



**Report on the
XVth International Symposium on Cholinergic Mechanisms
October 16-20, 2016, Marseille, France**

- 1) *The money will be largely (at least 60%) used to support young scientists (advanced graduate students and young postdoctoral fellows).*
- 2) *The meeting organizers will list the recipients of these fellowships in their program brochure. A copy of the amount allocated to each recipient should be sent back to the ISN-CC chairperson.*
- 3) *A short scientific report of the meeting and the account of expenses will be sent to the ISN-CC chairperson within one month after the end of the meeting. After approval, the report will be published on the ISN homepage. (The report should contain information on the meeting (attendance, internationality), a financial report on how the total amount of money granted was used, and (if possible) some pictures taken at the conference).*
- 4) *A mini-review for the Journal of Neurochemistry will be provided within 2 months of the end of the conference.*

The French Organizing Committee to the XVth ISCM warmly thanks the International Society for Neurochemistry for the kind and most appreciated support of 13250 US\$ for participation of young scientists and for organization of the symposium.

Summary of the XVth ISCM

The International Symposia on Cholinergic Mechanisms (ISCMs) started in 1970 and were held every three-four years in Europe, America and China (<http://iscm.sciencesconf.org/>). Initially, the neuromuscular junction was the best-characterized synapse, and the ISCMs gathered a community of top-level scientists pioneering in the identification of its molecular components, the mechanisms ensuring transmission by acetylcholine, and related pharmacological, toxicological and clinical aspects. Since then, all significant outcomes in the molecular, cellular, pharmacological, toxicological, behavioral and clinical aspects of the central and peripheral cholinergic systems have been highlighted, exchanged and critically discussed during the ISCMs. The XVth ISCM largely followed and extended this tradition in covering the latest advances in the neurobiology, structural biology and pharmacology of the cholinergic systems. In the brain, with the regulation of higher brain functions, the onset of the neurodegenerative Parkinson's and Alzheimer's diseases, and nicotine/tobacco addiction. In the muscle, with genetic or developmental neuromuscular diseases such as Myasthenia Gravis, congenital myasthenic syndromes, or the Lambert-Eaton syndrome. In both organs, because they are targets not only for new therapeutic agents but also for neurotoxins and insecticides. And in the more recently explored non-neuronal immune and inflammatory systems. Hence, the XVth ISCM gathered scientists from various backgrounds to exchange the latest advances from the mind to the brain and body and to the molecule and atom, and to permit cross-fertilization between these fields. The XVth ISCM was also an opportunity to foresee the further steps toward an integrative approach of cholinergic systems, with unique potentialities in fundamental science and in clinics, and to transmit our passion to the young "cholinergikers".

In particular:

To encourage discussions and cross-fertilization and avoid topics being solely categorized in terms of cholinergic proteins/drug targets, we organized "thematic sessions":

- Higher brain functions / nicotinic and muscarinic modulation
- Neurodegenerative diseases, development, neurogenesis

- Brain: cholinergic circuits, optogenetic stimulation of cholinergic neurons
- Inflammation / non-neuronal cholinergic systems (parts 1 and 2 on same day)
- Genetics: human, animal models, polymorphism, evolution, epigenetics
- Supramolecular organization of the synapse
- Neuromuscular junction and motoneuron: development, diseases and therapeutic strategies
- Nicotine addiction and tobacco abuse
- Pharmacology, modulators, toxins, drug design, therapeutic agents (parts 1 and 2 on different days)
- Structure-dynamics-function relationships of cholinergic proteins (parts 1 and 2 on different days)
- Allostery in cholinergic receptors and enzymes
- Exposure to organophosphorus pesticides and nerve agents

To help coordinate future research, meetings, and outreach activities we organized a roundtable on:

- Societal and funding issues associated with cholinergic neurotransmission

To promote our young cholinergikers we organized two Award Sessions dedicated to (very) short presentations by:

