The Notch Meeting VIII Notch Signalling in the Nervous System

28 SEPTEMBER-1 OCTOBER 2014, ATHENS, GREECE

Program & List of Participants

Sponsored by:





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The Notch Meeting VIII

Notch Signalling in the Nervous System

28 September – 1 October, 2014, Athens, Greece

Introduction

In 2007 we initiated a series of conferences that have the Notch signaling pathway as their central element. We decided to hold a general conference on Notch every other year, bringing together researchers working on diverse questions and experimental systems. These general conferences alternate with smaller meetings focused on a specific theme. Since 2007 four international general conferences with about 300 participants have been held with great success. The first of the smaller, thematic Notch meetings, "Notch and Cancer," was held in 2008, the second, "Notch and Stem Cells," was held in 2010, and the third, "Notch and Trafficking," in 2012. All were equally successful. Encouraged by the positive response to these meetings, we will hold the next focused meeting, on "Notch Signaling in the Nervous System" this year.

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

Organizing Committee

Spyros **Artavanis-Tsakonas**, Harvard Medical School, USA Hugo **Bellen**, Baylor College of Medicine, HHMI, USA Ryoichiro **Kageyama**, Kyoto University, Japan Angeliki **Louvi**, Yale School of Medicine, 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 28

19:00-20:30 **Registration** (Herodion Hotel, 4 Rovertou Galli St., Acropolis)

20:30 **Reception** (Herodion Hotel)

MONDAY, September 29

Meeting	Venue	The Ionic	Centre 11	Lysion	St. – Plaka
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09:00-09:15 **Opening Remarks**

Spyros Artavanis-Tsakonas (Harvard Medical School, USA)

09:15 - 10:45 **Session I**

Chair: Spyros Artavanis-Tsakonas

Spyros Artavanis-Tsakonas (Harvard Medical School, USA)

Sarah Bray (Cambridge University, UK)

"Mechanisms underlying Notch-induced neural stem cell hyperplasia"

Claude Desplan (NYU, USA)

"Temporal pattering of neuroblasts controls Notch-mediated cell

survival through regulation of Hid or Reaper"

10:45 - 11:15 **Coffee Break**

11:15 - 12:45 **Session II**

Chair: Spyros Artavanis-Tsakonas

Verdon Taylor (University of Basel, Switzerland)

"Notch determination of quiescent and binary cell fate in adult neural stem cells"

Nick Monk (University of Sheffield, UK)

"Modeling oscillatory transients in Notch-mediated cell fate decisions"

Marek Mlodzik (Mount Sinai School of Medicine, USA)

"Notch signaling in photoreceptor neuron R3/R4 specification and associated ommatidial rotation"

12:45 - 13:30 **Poster Session**

13:30 - 15:00 **Lunch Break**

15:00-16:30 **Session III**

Chair: Hugo Bellen

Ryoichiro Kageyama (Kyoto University, Japan)

"Dynamic control of Notch signaling in multipotency and fate choice of neural stem cells"

Mirko Schmidt (Institute for Microanatomy & Neurobiology, Germany)

"The novel Notch ligand EGFL7 governs adult neurogenesis in vivo"

Robert Beattie (University of Basel, Switzerland)

"Jagged1 as a pivotal regulator of neural stem cell differentiation towards an oligodendrocytic lineage in cells originating from the neurogenic forebrain niche"

16:30 - 17:00 **Coffee Break**

17:00 - 18:30 **Session III**

Chair: Hugo Bellen

Laure Bally-Cuif (Institute of Neurobiology Alfred Fessard,

France)

"Notch signaling in the formation and maintenance of adult neural stem cell pools"

Jens Magnusson (Karolinska Institute, Sweden)

"A latent neurogenic program in astrocytes regulated by Notch signaling"

Yukiko Gotoh (The University of Tokyo, Japan)

"Regulation of neural stem/progenitor cell fate in the developing and adult mouse neocortex"

TUESDAY, September 30

09:00-11:00 **Session IV**

Chair: Ryoichiro Kageyama

Saravana Ramasamy (Max Planck Institute for Molecular Biomedicine, Germany) "Endothelial Notch activity promotes angiogenesis and osteogenesis in bone"

Nick Baker (Albert Einstein College of Medicine, USA)

"Interplay between proneural HLH proteins and the SWH tumor suppressor pathway"

Hugo Bellen (Baylor College of Medicine, HHMI, USA)

"Intronic GFP tagging permits the reversible removal of proteins in development and adults"

Angeliki Louvi (Yale School of Medicine, USA)

"Notch lineages in mammalian brain"

11:00 - 11:30 **Coffee Break**

11:30-13:30 **Session V**

Chair: Ryoichiro Kageyama

Lavinia Alberi (UNIFR, Switzerland)

"Understanding the role of Notch1 in a sporadic Alzheimer's disease mouse model"

Emma Andersson (Karolinska Institute, Sweden)

"Neural aspects of Alagille Syndrome"

Swananda Marathe (University of Fribourg, Switzerland)

"Notch signaling in response to excitotoxicity induces neurodegeneration via erroneous cell cycle re-entry"

Christof Haffner (Institute for Stroke and Dementia Research, Germany)

"Notch3 and CADASIL - new findings"

13:30 - 14:00 **Poster Session**

14:00 - 15:30 **Lunch Break**

15:30 - 17:00 **Session VI**

Chair: Sarah Bray

Fabrice Roegiers (Fox Chase Cancer Center, USA)

"Control of Notch receptor activation and trafficking in development of the adult PNS in *Drosophila*"

François Schweisguth (Institut Pasteur, France)

"Live imaging of Notch trafficking in Drosophila"

Ajay Chitnis (NIH, USA)

"Specifying a Central Sensory Hair Cell Progenitor in the Neuromasts of the Zebrafish Lateral Line System - Is lateral inhibition all you need?"

