-Final Program-

February 3, 2004

18:00
“Opening Session”

18:15
NPY RESEARCH FROM THE FIRST MEETING IN 1990 IN BALTIMORE TO THE 2004 MEETING IN COIMBRA
Eric Grouzmann and Annette Beck-Sickinger

18:30
Main lecture:
LIFE WITH NEUROPEPTIDE Y
Tomas Hökfelt

19:30
“Welcome party”

February 4, 2004

Session 1 -Pharmacology
Chairpersons: A. Beck-Sickinger and E. Grouzmann

8:30
Main talk 1
MOLECULAR MECHANISMS OF ACTIVATION AND INHIBITION OF 7TM RECEPTOR AS THE BASIS FOR DRUG DISCOVERY
Thue Schwartz

9:20
ON THE PUTATIVE EXISTENCE OF ADDITIONAL NEUROPEPTIDE Y RECEPTOR SUBTYPES IN THE RAT BRAIN (S1.1.)
Yvan Dumont

9:40
ROLE OF C TERMINAL DOMAINS IN PROMOTING Y₁ RECEPTOR DESSENSITISATION
Nicholas Holliday (S1.2.)

10:00 Coffee break

10:30
ANALYSIS OF NPY RECEPTOR DIMERIZATION IN LIVING CELLS BY FLUORESCENCE RESONANCE ENERGY TRANSFER (FRET)
Karin Mörl (S1.3.)

10:50
IN VIVO PHARMACOKINETICS OF NEUROPEPTIDE Y AND ITS FRAGMENTS BY ISOTOPE DILUTION MASS SPECTROMETRY
Eric Grouzmann (S1.4.)
11:10
NPY REDUCES NOXIOUS STIMULUS-INDUCED SUBSTANCE P RELEASE IN THE DORSAL HORN in vivo.
Bradley Taylor (S1.5.)

11:30
SYNERGY OF PHOSPHOLIPASE Cbeta AND Galpha -ACTIVE AGENTS IN THE ASSOCIATION OF AGONISTS WITH Y1 AND Y4 RECEPTORS
Steven Parker (S1.6.)

12:00 Lunch break

**Poster Session 1**

**Session 2 - Peripheral effects**

*Chairperson: H. Herzog*

14:00
HYPOTHALAMIC Y2 RECEPTORS PROTECT CANCELLOUS BONE FROM LEPTIN INDUCED BONE LOSS
Paul A. Baldock (S2.1.)

14:20
NEUROPEPTIDE Y Y1 and Y2 RECEPTORS MEDIATE INHIBITORY TONE IN MURINE AND HUMAN COLON MUCOSAE
Helen M. Cox (S2.2.)

14:40
ADRENAL GLANDS FROM NPY Y1 KNOCKOUT MICE COMPENSATE THE LACK OF Y1 INCREASING CATECHOLAMINE RELEASE AND SYNTHESIS
Cláudia Cavadas (S2.3.)

15:00
NEUROPEPTIDE Y (NPY): A NEUROGENIC MEDIATOR OF ANGIOGENESIS
Zofia Zukowska (S2.4.)

15:20
PHYSIOLOGICAL ROLE OF NEUROPEPTIDE Y IN SYMPATHETIC NEUROTRANSMISSION
Thomas C. Westfall (S2.5.)

15:40 Coffee break

**Session 3 –Young lectures**

*Chairperson: T. Pedrazzini*

16:10
NPY SUPPRESSES EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS: Y1 RECEPTOR-SPECIFIC INHIBITION OF AUTOREACTIVE TH1 RESPONSES IN VIVO
Sammy Bedoui (S3.1.)
16:30
IS PLATELET-DERIVED NEUROPEPTIDE Y A STRESS-INDUCED MEDIATOR OF ACCELERATED NEOINTIMA FORMATION?
Ken Abe (S3.2.)

16:50
PANCREATIC POLYPEPTIDE INHIBITS FOOD INTAKE VIA THE NPY Y4 RECEPTOR
Rachel Batterham (S3.3.)

17:10
THE NEUROPEPTIDE Y Y1 RECEPTOR MEDIATES NPY-INDUCED INHIBITION OF THE GONADOTROPE AXIS UNDER POOR METABOLIC CONDITIONS
Christine Gonzales (S3.4.)

17:30
DIFFERENTIAL POTENCY AND SPECIFICITY OF CENTRALLY APPLIED NEUROPEPTIDE Y IN DIPEPTIDYL-PEPTIDASE IV DEFICIENT F344 RAT SUBSTRAINS
Tim Karl (S3.5.)

