### Special newsletter



# Joint Meeting 16<sup>th</sup> International Neurotoxicology Association (INA-16) 8<sup>th</sup> NeuroToxicity Society (NTS) Florianopolis, Brazil, May 20-23, 2017

Greetings NTS and INA Members and Interested Neurotoxicologists:

We will be having the Joint Meeting of the Neurotoxicity Society and International Neurotoxicology Association May 20-23, 2017 in Florianopolis, Brazil. Florianopolis is a vibrant, culturally and intellectually rich city on the coast of south Brazil. It is the capital city of Santa Catarina state. Florianopolis is home to the Universidade Federal de Santa Catarina which has a considerable research effort including neurotoxicology.

The Convention includes a keynote talk by Dr. Tim Greenamyre about Parkinson disease 'At the intersection of genes and environment' as well as numerous symposia on a variety of cutting-edge neurotoxicology areas including Inflammation, Viruses, Antibiotics, Drugs of Abuse, Therapeutic Drugs, Parkinson's Disease, Neurodegeneration, Cell Death, High Throughput Neurotoxicity Testing, Sensory Toxicity, Mitochondrial mechanisms, Metabolic Disorders, Autism, Impacts of Early Life Stress and workshops with Agilent/Seahorse on mitochondrial bioenergetics and with Illumina for new technologies. There remain opportunities for Open Platform Talks, Student talks and Instrumentation Workshops

For those of you who have not yet submitted an abstract please send it by March 1 to Ed Levin (<u>edlevin@duke.edu</u>) and Julie Anderson (<u>jandersen@buckinstitute.org</u>).

The convention will be held at the SLAVIERO ESSENTIAL FLORIANÓPOLIS INGLESES – ACQUAMAR http://www.slavierohoteis.com.br/en/hotel-em-florianopolis/slaviero-essential-florianopolisingleses-acquamar/hotel/

Registration is available at the link below. Costs are modest with US\$ 760 **for members** including the meeting as well as meals and hotel costs. Discounts are available for students and post-docs, Brazilian scientists and those who would like to have more than one person per room. <u>https://www.conferenceonline.com/index.cfm?page=booking&object=conference&id=21707&categorykey=9D532AD5%2DD7A2%2D42AB%2DA093%2D8B98F474B41B&clear=1</u>

Discounted travel arrangements can be made at: WayUp; Contact: Gisele Gonçalves http://www.wayupturismo.com.br.

Please check if you are required to obtain a visa for your visit to Brazil!

We look forward to seeing you in Florianopolis, Brazil this May 20-23 for this exciting and important neurotoxicology meeting!

Best, Ed Levin, President of INA



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### Reminder Membership dues 2016-2017

INA depends on its members for organizing our biannual meetings and for providing (student)travel support. The membership fee is low, only 50 Euro or 60 US dollar for a two-year period. Nonetheless, many members have not paid their dues for 2016/2017 yet. If you recently received an e-mail from our treasurer, it means you are one of those non-paying members,....

Next to supporting our organization and students, there are additional membership benefits: You get a reduced registration fee for the INA meeting in Brazil! But of course, only if you paid your dues....

Payment of your dues is easy and can be done either using our PayPal account or by direct bank transfer. You can find instructions on <u>http://www.neurotoxicology.org/membership/</u>



### David Ray Student Travel Award

At the 25<sup>th</sup> anniversary meeting, INA-14, in The Netherlands (2013), the **David Ray Student Travel Award** was inaugurated. To honor Dr. David Ray of Nottingham, who was a former INA president and teacher of many PhD students, the best student presentation will be awarded by the Executive Committee of INA with the **David Ray Student Travel Award** and the winner will receive full compensation of her or his travel expenses.

David, who regrettably passed away in 2010, was an Englishman par excellence, an outstanding researcher in neurotoxicology, and a good friend to many of the INA members. His comments and questions were always sagaciously phrased and blended with "British" humor. INA lost a valuable promoter of neurotoxicology much too early, and so to keep the memory of David Ray alive, the David Ray Student Travel Award will be conferred at every INA meeting here forth.

#### Who can apply?

All students currently working on their PhD or MD thesis in any area of neurotoxicology under the supervision of a **full INA member**. Additionally, early post-docs that defended their PhD/MD thesis between 2015-2017 are also eligible.

#### How to apply?

Information regarding the format of the abstract will be available on the INA webpage: <u>http://www.neurotoxicology.org</u>. The <u>deadline for application is **March 1, 2017**</u>.

Submit your full application via e-mail to Dr. Remco Westerink (r.westerink@uu.nl)

#### What should be submitted?

- an abstract on which you are first (presenting) author
- a full curriculum vitae of the applicant
- a letter of recommendation confirming your status from your supervisor (note that your supervisor must be a full INA member)

Only students that are invited to give a presentation (either in the student symposium or in any of the regular sessions) are eligible. During the meeting, the student presentations will be evaluated by several referees to select the best talk to receive the Award at the end of the meeting.

Note that if you are lucky enough to win the prestigious David Ray Student Travel Award, you are no longer eligible for the "INA/NTS Young Investigator Educational Enhancement Travel Award".



