

AGENDA (As of April 16, 2016)
GeneExpression Systems & Appasani Research Conferences Presents:
Precision Medicine Symposia-2016 on
RNAi/Genome Editing Meeting & Neuron to Synapse/Optogenetics/Structural Biology Meeting
Venue: Hilton Garden Inn, Boston/Burlington, 5 Wheeler Road, MA, 01803 USA
Date: MAY 4 – 5, 2016

Organizer: Krishnarao Appasani, PhD. GeneExpression Systems, Inc. of USA

MAY 04, WEDNESDAY

7:45 AM	REGISTRATION OPEN: Coffee/Tea & Refreshments		
8:30 – 10:45 AM	JOINT INAUGURAL SESSION I: CHAIR: KRISHNARAO APPASANI, PhD., MBA		
8:30 – 8:45 AM	Welcome Address by Organizer: KRISHNARAO APPASANI, PhD., MBA GeneExpression Systems, Inc. USA		
8:45 – 9:15 AM	KEYNOTE SPEAKER: TOD WOOLF, PhD. Chief Executive Officer, Etagen Pharma Inc., Cambridge, MA, 02142, USA Title: Chemically-Modified Polynucleotides for Inhibiting, Expressing and Repairing Nucleic Acid		
9:15 – 9:45 AM	KEYNOTE SPEAKER: Erik SONTHEIMER, PhD. Professor of Molecular Medicine RNA Therapeutics Institute, University of Massachusetts Medical School, Worcester, MA, USA Title: <i>Neisseria meningitidis</i> Cas9 is a naturally high-fidelity genome editing enzyme		
9:45 – 10:15 AM	KEYNOTE SPEAKER: EDWARD M. SCOLNICK, MD. Professor of the Practice in Biology Founder of Stanley Center for Psychiatric Research at Broad Institute of MIT and Harvard, Cambridge, MA, USA Title: Neuro-genetics of Psychiatric diseases		
10:15 – 10:45 AM	KEYNOTE SPEAKER: JEFFREY D. PARVIN, MD, PhD. Louis Levy Professor for Cancer & Associate Dean The Ohio State University Medical Center, Columbus, OH, USA Title: Bookmark ubiquitination of promoter chromatin during mitosis marks active genes in early G1 phase of the cell cycle		
10:45 – 11:15 AM	30 min BREAK		
	TWO PARALLEL SESSIONS STARTS FROM NOW		
	RNAi, MICRORNAs, STEM CELLS & GENOME EDITING		NEURON / OPTOGENETCS & STRUCTURAL BIOLOGY
11:15 – 12:45 PM	Session II: Biology of NonCoding RNAs/ MicroRNAs & CRISPR Nucleases Chair: GERALD MARSISCHKY, PhD. USA	11:30 – 12:45 PM	Session II: Neurogenesis, Channel Rhodopsins and Neural Dynamics Chair: OLEG A. SINESHCHEKOV, PhD. USA
11:15 – 11:40 AM	Leonid A. Pobezinsky, PhD. Assistant Professor University of Massachusetts, Amherst, MA, USA Title: Regulatory role of non-coding RNAs in immune responses	11:15 – 11:45 AM	Amar Sahay, PhD. Assistant Professor Massachusetts General Hospital, Boston, MA, USA Title: Adult hippocampal neurogenesis and fear generalization
11:40 – 12:05 PM	Gerald Marsischky, PhD. Director of the Genome Engg., Harvard Medical School, Boston MA, USA Title: CRISPR/Cas-based genome editing strategies in <i>Drosophila</i> , Human cells and mouse germlines	11:45 – 12:15 PM	Oleg A. Sineshchekov, PhD. Research Professor Univ. Texas Health Science Ctr. Houston, TX, USA Title: Anion channelrhodopsins from cryptophyte algae as new efficient tools for inhibitory optogenetics
12:05 – 12:30 PM	Dong-Wook Kim, PhD. Professor Yonsei Univ. College of Medicine, Seoul, S. Korea Title: Functional genome editing of structural variations in patient-derived iPS Cells	12:15 – 12:45 PM	Jonathan P. Newman, PhD. Postdoctoral Fellow Picower Institute-MIT, Cambridge, MA, USA Title: Real-time optical feedback to control and study neural dynamics

