Sunday, May 18, 2008

1:00-5:00 PM  Registration: Lobby
5:00-6:00 PM  Welcome Reception (on the lanai)
6:00-7:30 PM  Opening Dinner (on the lanai)
7:30-8:00 PM  Dr. Robert Wright (School of Earth, Ocean Science and Technology
University of Hawaii) “Geology of the Hawaiian Islands” (Wailuku Room)

* New Investigators

Monday, May 19, 2008

8:00-9:00 AM  Continental Breakfast (in the Courtyard)
9:00-10:30 AM  Platform Session I (Chairs: C. Schwabe and G. Tregear)
   Relaxin and Related Peptides Structure and Function #1
9:00 AM (30min)  Geoffrey Tregear, Howard Florey Institute, Australia
   O-1
   Structure and activity in the relaxin family of peptides.
9:30 AM (30min)  John Wade, Howard Florey Institute, Australia
   O-2
   The chemical synthesis of relaxin and related peptides: from yesterday to today.
10:00 AM (15min)  Fazel Shabanpoor, Howard Florey Institute, Australia
   O-3
   Development of high affinity INSL3 antagonists.
10:15 AM (15min)  Mohammed Hossain, Howard Florey Institute, Australia
   O-4
   The A-chain of human relaxin family peptides has distinct roles in the binding and activation of the different RXFP receptors.
10:30-11:00 AM  Morning Break
11:00-12:30 PM  Platform Session 2 (Chairs: D. Craik and J. Wade)
   Relaxin and Related Peptides Structure and Function #2
11:00 AM (30min)  Johan Rosengren, University of Kalmar, Sweden
   O-5
   Structural insights into the function of relaxins.
11:30 AM (30min)  Changlu Liu, Johnson & Johnson Pharmaceuticals, Inc USA
   O-6
   Probing the functional domains of relaxin-3 and the creation of a selective antagonist for GPCR135 over relaxin receptor LGR7.
12:00 PM (15min)  Linda Haugaard-Jonsson, University of Kalmar, Sweden
   O-7
   Structural characterization of the R3/I5 chimeric relaxin peptide
12:15 PM (15min)  Robert Bennett, Veterans Affairs Medical Center,  
Omaha, NE, USA  O-8  
Degradation of relaxin family peptides by insulin-degrading enzyme.

12:30-1:30 PM  
Lunch provided (Anuenue Lawn)

1:30-3:00 PM  Platform Session 3 (Chairs: C. Bagnell and G. Bryant-Greenwood)  
Reproductive Functions of Relaxin and Related Peptides #1

1:30 PM (25min)  Laura Goldsmith, Dept. of Obstetrics & Gynecology,  
New Jersey Medical School of UMDNJ, USA  O-9  
Relaxin in human pregnancy: consequences of too little or too much of a good thing.

1:55 PM (25min)  David Sherwood, Dept. of Molecular & Intergrative Physiology,  
University of Illinois at Urbana-Champaign, USA  O-10  
Relaxin acts on stromal cells to promote epithelial and stromal proliferation and inhibit apoptosis in the mouse cervix and vagina.

2:20 PM (25min)  Laura Parry, Dept. of Zoology,  
University of Melbourne, Australia  O-11  
The good, the bad and the ugly: lessons in female reproductive tract physiology from the relaxin gene knockout (Rln-/-) mouse.

2:45 PM (15min)  *Yu May Soh, Dept. of Zoology,  
University of Melbourne, Australia  O-12  
Decreased hyaluronic synthase expression in the cervix of the pregnant relaxin-deficient (Rln-/-) mice.

3:00-3:30 PM  
Afternoon Break

3:30-5:15 PM  Platform Session 4 (Chairs: L. Goldsmith and L. Parry)  
Reproductive Functions of Relaxin and Related Peptides #2

3:30 PM (25min)  Carol Bagnell, Dept. of Animal Sciences,  
Rutgers University, USA  O-13  
Milk-bourne relaxin and the lactocrine hypothesis for maternal programming of neonatal tissues.

3:55 PM (25min)  Frank Bartol, Dept. of Animal Sciences,  
Auburn University, USA  O-14  
Relaxin and maternal lactocrine programming of neonatal uterine development.

4:20 PM (25min)  Almuth Einspanier, Institute of Physiological Chemistry,  
Leipzig, Germany  O-15  
Relaxin in the marmoset monkey: there are two sides to every story.
4:45 PM (15min)  *P. Maseelall, Dept. of Obstetrics & Gynecology, New Jersey Medical School of UMDNJ, USA  
Expression of LGR7 in the primate corpus luteum implicates the corpus luteum as a relaxin target organ.

