

THE NOTCH MEETING VI

Notch and Trafficking

30 SEPTEMBER-3 OCTOBER 2012 • ATHENS, GREECE

Program

& List of Participants



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The Notch Meeting VI

Notch and Trafficking

30 September – 3 October, 2012, Athens, Greece

Introduction

In 2007 we launched an annual Notch research meeting that has been bringing the Notch community together in Athens. The meetings alternate between a general meeting as the one this year with thematically focused smaller workshops. The first such workshop with the title Notch and Cancer was held in 2008. The second, with the title Notch and Stem Cells was held in Athens in October 2010.

The meetings are sponsored by the not for profit foundation *Fondation Santé* (www.FondationSante.org) and benefit from the generosity of additional sponsors.

Organizing Committee

Spyros Artavanis-Tsakonas, Harvard Medical School, USA;

Martin Baron, Faculty of Life Sciences, University of Manchester, UK;

Hugo Bellen, Baylor College of Medicine, HHMI, TMC, USA;

Mark Fortini, Kimmel Cancer Center, Thomas Jefferson University Medical College, USA;

Kenji Matsuno, Tokyo University of Science, Japan;

Thomas Vaccari, IFOM, Italy;

Gerry Weinmaster, David Geffen School of Medicine at UCLA, USA.



Fondation Santé was established in 2000 as a private foundation operating exclusively for charitable, scientific and educational purposes. The foundation aims to assist in advancing the health and education of those in need, whether individuals, regions or countries.

PROGRAM

Presentations at the Notch Meeting may not be considered as published scientific papers and may not be cited or reported in the press except as personal communications (with the presenter's permission). Given these assurances we hope you will speak openly and not introduce any data or experiments that you are not prepared to discuss in full. In participating in the conference you agree neither to record presentations or posters by electronic or photographic means, nor to make printed references to The Notch Meeting presentations, posters and discussions. You will also agree to omit references to The Notch Meeting from any publication.

There will be 30 minute talks including discussions.

Please note that there may be last minute changes in both the order of the speakers and the speakers. Any such changes will be announced at the meeting.

SUNDAY, September 30

- 19:00 - 20:30 Registration (The Ionic Centre, 11 Lysiou St.)
- 20:30 Reception (The Ionic Centre)

MONDAY, October 1

- 09:00 - 09:10 **Opening Remarks**
Spyros **Artavanis-Tsakonas** (Harvard Medical School, USA)
- 9:10-10:30 **Session I**
Chair: Gerry Weinmaster
- Mark **Fortini** (Thomas Jefferson University, USA)
“New mutants affecting Notch secretory transport and endocytic Trafficking”
- Thomas **Klein** (Institute of Genetics Heinrich-Heine-Universität Düsseldorf, Germany)
“Regulation of endosomal trafficking of Notch by the tumoursupprerssor Lethal (2) giant discs (Lgd)”
- Shinya **Yamamoto** (Baylor College of Medicine, USA)
“Identification of novel Notch alleles that affect intracellular trafficking”
- 10:30 - 11:00 *Coffee Break*
- 11:00 - 13:30 **Session II**
Chair: Gerry Weinmaster
- Kenji **Matsuno** (Osaka University, Japan)
“Functions of pecanex and its genetic modifiers in Notch signaling”

Kazuya **Hori** (Harvard Medical School)
“Regulation of Notch signal by a lysosomal associated transmembrane protein”

Roland **Le Borgne** (Institute of Genetics and Development of Rennes, France)

“Numb interacts with AP-1 to control the plasma membrane localization of Spdo in Drosophila sensory organ precursor”

Pier Paolo **Di Fiore** (University of Milan and IFOM-IEO Campus, Italy)

“Connecting the machineries of cell fate determination and tumor suppression in breast stem cells”

François **Schweisguth** (Institut Pasteur, France)

“Live imaging analysis of Notch activity and regulation by Numb in Drosophila”

13:30 – 15:00

Lunch Break

15:00-16:00

POSTER SESSION

16:00 – 17:30

Session III

Chair: Thomas Vaccari

Jane C. **Mc Glade** (The Hospital for Sick Children/ University of Toronto, Canada)

“Regulation of Notch trafficking by adaptor proteins.”

Nikolaos **Giagtzoglou** (Baylor College of Medicine, USA)

“dEHBP1 regulates the intracellular trafficking of multiple components of the Notch signaling pathway”

Martin **Baron** (University of Manchester, UK)

“Deltex and Suppressor of Deltex, both cooperate and antagonise to provide thermal insensitivity of Notch signalling in Drosophila development.”

17:30 – 18:00

Coffee Break

18:00 – 19:30

Christel **Brou** (Institut Pasteur, France)

“USP12, a new negative regulator of Notch signaling”

Marian **Wilkin** (University of Manchester, UK)

“Drosophila ZO-1 can down-regulate Notch signalling by binding Deltex”

Simon **Woodcock** (University of Manchester, UK)

“Characterisation of two distinct ligand-independent mechanisms of Notch activation in the endosomes.”

