

# **NFWS**

Elena Choleris, Ph.D., Editor-in-Chief Nina Donner, Ph.D., Guest Editor

#### December 2013

### Get ready for Las Vegas, June 10-15, 2014



Robert Blanchard, former IBNS president, passed away



Annual IBNS Meeting 2014 / Travel Awards / **Deadlines** 



**Knocking Out** Rhinos - Stephen Kent's adventure in Africa



Junior Faculty -Interview with Susanne **Brummelte** 



Switching from Academia to Non-**Profit - Interview** with Kristen D'Anci



Career Updates / Awards / **Publications** 

#### SUBMIT YOUR ABSTRACT

Please submit your abstract for the Annual IBNS Meeting in Las Vegas, June 10-15 2014, here:

www.IBNSconnect.org

### Robert Blanchard. former IBNS president, passed away at age 76



IMPORTANT DATES

**December 6, 2013** 

Registration, Abstract, Hotel, Travel Award and Exhibitor Forms are now available online at

www.IBNSconnect.org

January 22, 2014

**Travel Award Applications** due

February 17, 2014

Abstract PRIORITY Deadline

(Abstracts submitted after this deadline will be considered for posters only, and must be received by March 21)

For additional information please visit the IBNS

We regret to inform you that Robert Blanchard (Ph.D.), the extremely accomplished behavioral neuroscientist and beloved former IBNS president (2003-2004), passed away at home on Sunday, November 24th 2013, after a long illness. Our heartfelt condolences are extended to his wife, Caroline Blanchard (Ph.D.), who established such a successful research program with her husband. He will be missed!

We will feature Robert Blanchard's life, research, and IBNS legacy in more detail in the next IBNS newsletter. If you wish to contribute, please contact the editors of the next newsletter, Elena Choleris or Nina Donner.

### Annual IBNS Meeting 2014 Abstract Submission, Venue & Program





homepage or contact Marianne Van Wagner, Executive Coordinator, at ibns@IBNSconnect.org

#### **IBNS Officers**

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Abstract submission for the Annual Meeting in Las Vegas, June 10-15, 2014 is now open! The IBNS Program Committee is soliciting abstracts for oral and poster presentations. Abstracts may be prepared on any subject related to the general area of behavioral neuroscience. Both members and nonmembers may submit abstracts. Data must be original and not previously published. The deadline for consideration of an oral presentation is **February 17, 2014**. Abstracts submitted after February 17 will be considered for posters only, and must be submitted by **March 21, 2014**. Please submit your abstract at www.IBNSconnect.org.

The meeting venue, the luxurious Red Rock Resort, is located about 9 miles from the strip, on the Western slopes of Las Vegas, has access to biking/hiking trails and other outdoor activities in the immediate surround of the hotel, and provides a beautiful panorama view over the city's skyline at night. The hotel offers a complimentary shuttle to the strip, and IBNS meeting attendees also receive free round trip airport transportation. Room rates have been negotiated to as low as \$120/night for single or double occupancy.





Highlights of the meeting will include the following speakers.



Cross-species translational studies of bipolar disorder (Keynote Lecture), Mark Geyer (Ph.D.), University of San Diego, La Jolla, CA, USA



Food on the brain – Why is obesity a 21st century problem? (Presidential Lecture), Margaret Morris (Ph.D.), University of New South Wales, Sydney, Australia



Coming to our senses: Implications of embodiment for the pathogenesis and treatment of major depression (Benchto-Bedside Lecture), Charles Raison (M.D.), University of Arizona, Tucson, AZ, USA



Closing the translational gap between mutant mouse models and the clinical reality of psychotic illness (Keynote Lecture), John Waddington (Ph.D., D.Sc, MRIA), Royal College of Surgeons, Dublin, Ireland

#### SPECIAL SYMPOSIA:

That's why they call it gambling: Neural mechanisms regulating risk/reward

decision making. Chair: Stan B. Floresco, University of British Columbia, CANADA

Traumatic brain injury: Laboratory and clinical perspectives. Chair: Anthony E. Kline, University of Pittsburgh, USA. Sponsored by the Dept of Physical Medicine and Rehabilitation, Univ Pittsburgh, Pittsburgh PA, USA

Behavioral endpoints in drug discovery: What does the Pharmaceutical industry need? Chair: Sophie Louise Dix, Eli Lilly, UK

Diet, behaviour, and immunity across the lifespan. Chair: Stephen Kent, La Trobe University, AUSTRALIA

Chronic stress and brain plasticity: Contrasting mechanisms underlying adaptive and maladaptive changes and implications for stress-related CNS disorders. Chair: Serge Campeau, University of Colorado Boulder, USA