February 5, 2004

Session 4 - Epilepsy
Chairpersons: G. Sperk and W. Colmers

8:30
Main talk 2
LINKS BETWEEN MOLECULAR AND ELECTROPHYSIOLOGICAL CHANGES UNDERLYING EPILEPTOGENESIS
F. Lopes da Silva

9:20
NPY PHARMACOLOGY AND EPILEPSY: WHICH RECEPTOR UEBER ALLE?
William Colmers (S4.1.)

9:40
SEIZURE INHIBITION AND DELAYED EPILEPTOGENESIS BY IN VIVO rAAV-MEDIATED NEUROPEPTIDE Y GENE TRANSFER
Annamaria Vezzani (S4.2.)

10:00 Coffee break

10:30
NEUROPEPTIDE Y SUPRESSES ABSENCE SEIZURES IN A GENETIC RAT MODEL OF GENERALISED EPILEPSY
Margaret J Morris (S4.3.)

10:50
DIFFERENTIAL ROLES FOR NPY Y5 AND Y2 RECEPTORS IN MOUSE IN VITRO AND IN VIVO EPILEPSY MODELS
David P. Woldbye (S4.4.)

11:10
NEUROPEPTIDE Y (NPY) AND BRAIN-DERIVED NEUROTROPHIC FACTOR (BDNF) IN THE NORMAL AND EPILEPTIC DENTATE GYRUS.
Helen Scharfman (S4.5.)
7th International NPY Meeting
February 3-7, 2004 – Coimbra, Portugal
(http://cnc.cj.uc.pt/NPY2004)

11:30
THE CHANGE IN HIPPOCAMPAL NPY NEUROTRANSMISSION AFTER CONVULSIONS IS
DEPENDENT ON THE SEIZURE MODEL
Jens D. Mikkelsen (S4.6.)

12:00 Lunch break

Social afternoon
*Visit to the old University
*Short visit to the old Coimbra
*Dinner at the Aliança wine factory

February 6, 2004

Session 5 –Metabolism and obesity
Chairpersons: Kevin Grove; Michael Cowley

8:30
Main talk 3
SYNAPTIC PLASTICITY OF THE ARCUATE NUCLEUS NPY AND POMC NEURONS IN
ENERGY BALANCE REGULATION
Tamas Horvath

9:20
CANNABINOIDS AUGMENT THE RELEASE OF NEUROPEPTIDE Y FROM THE RAT
HYPothALAMUS
Kevin Gamber (S5.1.)

9:40
HOW AND WHEN DID THE NPY SYSTEM EVOLVE? OPPOSITE EFFECTS ON FEEDING?
Dan Larhammar (S5.2.)

10:00 Coffee break

10:30
Y2 / Y4 RECEPTOR DOUBLE KNOCKOUT PROTECTS AGAINST FAT DIET-INDUCED
OBESITY
Amanda Sainsbury-Salis (S5.3.)

10:50
PEPTIDE YY (PYY), A MEMBER OF THE BRAINSTEM FEEDING CIRCUITRY?
Kevin L. Grove (S5.4.)

11:10
NPY NEURONS IN THE ARCUATE NUCLEUS RESPOND TO GASTRIC NUTRIENT SIGNALS
Michael Cowley (S5.5.)

11:30
DORSOMEDIAL HYPOTHALAMIC (DMH) NPY IN ENERGY BALANCE
Tim H. Moran (S5.6.)

12:00 Lunch break

Poster Session 2
Session 6 – Neuroendocrine axes

Chairperson: F. Pralong

14:00
CIRCADIAN RHYTHMS OF NPY -/-, NPY Y2-/- AND NPY Y5-/- MICE.
Mary E. Harrington (S6.1.)

14:20
CHANGES IN INITIATION OF TRANSLATION IN NEUROPEPTIDE Y
Katja Kaipio-Salmi (S6.2.)

14:40
ALTERATIONS IN NEUROPEPTIDERIC SYSTEMS IN Y1-RECEPTOR DEFICIENT MICE
Christoph Schwarzer (S6.3.)

15:00
LEPTIN AND GHIRELIN REGULATE NEUROPEPTIDE Y GENE EXPRESSION AND SECRETION IN THE SH-SY5Y HUMAN NEUROBLASTOMA CELL LINE
Paolo Magni (S6.4.)

15:20
LACTATE MODIFIES THE NEUROPEPTIDE Y RESPONSE TO LOW GLUCOSE IN THE DORSAL HYPOTHALAMUS OF DIABETIC RATS
Margaret Morris (S6.5.)

