

INTERNATIONAL CONFERENCE ON

NEUROLOGY, CNS AND DEMENTIA CARE

APRIL 27, 2022 | WEBINAR



Hosting Organization: Pulsus



Opening Ceremony

Day 1: April 27, 2022 | Webinar

Keynote Forum

09:10-09:50

Title: Patient satisfaction following Intrathecal Targeted Drug Delivery for Benign Chronic
Pain: Results of a single-center survey study

David M Schultz | Nura Pain Clinics | USA

09:50-10:30

The role of Immunohistochemistry for evaluation of Muscle Biopsies

Caroline A. Sewry | RJAH Orthopaedic Hospital | UK

Networking Break 10:30-10:40

Session Introduction

Session on: Neuroimmunology, Neurology, Clinical Neurology, Neurological Nursing, Dementia

Session Chair: David M Schultz | Nura Pain Clinics | USA

Title: Changes in Lipid Profile of caregivers 10:40-11:00 **Akemi Hirano** | Shubun University | Japan Title: Protective effect of An-Gong-Niu-Huang Wan pre-treatment against experimental Cerebral Ischemia Injury via regulating GSK-3?/HO-1 pathway 11:00-11:20 Xiaoli Jiang | Hong Kong Baptist University | Hong Kong Title: Different electron structures of Pristine CeO mediates distinct human Neural **Progenitor Cell survival and Neuronal Differentiation** 11:20-11:40 Ying Wang | Hong Kong Baptist University | Hong Kong Title: Autologous Neural Stem Cell (NSCs) harvest: precision cell therapies for Neurodegeneration in an animal model of Parkinson's disease 11:40-12:00 **Zhang Zhang** | Hong Kong Baptist University | Hong Kong Title: Angioplasty alone versus Acute Stenting for acute tandem occlusions due to

12:00-12:20 internal carotid artery atherosclerotic

Wei Li | Hainan Medical University | China

Title: Impact of overweight and Hyperglycemia on the Blood-Brain Barrier and 12:20-12:40 Cerebral plasticity: protective effects of extracts from Reunion's biodiversity

Batoul Ghaddar | University of Reunion | France

Ceres Ferretti | University of Sao Paulo | Brazil

Lunch break: 13:00-13:30

Session on: Neuro	pediatric, Neuro	deaenerative disorder	s. Psychiatry.	Behavioural Sciences
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Session Chair: Caroline A. Sewry | RJAH Orthopaedic Hospital | UK

Title: The Aguaporin4-lgG status and how it affects the clinical features and treatment

13:30-13:50 response in NMOSD patients in Egypt

Amany Hussein Abolmagd Ahmed Ragab | Cairo University | Egypt

Title: Mitochondrial dysfunction and Alzheimer's disease: Role of Miro protein

13:50-14:10
Anand Krishna Tiwari | Institute of Advanced Research | India

Title: Evaluation of the one-year effectiveness and side effects of Rituximab in patients with Multiple Sclerosis & Comparison of side effects of the first and second doses of Sinopharm vaccine in patients with Multiple Sclerosis in Kermanshah-Iran (2021)

Nazanin Razazian | Imam Reza Hospital | Iran

Title: Investigation of common risk factors between Polycystic Ovary Syndrome and Alzheimer's disease: a narrative review

14:30-14:50 Alzheimer's disease: a narrative review

Title: Factors associated with Cognitive fatigue in people with Multiple Sclerosis

Narges Eskandari Roozbahani | Imam Reza Hospital | Iran

14:50-15:00
Sorayya Askari | Dalhousie University | Canada

Title: Effectiveness of treatment of Occupational Therapy at home for elders with

15:00-15:10 Dementia in Modena

15:20-15:30

Olalla Saiz Vazquez | Burgos University | Spain

Title: Beneficial role of Capsaicin through modulation of Mitochondrial functions in 15:10-15:20 MPTP-induced mice

Sakshi Tyagi | Delhi Pharmaceutical Sciences and Research University, India

Title: The synergy of Antiepileptic action of Rapamycin, Pioglitazone, and Minocycline on acute seizures in mice

