ESTHER Database Newsletter - Number 8 - May 2017

MESSAGE FROM THE ESTHER Database
Published occasionally by the ESTHER Team

WISHES
We are very pleased to wish a Happy Birthday to "Alex" (Alexander Karczmar), a fine, young at heart and spirit "cholinergiker", who (as far as we know) turned 100 this week!

For those of you who did not get a chance of meeting the great mentor: follow these links:
https://www.cares-research.org/speakers-series/bios/karczmar.asp
https://en.wikipedia.org/wiki/Alex_Karczmar

and to see nice pictures of Alex with some of us, this link:
http://bioweb.supagro.inra.fr/ESTHER/author?name=Karczmar%20AG&class=Author&pic=8

Since our Newsletter Number 7 of January 2017, it happened the following:

MEETINGS
Pascale Marchot and Yves Bourne received the "Trophée de l'Attractivité-Congrès" from the Ville de Marseille for having organized the XVth ISCM in Marseille in 2016 (Trophee_XVth_ISCM2.pdf). The meeting was a success and a tremendous opportunity to exchange on all aspects of our beloved enzymes and receptors. View the site (http://iscm.sciencesconf.org/). A numerical report is available from https://iscm.sciencesconf.org/resource/page/id/32. Many pictures are available to all on the ESTHER site.

Early views of the first articles from the Proceedings of the Xth ISCM to be published in a Special Issue of the Journal of Neurochemistry are available from the XVth ISCM web site (https://iscm.sciencesconf.org/resource/page/id/34) or in J. Neurochem. or view the list in ESTHER.

STRUCTURES
In May, the number of tridimensional structures in ESTHER reached over 1729 entries!
Since the beginning of 2017, 40 new crystal structures of 19 alpha/beta hydrolase proteins from 14 subfamilies were released by the RCSB PDB; for 13 of these proteins they were the first structures to be solved.

Molecular basis of ABHD5 lipolysis activation is published by Sanders et al. "Two highly conserved ABHD5 amino acids (R299 and G328) enabled ABHD4 (ABHD4 N303R/S332G) to activate ATGL in Cos7 cells, brown adipocytes, and artificial lipid droplets. The corresponding ABHD5 mutations (ABHD5 R299N and ABHD5 G328S) selectively disrupted lipolysis without affecting ATGL lipid droplet translocation or ABHD5 interactions with perilipin proteins and ABHD5 ligands". Two recent reports by the group of Paul Layer provide strong in vivo and in vitro evidences for non-neuronal roles of ACh and its components in skeletogenesis (Spieker et al. 2016, 2017). A microfluidic droplet platform for ultrahigh-throughput single-cell screening of biodiversity, and its application to the identification of human butyrylcholinesterase mutants that undergo self-reactivation after inhibition by the organophosphorus agent paraoxon, are reported by Terekhov et al. Antisense miR-132 blockade via the AChE-R splice variant which mitigates cortical inflammation is published by Mishra et al. Esterase mutation as a mechanism of resistance to antimalarial compounds is published by Istvan et al.

Some new families were created: see the table of the families:
http://bioweb.ensam.inra.fr/ESTHER/general?what=overallTable

On behalf of the ESTHER Team
Arnaud