

MESSAGE FROM THE [ESTHER](#) Database  
Published occasionally by the ESTHER Team

Since our Newsletter Number 9 of December 2017, it happened the following:

#### PAST MEETING

The joined 13th International Meeting on Cholinesterases and 7th International Conference on Paraoxonases, held in the Czech Republic on September 9-14, 2018 was a tremendous success thanks to the organizers Kamil Kuča, Ondřej Soukup, Kamil Musílek, Jan Korábečný and Soňa Došková from the University of Hradec Králové, and Daniel Jun from the University of Defence in Brno. The programme is available: [Oral sessions](#), [Poster sessions](#), [list of participants](#), along with more than [600 pictures](#). The proceedings will be published in a special issue of Chemico-Biological Interaction; the submission website for this journal is located at: [CBI](#)

#### FORTHCOMING MEETINGS

- The 16th International Symposium on Cholinergic Mechanisms (XVIth ISCM) will be held in Rehovot, Israel, from Sun Dec 8 to Fri Dec 13, 2019, at the [Weizmann Institute's Lopatie Conference Center](#). It is organized by Lili Anglister and Hermona Soreq (Hebrew University of Jerusalem), Abraham Fisher, Israel Silman and Joel L. Sussman (Weizmann Institute), Dan Frenkel (Tel Aviv University), Jackie Schiller (Technion) and Ran Zichel (Israel Institute for Biological Research).
- The 5th International Symposium on Non-neuronal Acetylcholine organized by Sergei A. Grando is announced. It will take place from Fri Sep 27 to Sun Sep 29, 2019 in the Hyatt Regency Long Beach, California, USA. Register here: [Site](#)

#### STRUCTURES

In November, the number of tridimensional structures in ESTHER reached 1977 entries!

Since the beginning of 2018, [146](#) new crystal structures of 58 alpha/beta hydrolase proteins from 26 subfamilies were released by the RCSB PDB. For 30 of these proteins they were the first structures to be solved.

#### DIVERSA

- A remarkable achievement: a 3D structure of the natural tetramer of human butyrylcholinesterase solved by cryo-electron microscopy at 7.6 Å resolution, small-angle x-ray scattering and molecular dynamics was presented at the Hradec Králové meeting and published by [Boyko et al.](#) A sister cryo-electron microscopy structure was solved at 5.76 Å resolution by Leung and collaborators and a manuscript was deposited in [bioRxiv](#).
- We introduced a new family: Intracellular D-(-)-3-hydroxybutyrate oligomer hydrolase (also known as 3HB-oligomer hydrolase 3HBOH): [OHBut\\_olig\\_hydro\\_put](#)
- The magic of crystal structure-based inhibitor optimization: development of a butyrylcholinesterase inhibitor with picomolar affinity and in vivo activity is published by [Kosak et al.](#)
- Mycobacterium tuberculosis PE1 and PE2 proteins carrying conserved alpha/beta hydrolase domains are esterases hydrolyzing short to medium chain p-nitrophenyl esters, as published by [Divya et al.](#)
- Loss of ABHD15 impairs the anti-lipolytic action of insulin by altering PDE3B stability and contributes to insulin resistance, as published by [Xia et al.](#)

#### OBITUARY

- [Prof. Eric A. Barnard](#) died in May at the age of 90. He was awarded the Thudichum Medal of the Biochemical Society in 2008 for his outstanding contributions to neurochemistry. Among other events he co-organized the second International Meeting on Cholinesterases in Bled, Slovenia, in 1984 and the third one in La Grande Motte, France, in 1990. [Obituary](#).
- [Dr. Evgeny E. Nikolsky](#) passed away in June at the age of 71. Among other achievements he co-organized the 11th International Meeting on Cholinesterases in Kazan, Russia, in 2012.
- [Dr John E. Casida](#) died in June at the age of 88. He was one of the world's leading authorities on how pesticides work and how they can potentially harm humans. [Obituary](#).
- Dr. [Brian E. Molles](#) died tragically in July at the age of 50. [Obituary](#).
- [Dr. Edson X. Albuquerque](#), a well-known member of our community, passed away in July. [In-Memoriam](#) from the University of Maryland, and the [message](#) from Pr. Hermona Soreq.

Together with the late Dr. Douglas Cerasoli, these great scientists were commemorated through touching presentations by Drs. Palmer Taylor, Tamara C. Otto, Israel Silman and Karl Tsim during the 13th Meeting on Cholinesterases. We will miss them all.

With best regards to our readers,

On behalf of the ESTHER Team  
Arnaud