

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 PTSD and adaptation of the HPA axis and shared exciting new data on epigenetic affects on glucocorticoid 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 NF κ B 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**

ISPNE

A DREAM THAT HAS COME TRUE

Francesca Brambilla, Centro di Psiconeuroendocrinologia, Milano, Italy

The ISPNE story begins in September 1962 at a French gynaecological endocrinology congress in Beirut, Lebanon, where Prof. Sheehan is talking about his recently presented discovery of the secretion of Releasing and Inhibiting Factors by the hypothalamus, regulating peripheral hormonal secretions. It is fascinating. No one has ever thought about the brain as a hormonal secreting organ before, and the audience is all excited. I am suddenly struck by the idea that if the brain produces

I search through the literature and find that very few researchers studied - even remotely - this relationship, the biggest one being Prof. Max Reiss who works at Willowbrook State School Hospital, Staten Island, New York, NY, USA. For years I try to work in this field totally alone. Then I decide I cannot go blindly on like this, and decide I must look for help. In the summer of 1968, I visit Max Reiss. I am granted a 30-minute appointment, but we end up talking the entire day about our research.

Suddenly, Prof. Reiss asks if I would be interested in creating a society – the International Society of Psychoneuroendocrinology -ISPNE - in an effort to bring the apparently very few researchers involved in this field together. I have no money from my country, no help from my hospital in Milano, but since I am totally crazy, enthusiastically I accept the proposal and go back to Italy to begin my task. During the day I work an average of 12 hours, and then, at night, using my father's 1926 typing machine, I write 476 personal letters to all the researchers around the world who have investigated and then published data on even remote connections between peripheral hormones and brain function. To each person, I mention their research and ask if they would be interested in getting together to share their ideas, projects, and experiences to, finally, create a psychoneuroendocrinological society. Most don't even answer, but some are intrigued and seem willing to accept an invitation.

In January 1969, I again visit Max Reiss. Donald Ford (SUNY, Downstate Medical Center, Brooklyn-New York, USA) has joined us. We are scared and excited and decide to select some of the scientists whose response to the idea of creating a society sounded positive, and invite them to Milano, Italy in September 1969 to create the ISPNE. Nineteen of them, from 18 countries all over the world, come to Milano. Each one is enthusiastic and ready to work together, and ISPNE becomes a reality. With no money for organization, we work with all our resources, spending much overtime, obviously, with no secretaries, no help at all. But we are all excited about this new field of research which looks so promising, a totally new pathway which can bring us God knows where - maybe to a dead end, maybe to an understanding of normal or pathological brain functions, to the so long looked for biological background of mental disorders.

What has ISPNE meant to me? Hours and days of desperate, blind work, mistakes, wrong turns, year after year, sometimes to discover I had to start all over again, running to other scientists abroad to ask for comfort, criticism, and help. But how exciting it was when something began emerging and, suddenly, there was a light at the end of the tunnel. And the friendship - I should say, the complicity - in our original, very small, scared group. Scared we would make ourselves look ridiculous, as though we were spending our lives running after an empty balloon. Days after years something was coming out, something which had meaning, must have meaning, even though the interpretations of our results were often nebulous and sometimes wrong.

And then more and more people join us from every country in the world; the membership increases bit by bit from the original 19 people, going up and down and up, becoming a solid, steady group. Congresses are held, each year better than the year before. The journal, every year more and more important, becomes recognized all over the world. The awards. Some members disappear, some die, some go on, asking: What is next, what is around the corner? What is ISPNE for me? A dream that has come true, and that will continue after my working capacity, my interest, and my life.

What has ISPNE done for me? It has given me shared projects, sometimes successful and sometimes not, sometimes recognized and sometimes not, but always worth the try.

What would I suggest to young researchers? Have dreams and fight for them. The fight in itself, independent of the results, makes life worth living, full and happy.