

HISTAMINE 2017



**1st Joint meeting
of the
European and Japanese
Histamine Research Societies**

**11th – 13th May 2017
Amsterdam, the Netherlands**



HISTAMINE 2017

May 11th-13th 2017,
Amsterdam,
the Netherlands

1st joint meeting of
the European Histamine Research Society and
the Japanese Histamine Research Society

Vrije Universiteit Amsterdam,
O|2 research building

Organizing committee:

prof. dr. Rob Leurs - chairman
dr. Jacqueline van Muijlwijk-Koezen
dr. Henk van der Goot
Ms. Kim Zandvliet-Oerlemans, Bsc.
Prof. dr. Henk Timmerman

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1207	Amthamine dihydrobromide H2 agonist	1307	JNJ 10191584 H4 antagonist
1993	Ciproxifan maleate H3 antagonist	1306	JNJ 7777120 H4 antagonist
1209	Clobenpropit dihydrobromide H3 antagonist	1299	Loratadine H1 antagonist
1324	Dimaprit dihydrochloride H2 agonist	1261	4-Methylhistamine dihydrochloride H4 agonist
1453	Fexofenadine hydrochloride H1 antagonist	1458	PF 3654746 H3 antagonist
1325	Imetit dihydrobromide H3 agonist	2126	VUF 10460 H4 agonist
1326	Immepip dihydrobromide H3/H4 agonist	and more online

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Venue

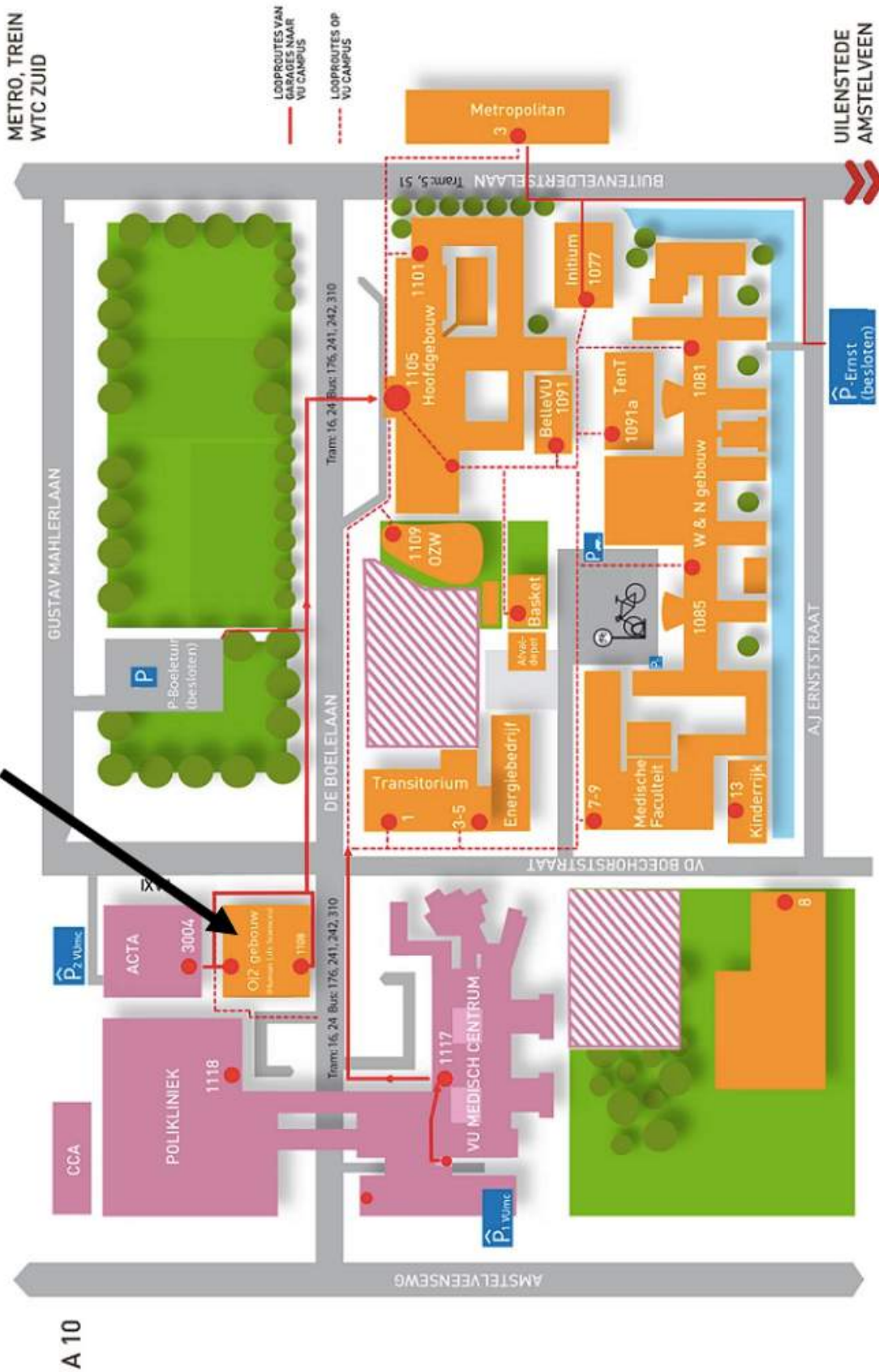
The meeting will be held at the campus of the Vrije Universiteit Amsterdam in the auditorium (ground floor) of the new research building O|2, located at de **Boelelaan 1108** in Amsterdam. The building houses the research groups in the area of Human Health & Life Sciences of the Vrije Universiteit Amsterdam, the VU Medical Center and the University of Amsterdam and has been opened officially in September 2016.

