Poster Presentations

Monday - Poster Session, Monday, Sep 16 2024, 18:05-19:30
Session: **Poster Session**

PO-01 B-01 **Target-guided synthesis of novel butyrylcholinesterase inhibitors**
Ines Primožič, Alma Ramić, Toni Divjak, Tomica Hrenar

PO-02 B-02 **Capitalizing on human BChE-ligand complex structures for the design of BChE-specific reactivator against nerve agent intoxication**
Damijan Knez, Masa Zorman, Anne-Julie Gastellier, Charlotte Courageux, Janek Bzdrenga, José Dias, *Xavier Brazzolotto*

PO-03 B-03 **Monoquaternary analogues of double charged K-oximes (K027, K048 and K203) are less effective reactivators of cholinesterases inhibited by organophosphates**
Zuzana Kohoutova, Rudolf Andrys, Kamil Musilek, David Malinak

PO-04 B-04 **Halogenated pralidoxime analogues are efficiently reactivating cholinesterases**
Sara Rademacherova, Karolina Knittelova, Adela Fuchsova, Rudolf Andrys, Kamil Musilek, David Malinak

PO-05 B-05 **Brominated oxime nucleophiles are efficiently reactivating cholinesterases inhibited by nerve agents**
Eliska Prchalova, Rudolf Andrys, Jaroslav Pejchal, Zuzana Kohoutova, Kamil Musilek, Jana Zdarova Karasova, David Malinak

PO-06 B-06 **Importance of the shape of the linker between two quaternary pyridinium rings on reactivation process in oximes – in vitro and in silico study**
Tanos Celmar Costa Franca, Fernanda Georgia Figueiredo Taborda Barbosa, Joyce Sobreiro Francisco Diz de Almeida, Eugenie Nepovimova, Rafael Dolezal, Steven Laplate, Kamil Kuca

PO-07 B-07 **Synthesis and in vitro assessment of the reactivation profile of clinical oximes on the acetylcholinesterase model inhibited by A-230 and A-242 nerve agents' surrogates**
Tanos Celmar Costa Franca, Samir Cavalcante, Daniel Kitagawa, Caio Borges, Marcelo Carneiro dos Santos, Pedro Buitrago, Roberto Souza, Antonio Luis Santos Lima, Leandro Bernardo, Kamil Kuca

PO-08 B-08 **Synthesis, modeling and in vitro assessment of the reactivation profile of monocationic isatin-oximes hibrids on the acetylcholinesterase model inhibited by nerve agents' surrogates**
Tanos Celmar Costa Franca, Amanda Moraes, Samir Cavalcante, Dipanjan Bhattacharyya, Steven Laplate, Joyce Sobreiro Francisco Diz de Almeida, Pat Forgione

PO-09
B-09
Triazoles as potential reactivators of human acetylcholinesterase inhibited by the nerve agents VX and Novichok A-242
Fernanda Pires, Pedro Buitrago, *Tanos Celmar Costa Franca*, Samir Cavalcante, Joyce Sobreiro Francisco Diz de Almeida

PO-10
B-10
Beyond carbamates: N-substituted piperidine ureas as butyrylcholinesterase inhibitors
Peter Mastnak-Sokolov, Urban Košak, Damijan Knez, Svit Ferjančič Benetik, Anja Pišlar, Xavier Brazzolotto, Stanislav Gobec

PO-11
B-11
Piperidine-carboxamides, -sulfonamides and -carbamates as selective butyrylcholinesterase inhibitors
Urban Košak, Damijan Knez, Anže Meden, Simon Žakelj, Jurij Trontelj, Jure Stojan, Maja Zakošek Pipan, Kinga Sałat, Florian Nachon, Xavier Brazzolotto, Gregor Majdič, Stanislav Gobec

PO-12
B-12
In vitro reactivation screening of A-234-inhibited human recombinant acetylcholinesterase and butyrylcholinesterase
Martina Hrabinova

PO-13
B-13
Computational investigation of hardwickic acid-derived amides using molecular docking and prediction of ADME/Tox properties as potential inhibitors of cholinesterase enzymes
Rayssa Ribeiro, Franco Leite, Gessica Mendes, *Fernanda Georgia Figueiredo Taborda Barbosa*, Samir Cavalcante, Marcelo Carneiro dos Santos, Tanos Celmar Costa França, Valdir Veiga-Junior

PO-14
B-14
Modeling studies and experimental evaluation of the reactivation potential of oximes K027, K048, K170 and K203 against the nerve agent A-242
Daniel de Jesus de Oliveira, Fernanda Diniz Botelho, *Fernanda Georgia Figueiredo Taborda Barbosa*, Kamil Kuca, Steven Laplate, Samir Cavalcante, Marcelo Carneiro dos Santos, Tanos Celmar Costa França