- the eight B.P. Doctor Memorial Award laureates
- the nine Poster Prize laureates

And to make sure that everyone has an opportunity for presenting his/her work we organized two main Poster Sessions, preceded by Poster Highlights Sessions with (again, very) short presentations

The **overall timetable** of the XVth ISCM is available via

https://iscm.sciencesconf.org/data/pages/Overview_ISCM_14oct.pdf

The **detailed program** with sessions, chairpersons and speakers is available via

https://iscm.sciencesconf.org/data/pages/Agenda_Updated_Oct20.pdf

Should the ISN wish to receive one of the few program booklets that remain to us, please let us know.

Support by the ISN was fully acknowledged through the posting of its logo on:

- the home page of the XVth ISCM web site (<https://iscm.sciencesconf.org/>)
- its Sponsors page (<https://iscm.sciencesconf.org/resource/page/id/10>)
- the back cover (with web address) and page 4 (with aims of the support) of the program booklet
- the transom above the entrance of the Palais des Congrès - Marseille Chanot (1st picture below)
- the totem displayed at the registration desk (2nd picture below)
- the stage in the conference room (3rd picture below)
- the conference screen during all coffee and lunch breaks
- the Gala Dinner menu (with web address, 4th picture below)





Financial information

The total expenses of the XVth ISCM amounted to ca. 102 000 €

The 13250 US\$ kindly allocated by the ISN to the XVth ISCM correspond to ca. 12 000 €
(Exact value to be defined from the final bank report.)

Young investigators, identified as either PhD students or postdocs in their first 2 years, were offered a 150 € rebate on their registration fees (see <https://iscm.sciencesconf.org/resource/page/id/19>). **43 young investigators registered, corresponding to a total rebate of 6450 €**

Six young investigators received a ISN / IBRO-PERC Young Investigator Poster Prize of 500 € (a 7th candidate to this prize canceled his registration and could not stay in the contest). To avoid competition between the Poster Prize awardees the French Organizing Committee had voted equal contributions by the two organizations, i.e., **1500 € were taken from the ISN funds** and the same amount taken from the IBRO-PERC funds.

As a total, 7950 € = 66.25 % of the ISN funds directly benefited to young investigators

The remaining 3650 € (33.75%) of the funds contributed to the other expenses of the XVth ISCM.

Candidates to these ISN / IBRO-PERC Young Investigator Poster Prizes were identified in the program booklet by a note at top of their abstract. The scientific and aesthetic quality of the posters and the ability of the candidates to present and discuss them were examined by an anonymous committee made of 4 senior “cholinergikers” during the first poster session (day 2). The names of the laureates were announced at the end of day 2, prior to the session dedicated to the short (4 min) presentations by these laureates on day 3. Poster Prize certificates were remitted by our IAB President and ISN member, Hermona Soreq, and pictures were taken. The money was sent to the laureates using bank transfer.





Above: The 6 ISN / IBRO-PERC and 3 Lee's Pharm / Wah Kin Holdings Ltd Young Investigator Poster Prize laureates with chairpersons Hermona Soreq and Karl Tsim (and myself, PM).

Below: The certificates remitted to the 6 laureates.



For more information, and to download pictures, see:

<https://iscm.sciencesconf.org/resource/page/id/23>
https://iscm.sciencesconf.org/data/pages/Laureates_YI_Poster_Prizes_1.pdf
https://iscm.sciencesconf.org/data/pages/Poster_Prize_Certificates.pdf
https://iscm.sciencesconf.org/data/pages/Lr_181551.jpg
https://iscm.sciencesconf.org/data/pages/Lr_181552.jpg

“Numbers”

The XVth ISCM welcomed 188 attendees, of which

Women 81 (43%), Men 107 (57%), Young investigators (PhD students, or postdocs in their first 2 years) 43 (23%), Accompanying persons 2, IAB members 17 (of 24) and 1 former IAB member. Most of these attendees were present during the five days of the symposium.