The meeting venue can be easily reached by foot from the train station Amsterdam Zuid – World Trade Center (WTC), with the trams 5 and 50 that stop in front of the mail building of the VUA campus and with tram 24 that stops in front of the O|2 building. The train station WTC has direct connections to Schiphol airport (1 stop only, 10 min), whereas the airport can be quickly reached by taxi (15 min, ± 20 – 30 euro with Uber).

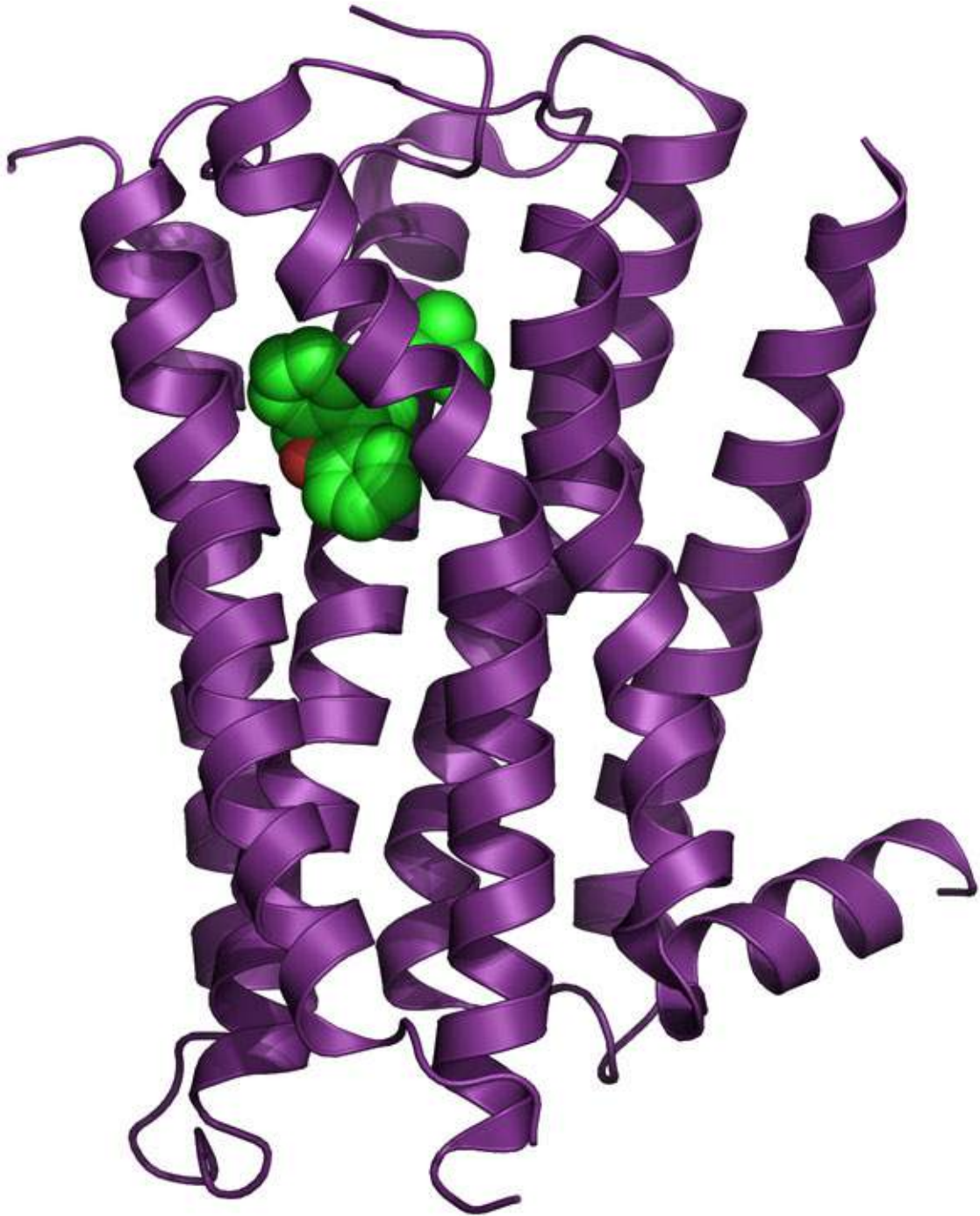


Map of the VUA campus

O | 2 building



Scientific program



Thursday May 11th

8.15 – 9.00 Registration (Hall O | 2 building)

9.00 – 10.30 Opening session

- 9.00 – 9.10 Welcome by Rob Leurs and Henk Timmerman
9.10 – 9.15 Hiroyuki Fukui, President of the JHRS
9.15 – 9.20 Paul Chazot, President of the EHRS
9.20 – 9.30 Presentation of the bursary winners by Paul Chazot
9.30 – 9.45 Honorary EHRS Membership ceremony
Laudatio to Hiroyuki Fukui by Paul Chazot.

9.45 – 10.30 G.B. West Lecture by Kazuhiko Yanai (Japan) - chair Paul Chazot

9.45 – 9.50 *Laudatio by Hiroyuki Fukui*

9.50 – 10.30 *The functional significance of the histaminergic neuron system: Lessons from gene knockout mice and positron emission tomography.*

10.30 – 11.00 Coffee break

11.00 – 12.30 Symposium Molecular Pharmacology - chair Paul Chazot

- 11.00 – 11.30 Steve Hill (UK)
New bio-imaging techniques to study histamine receptor pharmacology
- 11.30 – 12.00 Andrew Tobin (UK)
The importance of GPCR phosphorylation in signal transduction: the histamine H₄ receptor showcase
- 12.00 – 12.30 Michael Mederos y Schnitzler (Germany)
Structural determinants for mechanosensitivity of histamine H₁ receptors

12.30 – 13.30 Lunch break & poster viewing

13.30 – 15.30 Symposium Molecular Pharmacology continued – chair Steve Hill

- 13.30 – 13.45 Sabrina Rahman (NL)
Modulation of signalling pathways of human H₃ receptor isoforms
- 13.45 – 14.00 Timo Littmann (Germany)
Split luciferase complementation enables quantification of Gα_q activation and live cell imaging
- 14.00 – 14.15 Joachim Neumann (Germany)
Hemodynamic and biochemical effects of immunological stress in mice with heart-specific overexpression of the human H₂ receptor

14.15 – 15.00 Flash presentations posters 1 -20 (2 min each, max. 2 slides)