PO-15
B-15
Novichok A-232: basic knowledge of biochemical and toxicological properties
Daniel Jun, Martina Hrabinova, Lubica Muckova, Jakub Opravil, Dominik Krupka, Alzbeta Dlabkova

PO-16
B-16
Reactivation potency of GB, VX and A-234-inhibited human recombinant acetylcholinesterase in vitro and in silico
Jakub Opravil, *Jakub Fibigar*, Zbyněk Večeřa

PO-17
B-17
Exploring drug modality switch from in situ assembly to reversibility: reversible modulators of choline O-acetyltransferase activity
Nina Forsgren, Frida Jonsson, Marcus Carlsson, Robin Afshin Sander, Cecilia Springer Engdahl, Daniel Wiktelius, Christopher Öberg, Fredrik Ekström

PO-18
B-18
Kinetic and structural evidence for specific DMSO interference with reversible binding of uncharged bis-oximes to hAChE and their reactivation kinetics of OP-hAChE.
Dora Kolić, Nichole Joiner, Oksana Gerlits, Andrey Kovalevsky, Zoran Radic

PO-19 B-19 **Outlining the A-series of organophosphorus compounds – cholinesterase inhibition, reactivation, cytotoxicity**
Nikolina Maček Hrvat, Dora Kolić, Tena Cadez, Goran Šinko, Zrinka Kovarik

PO-20 B-20 **Evaluation of resveratrol compounds as therapeutics in organophosphorus poisoning**
Tena Cadez, Milena Mlakić, Nikolina Maček Hrvat, Irena Škorić, Zrinka Kovarik

PO-21 B-21 **Neuroprotective role of CNS-active uncharged bis-oxime antidotes in mice exposed to organophosphate compounds**
Dora Kolić, Nikolina Maček Hrvat, Zrinka Kovarik, Zoran Radic

PO-22 B-22 **Synthesis of broad-spectrum antidotes to organophosphorus neurotoxins**
Estelle Beaupparain, Karine Porte, Pierre-Yves Renard, Ludovic Jean

PO-23 B-23 **Bis-pyridinium mono-aldoxime K203: a promising prophylactic cholinesterase reactivator for organophosphate poisoning.**
Syed Nurulain, Zarish Riaz, Huba Kalasz, Sajid Mehmood, Kamil Kuca

PO-24 B-24 **A-agents: more resistant than expected? Biomarker detection in biological matrices**
Lukáš Prchal, Alzbeta Dlabkova

Tuesday - Poster Session, Tuesday, Sep 17 2024, 11:00-12:35
Session: **Poster Session**

PO-25 B-01 **PON1 gene polymorphisms and inflammatory markers in organophosphate pesticides cohorts from Cameroon and Pakistan**
Leonel Javeres Mbah Ntepe

PO-26 B-02 **Screening and Characterization of Inhibitors for the Recombinant Variant of Paraoxonase 1**
Neja Žnidaršič, Janez Smerkolj, Jure Stojan, Aljoša Bavec, Marko Goličnik

PO-27 B-03 **Exploring the Impact of Lanthanide (III) Ions on the Function of Paraoxonase 1 (PON1)**
Janez Smerkolj, Jure Stojan, Aljoša Bavec, Marko Goličnik

PO-28 B-04 **PON1 plasma activity in the aftermath of bariatric metabolic surgery: the benefits of investigating more than one substrate**
Boštjan Petrič, Aljoša Bavec, Tadeja Pintar, *Živa Mesarič*

PO-29 B-05 **Recombinant human paraoxonase-1 variants depict hydrolyzing capabilities of A-series nerve agents in vitro**
Janek Bzdrenga, Prakash Khandave, Thomas Soirot, Nicolas Belverge, Nicolas Taudon, Florian Nachon, Xavier Brazzolotto, Abhay H. Pande

PO-30 B-06 **Copper-dependent stereoselective hydrolysis of O-hexyl O-2,5-dichlorophenyl phosphoramidate by recombinant serum albumins**
Laura Ramirez Gonzalez

PO-31 B-07 **Update of ESTHER, the database and server dedicated to the analysis of protein and nucleic acid sequences within the superfamily of cholinesterase relative**
Arnaud Chatonnet, Zhou Yu, Nicolas Roche, Pascale Marchot

PO-32 B-08 **In silico evaluation of the anticholinesterase activity of triazole fungicides**
Goran Šinko

PO-33 B-09 **Cholinesterase monitoring for nerve agent exposure**
Nick Coe, *Jennifer Dawson*, Georgia Smith, Sarah Goodchild

PO-34 B-10 **Immobilization of cholinesterases on magnetic microparticles for enhanced stability and biosensing applications**
Rudolf Andrys, Charline Monnier, Veronika Mickova, Louise Nemery, Evica Antonijevic, Kamil Musilek, Lucie Zemanova