The role of CRF and CRF receptor expression in the progression and pathology of major depressive disorder. Chair: Robert Parrish Waters, Charite Universitatsmedizin Berlin, GERMANY

Brains in the City: Neurobiological effects of urbanization. Chair: Kelly G. Lambert, Randolph-Macon College, USA

Deep brain stimulation of the basal ganglia nuclei: Animal and human studies. Chair: Claudio Da Cunha, Universidade Federal do Parana, BRAZIL

Gut microbiota regulate behavior. Chair: Paul H. Patterson, Caltech Pasadena, USA

Scents that matter - from olfactory stimuli to genes, behaviors and beyond. Chair: Markus Fendt, Institute for Pharmacology and Toxicology, Otto-von-Guericke University Magdeburg, GERMANY

Current Advances in Animal Models of Neurodevelopmental Disorders. Chair: Mu Yang, University of California Davis, USA

Neural mechanism of regulation and disruption of motivational behaviors. Chair: Hidehiko Takahashi, Kyoto University, JAPAN

Reproductive experiential regulation of cognitive and emotional resilience. Chair: Craig Kinsley, Univ of Richmond, USA

Warm feelings, warm thoughts: Thermosensation, emotional behavior, and mental health. Christopher A. Lowry, University of Colorado, USA

Sex-differences in developmental psychopathologies: An animal model perspective. Chair: Ina Weiner, Tel Aviv University, ISRAEL

The importance of the alleviation of negative affective states and cognitive impairments in animal models of nicotine dependence. Chair: F. Scott Hall, National Institute on Drug Abuse, USA

### Travel Award Applications

- January 24, 2014: IBNS Meeting Travel Award Application Deadline
- Submit your Travel Award Application at the IBNS homepage
- February 7, 2014: Travel Award Recipient Notification
- For additional information please visit the <u>IBNS homepage</u> or contact Marianne Van Wagner, Executive Coordinator at ibns@IBNSconnect.org

### Knocking out Rhinos - IBNS President Stephen Kent's Adventure in Africa







Standing in the predawn light, a shiver went down my spine. Was it from the slight chill in the air or nervousness at what was about to ensue? I had only been in Kruger National Park for 12 hours and already I had seen a zoo's worth of animals starting with the 3 elephants that greeted us just before we arrived at the park's entrance as well as giraffes, impala, a troop of baboons, and rather curious hyena that wanted to know what we were cooking. I had been invited to serve on a review panel for the Brain Function Research Group at the University of Witwatersrand in Johannesburg, South Africa. I mentioned to the Director, Andrea Fuller, that I might visit Kruger National Park and she invited me to join them the next day when they went to help a PhD student with her project studying how rhinos respond to anesthesia. It was an opportunity I couldn't turn down.

As we gathered that first morning I had no idea what to expect but by the afternoon I would have had a lion lock eyes on me from 3 meters away and had my hand in the mouth of 4 white or square-lipped rhinoceros. Conservation is a key aspect of the work that the park's rangers and veterinarians do, and in the course of this they need to occasionally anesthetize animals but unfortunately a small number don't survive the process. The project involved 5 veterinarians, a few neuroscientists, a tick specialist, and a support crew of close to 20. A helicopter was used to locate, dart, and then "herd" a young male rhino towards a dirt track so that we could gain access. As the opiates took effect someone would calmly walk aside the rhino and place a blindfold on it before the support crew would gently get it to lie down. There was a flurry of activity the

instant it hit the ground; a large red "pillow" was placed under the head, a catheter was placed in an ear vein, it was intubated to supply oxygen, and vital signs were continually monitored. My job was to pry open the lips, find the tongue, and attach a pulse oximeter to monitor oxygen saturation and heart rate. A very light level of anesthesia was used so I had to wait a few minutes before there was enough loss of muscle tone to get the lips apart. Rhinos don't have incisors but instead use their strong lips to tear off vegetation and then use their surprisingly small tongue to push it back to their molars.

You can imagine what their breath was like and the oxygen tube was an irritant which meant there was a consistent level of mucous which was expelled (usually on my hand which was holding 2 tubes in place in the nostril). One animal had some bleeding which resulted in a rhino blood shower – the best part of this was how the dry cleaner back home didn't even bat an eye when I told him what had stained my shirt.