5:00 PM (15min)  *Amy-Lynn Frankshun, Dept. of Animal Sciences, Rutgers University, USA  
Characterization and biological activity of prorelaxin in porcine milk.

7:00-8:00 PM  
*Meet the Professors for Trainees (Coral Reef Room)*
Tuesday, May 20, 2008

7.30-9.00 AM  Continental Breakfast (next to posters) and poster session I (Posters P1-20)

9:00-10:30 AM  Platform Session 5 (Chairs: A. Agoulnik and J. Rosengren)  
Relaxin family receptors #1

9:00 AM (30min)  
Ross Bathgate, Howard Florey Institute, Australia  O-18  
Resolving the unconventional mechanisms underlying RXFP1 and RXFP2 receptor function.

9:30 AM (30min)  
*Andras Kern, Pacific Biosciences Research Center, University of Hawaii, USA  O-19  
Mechanisms of relaxin receptor (LGR7/RXFP1) expression and function.

10:00 AM (15min)  
*Sudhir Singh, Dept. of Biochemistry & Molecular Biology, University of Nebraska, USA  O-20  
Relaxin family peptide receptor 1 (RXFP1) activation stimulates the peroxisome proliferator-activated receptor gamma.

10:15 AM (15min)  
*Fazel Shabanpoor, Howard Florey Institute, Australia  O-21  
Development of a high-throughput receptor binding assay using time resolved fluorescent europium lanthanide for screening insulin-like peptide 3 (INSL3) analogues for their receptor binding affinity.

10:30-11:00 AM  Morning Break

11:00-12:45 PM  Platform Session 6 (Chairs: R. Summers and C. Schwabe)  
Relaxin Family Receptors #2

11:00 AM (25min)  
Pierre De Meyts, Hagedorn Research Institute, Denmark  O-22  
Structure, function and evolution of ligands and receptors of the insulin/relaxin peptide family.

11:25 AM (20min)  
Ronen Shemesh, Compugen Ltd., Israel  O-23  
Activation of relaxin related receptors by short, linear peptides derived from a collagen containing precursor.

11:45 AM (15min)  
*Michelle Halls, Dept. of Pharmacology, Monash University, Australia  O-24  
RXFP1 couples to the G alpha i3-G beta gamma-P-13K-PKC zeta pathway via the final 10 amino acids of the receptor C-terminal tail.

12:00 PM (15min)  
*Lenka Vodstrcil, Dept. of Zoology, University of Melbourne, Australia  O-25  
Local regulation of relaxin receptors in the myometrium of pregnant rats.
12:15 PM (15min) Daniel Scott (Ross Bathgate),
Howard Florey Institute, Australia O-26
The role of the N-terminal leucine rich repeat cap in mediating INSL3 specificity to relaxin family peptide receptor 2.

12:30 PM (15min) Angela Manegold Svendsen,
Hagedorn Research Institute, Denmark O-27
The relaxin family peptide receptors (RXFPs): a new subgroup of dimeric, cooperative GPCR.

Afternoon Free- lunch on your own

7:00-8:30 PM Platform Session 7 (Chairs: S. Sutton and R. Bathgate)
Physiology of insulin-like peptide 3 (INSL3)

7:00 PM (30min) Alexander Agoulnik, Dept. Obstetrics & Gynecology,
Baylor College of Medicine, USA O-28
INSL3/RXFP2 signaling in testicular descent: mice and men.

7:30 PM (30min) Alberto Ferlin, Dept. of Histology, Microbiology &
Medical Biotechnologies, University of Padova, Italy O-29
New roles for INSL3 in adults: regulation of bone metabolism and association of RXFP2 gene mutations with osteoporosis.

8:00 PM (30min) Jacques Tremblay, Dept. of Obstetrics & Gynecology,
Laval University, Quebec, Canada O-30
Regulation of INSL3 transcription in testicular Leydig cells.
Wednesday, May 21, 2008

8:00-9:00 AM  Continental Breakfast (in the Courtyard)

9:00-10:30 AM  Platform Session 8 (Chairs: T. Klonisch and D. Sherwood)
Relaxin and Related Peptides: Receptor Signaling

9:00 AM (30min)  Christian Schwabe, Dept. of Biochemistry & Molecular Biology Medical University of South Carolina, USA  O-31
The hot wires of the relaxin-like factor (INSL3).