Prybolovets K.O | Odesa National Medical University | Ukraine

Thanks Giving and Closing Ceremony

International Conference on Neurology, CNS and Dementia Care

April 27, 2022 | Webinar





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Received Date: 02 February, 2022 | Accepted Date: 06 February, 2022 | Published Date: 05 May, 2022

The synergy of Antiepileptic action of Rapamycin, Pioglitazone, and Minocycline on acute seizures in mice

Prybolovets K.O1, Pervak M.P1, Al-Nadawi N1, Liashenko A.V1, Poshyvak O.B2, Godlevsky L.S1

One-third of patients with epilepsy are resistant to antiepileptic drugs (AED). Combined treatment with neuromodulators with antiseizure action, which are not classical AED, is promising for searching for more effective antiepileptic therapy. The purpose of this study was to investigate the pronouncement and type of interaction of complex administration of rapamycin – blocker of mTOR, pioglitazone - agonist of PPAR-gamma, and minocycline hydrochloride – suppression of microglia upon acute seizures.

Methodology & Theoretical Orientation: the effectiveness of antiseizure action of neuromodulators administered in different dosages estimated as a number of mice prevented from generalized cloned-tonic fits induced with pentylenetetrazol (PTZ, 70.0 mg/kg, i.p.). Drugs were dissolved in DMSO and administered intraperitoneally daily for one week before testing with PTZ. Control rats were treated with DMSO. Data were analysed using the Synergy Finder web application (version 2.0) (https://synergyfinder.fimm.fi/synergy/). Results were estimated as synergy when summary Bliss synergy scores exceeded ten when applied to the most synergistic 3-by-3 dose window in a dose-response matrix. Less than -10: the interaction between two drugs is likely to be antagonistic; From -10 to 10: the interaction between two drugs is likely to be additive.

Findings: Bliss Synergy score was 19.0 and favoured the presence of the synergy between combined administration of investigated compounds (Fig.1). Pioglitazone combined with minocycline also demonstrated synergy (16.7), while rapamycin, pioglitazone, and rapamycin with minocycline interaction were characterized as an additive (9.7 and 4.7 score correspondently).

Conclusion & Significance: Combined treatment with rapamycin, pioglitazone, and minocycline caused synergetic preventive effects upon generalized cloned-tonic seizures induced with PTZ in mice. Gained data revealed the strengthening of seizure protective action of investigated compounds while the antagonistic interaction was absent.



Figure 1. Type of interaction of between rapamycin, pioglitazone and minocycline on the model of acute seizures caused with pentylenetetrazol in mice.

¹Odesa National Medical University, Ukraine

² Danylo Halytsky Lviv National Medical University, Ukraine





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Recent publications

- 1. Poshyvak OB (2021) The synergy of rapamycin and pioglitazone antiseizure action in pentylenetetrazol (PTZ)-kindled rats Pharmacology online 2: 680–689.
- Poshyvak OB, Pinyazhko OR, Godlevsky LS (2021) Oxidative stress suppression contributes to antiseizure action of axitinib and rapamycin in pentylenetetrazol-induced kindling. Ukrainian Biochem J 93(2): 53-60.
- 3. Poshyvak OB, Pinyazhko OR, Godlevsky LS (2021) Axitinib displays antiseizure activity on pentylenetetrazol Induced kindling model. Pharmacology online 1: 200-213.

Biography

Prybolovets is interested in Neuroscience, Epilepsy, Seizures. She has participated in main neuroscience conferences such as Neuronus, INS, World congress of Neurology as a main speaker and presenter of oral abstracts and poster presenter. Planning to become a Neurologist specialist, and participate in PhD programs in UAE, Dubai.

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Upcoming Conferences

12th International Conference on

Central Nervous System

October 07-08, 2022 | Madrid, Spain

8th International Conference on **Neuroscience and Neurological Disorders** September 28-29, 2022 | Edinburgh, Scotland

15th International Conference on **Dementia and Dementia care**July 18, 2022 | Webinar