

8th MICROSYMPOSIUM ON SMALL RNA



IMBA, Vienna, May 27th - 29th

2013

Keynote Lecture:

Narry Kim

Biology of Small RNAs

**Richard Carthew
Antonio Giraldez
Chris Hammell
Ana Eulalio**

*Small RNAs in
Genome Defense*

**Shiv Grewal
Eric Miska
Ramesh Pillai
Jean-René Huynh
Kuniaki Saito**

*Structures and Mechanisms
in Small RNA Pathways*

**Elisa Izaurralde
Dinshaw Patel
Yukihide Tomari
Anastasia Khvorova
Marina Chekulaeva
Grzegorz Kudla**

**Special Session for Tomorrow's PIs
(6 speakers)**

**PhD Workshop - Talks will be chosen from abstracts
submitted until April 30th
to Javier.Martinez@imba.oeaw.ac.at**

**Technology & Application Session with Speakers
from Industry**

Attendance is free Please register until April 30th <http://www.imba.oeaw.ac.at/microsymposium/>

Program of the 8th Microsymposium on Small RNAs

May 27th – 29th, 2013, IMBA, Vienna

Monday 27th

11.00 – 11.10 Welcome and Introduction

11.10 – 13.00 Structure and Mechanism (1)

- 11.10 – 11.40 **Elisa Izaurralde** – Mechanisms of miRNA-mediate gene silencing
11.40 – 12.10 **Jeremy Wilusz (Sharp Lab)** – Changing dogmas of post-transcriptional control: Lessons from the MALAT1 noncoding RNA
12.10 – 12.30 **Thermo Scientific** – Tools for Analyzing MicroRNA Function in Mammalian Cells
12.30 – 13.00 **Carolyn Phillips (Ruvkun Lab)** – Compartmentalization of siRNA and piRNA pathways in *C. elegans*

13.00 – 14.00 Lunch

14.00 – 15.00 Keynote Lecture

Narry Kim – Regulation of microRNA through alternative processing and modifications

15.00 – 16.40 PhD Workshop – Part 1

- 15.00 – 15.20 **Daniela Praher** (Technau Lab, University of Vienna) – Cnidarian microRNAs regulate their targets by a plant-like cleavage mechanism
15.20 – 15.40 **Alfred Bronkhorst** (van Rij Lab, Nijmegen Centre for Molecular Life Sciences) – The DNA virus Invertebrate iridescent virus 6 is a target of the *Drosophila* RNAi machinery
15.40 – 16.00 **Judith Hauptmann** (Meister Lab, University of Regensburg) – Turning catalytically inactive human Argonaute proteins into active slicer enzymes
16.00 – 16.20 **Jennifer Gebetsberger** (Polacek Lab, Innsbruck Medical University) – When small non-coding RNAs meet the ribosome: Tuning the translational machinery
16.20 – 16.40 **Sophie Wöhrer** (Mochizuki Lab, IMBA) – Assembly of a functional small RNA effector complex in *Tetrahymena*

16.40 – 17.10 Break

17.10 – 19.00 Genome defense (1)

- 17.10 – 17.40 **Jean-René Huynh** – tRNA fragments and transposable elements silencing in the *Drosophila* germline
17.40 – 18.10 **Ramesh Pillai** – Role of yet another tudor domain protein Tdrd12 in mouse piRNA biogenesis and its essential role for transposon silencing
18.10 – 18.30 **Qiagen** – *To be determined*
18.30 – 19.00 **Tai Montgomery (Ruvkun Lab)** – Crosstalk between small RNA pathways in *C. elegans*

19.00 – 19.20 EMBO Journal

19.30 Dinner at the IMBA/IMP cafeteria

Tuesday 28th

9.00 – 10.30 **Small RNA Biology (1)**

- 9.00 – 9.30 **Richard Carthew** – Regulation of miRISC activity by lipid signaling
9.30 – 10.00 **Sue-Jean Hong (Bartel Lab)** – Biological roles of miRNA-200 regulation of Zeb1 and Zeb2 during mammalian development
10.30 – 11.00 **Antonio Giraldez** – How life begins: The maternal to zygotic transition