9:30 AM (30min)  Roger Summers, Dept. of Pharmacology
Monash University, Australia  O-32
Roles of the receptor, the ligand and the cell in the signal transduction pathways utilized by the relaxin family peptide receptors 1-3 (RXFP1-3).

10:00 AM (15min)  *Emma van der Westhuizen, Dept. of Pharmacology
Monash University, Australia  O-33
Ligand-directed signaling pathways at the relaxin family peptide receptor 3 (RXFP3:GPCR135) determined using reporter genes.

10:15 AM (15min)  *Michelle Halls, Dept. of Pharmacology
Monash University, Australia  O-34
Relaxin activates multiple cAMP signaling pathway profiles in different target cells.

10:30-11:00  Morning Break

11:00-12:30 PM  Platform Session 9 (Chairs: C. Samuel and R. Summers)
Cardiac and Vascular Actions of Relaxin

11:00 AM (25min)  Daniele Bani, Dept. of Anatomy, Histology and Forensic Medicine, University of Florence, Italy  O-35
Prominent role of relaxin in improving post-infarction heart remodeling. Clues from in vitro and in vivo studies with genetically engineered relaxin-producing myoblasts.

11:25 AM (25min)  Thomas Dschietzig, Dept. of Cardiology & Angiology, Charité University Medicine, Germany  O-36
New aspects on cardiovascular actions of relaxin: inotropy and signaling.

11:50 AM (25min)  Xiao-Jun Du, Baker Heart Institute, University of Melbourne, Australia  O-37
Reversal of cardiac fibrosis and related dysfunction by relaxin: experimental findings.
12:15 AM (15min)  *Dan Debrah, Dept. of Bioengineering, University of Pittsburgh, USA  
Relaxin-induced compositional and geometric remodeling of small renal arteries.

12:30-1:30 PM  
*Lunch provided (Anuenue Lawn)*

1:30-3:30 PM  Platform Session 10 (Chairs: R. Bathgate and E. Unemori)  
**Neurobiology of Relaxin and Relaxin-Related Peptides**

1:30 PM (25min)  *Andrew Gundlach, Howard Florey Institute, Australia*  
Relaxin-family peptide and receptor systems in mammalian brain: recent insights from anatomical and functional studies.

1:55 PM (25min)  *Barbara McGowan, Dept. of Investigative Medicine, Imperial College, UK*  
Relaxin-3 and its role in neuroendocrine function.

2:20 PM (25min)  *Steven Sutton, Johnson & Johnson Pharmaceuticals, USA*  
Metabolic and neuroendocrine responses to RXFP3 modulation in the CNS.

2:45 PM (15min)  *Sheri Ma, Howard Florey Institute, Australia*  
Relaxin-3 neurons of the nucleus incertus modulate septohippocampal theta rhythm and spatial working memory in rats.

3:00 PM (15min)  *Craig Smith, Howard Florey Institute, Australia*  
Behavioral phenotyping of mixed-background (129SV/B6) relaxin-3 knockout mice.

3:15 PM (15min)  *Brian Wilson, Dept. of Biology, Acadia University, Canada*  
An in vitro study of the protective effect of relaxin on brain tissue under ischemic stress.

*Buses leave at 5.30PM for “Ulalena”*
Thursday, May 22, 2008

7:30-9:00 AM Continental Breakfast (next to posters) and Poster Session II (Posters P21-40)

9:00-10:30 AM Platform Session 11 (Chairs: K. Conrad and D. Bani) Novel Actions of Relaxin

9:00 AM (25min) Sunil Kapila, Dept. of Orthodontics & Pediatric Dentistry, University of Michigan, USA O-45 Relaxin’s induction of specific MMPs contributes to degradation of cartilage matrix in target synovial joints: receptor profiles correlate with matrix remodeling responses.

9:25 AM (25min) Timothy Cooney, Dept. of Orthopaedics, Hamot Medical Center, USA O-46 Relaxin’s involvement in ECM homeostasis: two diverse lines of evidence.

9:50 AM (25 min) Mimi L.K. Tang, Dept. of Allergy & Immunology, Royal Children’s Hospital, Melbourne, Australia O-47 Relaxin in the airway and lung: potential as a novel treatment for asthma.

10:15 AM (25min) Dennis Stewart, Corthera Inc. (BAS Medical Inc.) USA O-48 Scar reduction and cosmetic effects of relaxin.

10.55-11:15 AM Morning Break

11:15-1:30 PM Platform Session12 (Chairs: T. Dschietzig and G. Weiss) Renal Actions of Relaxin

11:15 AM (25min) Kirk Conrad, University of Florida, USA O-50 In search of the elusive vasodepressor agents of pregnancy.