15.00 – 15.30 Coffee break

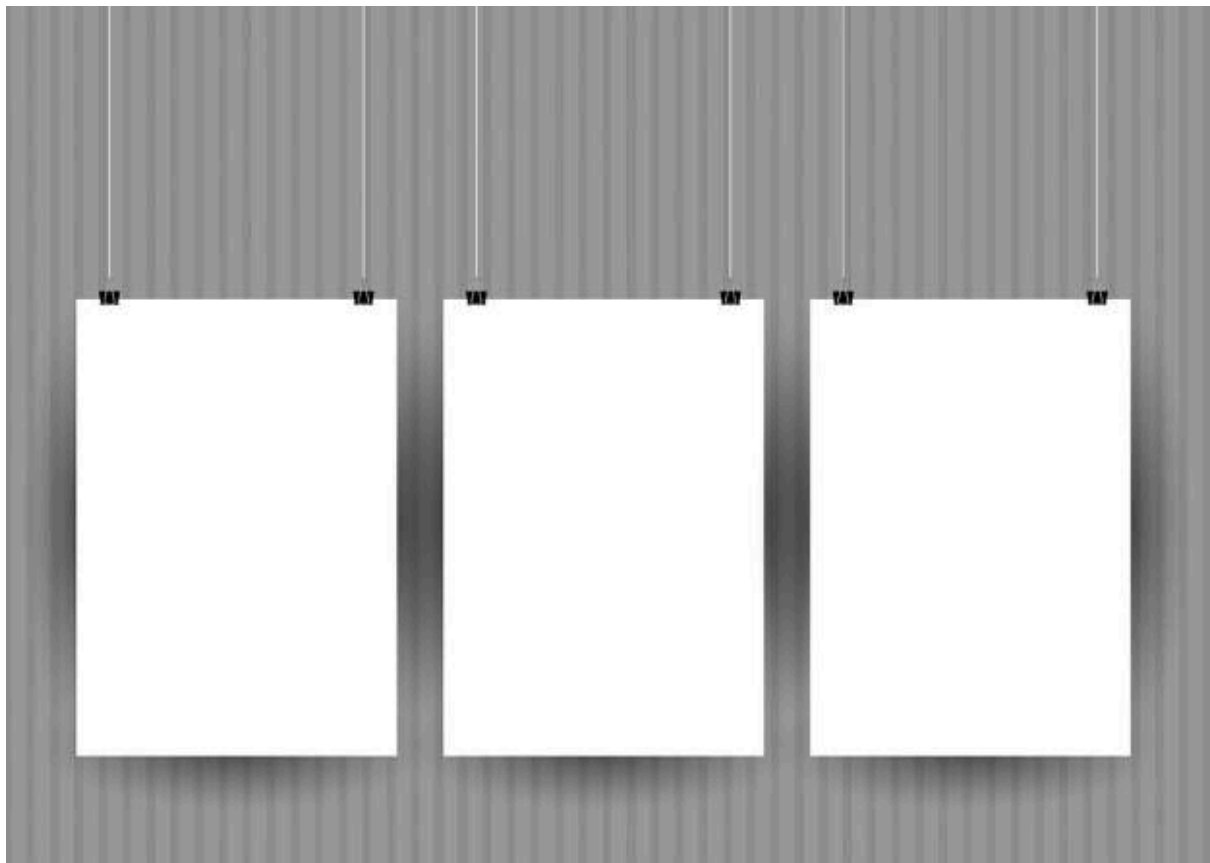
15.30 – 16.30 Symposium Histamine & cancer - chair Rob Leurs

15.30 – 16.00 Vanina Medina (Argentina)
Histamine receptors in cancer

16.00 – 16.30 Michiel Pegtel (NL)
Histamine controls rapid SNARE-mediated release of cancer exosomes

16.30 – 17.00 Flash presentations posters 20 - 36 (2 min each, max. 2 slides)

17.00 – Poster session with drinks & Indonesian walking dinner



Friday May 12th

8.30 – 9.00 Registration (Hall O | 2 building)

9.00 – 10.30 Symposium Histaminergic systems & Genetics– chair Astrid Sasse

9.00 – 9.15 Astrid Sasse (Ireland)
Tools for the genetic analysis of histamine receptors

9.15 – 9.45 Christopher Pittenger (USA)
Histamine dysregulation in Tourette syndrome and related neuropsychiatric conditions: studies in mice and men

9.45 – 10.15 Bridgette Jones (USA)
Histamine in Asthma: The Forgotten Amine.