After 30 minutes of sampling and being microchipped in the horn and shoulder, the rhino was put back on its feet and with a rope around the horn, we all pulled it into a large container that served as a scale before setting it free to wander back into the bushland. - Stephen Kent







# Junior Faculty Experience - Interview with Susanne Brummelte

Susanne Brummelte (Ph.D.) is a tenure-track Assistant Professor in the Department of Psychology at Wayne State University in Detroit, MI, USA. Her laboratory is part of the 'Cognitive and Behavioral Neuroscience Cluster' within the Department, and most of the groups in this cluster perform animal research. Dr. Brummelte currently supervises two graduate students and several undergraduates that also conduct research in her group. Here are her answers to the interview questions:

#### Which research questions are you pursuing?

The main focus of my research is to study the effects of early adverse experiences on the brain and behavior. We are pursuing this question using different approaches. One line of research investigates the effects of early stress hormone and maternal antidepressant exposure, a second line of research looks at the effects of early pain exposure and

how to prevent these effects. Currently, my studies are mainly funded by my start-up grant, but I am applying for external funding from multiple sources.

# Advice from your side on how to choose a good postdoc and faculty position?

For a postdoctoral position: Choose a position/supervisor from which you will learn something new, but which will also help you pursue your independent line of research. Find a PI who is well known in your area. This is the time you have to proof that you have your own ideas, and that you are able to plan and conduct independent research.

For a junior faculty position: In the current climate and given the strong competition, it's not so much about 'how to choose one' but 'how to get one'. In the end, it is all about the right fit. You may have an amazing CV, but your research area may not fit with what the search committee is looking for, or you are thematically too close to someone else in the respective department. Having a well-known supervisor write an outstanding letter of recommendation will help. Knowing people in the department you are applying to also helps. Also, it may make all the difference if somebody puts in a good word for you. An average university receives about 80 applications for a tenure-track position. How much do you think they will spend reviewing your application? So make it easy for them: spend more time on your cover letter than on your teaching statement (if you are applying to an R01 university). Highlight the important facts you want the committee to know about you in your cover letter and CV. If your application doesn't make it to the "A pile", then probably nobody will ever read the rest.

#### What tasks or aspects of your job do you enjoy most?

The moment I take a first look at newly collected data, especially if there're is a significant number looking back at me after I hit 'compute' in a statistic program. I also really enjoy teaching students in my lab, and watching them thrive. And last but not least, I have to admit that conferences are a great perk of the academic live. I love to meet with colleagues from all over the world, exchange ideas, talk science, and learn something new every time.

### Do you have children/family, and how are you juggling your lifework balance?

I don't have any kids but I admire my colleagues that manage to juggle family, kids and the job. I do make sure though to take time off for friends and family as I believe that it is important to have a healthy balance between work and life to stay sane. I chose an academic career path because I love what I am doing. To be able to continue enjoying it (it being a very stressful job after all) one needs to avoid having it overwhelm you. As my colleague Dr. Joanne Weinberg once put it: 'Sometimes life takes over - and sometimes work takes over'!

#### What was the hardest part about starting you current position?

Learning the ways of bureaucracy, who to ask for what, and setting up the lab. You think you know what you want/need until you actually try to

order it. So my tip for new faculty is: really know what you need when you negotiate your offer, plan out every room and every detail and make it a condition of your start-up grant. This way you won't end up like me trying to add a sink into one of your rooms, and receiving an \$18,000 quote for it. I decided I can live without that sink for now.

#### How has IBNS advanced or contributed to your career?

IBNS is one of my favorite conferences and societies. Getting involved in the society has helped me getting to know more people in my area, and increased my network activity. It's also IBNS's 'fault' that I now have a twitter account that you can follow. I learned a tremendous amount at these conferences, and am looking forward to many more stimulating meetings.



### Switching from Academia to Non-Profit - Interview with Kristen D'Anci

**Kristen D'Anci (Ph.D.)** recently switched careers. Formerly a faculty member of the Psychology Department at Tufts University, where she researched the interactions of nutrition and behavior, Dr. D'Anci now works for ECRI, a non-profit organization. ECRI's mission is to benefit patient care by promoting the highest standards of safety, quality, and cost-effectiveness in healthcare. Here are her answers to the interview questions:

#### How did you first become interested in this new opportunity?

I learned of this through work-related contacts, and found the mission of the company appealing. The work itself is well-aligned with my skills and interests. In my present position, I read and evaluate medical literature, interpret, synthesize and share these findings. At present I am part of a team working on revising clinical care guidelines for topics such as kidney disease and COPD. This position allows me to do what I really like: read, think, analyze, synthesize and write.

# What's your new job title/position, and what are your key responsibilities at your new job?

My workgroup is the 'Evidence-based Practice Center and Health Technology Assessment Group' in ECRI Institute, and I am a Senior Research Analyst. My key responsibilities are to conduct and write systematic reviews and evidence reports, perform meta-analyses, write brief reviews on focused topics, and evaluate clinical care guidelines.