11:40 AM (25min) Tim Hewitson, Dept. of Nephrology, Royal Melbourne Hospital, Australia O-51 Relaxin: an endogeneous renoprotective factor?

12.05 PM (25min) Chrishan Samuel, Howard Florey Institute, Australia O-52 Investigations into the signaling mechanisms by which relaxin inhibits renal myofibroblast differentiation.

12:30 PM (15min) *Alsadek Bogzil, Faculty of Life Sciences, University of Manchester, UK O-53 Relaxin-induced changes in renal function and RXFP1 receptor expression in the female rat.
12:45 PM (15min)  *Jonathan McGuane, Dept. of Physiology & Functional Genomics, University of Florida, USA  O-54
Vascular endothelial and placental growth factors: new players in the slow relaxin vasodilatory pathway.

1.00 PM (15min)  Naoki Ikegaya, Dept. of Applied Biological Sciences, Shizuoka University, Japan  O-55
Effects of relaxin on the development of mesangial proliferative nephritis.

1.15 PM (15min)  Mark Segal, Dept. of Medicine, University of Florida College of Medicine, USA  O-56
Relaxin affects endothelial progenitor cell number and function.

Afternoon Free--lunch on your own

7:00-8:30 PM  Platform Session 13 (Chairs: A. Einspanier and C. Bagnell)
Relaxin and Relaxin-like Peptides in the Blood and Brain

7:00 PM (25min)  Peter Ryan, College of Veterinary Medicine, Mississippi State University, USA  O-57
Evaluation of relaxin blood profiles as a means of assessing placental function and responsiveness to therapeutic strategies in mares.

7:25 PM (25min)  Bernard Steinetz, Dept. of Environmental Medicine, New York University School of Medicine, USA  O-58
Relaxin concentrations in serum and urine of endangered and crazy mixed-up species: new methods, uses and findings.

7:50 PM (15min)  *Gabrielle Callander, Howard Florey Institute, Australia  O-59
Development of adult neuronal-specific relaxin-3 knockout rats using adeno-associated viral-driven miRNA.

8:05 PM (15min)  *Katayoun Sedaghat, Howard Florey Institute, Australia  O-60
Presence and role of LGR8 (RXFP2) in Thalamo- and cortico-striatal circuits: effects of intrastrial injection of INSL3 on stereotypic behaviour in the rat.
Friday, May 23, 2008

7:30-9:00 AM  Continental Breakfast (next to posters) and Poster Session III  
(Posters P42-56)

9:00-10:20 AM  Platform Session 14 (Chairs: P.Ryan and A. Einspanier)  
Relaxin and Cancer

9:00 AM (25min)  
Michael Cox, The Prostate Center, University of British Columbia, Canada  
Implications of leukocyte responsiveness to tumor-derived relaxin.

9:25 AM (25min)  
Thomas Klonisch, Dept. of Human Anatomy & Cell Science, University of Manitoba, Canada  
Relaxin and INSL3 promote tumor formation of human thyroid carcinoma cells.

9:50 AM (15min)  
Sabine Hombach-Klonisch, Dept. of Human Anatomy and Cell Science, University of Manitoba, Canada  
Estrogen and 2,3,7,8,-tetrachlorodibenzo-p-dioxin (TCDD) modulate RLN2 promoter activity in estrogen receptor positive T47D human breast cancer cells.

10:05 AM (15min)  
*Zhen Li, Dept. of Obstetrics & Gynecology, Baylor College of Medicine, USA  
Relaxin signaling in human uterine fibroids.

10:20-11:00  Morning Break

11:00-12:30 PM  Platform Session 15 (Chairs: D. Stewart and M. Cox)  
Relaxin Clinical Trials

11:00 AM (30min)  
Elaine Unemori, Corthera Inc. (BAS Medical Inc.) USA  
Scientific rationale and design of a phase I study of relaxin in women with severe preeclampsia.

11:30 AM (30min)  
Gerson Weiss, Dept. of Obstetrics & Gynecology, New Jersey Medical School, USA  
A randomized, double blind, placebo controlled trial of relaxin for cervical ripening in post-date pregnancies.

12:00 (30min)  
Thomas Dschietzig, Dept. of Cardiology & Angiology, Charité University Medicine, Germany  
A pilot safety and dose-finding trial of intravenous recombinant human relaxin in compensated congestive heart failure.

12:30 PM  Closing Remarks

12:45 PM  Closing lunch provided (Anuenue Lawn)