15:40 Coffee break

Session 7 – Neurogenesis and neuroprotection

Chairperson: H. Scharfman; J.O. Malva

16:10
NEUROPEPTIDE Y (NPY), NEUROGENESIS AND NEUROPLASTICITY
Helen Scharfman (S7.1.)

16:30
NEUROPEPTIDE Y IS NEUROPROLIFERATIVE FOR HIPPOCAMPAL DENTATE NEUROGENESIS
William Gray (S7.2.)

16:50
INVOLVEMENT OF HIPPOCAMPAL NEUROPEPTIDE Y RECEPTORS IN MEDIATING NEUROPROTECTION UNDER EXCITOTOXIC CONDITIONS
Ana P. Silva (S7.3.)

17:10
MODULATION OF GLUTAMATE RELEASE BY NEUROPEPTIDE Y RECEPTORS IN EPILEPTIC RATS- RELEVANCE FOR NEUROPROTECTION
João O. Malva (S7.4.)
February 7, 2004

Session 8 –Psychiatric disorders
Chairpersons: L. Carbelotto; M. Heilig

8:30
Main talk 4
CENTRAL NPY AS A TREATMENT TARGET FOR ANXIETY, DEPRESSION AND ALCOHOL
DEPENDENCE: FOCUS ON THE Y2 RECEPTOR
Markus Heilig

9:20
NPY RECEPTORS IN DEPRESSION AND ANXIETY: IS THE Y1 OR THE Y2 RECEPTOR
INVOLVED?
Laura Carbelotto (S8.1.)

9:40
REDUCED ANXIETY AND IMPROVED STRESS COPING ABILITY IN MICE LACKING NPY-Y2
RECEPTORS
Günther Sperk (S8.2.)

10:00 Coffee break

10:30
NEUROPEPTIDE Y (NPY) AND ITS RECEPTORS: POSSIBLE ROLE IN DEPRESSION AND
LEARNING MECHANISMS.
Rémi Quirion (S8.3.)

10:50
CHARACTERISTIC DISTRIBUTION OF NEUROPEPTIDE Y (NPY) mRNA IN THE DISCRETE
BRAIN REGIONS: ABSENCE OF NPY mRNA IN THE MEDIAL HABENULAR NUCLEUS OF
ALCOHOL PREFERING (P) RATS
Bang H. Hwang (S8.4.)

11:10
THE INTERACTION BETWEEN NEUROPEPTIDE Y AND UROCORTIN IN THE AMYGDALA
AND ITS EFFECT ON ANXIETY
Tammy J. Sajdyk (S8.5.)

11:30
NPY REVERSES CRF-INDUCED SUPPRESSION OF ETHANOL INTAKE IN NORMAL WISTAR
RATS
Annika Thorsell (S8.6.)

POSTER SESSION 1 - February 4

COMPLEMENTARY Y1 AND Y4 RECEPTOR ACTIONS IN MOUSE COLON.
Helen M. Cox, Niall P. Hyland, Frida Sjöberg & Iain R. Tough (P1.1.)

CHARACTERIZATION OF A NEW NEUROPEPTIDE Y Y5 AGONIST RADIOLIGAND:
[125I]cPP(1-7), NPY(19-23), Ala31, Aib32, Gln]hPP.
Yvan Dumont1 Mira Thakur1, Annette Beck-Sickinger2, Alain Fournier3 and Rémi Quirion1 (P1.2.)
CHARACTERISATION OF BODIPY-CONJUGATED FLUO-NEUROPEPTIDE Y ANALOGS IN Y1, Y2, Y4 AND Y5 RECEPTOR ASSAYS.
Yvan Dumont1, Pierrette Gaudreau2, Daniel Langlois2; Mira Thakur1, Alain Fournier3 and Rémi Quirion1 (P1.3.)

DEVELOPMENT OF A HIGH-THROUGHPUT SCREENING ASSAY FOR THE IDENTIFICATION OF SMALL MOLECULE LIGANDS FOR THE NPY RECEPTORS
David J. Fischer1, Janet Wilson2, Meijia Yang1, Stephen Palmer1 (P1.4.)

NEUROPEPTIDE Y Y4 RECEPTOR HOMODIMERS DISSOCIATE UPON AGONIST STIMULATION.
Magnus M. Berglund, Douglas A. Schober, Michail A. Esterman, and Donald R. Gehlert (P1.5.)

