxidant activity of above stated plant extract. Histopathological and Biochemical parameters revealed Hepatoprotective activity of Delphinium zelil and soon dosage form available as futher research performed on it.

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Social support, well-being and meaning in life with adolescents with parental divorce

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Noday, parental divorce is more common than in the past and more than one million children experiences parental divorce L in every year (Pálmarsdóttir, 2012). As a report from economist Jacob and anthropologist Chattopodhyay (2016) by examining data from Indian Censes, reveal that 1.3 million people in India are divorced. In Kerala, the divorce rate shows very high rather than in other states of India.Divorce is a traumatic experience for children. Adolescents in particular experience divorce as distressing. It is a highly stressful and emotional experience for children, but it can often feel to the children that their whole world had been turned upside down. At any age, it can be traumatic to witness the dissolution of parents' marriage and the breakup of the family (Kemp, Smith and Segal, 2017). As Pajares and Urdan (2004) pointed out that adolescents today encounter difficulties and more life challenges than previous generation. The biological and psychological turmoil within them and other factors like family system, parenting, poverty, socioeconomic status, school environment, peer pressure etc. aggravates the problems due to divorce faced by the adolescents. In the light of reports in newspapers regarding ever increasing family disintegration in Kerala, there is a pressing need to make a comparative study on social support, well-being and meaning in life of divorced parental adolescents. The purpose of this study is to understand the Perceived Social Support, General Well-Being and Meaning in Life of Adolescents of with divorced parents. It also examines relation of Perceived Social Support and Meaning in Life to General Well-being. In this study, the sample consisted of 80 adolescents (both males and females). out of which 40 comprised adolescents of divorced parents and 40 from those belong to intact families (control group). Using purposive sampling, the sample was drawn from one district of Kerala state of India. The age of the respondent was in the range of 13-17 years. The measures used in the study are Multi-dimensional scale of perceived social support (Zimet, Dahlem, Zimet and Farley, 1988), PGI General well-being scale (Verma and Verma , 1989) and Meaning in Life Questionnaire (Steger, 2010). The descriptive statistics were calculated to understand the levels of General well-being, Perceived Social Support and the Meaning in Life of the present sample and to Compare the mean scores on General Well-Being, Social Support and Meaning in Life of adolescents of divorced parent with adolescents from intact families, separate student 't' test were performed. Similar statistical techniques were used to understand the gender difference on these variables. The correlations of General Well-being to Perceived Social Support and Meaning in Life were computed using Product moment correlation. The result showed that majority of the adolescents of divorced parents (70%) has low range of General Well-being. General well-being of adolescents of divorced parents is lower when compared to adolescents from intact families. Adolescents of divorced parents perceived less social support from family and friends. And perceived social support from family and friends are not significantly correlated with General well-being of adolescents of divorced parents. Similarly, adolescents of divorced parents reported lower in the dimensions of Meaning in Life as compared to adolescents from intact families. Meaning in Life is not significantly correlated with General well-being of adolescents of divorced parents. The findings of the study are implicated in psychological knowledge for appropriate and timely professional service for such adolescents.

#### Biography

Metty Vironica, Sunidharan completed her MA in Clinical Psychology at IGNOU Regional Centre Cochin. She did her Undergraduate in Mahatma Gandhi University, India.

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# **Special Session**





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Lalit Garg

University of Malta, Malta

### Application of machine learning and signal processing techniques to real time detection and prediction of epileptic seizures

Epilepsy is a neurological disease, which affects around 50 million people of the world's population and 25% of them have medically resistant form of epilepsy. With the increased development of effective prevention treatments, early diagnosis of epileptic seizures is becoming necessary because the patient can undergo treatments, which can delay or prevent the disease progression. Several studies have been carried out in the past to explore the feasibility of a practical real-time epilepsy seizure detector. However, still there is a need for improved methods of data acquisition, feature extraction and feature space creation for epilepsy seizure detection. Also, there is no known technique available for accurately predict a seizure onset well ahead. An accurate prediction even few minutes before the seizure onset might help prepare the patient, his/her caregiver. This talk will present the energy efficient real-time seizure detection and prediction algorithms we developed [1-5], which can be implemented in wearable, non-invasive EEG devices which would ensure prompt and effective management of seizures. The research focus also includes development of accurate seizure detection and prediction algorithms to prevent or minimize harmful effects of seizure onsets. Our methods [1-5] differ from previous studies mainly on two things; the first is providing a simple yet very effective training set acquisition for epileptic seizure detection and prediction, and the second is testing these novel approaches using a high number of seizure instances, precisely a total of 192 seizures from total 22 pediatric patients.



Figure1: Pre-processing of scalp EEG data into separate seizure and seizure free EEG files

#### **Biography**

Lalit Garg is a Lecturer in Computer Information Systems at the University of Malta, Malta. He is also an honorary lecturer at the University of Liverpool, UK. He has also worked as a researcher at the Nanyang Technological University, Singapore and at the University of Ulster, UK. He received his first degree in electronics and communication engineering from the Barkatullah University, Bhopal, India, in 1999 and his postgraduate in information technology from the ABV-Indian Institute of Information Technology and Management (IIITM), Gwalior, India in 2001. He received his Ph.D. degree from the University of Ulster, Coleraine, UK., in 2010. His research interests are missing data handling, machine learning, data mining, mathematical and stochastic modelling and operational research, and their applications especially in the healthcare domain. He has published over 80 technical papers in refereed high impact journals, conferences and books and has more than 550 citation count to his publications.

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