10.15 – 10.30 Aurelio Moya-Garcia (Spain)
Network perspective of histamine-related diseases

10.30 – 11.00 Coffee break

11.00 – 12.30 Symposium Histamine & disease - chair Gabriella Corruzzi

11.00 – 11.30 Aletta Kraneveld (NL)
Digesting the histamine H₄ receptor in intestinal diseases

11.30 – 12.00 Benedicte de Winter (Belgium)
Therapeutic options for inhibition of H₁ and H₄ receptors in the GI tract

12.00 – 12.15 Arianna Rosa (Italy)
Histamine and diabetes: where we are and where are we going

12.15 – 12.30 Martin Church (Germany)
The enigma of H₁ antihistamines in urticaria

12.30 – 13.30 Lunch break & poster viewing

13.30 – 15.30 Symposium Histamine & Immune modulator - chair Madeleine Ennis

13.30 – 14.00 Yuichi Hattori (Japan)
Histamine as a potential mediator that actively promotes the development of organ injury in sepsis

14.00 – 14.15 Bernhard Gibbs (UK)
Human basophils produce and are differentially activated by IL-31

- 14.15 – 14.30 Satoshi Tanaka (Japan)
Effects of dexamethasone on murine mature mast cells
- 14.30 – 14.45 Kristine Rossbach (Germany)
H₂R agonism and H₄R antagonism ameliorate inflammation in a mouse model of psoriasis
- 14.45 – 15.00 Hiroyuki Fukui (Japan)
(-)-Maackiain, an active compound from Kujin, alleviates both histamine H₁ receptor and interleukin-33 gene expressions

15.00 – 15.30 Coffee break

15.30 – 16.30 Symposium Chemical Biology of histamine receptors - chair Nick Carruthers

- 15.30 – 16.00 Iwan de Esch (NL)
Targeting 2 is better than 1: improved efficacy of dual activity H₁ and H₄ ligands
- 16.00 – 16.30 Konstantinos Beis (UK)
Structural understanding of the histamine H₁ receptor
- 16.30 – 16.45 Joao Fernandes (Brasil)
Dihydrobenzofuranyl-piperazines as molecular scaffold for designing selective H₃R antagonists: initial SAR data
- 16.45 – 17.00 Edith Bartole (Germany)
2,4-diaminopyrimidines: towards molecular tools for investigation of human and rodent histamine H₄ receptors

19.15 – Boat trip & dinner (registration required)



Saturday May 13th

8.30 – 9.00 Registration (Hall O | 2 building)

9.00 – 10.30 Symposium Young Investigators Award

YIA award committee: Henk Timmerman (NL), Robin Thurmond (USA), Kazuhiko Yanai (Japan)

9.00 – 9.20 Albert Kooistra (NL)
Escaping the histamine pocket

9.20 – 9.40 Emma Battell (UK)
Novel peripheral histamine H₃ receptor antagonist ZPL-868087 attenuates mechanical hypersensitivity in neuropathic pain in mice.

9.40 – 10.00 Bhanu Priya Ganesch (USA)
Histamine and diacylglycerolkinase by Lactobacillus Reuteri: crosstalk between mammalian intestinal epithelium and immune cells

10.00 – 10.20 Niels Hauwert (NL)
A bi-directional photo-antagonist toolbox for histamine H₃ receptor photopharmacology

10.20 – 11.00 Coffee break

11.00 – 12.30 Symposium Histamine H₄ receptor antagonists going towards the clinic chair Iwan de Esch

11.00 – 11.30 Robin Thurmond (USA)
The Long and Winding Road - Clinical Development of H₄R Antagonists

11.30 – 12.00 Thomas Werfel (Germany)
The impact of H₄R blockade in atopic dermatitis and psoriasis

12.00 – 12.30 Jonas Dyhrfeld-Johnsen (France)
From bench to clinic with SENS-111, an H₄R antagonist for the treatment of inner ear disease

12.30 – 13.30 Lunch break & poster viewing

13.30 – 15.30 Symposium Histamine & Nervous system function - chair Pertti Panula

13.30 – 14.00 Yoshinori Moriyama (Japan)
Vesicular Amine Transporters and histamine action

- 14.00 – 14.30 Peter McCormick (UK)
The many faces of the Histamine H₃ receptor: How GPCR oligomerization empowers H₃R with different features
- 14.30 – 14.45 Beatrice Passani (Italy)
Brain histamine and the gut- brain axis
- 14.45 – 15.00 Stephen Brickley (UK)
Histamine release from the hypothalamus targets specific neuronal populations in the prefrontal cortex

15.00 – 15.30 Coffee break

15.30 – 16.30 Symposium Histamine & Nervous system function - chair Beatrice Passani