20:30 Performance of Modern Greek Music at the Odeon of Herodes Atticus

(Built in 161 AD by the Athenian Herodes Atticus at the southern slope of the Acropolis)

WEDNESDAY, October 1

09:00 - 11:00 **Session VII**

Chair: Angeliki Louvi

Anne Hart (Brown University, USA) "Sleep, stress and Notch signaling"

Stavros Taraviras (Medical School, University of Patras, Greece)

"Two novel proteins related to geminin control ependymal cells generation"

Stefano Stifani (McGill University, Canada)

"Suppression of Groucho/TLE1:Hes1-mediated inhibition of cortical neurogenesis by prolyl isomerase Pin1 and protein kinase HIPK2"

Kim Dale (University of Dundee, UK)

"Regulation of cell fate choice in neuroectoderm progenitors by crosstalk between Notch and Sonic Hedgehog pathways"

11:00 - 11:30 **Coffee Break**

11:30-13:30 **Session VIII**

Chair: Angeliki Louvi

Diogo Castro (Instituto Gulbenkian de Ciencia, Portugal)

"Synergistic and antagonistic interactions between Ascl1 and Notch transcriptional programs during vertebrate neurogenesis"

Stéphanie Le Bras (Université de Rennes 1, France)

"Deciphering Notch signaling regulation by intracellular traffic regulators in cell acquisition during asymmetric division"

Andreas Androutsellis-Theotokis (Technische Universität Dresden, Germany)

"Notch/STAT3-Ser/Hes3 Signaling: Not so non-canonical after all"

Orly Reiner (Weizmann Institute of Science, Israel)

"Notch Activation by Shootin1 Opposing Activities on two Ubiquitin Ligases"

Closing Remarks

13:30 - 15:00 Lunch

POSTER SESSION

Emanuele Brai (University of Fribourg, Switzerland)

"Notch1 activity in mitral cells is odor dependent and contributes to olfactory behavior."

Authors: Brai Emanuele, Scotti Alessandra L., Robert Kretz, Alberi Lavinia

Héctor Gálvez García (Universitat Pompeu Fabra, Spain)

"The regulation of Atoh1 by Hes/Hey factors during inner ear development"

Authors: Héctor Gálvez, Jelena Petrovic, Joana Neves, Fernando Giraldez, Gina Abelló

Simona Hankeova (Karolinska Institutet, Sweden)

"Jagged1 is required for retinal ganglion cell maintenance"

Authors: Simona Hankeova, Indira Chivukula, Urban Lendahl, Vitezslav Bryja and Emma Andersson

Julia Oswald (Cambridge University, UK)

"Notch signalling during retinal development in zebrafish: Investigating the role of Notch signalling in retinal cell fate specification"

Authors: Julia Oswald, William A. Harris

Jay Prakash Shukla (IISER Pune, India)

"Ataxin2 binding protein1 regulates Notch signaling during bristle development in Drosophila"

Authors: Jay Prakash Shukla, L S Shashidhara

Emmanuel Than-Trong (Alfred Fessard institute CNRS, France)

"Studying the role of Notch3 signaling in neural stem cell homeostasis and ageing"

Authors: Emmanuel Than-Trong, Sara Ortica, Alessandro Alunni and Laure Bally-Cuif

Elenaé Vázquez (Instituto Nacional de Cancerología, Mexico)

"Novel interaction between NUMB and PDZ containing-protein hDlg"

Authors: Vázquez-Ulloa Elenaé, Torres-Vega Miguel Angel, Lizano-Soberón Marcela, Contreras-Paredes

Adriana

The Notch Meeting IX

4 – 8 October 2015, Athens, Greece

The Notch Meeting IX, the next general Notch meeting, will be held in Athens in early October 2015. The field has grown enormously and also has become enormously diverse, so a meeting including as many aspects of Notch biology as possible is highly relevant. Because all of us know that these are not easy times for basic science, this meeting has the mission of both bringing to light exciting research and helping to build a community with similar interests that can, we hope, act synergistically. As in 2013 we will organize the meeting by giving more of a voice to younger researchers in the field. Accordingly, the organizing committee is composed of starting faculty and senior postdoctoral fellows who have a record of Notch related research and wish to continue pursuing the intricacies of this signaling pathway.

Organizing Committee:

Sarah Bray, Cambridge University, UK; Spyros Artavanis Tsakonas, Harvard Medical School, USA; Jon Aster, BWH, Harvard University, USA; Tilman Borggrefe, University of Giessen, Germany; Kim Dale, University of Dundee, UK; Sally Dunwoodie, Victor Chang Cardiac Research Institute, Australia; Wendy Gordon, University of Minnesota, USA; Motoyuki Itoh, Chiba University, Japan; Ronald Le Borgne, Institut de Génétique et Développement de Rennes, France; Angeliki Louvi, Yale School of Medicine, USA; Juan Carlos Zúñiga-Pflücker, University of Toronto, Canada.