## INA/NTS Young Investigator Educational Enhancement Travel Awards

A limited number of young investigator travel grants will be awarded as partial support to attend the 2017 joint INA/NTS meeting. <u>The deadline is March 1, 2017</u>.

#### **ELIGIBILITY REQUIREMENTS:**

- 1. Graduate students or postdoctoral scientists who received their PhD or MD degree within the last four years, as of May 1, 2017
- 2. Applicants must be a member of either INA or NTS or working under the supervision of a regular member of either society.
- 3. Applicants must be first (presenting) author of a submitted abstract.
- 4. Applicants may not have received a travel award from INA or NTS previously.
- 5. No more than two applicants from any laboratory may apply.
- 6. Travel awards are determined based upon funding



#### **MEETING EXPECTATIONS:**

- 1. Travel award recipients are expected to attend the entire meeting, including social events.
- 2. Award winners will be formally presented to the Society at both the opening symposium and the business meeting.
- 3. Award winners will be expected to present their submitted work at the meeting.

#### TO APPLY:

#### Step One:

Information regarding the format of the abstract will be available on each society's webpage: <u>http://www.neurotoxicology.org</u><u>http://www.neurotoxicitysociety.org</u>

#### Step Two:

In addition to submitting an abstract, the following documents will be requested:

- 1. A cover letter containing a statement about your current position, your career goals, and how attending the INA/NTS meeting will support those goals.
- 2. A signed letter of support from your dissertation supervisor or research director confirming your status and confirming financial need for attending the meeting.
- 3. A full curriculum vitae.

#### Step Three:

Submit your full application <u>before March 1 (2017)</u> via e-mail to <u>both</u> Drs. Remco Westerink (<u>r.westerink@uu.nl</u>) and Julie Andersen (<u>jandersen@buckinstitute.org</u>).

## Call for abstracts and presentations at the 2017 joint INA/NTS meeting

Please send an abstract of your recent neurotoxicology research for presentation at the joint 2017 INA/NTS meeting in Florianopolis, Brazil. The word limit is 400 words including title, authors, affiliations and funding citations (see example abstract on <u>http://www.neurotoxicology.org</u>).

The abstracts will be evaluated by the INA/NTS program and local organizing committees. Indicatepresentationpreference of platform, poster or either. For further information visit each society'swebpage:<a href="http://www.neurotoxicology.org">http://www.neurotoxicology.org</a>http://www.neurotoxicology.org<a href="http://www.neurotoxicitysociety.org">http://www.neurotoxicology.org</a>



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## Abstract template for the 2017 joint INA/NTS meeting

#### Neural mechanisms of octochemerol-induced behavioral alterations

Marie Curie, Charles Darwin, Rosalind Franklin and Alois Alzheimer

Dept. Brain Health, All Science University, Making Things, Inc and Allnations' Government Labs

Exposure to octochemerol is of concern because it is widespread in the environment, it has actions at a variety of neural signaling pathways and it causes behavioral dysfunction after exposure. Previous research has shown that cognitive function is impacted by octochemerol exposure in animal models. In vitro studies have shown that the abc, Imn and xyz neural signaling systems are affected by octochemerol. The current study was conducted to determine which of these neural effects or combination of effects is most responsible for the behavioral impairment caused by octochemerol. Adult test subjects of the requat species (N=15/treatment) were exposed to octochemerol chronically via osmotic minipumps (sc) for four weeks (0, 1, 2, 4 and 8 mg/kg/day). They were tested for effects on locomotor activity in the Loco-meter<sup>™</sup> apparatus, anxiety in the fear of falling (FoF) test and learning in the operant light-on/respond-here task. Concurrent neural measurements were made with optoepiomic evaluation of five brain areas including the infundibulum, substantia innominata, nucleus ambiguous, inferior olive and pulvinar. Key markers of the abc, Imn and xyz signaling pathways were assessed because they have been shown in previous studies to be affected by octochemerol. In addition, def, hij and rst systems were evaluated as they are important for the behaviors under study. Analysis of variance with Dunnett's comparisons of treated groups to control and Bonferonni correction for multiple comparisons were used with p<0.05 as the threshold for significance. Octochemerol at the 8 mg/kg/day dose significantly impaired learning without significant effects on the locomotor activity or anxiety tests. The learning impairment was correlated with deficits in Imn activity, whereas octochemerol effects on abc and xyz were not found to be related to the learning impairment. A follow-up experiment with boostupitrol, an Imn agonist, reversed the octochemerol-induced learning impairment. Interestingly, we also found that reaction of the rst signaling system also played a role in the behavioral effects of octochemerol, even though this system is not directly affected by octochemerol in cell-based systems. Reaction of rst signaling may determine subgroup differential sensitivity to octochemerol neurobehavioral impairment. Further research is needed to determine the complex mechanistic interactions underlying octochemerol neurobehavioral toxicity.

This research was supported by the World Health Organization and the Nobel Prize Committee.

#### **Presentation Preference**

- \_\_\_ Talk
- \_\_\_ Poster
- \_\_\_ Either