Tuesday, October 2

9:00-10:30

Session IV

Chair: Kenji Matsuno

Toshiki **Mizuno** (Kyoto Prefectural University of Medicine, Japan)
“Transendocytosis is impaired in CADASIL–mutant NOTCH3”

Tian-Li **Wang** (The Johns Hopkins University, USA)
“WWP2, an E3 Ubiquitin Ligase, Regulates Notch3 Signaling by Ubiquitin-Dependent Degradation”

Saula **Checquolo** (Sapienza University of Rome, Italy)
“The prolyl-isomerase Pin1 regulates Notch3 receptor maturation by influencing its membrane migration”

10:30 - 11:00

Coffee Break

11:00-13:30

Session V

Chair: Kenji Matsuno

Bob **Haltiwanger** (Stony Brook University, USA)
“O-Glycosylation of Notch Epidermal Growth Factor-like Repeats”

Hamed **Jafar Nejad** (Baylor College of Medicine, USA)
“Regulation of Notch signaling by O-glycans”

Akira **Ishio** (Osaka University, Japan)
“Monomeric O-fucose modification of Notch is essential for its folding at high temperature”

Sarah **Bray** (Cambridge University, UK)
“Planar cell polarity controls directional Notch signaling in the Drosophila leg”

Thomas **Vaccari** (IFOM, Italy)
“Developmental regulation of Vacuolar ATPase supports Notch and Wnt cell fate decisions”

Christos **Delidakis** (Institute of Molecular Biology and Biotechnology, Greece)
“Delta ubiquitylation and trafficking”

14:00 – 15:30

Lunch Break

15:30

Guided tour of the ancient Acropolis of Athens

20:30

Dinner

WEDNESDAY, October 3

9:00-10:30

Session VI

Chair: Martin Baron

Gerry **Weinmaster** (David Geffen School of Medicine at UCLA, USA)
“Furin processing regulates the efficiency and intensity of Notch signaling required for distinct morphogenetic events”

Franck **Coumailleau** (Pasteur Institute, France)

“The conserved TspanC8 sub-family of tetraspanins regulate the trafficking of ADAM10/Kuzbanian and the activation of Notch”.

Marcos **Gonzales Gaitan** (University of Geneva, Switzerland)

“Directed motility of Delta/Notch endosomes in asymmetric cell division”

10:30 - 11:00

Coffee Break

11:00-13:30

Session VII

Chair: Martin Baron

Laurence **Meloty-Kapella** (UCLA, USA)

“NICD generated in response to ligand in the absence of clathrin-mediated endocytosis is not competent to activate transcription of Notch target genes”

Divya **Shah** (Sunnybrook Health Sciences Centre, USA)

“Role of Recycling, Mib1 Association and Exclusion from Lipid Rafts of Dll4 for Effective Notch Signaling”

Elena **Farmaki** (University of Athens Medical School, Greece)

“Non-Cell-Autonomous Induction of Splenic Lymphomas by Activation of Notch Signaling in Stromal Fibroblasts”

Lavinia **Alberi** (UNIFR, Switzerland)

“Insights into physiological versus pathological Notch signaling in neurons.”

Fabrice **Roegiers** (Fox Chase Cancer Center, USA)

“Sanpodo links the Notch receptor to the endocytic machinery and to the γ -secretase complex to control signaling in Drosophila sensory organ precursor cells”

Closing Remarks

13:30 – 15:00

Lunch

POSTER SESSION

Emma Andersson

Karolinska Institutet, Sweden

“The molecular basis of Alagille Syndrome: Jagged/Notch signaling in liver development and disease”

Authors: Emma R Andersson, Indira V Chivukula, Meritxell Huch Ortega, Ewa Ellis, Stephen Strom, Hans Clevers & Urban Lendahl

Naoki Aoyama

Kyoto University, Japan

“A null mutant allele of vacuolar protein sorting 2 reveals its various developmental roles in Drosophila”

Authors: Naoki Aoyama, Tomoko Yamakawa, Takeshi Sasamura, Yuki Yamaguchi-Takei, Akira Watanabe, Yusuke Kitada, Ryu Ueda, Tetsuya Tabata, Kenji Matsuno

Ken Geles

Pfizer Inc. USA

“Targeting Notch1 in Tumors with Therapeutic Antibodies”

Authors: K. Geles, Y. Gao, J. Bard, L. Sridharan, J. Gruzdas, R. Karim, N. P-Nicholas, K. Svenson, M. Damelin, P. Wei, L. Tchistiakova and B.B. Zhou

Onur Kaya

IMBA (Inst. of Molecular Biotechnology),

“dNkap is a potential regulator of Notch signaling in stem cells”

Authors: Onur Kaya, Juergen Knoblich

Nina Offenhauser

IFOM,

“A role for the endocytic adaptor proteins Eps15/Eps15L1 in regulating Notch signaling”

Authors: Nina Offenhauser, Caterina Lucano, Cinzia Milesi and Pier Paolo Di Fiore

Elisa Sala

Università Vita- Salute San Raffaele

“Epsins in Notch skin activation”

Authors: Sala E, Ruggiero L, Di Giacomo G, Cremona O

Hideyuki Shimizu

The University of Manchester, UK

“Cooperative Notch regulation by distinct endocytic pathways”

Authors: Hideyuki Shimizu, Simon Woodcock, Marian Wilkin, Martin Baron

Elenae Vazquez

National Cancer Institute,

“Participation of the hDlg protein in the Notch pathway”

Authors: Vázquez-Ulloa Elenaé, Lizano-Soberón Marcela, Contreras-Paredes Adriana

Tomoko Yamakawa

University of Osaka, Japan

“Function of a neurogenic gene, pecanex in Notch signaling”

Authors: Tomoko Yamakawa, Kenta Yamada, Takeshi Sasamura, Naotaka Nakazawa, Maiko Kanai, Emiko Suzuki, Mark E. Fortini, Kenji Matsuno