PANS2019 New Orleans

laissez la bonne science rouler

New Orleans
Louisiana, USA

March 21 & 22, 2019

Marriott New Orleans Downtown
at the Convention Center

PANS2019 New Orleans

laissez la bonne science rouler

Welcome Message from PANS President Denise Belsham

As President of the **Pan American Neuroendocrine Society**, I am delighted to extend a warm welcome to everyone participating in the **inaugural PANS2019 Meeting in New Orleans**. Thank you for attending our satellite meeting with ENDO2019, and we wish you an exceptional experience.

Dr. Deborah Kurrasch, Chair of the program organizing committee, and her committee have put together an integrated scientific program addressing the full spectrum of neuroendocrine research and covering cutting edge developments within four sessions. The flavor is truly international with expert speakers from across the western hemisphere and it promises to be a celebration of scientific excellence in an iconic setting.

The keynote presentation is by **Dr. Margaret McCarthy**, who is a preeminent leader in the integration of molecular mechanisms, physiology, and behavior when dissecting the complex nature of sexual dimorphism. She is an outstanding choice and we thank her for accepting our invitation.

Dr. Andy Babwah, Chair of the local organizing committee, and his team have been instrumental in planning the meeting to be both intellectually stimulating, but with ample opportunities for networking (and fun – we are in New Orleans after all). There is a special emphasis on trainees and young scientists, and we encourage everyone to attend the poster sessions, professional development breakfast, as well as the opening reception to network with the next generation of neuroendocrinologists.

I would be remiss if I did not mention all that came before us to rejuvenate the neuroendocrine community in the Americas. We are indebted to the first Chairperson of the Executive Council of PANS, **Dr. Robert Handa**, who poured his energy and enthusiasm into bringing this group back together, and expanded our reach across all of North and Latin America. Also, thanks to the entire Executive Council of PANS for their invaluable input towards the direction of our society. We encourage everyone to become members of PANS, and spread the message to their friends and colleagues.

I wish you a very successful meeting professionally and personally. Please engage in all of the planned activities that are centered on research excellence, collaborative interactions, and professional networking opportunities. We also encourage you to meet our sponsors, and support their endeavors. We truly hope that you will enjoy your time in New Orleans at this marvelous meeting. It's time to celebrate neuroendocrinology!

Professor Denise Belsham,

President of the Pan American Neuroendocrine Society

Pan American Neuroendocrine Society

AFTERNOON SESSION **Blaine Kern Ballroom A** **2:00 – 5:00 pm**
SYMPOSIUM 4: Neuroinflammation and neural injury in neuroendocrine states
Session Chair: Jon Levine & Mercedes Lasaga

2:00-2:30 pm
Microglial inflammation in obesity pathogenesis: Protective role of sex hormones
Mauricio Dorfman, PhD, University of Washington, USA

2:30-3:00 pm
Hot baby: How early life inflammation programs the brain
Quentin Pittman, PhD, University of Calgary, Canada

3:00-3:30 pm
Glucocorticoid signaling and neuroinflammation
Carolina Munhoz, PhD, University of Sao Paulo, Brazil

BREAK **Blaine Kern Ballroom Foyer** **3:30 – 3:45 pm**

3:45-4:15 pm - Trainee talks
Microglia interact with hypothalamic progenitors during development and are required for proper energy balance
Jessica Rosin, PhD, University of Calgary, Canada

Estradiol enhances the inhibitory effect of the cytokine interleukin 1B on pulsatile LH secretion in female mice
Katherine Makowski, DVM, University of California, San Diego, USA

4:15-4:45 pm
Neuroinflammation and aging: Focus on experimental Alzheimer´s disease
Flavia Saravia, PhD, University of Buenos Aires, Argentina

4:45 pm
Closing remarks
Andy Babwah, PhD & Deborah Kurrasch, PhD, Chairs Local Organizing & Program Organizing Committees
Denise Belsham, PhD, President of PANS

ADJOURNMENT **5:00 pm**

Thanks for joining us at PANS2019!

See you next year in Buenos Aires, Argentina
at our PANS2020 "Meeting-within-a-Meeting" at ICE2020
October 4-7, 2020

Dr. Flavia Saravia, University of Buenos Aires, Argentina

Title: Neuroinflammation and aging: Focus on experimental Alzheimer´s disease

Biography: Dr. Flavia Saravia received her Bachelor in Biological Sciences at the University of Buenos Aires (UBA) (1984-1990) and her Ph.D. in Sciences, Faculty of Pharmacy and Biochemistry University of Buenos Aires (1993). At present, Dr. Flavia Saravia is an independent Researcher National Research Council, Lab of Neurobiology of Aging, Institute of Biology and Experimental Medicine and Faculty of Exact and Natural Sciences, University of Buenos Aires, Argentina.

Abstract: The incidence of metabolic disorders including obesity, diabetes and metabolic syndrome have seriously increased in the last decades. These diseases - with growing impact in modern societies - constitute major risk factors for neurodegenerative disorders such as Alzheimer's disease (AD), sharing insulin resistance, inflammation and associated cognitive impairment. The dentate gyrus of the hippocampus- a neurogenic area associated with memory and learning processes- is a recognized target for diabetic alterations and neurodegeneration. We explored the hippocampal neurogenesis and its microenvironment (microglia, astrocytes, vascularisation and glucocorticoid influence) in different dysmetabolic scenarios provided by spontaneous or induced experimental models. We found astrogliosis, reactive microglia, and reduced vascular arborization in association with cognitive impairment and lower or disturbed neurogenic ability, even in young animals. These phenomena were accompanied by a insulin-resistant state in the hippocampus, an impaired response to insulin. In the context of Alzheimer's disease (AD), hippocampal alterations have been well described in advanced stages of the pathology, when amyloid deposition, inflammation and glial activation occur, but less attention has been directed to studying early stages. The neurogenic capability, measured as DCX+ cells, was strongly diminished and associated to alterations in cell maturity in a transgenic mouse model of AD, at early stages, when no amyloid deposits are present. Microglia already exhibited mostly intermediate and ameboid morphology-suggestive of activated state-and less corresponding to the ramified phenotype. Microglia, is able to sense pathogens and but also react against metabolic insults through phagocytosis and the release of cytokines. A chronic microglia stimulation may contribute to a persistent inflammation that can precede the neurodegenerative process.

NOTES: