Sunday July 11, 2010

15.00 - 19.00 Registration

19.00 - 21.00 Reception

Monday July 12, 2010

08.30 Welcome/announcement

**Plenary Lecture:**
Professor Tomas Hökfelt (Stockholm, Sweden): Multiple messenger systems: Focus on neuropeptides in pain

**Symposium: 09.30 - 10.30**
Novel opioid peptide agonists and antagonists
*Chairs: James Zadina & Aleksandra Misicka*
Luca Gentilucci (Bologna, Italy): Interactions between atypical opioid agonists and MOR
Andrzej Lipkowski (Warsaw, Poland): Opioid-tachykinin chimeric peptides for chronic pain treatment
James Zadina (New Orleans, USA): Novel opioid peptide derived agonists

**Coffee-break 10.30 - 11.00**

**Symposium: 11.00 - 12.30**
Transcription and epigenetics of opioid peptide genes
*Chairs: Georgy Bakalkin and Li-Na Wei*
Li-Na Wei (Minneapolis, USA): Epigenetic control of opioid receptor genes
Jaques Drouin (Montreal, Canada): Epigenetic aspects on POMC transcription
Rui Yue and Gang Pei (Shanghai, China): Epigenetic regulation of gene transcription by β-arrestin Differences in the regulation of the prodynorphin gene in human and animals

Hot topics/Discussion

**Lunch 12.30 - 14.00**

**Symposium: 14.00 - 16.00**
Ligand-directed Signaling and Functional Selectivity
*Chairs: Lakshmi Devi & Brigitte Kieffer*
Laura Bohn (Irwine, CA, USA): Agonist-directed signaling of the serotonin 2A receptor
Stéphane Allouche (Caen, France): SK-N-BE cells: a human neuroblastoma cell line as a model for studying delta opioid receptors
Amynah Pradhan (Montreal, Canada): Ligand-directed trafficking of the delta opioid receptor in vivo: two paths towards analgesic tolerance
Graciela Pineyro (Montreal, Canada): Functional selectivity determines post-endocytic sorting and tolerance potential of delta opioid receptor (DOR) ligands

Hot topics/Discussion:

Coffee-break 16.00 - 16.30

Poster session 1: 16.30 - 19.00

Tuesday July 13, 2010

08.30 - 09.30

Plenary Lecture:
Professor Tony L Yaksh (UCSD, La Jolla, CA): Spinal opiates and analgesia - A real bench to bedside story

Symposium: 09.30 - 10.30
Opioids in neuropathic pain
Preclinical part
Chairs: Lei Yu & Hiroshi Ueda
Hiroshi Ueda (Nagasaki, Japan): Epigenetic control of opioid receptor gene expression in neuropathic pain model.
Masahiro Ohsawa (Tokyo, Japan): Interaction with naloxone and substance P pathways in neuropathic pain

Coffee-break 10.30 - 11.00

Symposium: 11.00 - 12.30
Opioids in neuropathic pain
Clinical part
Chairs: Eija Kalso & Torsten Gordh
Torsten Gordh (Uppsala, Sweden): Opioid sensitivity in chronic pain patients correlates with the expression level of opioid peptide systems.
Inna Belfer (Bethesda, USA): Genetic basis for individual variations in pain perception and the development of a chronic pain condition.

Oleg Kristhal (Kiev, Ukraine): Novel peptide from spider venom inhibits P2X3 receptors and alleviates inflammatory pain
Eberhard Weihe (Marburg, Germany): Plasticity of opioid peptides in specific glutamatergic pathways in experimental pain

Lunch 12.30 - 14.00

Symposium: 14.00 - 16.00
Opioids & stem cell research - Recent progress in the stem cell biology and adult neurogenesis
Chair: Minoru Narita and Kurt Hauser
Pamela Knapp (Richmond, VA, USA): Opiates and HIV interact to alter CNS progenitor function in a stage-specific manner
Minuru Narita (Tokyo, Japan): Recent progress in the stem cell biology and adult neurogenesis related to drugs of abuse
Amelia Eisch (Dallas, USA): Adult hippocampal neurogenesis and opiates: implications for addiction

Hot topics/Discussion:

Coffee-break 16.00 - 16.30

Poster session 2: 16.30 - 19.00

Wednesday July 14, 2010

08.30 - 09.30

Founders Lecture:
Professor Masamichi Satoh (Hiroshima, Japan)
Symposium: 09.30 - 10.30
Opioids, Incentive Drive and Habit
*Chairs: Tony Shippenberg and Florence Noble*

**Nigel T Maidment (Los Angeles, USA):** Licking, liking and longing: opioid modulation of goal-directed actions

**Agustin Zapata (Baltimore, USA):** Kappa opioid receptors and cocaine seeking habits

**Serge Ahmed (Bordeaux, France):** Modeling heroin addiction in animals: effects of extended drug access on heroin consumption, motivation and preference

Coffee-break 10.30 - 11.00

Symposium: 11.0 - 12.30
Opioid addiction – Clinical aspects
*Chairs: Claes Post and Mats Berglund*


**Mary Jeanne Kreek (New York, USA):** Aspects on methylation of DNA of opioid receptor genes in heroin addicts.

A 3rd speaker will be added:

Hot topics/Discussion:

Afternoon free

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Thursday July 15, 2010

08.30 -09.30

**Plenary Lecture:**
Professor Dan Larhammar (Uppsala, Sweden): Opioid evolution

*Symposium: 09.30 - 10.30*
Opioids in alcohol addiction
Preclinical research
*Chairs: Ingrid Nylander & Christine Gianoulakis:*

**Ingrid Nylander (Uppsala, Sweden):** The impact of early environmental factors on ethanol-induced effects on opioid peptides in adult male rats.

**Christine Gianoulakis (Montreal, Canada):** Effects of ethanol on opioid peptide release in CNS regions related to addiction

**Andreas Zimmer (Bonn, Germany):** Endogenous opioids and the commonality
between effects of alcohol and nicotine

Coffee-break 10.30 - 11.00

Symposium: 11.00 - 12.30
Opioids in addiction to alcohol and central stimulants
Clinical research
Chairs: Mary Jeanne Kreek & Johan Franck
Karl Mann (Heidelberg, Germany): The opioid system as a target for treating alcoholism.
Johan Franck (Stockholm, Sweden): The opioid receptor naltrexone attenuates the subjective effects of amphetamine in patients with amphetamine dependence.

Hot topics/Discussion:

Lunch 12.30 - 14.00

Symposium 8: 14.00 - 15.00
Endogenous opioids and addiction to gambling
Chair: Fred Nyberg
Mark Potenza (New York, USA): The neurobiology and genetics of impulse control disorders: relationships to drug addictions.
Sandra J Wallner-Liebman (Gratz, Austria): Endogenous opioids in patients addictive to gambling

15.00 - 16.30 NIDA-symposium
Chair: Rao S. Rapaka (NIDA/NIH)
David Shurtleff (NIDA/NIH, USA): Basic Neuroscience Research at NIDA: An Update
Danielle Piomelli, UC Irvine, USA): Neural lipidomics and human diseases
Alexandros Makriyannis (Northeastern University, Boston): Focused Proteomics Approaches for investigations of the endocannabinoid system

Coffee-break 16.30 - 17.00

17.00 Business Meeting

19.30 Banquet dinner
Friday July 16, 2010

Symposium: 09.00 - 10.30
Opioids in neuroendocrinology – abuse of steroids
Chairs: Ruth Wood & Mathias Hallberg

Ingemar Thiblin (Uppsala, Sweden): Violent crime and substance abuse: a medico-legal comparison between deceased users of anabolic androgenic steroids and abusers of illicit drugs.

Mathias Hallberg (Uppsala, Sweden): Anabolic androgenic steroids and their molecular interaction with circuits mediating effects of alcohol and opioids

Ruth Wood (Los Angeles, USA): Interactions between androgens and rewarding behaviors in the adolescent brain – Testosterone self administration and impact on opioid and dopaminergic pathways

Coffee-break 10.30 - 11.00

Friday July 16, 2010

Symposium: 11.00 - 12.30
Opioid and cannabinoid interaction (joint session with the ICRS)
Chairs: Rafael Maldonado & Walter Fratta

Rafael Maldonado (Barcelona, Spain): Advances in the field of cannabinoid–opioid cross-talk.

Walter Fratta/Liana Fattore (Cagliari, Italy): Cannabis and reward – interaction with opioids

Charles P France (San Antonio, USA): Interactions between my agonists and delta⁹-tetrahydrocannabinol: Selective enhancement of antinociception.

End of conference

Lunch 12.30 - 13.30
**Program committee:**

Fred Nyberg (Chair)

**Members:**

Lakshmi A Devy (USA, INRC President)
Georgy Bakalkin (Sweden)
Johan Franck (Sweden)
Eija Kalso (Finland)
Alexandra Misicka (Poland)
Minoru Narita (Japan)
Ingrid Nylander (Sweden)
Toni Shippenberg (USA)
Lei Yu (USA)

**Local organizing**

Fred Nyberg (Sweden)
Georgy Bakalkin (Sweden)
Torsten Gordh (Sweden)
Johan Franck (Sweden)
Mathias Hallberg Sweden)
Ingrid Nylander (Sweden)
Claes Post (Sweden)