ISPNE NEWS

SAN FRANCISCO 40th ISPNE CONFERENCE ON:

"Modern Psychoneuroendocrinology: Interactions with Genes, Health, and Longevity"

2009 RECAP: HIGHLIGHTS OF ISPNE IN SAN FRANCISCO

The 2009 ISPNE conference in San Francisco held four packed days of excellent science and dialogue that reunited a worldwide community of researchers and welcomed new young investigators. The 212 attendees included many students, which was a great outreach to the next generation. We hope they remain part of our vibrant community.

This year's meeting was kicked off on Thursday afternoon with the annual awards ceremony. Christian Otte, the 2009 Curt Richter Awardee, gave a wonderful acceptance speech highlighting his seminal work with mineralocorticoid function in major depression. Christian represents the ISPNE mission well, applying his research to mental and physical health with an interdisciplinary research program that spans the oceans, and which has included many ISPNE members as mentors along the way.

Day 2 was kicked off with a double hitter: Rachel Yehuda presented clinical data and Jonathon Seckl presented basic and clinical data on the role of glucocorticoid metabolism in states of stress and trauma. Jonathan gave a tour de force demonstrating the impact of prenatal programming on steroid biosynthetic pathways and the later development of metabolic dysregulation. Rachel relayed her several decade long search to better understand PSTD and adaptation of the HPA axis and shared exciting new data on epigenetic affects on glucorticoid regulation that contribute to intergenerational transmission of PTSD. Provocative as ever, Yehuda questioned the interpretation of early handling studies, suggesting that the HPA axis profile of handled rat pups (high glucocorticoid feedback, low cortisol) may represent adaptation to stress, a traumatized profile, even though it appears to be 'stress resilient.'

To build on this year's Aging theme, we invited two internationally reknowned aging researchers whose research is relevant to hormonal regulation: Cynthia Kenyon and Elizabeth Blackburn. Cynthia presented her groundbreaking work on the IGF-1/insulinsignaling system and how knocking out components of this system can extend longevity of worms many fold. Elizabeth, one of the discoverers of the enzyme

telomerase which regulates telomeres, led a symposium and gave a broad ranging primer on how the telomere/telomerase maintenance system, known to regulate the lifespan of cells, is intricately related to human health, longevity, and, now, mental health.

Steve Cole discussed his bench to bedside research, showing how closeted gay males progress to HIV related death faster, how this is mediated by the sympathetic nervous system activity, and, at the cellular level, the effects of norepinephrine on viral replication of HIV. Steve touched upon his recent research, which examines how the social environment, including loneliness and chronic caregiving stress, can lead to genomic expression of NFkb triggered genes and can shut off genes regulated by glucocorticoids.

Fred Turek, a former Curt Richter awardee, gave a masterful overview of circadian biology. Fred repeatedly referenced Curt Richter's research contributions, which included a strong focus on circadian effects on neurohormones and how a substantial proportion of gene regulation throughout the body involves circadian regulation.

This was the first year we began what we hope will become an annual tradition—the Gig Levine Memorial Great Debate. Barbara Levine, Gig's wife, was there as a special guest, and Mary Dallman memorialized Gig. In Gig's honor, we based the most provocative debate we could muster on the following statement: "Resolved: Increased glucocorticoid activity in the brain (and periphery) is a central pathology in stress-related disorders, including neuropsychiatric disorders. We appreciated that Alan Schatzberg (presenting the PRO view) and Andy Miller (presenting the CON view) agreed to undertake the intellectual mud slinging by representing and magnifying their opposing views. Alan showed data that demonstrated effects of high cortisol and how cortisol lowering could improve psychotic depression, while Andy questioned the strength of the data showing glucocorticoid excess in depression and posed that insufficient glucocorticoid signaling is the main problem with states of depression. It was a high-spirited debate delivered with good sportsmanship. The audience displayed focused, if not hypervigilant, attention and slightly elevated blood pressure throughout. The debate about who actually won the debate continues.

This year we had an 'experimental event'— a panel and audience discussion on the HPA axis. Despite hundreds of studies, there is still lack of agreement and conflicting findings about how to best measure and interpret cortisol patterns of regulation, and we felt it important to have dialogue among the expert ISPNE members who bring a wealth of knowledge about HPA axis function to the Society. The panel discussion was another packed event with great audience participation. At one point, Andy Miller warned members that peripheral measures of cortisol provide overly limiting information about disease relevant signaling in the brain. We hope for continued dialogue on the axis and related systems in coming years.

Individual talks in the Oral Sessions were as high in quality as ever and reflected the growing expansion of modern PNE beyond the HPA axis. These included excellent presentations on genetics, brain imaging, electrophysiology, circadian biology, cancer, and immunology.

Our annual social event was held in a trendy San Francisco night club, Infusion Lounge, with fantastic drinks and Asian-Californian fusion appetizers. Nearly half of the conference registrants ended up at the club throughout the evening.

We give an especially huge thank you to Rebecca Wyse for her great dedication in her role as ISPNE administrator over the past several years. Rebecca was crucial in pulling off the conference this year and helping us through tight financial times. She is moving on to begin a second career, which will take most of her time this year, but we hope she will be back with ISPNE again at some point in the future.

There was only one thing wrong with this year's conference. Elizabeth Young, a long time member and officer of ISPNE, helped plan the conference and planned to attend, but, in the end, was not there. She was battling leukemia back at home. Tragically, Elizabeth passed away on September 1st. This is a tremendous loss to ISPNE, to the world of neuroscience, and, most of all, to her family and friends. She will be greatly missed.

We look forward to seeing you all at **the next ISPNE annual meeting scheduled for 2011 in Berlin.**

Warm regards,

Tom Neylan, Elissa Epel, Victor Reus, David Spiegel, and, Owen Wolkowitz

The 2009 Local Planning Committee

NEXT (41th) ISPNE INTERNATIONAL CONFERENCE
BERLIN, GERMANY, 2011