- 15.30 – 15.45 Saara Rannanpää (Finland)
Lack of histamine increases levo-dopa induced axial dyskinesias in mice
- 15.45 – 16.00 Carlos Fernandes (Brasil)
Intra-vermis H₄ receptor agonist impairs emotional memory consolidation in anxiety and fear-mediated models
- 16.00 – 16.15 Longlong Tu (China)
*Comparison of brain- and non-brain penetrating antihistamines against motion-induced emesis in *suncus murinus**
- 16.15 – 16.30 Hayato Umehara
Neuropeptide Y regulates activation of histaminergic subgroups through Y1 receptor to induce food-anticipatory activity
- 16.30 – 16.45 Bruna Silva-Marques (Brasil)
Influence of histaminergic cerebellar system in motor learning in mice
- 16.45 – 17.00 Henri Puttonen (Finland)
Behavioral and neurochemical effects of histamine receptor 3 knockout in larval zebrafish

17.00 Closing of the meeting

17.10 – 18.30 Assembly of the EHRS Auditorium O|2

20.00 – Dinner at Restaurant Lieve – canal area Amsterdam (registration required)

Posters HISTAMINE 2017

1. Maristella Adami, Cristina Micheloni, Daniela Grandi, Holger Stark, Dorota Łażewska, Katarzyna Kieć-Kononowicz, 'COMPARISON OF PHARMACOLOGICAL ACTIVITY OF HYDROCHLORIDE SALT AND FREE BASE OF PUTATIVE HISTAMINE H₄ LIGANDS'
2. S. Altrichter, O. Alraboni, P. Schumacher, M. K. Church, M. Maurer, 'CHOLINERGIC URTICARIA IS ASSOCIATED WITH A HIGHER SKIN REACTIVITY TO SWEAT AND HISTAMINE'
3. Jelle van den Bor, Reggie Bosma, Henry F. Vischer, Rob Leurs, 'BINDING KINETICS OF H₁R AGONISTS USING β -ARRESTIN2 RECRUITMENT'
4. Reggie Bosma, Jelle van den Bor, Luis Labeaga, Henry F. Vischer, Rob Leurs, 'BINDING KINETICS OF THE LONG ACTING H₁R ANTIHISTAMINE BILASTINE'
5. Reggie Bosma, J. van den Bor, S. Kuhne, A.J. Kooistra, C. de Graaf, H.F. Vischer, I.J.P. de Esch, R. Leurs, 'LIGAND BINDING KINETICS FOR THE H₁ RECEPTOR—PROPERTIES OF LONG BINDERS'
6. Paul L Chazot, Susan Allen, 'A CASE OF ANAPHYLAXIS FOLLOWING CESSATION OF HIGH DOSE RANTIDINE: MECHANISM?'
7. Ulrich Gergs, Katharina Griethe, Natascha Mißlinger, Joachim Neumann, 'TRANSGENIC MICE AS MODEL TO STUDY THE ROLE OF THE HUMAN H₂ RECEPTOR IN THE HEART'
8. Anne Hall, James Versalovic, 'HISTAMINE PRODUCTION BY LACTOBACILLUS REUTERI CAN BE REGULATED BY ERIC-FAMILY PROTON/CHLORIDE ANTIPORTERS'
9. Yoshihiro Inami, Atsushi Sato, Hiroshi Ohtsu, Yosuke Mano, Yasushi Kuraishi, Tsugunobu Andoh, 'SURFACTANT-INDUCED INTRAEPIDERMAL NERVE FIBER ELONGATION IS ATTENUATED BY HISTIDINE DECARBOXYLASE DEFICIENCY'
10. Jerzy Jochem, Zenon Czuba, Karolina Jasikowska, Agata Mitera, HISTAMINE H₃ RECEPTOR BLOCKAGE-INDUCED RESUSCITATING EFFECT IN HAEMORRHAGE-SHOCKED RATS – NOT ONLY CARDIOVASCULAR EFFECTS
11. Gniewomir Latacz, Ewelina Honkisz, Maria Kaleta, Tadeusz Karcz, Agata Siwek, Agnieszka Olejarz, Dorota Łażewska, Holger Stark, Katarzyna Kieć-Kononowicz, 'NON-IMIDAZOLE HISTAMINE H₃ RECEPTOR LIGANDS – *IN VITRO* SAFETY EVALUATION'
12. Dorota Łażewska, Marek Bajda, Stefanie Hagenow, Ewelina Stawarska, Paula Zaręba, Holger Stark, Barbara Malawska and Katarzyna Kieć-Kononowicz, 'ACETYL- AND BUTYRYLCHOLINESTERASE INHIBITORY ACTIVITY OF HISTAMINE H₃ RECEPTOR LIGANDS'
13. Daniel A. McNaught-Flores, Henri Puttonen, Yu-Chia. Chen, Henry F. Vischer, Pertti. Panula, Rob Leurs, 'PHARMACOLOGICAL CHARACTERIZATION OF ZEBRAFISH H₁ AND H₂ RECEPTORS'
14. Mitsunobu Mio, Ai Nogami-Hara, Kazue Yabuki, Kawori Suwaki, Ai Handa, Chie Mitsuhata, Koji Kajiyama and Akira Shimada, 'L-ASPARAGINASE-INDUCED ALLERGY IN MICE: IN VIVO SENSITIZATION AND IN VITRO ACTIVATION OF RBL-2H3 CELLS'
15. Alessandra Misto, Abdul Basit, Gustavo Provensi, Valentina Vozella, Maria B. Passani, Daniele Piomelli, 'MAST CELLS-DERIVED HISTAMINE REGULATES LIVER KETONE BODY PRODUCTION VIA OLEOYLETHANOLAMIDE-MEDIATED SIGNALING'