CO-EXPRESSION OF NEUROPEPTIDE Y Y1 AND Y5 RECEPTORS FORMS A CONSTITUTIVE HETERODIMER WITH DISTINCT FUNCTIONAL PROPERTIES.
Douglas A. Schober, Magnus M. Berglund and Donald R. Gehlert (P1.6.)

PRODUCTION OF NATIVE PRONEUROPEPTIDE Y IN E. COLI AND ITS QUANTIFICATION IN TISSUES
Hubert Gaertner1, Barbara Léchenne2, Hans Imboden3, Sophie Michalel1, Reto Stöcklin1, Michel Monod2, Eric Grouzmann4 (P1.7.)

AGONIST-INDUCED INTERNALIZATION OF GFP-TAGGED RHESUS NEUROPEPTIDE Y Y5 RECEPTORS
S. Michelle Morin1, Douglas A. Schober1, Magnus M. Berglund2, Michail Esterman3 and Donald R. Gehlert1 (P1.8.)

A HOMOGENEOUS FLOW CYTOMETRIC METHOD FOR THE COMBINED DETERMINATION OF ACTIVITY AND AFFINITY OF NPY Y1 RECEPTOR LIGANDS
Erich Schneider, Elvira Schreiber, Günther Bernhardt and Armin Buschauer (P1.9.)

A FLUORESCENCE LABELLED ANALOGUE OF HUMAN PANCREATIC POLYPEPTIDE, CY5[LYS4]HPP, FOR THE FLOW CYTOMETRIC DETERMINATION OF NPY Y4 RECEPTOR BINDING DATA
Ralf T. Ziemek1, Günther Bernhardt1, Anette Beck-Sicking2, Steven Parker3, Armin Buschauer1 (P1.10.)

RELATIONSHIP BETWEEN FOOD INTAKE AND PYY (3-36) CONCENTRATIONS IN THE RHESUS MACAQUE
Pablo J. Enriori1, Frank H. Koegler1, Judy L. Cameron1, Sarah M. Williams1, Rachel L. Batterham2, Kevin L. Grove1, Anne E. Evans1, Michael A. Cowley1 (P1.11.)

LEU7/PRO7 NPY-GENOTYPE INCREASES SIGNIFICANTLY THE RISK FOR DIABETIC RETINOPATHY AND NEPHROPATHY IN TYPE 2 DIABETIC PATIENTS
Ulrikka S-M Jaakkola¹, Jaana Kallio¹, Ullamari Pesonen1, Elina Vainio-Jylhä2, Matti Pöllönen², Helena Seppälä3 and Markku Koulu¹ (P1.12.)

CHARACTERIZATION OF NEUROPEPTIDE Y Y5 RECEPTOR MEDIATED ENERGY REGULATION IN RODENTS
S. Mashiko1, A. Ishihara1, H. Iwaasa1, H. Sano1, Z. Oda1, J. Ito1, M. Yumoto1, M. Okawa1, J. Suzuki1, T. Fukuroda1, M. Jitsuoka1, O. Okamoto1, N. Sato1, N.R. Morin2, D.J. MacNeil2, L.H.T. Van der Ploeg3, M. Ibara1, T. Fukami2 and A. Kanatani1 (P1.13.)

ADAPTIVE HYPOTHALAMIC NEUROPEPTIDE Y RESPONSES TO CHRONIC HIGH FAT FEEDING IN THE RAT
Michelle J Hansen and Margaret J Morris (P1.14.)
POSTER SESSION 2 - February 6

NEUROPEPTIDE Y IS A FACTOR SECRETED BY HUMAN ENDOCARDIAL ENDOTHELIAL CELLS.
Danielle Jacques, Sawsan Sader, Ghassan Bkaily and Claudine Perreault (P2.1.)

THE NEUROPEPTIDE Y SYSTEM IN COMPARTMENT SYNDROME
Jenny M. Karlsson1,2, Lars-Eric Thornell1,2, David Edmundsson3, Joanna Kitlinska4, Zofia Zukowska2,4 (P2.2.)

NPY AND GROWTH OF NEURAL-CREST DERIVED TUMORS: DIFFERENTIAL PROLIFERATIVE EFFECTS AND ANGIGENESIS
Joanna Kitlinska1, Jeffrey Toretsky2, Zofia Zukowska1 (P2.3.)

IDENTIFICATION OF THE BINDING SITES AT Y-RECEPTORS
Nicole Merten, Karin Mörl and Annette G. Beck-Sickinger (P2.4.)

INCREASED EXPRESSION OF PEPTIDYLGLYCINE α-AMIDATING MONOOXIDGENASE IN TRANSTHYRETIN KNOCKOUT MICE.
Filipa Duarte Nunes1,2, Maria João Saraiva1,2 and Mónica Mendes Sousa1 (P2.5.)