24 countries were represented, of which

Australia 3, Austria 2, Brazil 1, Canada 5, China/HongKong 9 (5%), Congo 1, Croatia 2, Czech Rep 15 (8%), France 57 (30%), Germany 13 (7%), Greece 1, Iceland 2, Israel 10 (5%), Italy 6, Japan 4, Mexico 1, Poland 1, Russian Fed 8, Sweden 4, Switzerland 2, Turkey 1, Ukraine 1, UK 5, USA 34 (18%).

145 attendees made an oral presentation (<https://iscm.sciencesconf.org/resource/page/id/14>), of which:

- **38 invited speakers** (25 min presentations), comprising 1 Opening lecture, 1 Honorary Lecture, 1 EMBO Keynote Lecture
- **38 selected speakers** (selected on abstract, 15 min presentations)

17 young investigators were provided with awards or prizes and offered short presentations (see

<https://iscm.sciencesconf.org/resource/page/id/23>) as follows:

- 8 BP Doctor Memorial Young Investigator Travel Awards (1000 US\$) (5 min presentations)
(https://iscm.sciencesconf.org/data/pages/BP_Doc_web_annoucement_2.pdf)
- 6 ISN / IBRO-PERC Poster Prizes (the 7th one canceled) (500 €) (4 min presentations)
(https://iscm.sciencesconf.org/data/pages/Laureates_YI_Poster_Prizes_1.pdf)
- 3 Lee's Pharm / Wah Kin Holdings Ltd Poster Prizes (the 4th one canceled) (500 €) (4 min presentations)
(https://iscm.sciencesconf.org/data/pages/Laureates_YI_Poster_Prizes_1.pdf)

16 other attendees (mostly young people, but a few seniors as well!) presented Poster Highlights (3 min) (a 17th one had declined). This session was very dynamic and appreciated.

Short talks: requested 56 / provided 52

Most of the 38 selected speakers also had posters, and we had 52 “posters only”, hence about 90 posters
(None of the 38 invited speakers had posters)

Two group pictures were taken, which can be downloaded from

https://iscm.sciencesconf.org/data/pages/Lr_181566.jpg and https://iscm.sciencesconf.org/data/pages/Lr_181568.jpg

Appreciation messages transmitted orally during the meeting: many!

Appreciation messages sent by attendees: **45** for now (<https://iscm.sciencesconf.org/resource/page/id/29>)

Pictures sent by attendees: **188** for now (<https://iscm.sciencesconf.org/resource/page/id/30>)

Publication in the *Journal of Neurochemistry*

We have made arrangements with the *J. Neurochem.* for publication of “Proceedings to the XVth ISCM”. An Editorial Committee made of Marco Prado (IAB and ISN member) as the Associate Editor, Israel Silman (IAB member) as the Guest Editor, and several IAB and FOC members as Associate Guest Editors, have been set up. **Of the ca. 20 attendees invited to submit a mini-review, 15 replied positively.** As for today, several of these mini-reviews have already been submitted and are under reviewing. (A “kind reminder” has been sent recently to the other nominees.) The Proceedings will open on an introductory text by Israel Silman, presenting the XVth ISCM.

J. Neurochem. also kindly agreed on including abstracts of the XVth ISCM into these Proceedings, although this seemed to be a “première” for this journal. Indeed we believed that doing so would provide the young investigators

(among others) with an opportunity to have their presentations acknowledged widely. Therefore, all the presenting authors were requested to send us back a signed agreement for publication of their abstract. As for today, **98 of them requested to have their abstract published** (8 kindly declined, and the remaining did not reply). These abstracts have been “pre-edited” (by myself, PM) before being sent to the Associate Editor.

With our warmest thanks and regards,



Pascale Marchot

on behalf of the French Organizing Committee (<https://iscm.sciencesconf.org/resource/page/id/5>)