16. Tamara Mocking, Niels Hauwert, Sabrina Rahman, Daniel Da Costa Pereira, Bert de Boer, Chris de Graaf, Iwan de Esch, Maikel Wijtmans, Henry Vischer, Rob Leurs, 'PHOTOSWITCHABLE AGONISTS FOR DYNAMIC CONTROL OF HISTAMINE H₃ RECEPTOR PHARMACOLOGY'
17. Tamara A.M. Mocking, H.F. Vischer, R. Leurs, 'A BRET-BASED KINETIC LIGAND-RECEPTOR BINDING ASSAY FOR THE HISTAMINE H₃ RECEPTOR'
18. Susanne Mommert, Derya Aslan, Holger Stark, Ralf Gutzmer, Thomas Werfel, 'REGULATION OF ANAPHYLATOXIN C3A REZEPTOR EXPRESSION ON HUMAN M2 MACROPHAGES BY IL-4 AND HISTAMINE'
19. Guadalupe-Elide Morales-Figueroa, Raúl González-Pantoja, Juan Escamilla-Sánchez, J.A. Arias- Montaña, 'FUNCTIONAL INTERACTION BETWEEN HISTAMINE H₃ AND ADENOSINE A_{2A} RECEPTORS IN RAT STRIATO-PALLIDAL NERVE TERMINALS'
20. Satomi Moriyama, Yuika Harada, Tomoya Takeuchi, Nanami Ko, Satoshi Tanaka, Yoshinori Moriyama and Miki Hiasa, 'WIDE VARIETY EXPRESSION OF VESICULAR POLYAMINE TRANSPORTER (VPAT)'
21. Tadahō Nakamura, Takuro Matsuzawa, Maria Mogilevskaya, Asuka Mogi, Takeo Yoshikawa, Fumito Naganuma, Nobuyuki Okamura and Kazuhiko Yanai, 'THE EFFECT OF H₃ RECEPTOR ANTAGONIST ON NEUROPATHIC PAIN'
22. Melisa Nicoud, Helena Sterle, Noelia Massari, María V. Herrero Ducloux, Diego Martinel Lamas, Graciela Cremaschi, Vanina Medina, 'LACK OF HISTAMINE H₄ RECEPTOR IN TUMOR MICROENVIRONMENT RESULTS IN REDUCED AGRESSIVENESS IN A MODEL OF BREAST CANCER. ROLE OF ANTITUMOR IMMUNITY'
23. Ferry Pronk, I. Slynko, A. Kooistra, M. Vass, M. Wijtmans, I. J. de Esch, R. Leurs, C. de Graaf, 'INVESTIGATION OF STRUCTURAL DETERMINANTS OF HISTAMINE H₃ RECEPTOR SELECTIVITY'
24. Ling Shan, Ai-Min Bao and Dick F. Swaab, 'THE HUMAN HISTAMINEGIC SYSTEM IN HEALTH AND NEUROPSYCHIATRIC DISORDERS: A POSTMORTEM STUDY'
25. Katrin Schaper-Gerhardt, Janine S. Trampenau, Susanne Mommert, Thomas Werfel and Ralf Gutzmer, 'HISTAMINE MODULATES THE PRODUCTION OF ANTIMICROBIAL PEPTIDES BY HUMAN KERATINOCYTES'
26. Inna Slynko, A. J. Kooistra, S. N. Rahman, M. Vass, H. F. Vischer, I.J.P. de Esch, R. Leurs , C. De Graaf, 'STRUCTURAL DETERMINANTS OF LIGAND BINDING AND FUNCTIONAL SELECTIVITY AT THE HISTAMINE H₃ RECEPTOR'
27. Ursula Storch, Serap Erdogmus, Laura Danner, Michaela Winter, Nicole Ziegler, Angela Wirth, Stefan Offermanns, Carsten Hoffmann, Thomas Gudermann, and Michael Mederos y Schnitzler, 'HISTAMINE H₁ RECEPTORS ARE SENSORS FOR FLUID SHEAR STRESS IN THE ENDOTHELIUM'
28. Mónica A. Táquez Delgado, Tamara E. Galarza, Nora A. Mohamad, Guadalupe M. Vedoya, Vanina A. Medina, Gabriela A. Martín, Graciela P. Cricco, 'TGFβ TYPE I RECEPTOR AS A POSSIBLE MEDIATOR OF THE EPITHELIAL TO MESENCHYMAL TRANSITION INDUCED BY HISTAMINE H₄ RECEPTOR LIGANDS IN MDA-MB-231 BREAST CANCER CELLS'
29. Sergio de la Torre, Gabriel de Erausquin, 'HISTAMINE: ENDOGENOUS ANTIVIRAL. PRO-HISTAMINERGIC TREATMENT IN FELINES'
30. Márton Vass, Stefan Verhoeven, Ross McGuire, Lars Ridder, Gerrit Vriend, Iwan J. P. de Esch, Rob Leurs, Albert J. Kooistra, Chris de Graaf, '3D-E-CHEM: NEW FEATURES

