

Report on the Support for an ISN/IBRO Symposium 2015

Our Symposium entitled “Vesicular transporters: from molecular function to behavior and disease” was held in July 2015 at the 9th world congress of the International Research Organization (IBRO Rio de Janeiro, Brazil, July 7-11 2015). This is a very large event in neuroscience with more than 2000 persons attending the meeting. The attendance was international with 63 countries represented and also a lot of young scientists (more than 40%). The meeting took place in the “Sulamerica convention center”.



This conference center is modern with air conditioning, metro and bus access, and very convivial with service for food and coffee.

The conference included neuroscience major fields ranging from: molecular, cellular, network, behavioral and human health. In addition to symposium there was 9 very high levels lectures; 16 mini-symposium and 5 poster sessions.

Our symposium (symposium #15) was co-chaired by Vania Prado and myself (Salah El Mestikawy). It was among the 20 symposiums selected for the meeting.

Before their exocytotic release, neurotransmitters are accumulated into synaptic vesicles by 4 families of transporters: VMAT2 for monoamines, VACHT for acetylcholine, VIAAT for inhibitory transmitters (GABA and glycine) and VGLUTs for glutamate. Vesicular transporters are key anatomical and functional marker of neurotransmission. The past decade has seen major breakthrough in the field. For example, it has been uncovered that VGLUTs are sometime co-expressed with VMAT2 or VACHT or VIAAT. These discoveries have drastically changed our views concerning neurotransmission and have paved the way to the study of co-transmission. Our session covered topics going from molecular to behavioral or pathological consequences of cotransmission. Each one of the invited speakers is an internationally recognized expert of the field.

Originally our session included 4 speakers:

- **Christian Rosenmund** (La Charité University, Berlin, Germany) use state of the art electrophysiology on autaptic cultures of isolated neurons to unravel molecular mechanism of glutamatergic transmission through the study of wildtype and mutated VGLUTs.
- **Robert Edwards** (UCSF, San Francisco, USA) is a pioneer of vesicular transporter study and has recently made major contribution to the discovery of the expression and functions of VGLUTs.
- **Vania Prado** (Western Ontario University, London, Canada) has a long-standing record of studies on cholinergic neurons and has recently studied the consequences of the ablation of the vesicular

acetylcholine transporter in subpopulation of cholinergic neurons.

- **Salah El Mestikawy** (Université Pierre et Marie Curie, Paris, France) also contributed to the discovery of the VGLUTs. He also unraveled the presence of VGLUT3 (an atypical subtype of vesicular glutamate transporters) in “non-glutamatergic” neurons and has focused recently on glutamate co-transmission in normal and pathological conditions.

Therefore, our session covered a large area of neuroscience and was of interest to a broad audience.

Originally we had planed 4 talks:

- 1- Robert Edward “ *The Regulation of Vesicular Glutamate Transport*”.
- 2- Christian Rosenmund “ *Regulation of vesicle release probability by VGLUT function*”.
- 3- Vania Prado “ *Molecular and behavioral signatures of cholinergic deficiency*”.
- 4- Salah El Mestikawy “ *Glutamate-cotransmission VGLUT3 and neuropathologies*”.

Unfortunately Robert Edward had to cancel for family reasons. Consequently and additional 10



minutes was added to the presentation of each speaker.

On this picture you can see the 3 speakers at the end of the session standing in front of the final slide acknowledging the support of ISN for the session.

The support slide was also shown at the beginning of the symposium.

We had a very good attendance, numerous questions and a lively discussion.

The ISN Budget was used to support the registration and hotel of the speakers (as depicted in the table below). In addition, the ISN funds were used to support the congress expenses for a young and brilliant Brazilian student (Diana Yae Sakae) performing her PhD in Salah El Mestikawy lab in Paris.

Financial report

I received 6.600*\$us which converted to 8340,86 \$can

Name	Registration	Accommodation	Per diem	Plane ticket
Salah El Mestikawy	311 \$can	1804.67 \$can		
Christian Rosenmund	435 \$can	1203.11 \$can		2257.30 \$can
Diana Yae Sakae	352 \$can	200 \$can	180 \$can	1067.42 \$can
Total	1098 \$can	3207.78 \$can	180 \$can	3324.72 \$can
Total expenses: 7810,50 \$can				

As conclusion we would like to express our gratitude to ISN comity for making this event possible and for giving us the opportunity to attend this fantastic meeting.