## What were the key factors that made you choose to leave the traditional academic track?

The current climate for research funding is unfortunate, I think we'll be seeing significant brain drain as people are unable to obtain research funding and are unable to keep their labs running. In my case, a heavy

teaching load and lack of resources kept me out of the lab for a long time. I loved working with my students, was in a terrific department, and I enjoy much of what an academic life is. However, I felt the need for a change. Having done essentially the same type of work for 15-20 years, I wanted to explore something outside academia.

# What are the key advantages of your new career path & what aspects of your job do you enjoy most?

To be honest, it is easier to carve out a better work/life balance. This is a huge advantage, particularly as a knowledge worker, to be able to recharge outside of the office and come in with a fresh mind. I love the variety of topics that our group works on, on any given day I could be reading about pharmacotherapies for fibromyalgia, incretin mimetics for the treatment of diabetes, or clinical practice guidelines for treatment of breast cancer. It's fascinating, and I learn something new every day. Plus I still get to play with data.

### Are there certain academic freedoms, tasks or practices that you miss?

I miss working with the students, especially mentoring them in the lab. Although funding was very difficult to come by, there were a few research projects that I was involved with, and I miss the interaction with my lab mates and the process of primary research.

#### What was the hardest part about transitioning?

The hardest part was probably moving to another state where I don't have a lot of social contacts, so I'm grateful for social media so I can keep in touch with friends back home.

### Career Updates



On November 1st, Laurence Coutellier (Ph.D.) started her new position as Assistant Professor at the Department of Psychology at Ohio State University after completing one postdoctoral fellowship at NIH and a second postdoc at Stanford University. Specializing in Behavioral Genetics, her research interests at Ohio State University now focus on behavioral, molecular and optogenetic methods in mouse models to study how genes and environment interact and contribute to brain development and to susceptibility to neurodevelopmental disorders, for example schizophrenia and autism. She is such a multi-talent that she has also recently become a mother!



Kristen D'Anci (Ph.D.), an expert on the interactions of nutrition, brain, and behavior, left her former appointment, a tenure-track faculty position in Biopsychology at Salem State University to become a senior research analyst at ECRI Institute, a non-profit organization. Previously, Dr. D'Anci worked as a

research associate in the Nutrition and Behavior Laboratory in the Psychology Department at Tufts University where she addressed, amongst other questions, how water consumption influences mood in humans and how creatine supplementation affects mood and cognitive behavior in rats. Dr. D'Anci was so kind to share her experiences during the transition from traditional academia to her new position with us (see featured scientist interview above).



Jared Young (Ph.D.), Assistant Professor in the Department of Psychiatry at the University of California San Diego, received a 5th percentile upon NIH review of his recent R21 grant application. The grant will use genetic, pharmacological, and adenovirus-associated techniques to investigate whether the alpha 7 nicotinic acetycholine receptor (nAChR) indirectly activates the dopamine D1 receptor in the striatum to improve rewardassociative learning. The goal is to identify treatments enhance reward-associative learning. treatments could be used in combination with psychotherapeutic interventions to enhance the independent living of psychiatric patients, a tactic that is referred to as Pharmacological Augmentation of Cognitive Therapies (PACT, see Swerdlow 2012, and Acheson et al. 2013).

### **Awards**



Rosalina Guevara Guzmán (Ph.D.) from the Department of Physiology at UNAM (National Autonomous University of Mexico) received a major career award in Medicine for her scientific accomplishments and career trajectory. Julio Sánchez Cortázar, president of the 'Veracruz Cultural and Social Center' had organized a special ceremony to celebrate the 21st anniversary of the trust's foundation. During this ceremony, distinguished personalities from the state of Veracruz, where Dr. Guevera Guzmán was born, were recognized. Congratulations!



Robert Gerlai (Ph.D.) from the Department of Psychology at the University of Toronto received an award for being the top performing faculty in the past three years. In addition, Dr. Gerlai received the "2013 Distinguished Investigator Award" from the International Behavioral Genetics Society (IBANGS). His group primarily uses zebra fish to study how genes and genetic manipulations influence behavior, research that resulted in a record number of publications for 2013, namely 12 primary research papers and 6 book chapters. Together with co-editors Wim E. Crusio (Ph.D.) from the Université de Bordeaux in France, Frans Sluyter (Ph.D.) from the BioScience Project (Wakefield, MA, USA) and Susanna Pietropaolo (Ph.D.) from the Université de Bordeaux in France, he also finished the first volume in the series 'Cambridge Handbooks in Behavioral Genetics'. Volume 1 is entitled 'Genetics of Behavioral Phenotypes'.



