KEYSTONE SYMPOSIA on Molecular and Cellular Biology

Small Regulatory RNAs (D7)

April 14-18, 2019 • Daejeon Convention Center • Daejeon, South Korea Scientific Organizers: V. Narry Kim, Gregory J. Hannon and Lin He Developed in collaboration with the Institute for Basic Science

Supported by the Directors' Fund

Abstract & Scholarship Deadline: December 19, 2018 / Abstract Deadline: January 16, 2019 / Discounted Registration Deadline: February 13, 2019

SUNDAY, APRIL 14

Arrival and Registration

MONDAY, APRIL 15

Welcome and Keynote Address

David P. Bartel. HHMI. MIT and Whitehead Institute. USA **MicroRNAs**

MicroRNA Biogenesis and Turnover

Gunter Meister, University of Regensburg, Germany

Regulators of microRNA Biogenesis

V. Narry Kim, Institute for Basic Science

MicroRNA Processing Machinery

Helge Großhans, Friedrich Miescher Institute - FMI, Switzerland

Mechanism of microRNA Turnover

Short Talk(s) Chosen from Abstracts

MicroRNA Function in Development and Stem Cells

Victor R. Ambros, University of Massachusetts, USA

MicroRNA Function in Nematodes

Lin He, University of California, Berkeley, USA

MiR-34 in the Regulation of Stem Cells

Stefania Nicoli. Yale University. USA

Role of microRNAs in Neuro-Vascular Development in Zebrafish

Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, APRIL 16

MicroRNA Function in Disease

Phillip A. Sharp, Massachusetts Institute of Technology, USA

MicroRNA Network in Cancer

Gregory J. Hannon, University of Cambridge, UK

A Small RNA-based Innate Immune System Guards the Integrity of

Germ Cell Genomes

Kwangseog Ahn, Seoul National University, School of Biological

Sciences, South Korea

Regulation of Innate Antiviral Defenses by RNA-Mediated Interactions

between Virus and Host

Speaker to be Announced

Short Talk(s) Chosen from Abstracts

Workshop 1

Short Talk(s) Chosen from Abstracts

Small RNAs as Therapeutic and Diagnostic Tools

Anastasia Khvorova, University of Massachusetts Medical School, USA

Modification of Oligonucleotide for in vivo Delivery

Speaker to be Announced

Speaker to be Announced

Short Talk Chosen from Abstracts

Poster Session 2

WEDNESDAY, APRIL 17

Mechanism of RNA Silencing

Xuemei Chen, University of California, Riverside, USA

MicroRNA Regulation in Arabidopsis

Speaker to be Announced

Joshua T. Mendell, HHMI/University of Texas Southwestern Medical

Regulation of Argonaute by Posttranslational Modification

Speaker to be Announced

Short Talk(s) Chosen from Abstracts

Workshop 2

Short Talk(s) Chosen from Abstracts

Lessons from CRISPR

Speaker to be Announced

Yanli Wang, Institute of Biophysics, Chinese Academy of Sciences,

Structural Studies of the CRISPR System

Jin-Soo Kim, Institute for Basic Science, South Korea

CRISPR Genome Editing

Short Talk Chosen from Abstracts

Poster Session 3

THURSDAY, APRIL 18

Diverse Small RNA Pathways

Mikiko C. Siomi, University of Tokyo, Japan

PiRNA Biogenesis

Alexei A. Aravin, California Institute of Technology, USA

PiRNA in DNA Methylation in Mouse Male Germ Cells

Yukihide Tomari, University of Tokyo, Japan

Biochemical and Biophysical Dissection of RNA Silencing

Yijun Qi, Tsinghua University, China

Small RNAs in Epigenetic Control

Short Talk(s) Chosen from Abstracts

New Technologies and Bioinformatics

Speaker to be Announced

Chirlmin Joo, Delft University of Technology, Netherlands

Single-Molecule Analysis of Fast and Accurate Target Recognition by Small RNAs

Speaker to be Announced

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)

FRIDAY, APRIL 19

Departure