NEUROPEPTIDE Y EXPRESSION, LOCALIZATION IN AND ACTION ON HUVEC: MODULATION BY LPS, TNF-α AND IFN-γ
Antonio P. Silva1, Claudia Cavadas2, Jocelyne E. Kaufmann3, Stanislav Fakan4, Hans R. Brunner1, Ulrich Vischer3, Eric Grouzmann5 (P2.6.)

EFFECT OF NEUROPEPTIDE Y Y2 RECEPTOR AGONIST ON THE SYMPATHETIC VASOCONSTRICTION OF ISOLATED ARTERIES
Diana Tripovic and Erica K.Potter (P2.7.)

INHIBITION OF RETINAL NEOVASCULARIZATION BY ANTISENSE OLIGONUCLEOTIDE THERAPY DIRECTED AGAINST NEUROPEPTIDE Y2-RECEPTOR
J.Tuohimaa1, K. Kaipio-Salmi1 J. Kallio1, U. Pesonen1, M.K. Karvonen2 and M.Koulu1 (P2.8.)

NPY MODULATES GRANULOCYTE FUNCTION IN VITRO AND IN VIVO: DOSE AND RECEPTOR SPECIFIC EFFECTS
Andreas Kromer1, Sammy Bedoui1, Dirk Zwinkmann2, Jörn Heine2, Reinhardt Pabst1, and Stephan von Hörsten1 (P2.9.)

NEUROPEPTIDE Y INDUCED ATTENUATION OF CATECHOLAMINE SYNTHESIS IN THE RAT MESENTERIC ARTERIAL BED
Thomas C. Westfall, Linda Naes, Alice Gardner and Chun-Lian Yang (P2.10.)

NPY RECEPTOR Y1 AND Y4 SUBTYPES ARE NOT INVOLVED IN THE STIMULATION OF LH SECRETION BY ICV INJECTION OF 1229U91 AS SEEN IN NPY1R-/- AND NPY4R-/-
Raposinho P, Aubert ML, Tommaselli GA, Herzog H, Pedrazzini T. (P2.11.)

ENDOTHELIN AND PROSTANOID-INDUCED MODULATION OF NEUROPEPTIDE Y AND NOREPINEPHRINE RELEASE FROM THE RAT MESENTERIC ARTERIAL BED
Thomas C. Westfall, Heather Macarthur, Alice Gardner, Chun-Lian Yang and Dan Hoang (P2.12.)

NPY FEEDS ADIPOSE TISSUE VIA VASCULARIZATION AND DIRECT PROLIFERATIVE EFFECTS ON PREADIPOCYTES
Lydia E. Kuo1, Edward W. Lee1, Jenny M. Karlsson3, Zofia Zukowska1 (P2.13.)
NEUROPEPTIDE Y-MEDIATED VASCULAR SMOOTH MUSCLE CELL PROLIFERATION: MULTIPLE RECEPTORS, SIGNALING PATHWAYS, AND INTERACTIONS WITH BETA-ADRENERGIC RECEPTORS
Jennifer Pons¹, Joanna Kitlinska¹, Hong Ji¹, Edward W. Lee¹, Danielle Jacques², Ghassan Bkaily², Claudine Perreault², Sawsan Sader², Nelly Abdel-Malak², Pawel Ciborowski³ and Zofia Zukowska¹ (P2.14.)

BEHAVIOURAL EFFECTS INDUCED BY BIIE0246 ON THE ELEVATED PLUS MAZE AND SPONTANEOUS EXPLORATORY BEHAVIOURS IN THE RAT.
Fabrizio Bacchi, Roberto Arban, Philip Gerrard and Laura Caberlotto (P2.15.)

A CELL-TO-CELL CHARACTERIZATION OF THE ROLE OF NPY RECEPTORS ON THE [Ca²⁺]ᵢ CHANGES IN CULTURED RAT HIPPOCAMPAL NEURONS
Joana. Lourenço¹, João O. Malva²,³ and Ana P. Silva² (P2.16.)

ACTIVATION OF NEUROPEPTIDE Y2 AND Y5 RECEPTOR IS NEUROPROTECTIVE AGAINST EXCITOTOXICITY INDUCED BY AMPA IN MOUSE ORGANOTYPIC HIPPOCAMPAL SLICE CULTURES
Sara Xapelli, Liliana Bernardino, Ana P. Silva, Birthe Jakobsen, Jens Zimmer and João O. Malva (P2.17.)