AND WORKFLOWS FOR GPCR CHEMOGENOMICS APPLICATIONS'

31. Eléonore W.E. Verweij, Saskia Nijmeijer, Bas Housmans, Rob Leurs and Henry F. Vischer, 'HUMAN HISTAMINE H₄ RECEPTOR SIGNALS SELECTIVELY THROUGH G α _i PROTEINS'
32. Eléonore W.E. Verweij, Reggie Bosma, Sabrina M. De Munnik, Betty Al Araaj, Jelle Van den Bor, Rob Leurs and Henry F. Vischer, 'HUMAN H₁R DESENSITIZATION & INTERNALIZATION INTERPLAY'
33. Gábor Wágner, Tamara Mocking, Henry F. Vischer, Maikel Wijtmans, Iwan J. P. de Esch and Rob Leurs, 'COVALENT TARGETING OF THE HISTAMINE H₃ RECEPTOR'
34. Zhiyong Wang, Sebastiaan Kuhne, Reggie Bosma, Albert J. Kooistra, Henry F. Vischer, Chris de Graaf, Maikel Wijtmans, Iwan J. P. de Esch, Rob Leurs, 'RUPATADINE ANALOGS TO INVESTIGATE BINDING KINETICS on the HISTAMINE H₁ RECEPTOR'
35. Cecilia Lanzi, Laura Lucarini, Mariaconcetta Durante, Francesco Resta, Holger Stark, Emanuela Masini, 'A POSSIBLE ROLE FOR CALCIUM IN HISTAMINE H₃ RECEPTOR ANTAGONISM ON RABBIT TRABECULAR MESHWORK CELLS'
36. Laura Lucarini, Mariaconcetta Durante, Cecilia Lanzi, Alessandro Pini, Fabrizio Carta, Claudiu T. Supuran, Emanuela Masini, 'ANTI-INFLAMMATORY DRUGS WITH DUAL INHIBITORY EFFECTS ON CA IX AND COX-2'