10.30 – 11.00 Break

11.00 – 12.30 **Genome Defense (2)**

- 11.00 – 11.30 **Shiv Grewal** – Epigenetic genome control by RNAi and heterochromatin machinery
11.30 – 12.00 **Kuniaki Saito** – DmGTSF1 is required for effective retrotransposon silencing by Piwi and ovarian development in *Drosophila*
12.00 – 12.30 **Eric Miska** – Social RNA

12.30 – 13.30 Lunch

13.30 – 15.00 **Structure and Mechanism (2)**

- 13.30 – 14.00 **Yukihide Tomari** – Assembly and function of RISC
14.00 – 14.30 **Illumina** – ENCODE your research: Gene Expression and Regulation Update
14.30 – 15.00 **Markus Hafner (Tuschl Lab)** – RNA targets of LIN28

15.00 – 15.30 Coffee break / Poster viewing

15.30 – 16.20 **Mechanism and Application**

- 15.30 – 16.00 **Anastasia Khvorova** – RNA Therapeutics: Promise and Reality
16.00 – 16.20 **Christof Fellmann (Mirimus)** – A processing-optimized backbone boosts the effectiveness of experimental miRNA-based RNAi

16.20 – 16.50 **Helen Pickersgill** – Scientific writing from an editor's perspective

17.00 - Tour, Dinner with academic speakers

Wednesday 29th

9.00 – 10.30	Small RNA Biology (2)
9.00 – 9.30	Chris Hammell – The coupling of temporal gene expression and cell fate specification
9.30 – 10.00	Ana Eulalio – Shedding light on microRNA function through High Content Screening
10.00 – 10.30	Petr Svoboda – The real RNAi – a tale of naughty mice

10.30 – 11.00 Break

11.00 – 13.00	PhD Workshop – Part 2
11.00 – 11.20	Felix Muerdter (Hannon Lab, CSHL)– A genome-wide RNAi screen draws a genetic framework for transposon control and primary piRNA biogenesis in <i>Drosophila</i>
11.20 – 11.40	Mirela Marasovic (Halic Lab, Gene Center Munich) – Argonaute and Trimmer generate Dicer-independent priRNAs and mature siRNAs to initiate heterochromatin formation
11.40 – 12.00	Zhao Zhang (Zamore Lab, UMass Medical School) – Rhino binding and convergent transcription are sufficient to generate a piRNA-producing locus
12.00 – 12.20	Matyas Ecsedi (Großhans Lab, FMI Basel)– Quantitative analysis reveals extensive target specificity of individual let-7 miRNA family members in vivo
12.20 – 12.40	Grzegorz Sienski (Brennecke Lab, IMBA) – Dissection of the Piwi-mediated transcriptional silencing process

13.00 – 15.00 Lunch and poster viewing

15.00 – 16.30	Structure and Mechanism (3)
15.00 – 15.30	Dinshaw Patel – Structural Biology of Prokaryotic and Eukaryotic Argonautes
15.30 – 16.00	Ryuya Fukunaga (Zamore Lab) – Regulation of Dicer activity by partner proteins and a small molecule
16.00 – 16.30	Marina Chekulaeva – Exploring the mechanisms of miRNA function

16.30 – 17.00 Break

17.00 – 18.20	New Frontiers
17.00 – 17.30	Grzegorz Kudla – Mapping human miRNA interactions by CLASH
17.30 – 17.50	Exiqon – MicroRNA in biofluids - Robust biomarkers for disease
17.50 – 18.20	Uli Elling – Forward and reverse genetics in haploid embryonic stem cells

18.20 – 18.30 Award and closing of the meeting

18.30 - Dinner at IMBA