PO-35 B-11 **Highly potent and selective butyrylcholinesterase inhibitors for cognitive improvement and neuroprotection**
Baichen Xiong, Zuoaoyun Song, Haopeng Sun

PO-36 B-12 **Detection of butyrylcholinesterase signal peptide in human brains**
Jacek Jasiecki, Andrew Reid, Meghan Cash, Monika Targońska, Bartosz Wasąg, Sultan Darvesh

PO-37 B-13 **Impact of Type 1 Diabetes Mellitus on Butyrylcholinesterase Expression and Activity in Rats**
Tibor Hodbod, Lukas Nemet, Katarina Hadova, Anna Hrabovska

PO-38 B-14 **Expression of cholinesterases in rats**
Lukas Nemet, Tibor Hodbod, Monika Zelinová, Anna Hrabovska

PO-39 B-15 **Investigating the Link between Butyrylcholinesterase and Pulmonary Vascular Disease in Rats**
Parsa Shafieikazerooni, Monika Zelinová, Jana Veteskova, Eva Velasova, Tibor Hodbod, Peter Krenek, Anna Hrabovska

PO-40 B-16 **Acetylcholinesterase and muscarinic receptors control the ultraviolet-mediated release of melanosomes in cultured melanoma**
Maggie Suisui Guo, Yingjie Xia, Jiahui Wu, Xiaoyang Wang, Gary Ka Wing Yuen, Tingxia Dong, Karl Wah-Keung Tsim

PO-41 B-17 **Trehalose restores the tacrine-induced endoplasmic reticulum stress in cultured neuronal cells**
Xiaoyang Wang, Yingjie Xia, Maggie Suisui Guo, Jiahui Wu, Tingxia Dong, Karl Wah-Keung Tsim

PO-42 B-18 **The Muscarinic Acetylcholine Receptor in Dermal Papilla Cells Regulates Hair Growth**
Gary Ka Wing Yuen, Tingxia Dong, Daniel Ye, Ajiaikebaier Dilidaer, Karl Wah Keung Tsim

PO-43 B-19 **The Regulatory Role of Gut Microbiota in Expression of AChE in Epithelial Cells: a Regulator of Inflammatory Bowel Disease**
Ajiaikebaier Dilidaer, Yingjie Xia, Jiahui Wu, Tingxia Dong, Karl Wah-Keung Tsim

PO-44 B-20 **Studying the Expression and Regulation of AChE in Multiple Cancers Using Data-Driven Approach**
Jiahui An, Heidi QH Xie, Ruihong Zhu, Guanglei Yang, Yangsheng Chen, Li Xu, Bin Zhao

PO-45 B-21 **Advances in the development of new drugs against Alzheimer's disease based on tacrine scaffold**
Martin Novák, Vajrychova Marie, Volker M. Lauschke, Ondrej Soukup

PO-46 B-22 **Synthesis of a multifunctional compound targeting neuroinflammation and cholinergic deficit in Alzheimer's disease**
David Malinak, Zuzana Kohoutova, Miroslav Psotka, Karolina Knittelova, Rudolf Andrys, Kamil Musilek, Stanislav Gobec

PO-47 B-23 **Dual inhibitors targeting BChE and p38α MAPK: a novel strategy for Alzheimer's disease therapy**
Svit Ferjančič Benetik, Aleš Obreza, Urban Košak, Damijan Knez, Stanislav Gobec

PO-48 B-24 **Berberine in comparison to 7-MEOTA for Alzheimer's treatment: a poly-pharmacological approach**
Syed Nurulain, Areeba Kiran, Sidra Batool, Sosan Khan, Huba Kalasz, Sajid Mehmood, Kamil Kuca

PO-49 B-25 **Novel amiridine-based multi-target directed ligands for the Alzheimer's disease treatment**
Jan Konecny, Eva Mezeiova, Martin Horak, Galina Makhaeva, Jan Korabecny

PO-50 B-26 **Investigating the effects of basketball and volleyball as team sports on social cognitive function and BDNF and cholinesterase levels in young men and women**
Muslum Gok, Halil Ates, Ergul Cansu incegil, Serkan Aksu

PO-51 B-27 **Pleiotropic prodrugs for both symptomatic and disease-modifying treatment of Alzheimer's disease**
Anže Meden, Neža Žnidaršič, Damijan Knez, Yuanyuan Wang, Ziwei Xu, Huajing Yang, Weiting Zhang, Anja Pišlar, Andrej Perdih, Simona Kranjc Brezar, Neža Grgurevič, Stane Pajk, Haopeng Sun, Stanislav Gobec

PO-52 B-28 **Design of AChE reactivators using versatile molecular platforms and nanodiamonds**
Yevgen Karpichev, Illia Kapitanov, Denys Bondar, Vadym Mochalin