**Nina Donner (Ph.D.)**, a researcher in Dr. Christopher Lowry's Behavioral Neuroendocrinology Laboratory at the University of Colorado Boulder, was awarded the Society for Neuroscience (SfN) postdoctoral travel award to attend the Annual SfN Meeting 2013 in San Diego, CA.

### **Publications**



Riccardo Dore (Ph.D.), former research associate at Boston University and currently a post-doctoral researcher in Dr. Vladyslav Vyazovskiy's Sleep, Brain and Behaviour laboratory at the University of Surrey (UK) first-authored the paper "CRF mediates the anxiogenic and anti-rewarding, but not the anorectic effects of PACAP" in 'Neuropsychopharmacology', Volume 38, Issue 11, Pages 2160-2169 (2013). Riccardo is also the first authors on "The inverse agonist of CB1 receptor SR141716 blocks compulsive eating of palatable food", a paper published online in 'Addiction Biology' (April, 2013). In December 2013, the lab will join the University of Oxford (UK) Department of Physiology, Anatomy and Genetics.



Andrew Burke (Ph.D.), postdoctoral researcher in professor Klaus Miczek's laboratory at the Sackler School of Graduate Biomedical Sciences at Tufts University, just published his first review article "Stress in adolescence and drugs of abuse in rodent models: Role of dopamine, CRF, and HPA axis" in the journal 'Psychopharmacology'. The article reviews evidence that models of adolescent stress cross-sensitize individuals to drugs of abuse, and suggests potential underlying neural mechanisms. It will be available online soon!



IBNS members Femke Buisman-Pijlman Jillian Broadbear (Ph.D.) and Zoltan Sarnyai (Ph.D.) are excited to announce that they are guest editing a Special Issue on "The role of oxytocin in positive affect and drug-related reward" for the journal Pharmacology, Biochemistry and Behaviour. They were asked to prepare a special issue in response to the successful plenary session at the 2012 IBNS conference in Kailua-Kona, Hawaii that was chaired by Femke and Jillian. The special issue will highlight recent developments in the understanding of the role of oxytocin in drug-reward and social reward, and other behaviors related to drug abuse. Additionally, it will highlight potential roles for the endogenous oxytocin system, and how these might be affected by drug use and how this could affect the susceptibility to drug abuse and dependence.



Why can't rodents vomit? Good question. **Charles Horn (Ph.D.)**, Associate Professor at the Department of Medicine and Anesthesiology at the University of Pittsburgh is close to answering just that. The following articles were published this year. Horn CC, Kimball BA, Wang H, Kaus J, Dienel S, Nagy A, Gathright GR, Yates BJ, Andrews PLR. Why can't rodents vomit? A comparative behavioral, anatomical, and physiological study. PLOS ONE, 2013, 10;8(4):e60537; and Horn CC, Meyers K, Oberlies N. Musk shrews selectively bred for motion sickness display increased anesthesia-induced vomiting. Physiology and Behavior, 2013, in press.



Nina Donner (Ph.D.) and Christopher Lowry (Ph.D.) recently published the review article "Sex differences in anxiety an emotional behavior" in the 'European Journal of Phsyiology', Volume 465, Issue 5, Pages 601-626 (2013). The article reviews human gender differences in anxiety disorder. panic generalized posttraumatic stress disorder and anxiety-relevant biological functions, and discusses potential mechanisms underlying sex differences in stress-related anxiety states, including emerging evidence supporting the existence of two anatomically and functionally distinct serotonergic circuits that are related to the modulation of conflict anxiety and panic-like anxiety, respectively.



Bruce King (Ph.D.), Clemson University, published a critical review article about the American obesity epidemic, explaining that from an evolutionary standpoint, our hypothalamic-homeostatic systems were quite functional and well adapted to a traditional hunter-/gatherer lifestyle, but have yet to catch up with the current omnipresent obesogenic environment in Western societies. Dr. King's article "The modern obesity ancestral hunter-gatherers, sensory/reward control of food intake" appeared in the American Psychologist, Volume 68, Issue 2, Pages 88-96 (2013). Although the prevalence of obesity has doubled since 1980 and affects more than two thirds of all Americans, uplifting recent results report obesity rates in children to be halted or declining, marking a first sign of success for various behavioral, nutrition-based or communal interventions, such as altered diets, more exercise, less time spent in front of TV and computer screens, and an increased high-carb awareness.