12:30 – 12:45 PM	Kexian Zhu, PhD. Student Harvard University, Cambridge, MA, USA Title: Gene editing in dystrophic mouse muscle and muscle stem cells	— —	— — —
12:45 – 1:45 PM	1 Hour LUNCH BREAK (Provided)		
1:45 – 2.15 PM	AFTER NOON JOINT SESSION III: Chair: Krishnarao Appasani, PhD. AFTER NOON KEYNOTE SPEAKER: MICHAEL S. STRANO, PhD. Carbon P. Dubbs Professor of Chemical Engineering Massachusetts Institute of Technology, Cambridge, MA, USA Title: Emerging Applications of Carbon Nanosensor Technology to Precision Medicine		
2:15 – 4:00 PM	Session IV: Screenings & Disease Biology Chair: DAVID J. FITZGERALD, PhD. USA	2:15 – 3:45 PM	Session IV: Bio-Inspired Technology in Neuroscience Chair: SHARATH SRIRAM, PhD. AUSTRALIA
2:15 – 2:45 PM	David J. FitzGerald, PhD. Investigator National Cancer Institute-NIH, Bethesda, MD, USA Title: A whole genome RNAi screen highlights components of the ER/Golgi as a prominent source of resistance to immunotoxin-mediated cytotoxicity	2:15 – 2:45 PM	Sharath Sriram, PhD. Associate Professor RMIT University, Melbourne, AUSTRALIA Title: Memristors: Bio-inspired synapse-like electronic memories
2:45 – 3:10 PM	Mark W. Feinberg, MD. Associate Professor Brigham and Women's Hospital, Boston, MA, USA Title: MicroRNA-mediated control of glucose homeostasis and insulin resistance	2:45 – 3:15 PM	Richie Kohman, PhD. Group Leader Expansion Technologies Inc., Cambridge, MA, USA Title: Light-initiated release of neurotransmitters from DNA nanostructures
3:10 – 3:35 PM	Chengyu Jiang, PhD. Professor Peking Union Medical College, Beijing, P.R. China Title: MicroRNAs role in Ebola virus infection	3:15 – 3:45 PM	Dianne Hoffman-Kim, PhD. Associate Professor Brown University, Providence, RI, USA Title: 3D Neural Spheroid Culture: An <i>In Vitro</i> Model for Cortical Studies
3:35 – 4:00 PM	Yvonne Tay, PhD. Assistant Professor National University of Singapore, Singapore Title: MicroRNA-638 regulates iron metabolism in prostate cancer	— —	— — —
4:00 – 4:15 PM	15 min. BREAK		
4.15 – 6:00 PM	Session V: Delivery Methodology Chair: PATRICK Y. LU, PhD. USA	4:15 – 6:00 PM	Session V: Alzheimer Disease Pathology & Optogenetics in Sleep and Memory Chair: DONGMING CAI, MD, PhD. USA
4:15 – 4:40 PM	Patrick Y. Lu, PhD. President & CEO Sirnaomics, Inc., Gaithersburg, MD, USA Title: Development of three generations of nanoparticles for novel siRNA therapeutics	4:15 – 4:45 PM	Dongming Cai, MD, PhD. Assistant Professor Mount Sinai Sch. Of Medicine, New York, NY, USA Title: Apo-E4 associated Alzheimer disease pathogenesis
4:40 – 5:05 PM	Pad Chivukula PhD. Founder & CSO Arcturus Therapeutics, Inc., San Diego, CA, USA Title: Advances in mRNA delivery of CAS9 using lipid nanoparticles	4:45 – 5:15 PM	Christa J. van Dort, PhD. Instructor MIT/Mass. General Hospital, Cambridge, MA, USA Title: Characterization and Control of the Neural Circuits Involved in Sleep Regulation
5:05 – 5:30 PM	Junjun Shi, PhD. Assistant Professor Brigham and Women's Hospital, Boston MA, USA Title: RNAi Nanotechnology for cancer target	5:15 – 5:45 PM	Tomas J. Ryan, PhD. HHMI Research Specialist Picower Institute-MIT, Cambridge, MA, USA Title: Precise manipulation of memory using

	validation and therapy		engram cell technology
5:30 – 5:55 PM	Jiannis Ragoussis, PhD. Professor McGill University, Montréal, CANADA Title: Comprehensive mir-210 target identification reveals new prognostic markers in breast cancer	5:45 – 6:00 PM	SHORT TALK OPEN: To Be Announced
6:00 PM	End of 1st day sessions	6:00 PM	End of 1st day sessions

MAY 05, THURSDAY

8:00 AM	REGISTRATION OPEN: Coffee/Tea & Refreshments		
8:30 – 10:45 AM	JOINT INAUGURAL SESSION VI: CHAIR: KRISHNARAO APPASANI, PhD., MBA		
8:30 – 8:45 AM	Welcome Address by Organizer: KRISHNARAO APPASANI, PhD., MBA GeneExpression Systems, Inc. USA		
8:45 – 9:15 AM	KEYNOTE SPEAKER: FRANK J. SLACK, PhD. Professor of Pathology & Director, Institute for RNA Medicine Beth Israel Deaconess Medical Center's Cancer Center, Harvard Medical School, Boston, MA, USA Title: MicroRNA-based therapeutics in cancer		
9:15 – 9:45 AM	KEYNOTE SPEAKER: DANIEL G. ANDERSON, PhD. Samuel A. Goldblith Professor of Applied Biology & Chemical Engineering Massachusetts Institute of Technology, Cambridge, MA, USA Title: Genome editing with CRISPR/Cas9 system in adult mice corrects genetic diseases		
9:45 – 10:15 AM	KEYNOTE SPEAKER: DONG-KI LEE, PhD. Professor Sungkyunkwan University, Suwon, S. Korea Founder & CEO, OliX Pharmaceuticals, Korea Title: Preclinical therapeutic development against topical diseases using cell penetrating, asymmetric RNAi triggers		
10:15 – 10:45 AM	30 min BREAK		
	TWO PARALLEL SESSIONS STARTS FROM NOW		
	RNAi, MICRORNAs, STEM CELLS & GENOME EDITING		NEURON / OPTOGENETCS & STRUCTURAL BIOLOGY
10:45 – 12:45 PM	Session VII: MicroRNAs in Diseases and CRISPR Pathways Chair: JIANNIS RAGOUSSIS, PhD. CANADA	10:45 – 12:45 PM	Session VII: Fragile X Syndrome, Muscular Atrophy & Crystallography of Protease Chair: ALEXANDER SERGANOV, PhD. USA
10:45 – 11:10 AM	Andrew Grimson, PhD. Assistant Professor Cornell University, Ithaca, NY, USA Title: Fetal and adult progenitors give rise to unique populations of CD8+ T cells	10:45 – 11:15 AM	Alexander Serganov, Ph.D. Assistant Professor NYU School of Medicine, New York, NY, USA Title: Role of RNA-protein interactions in gene expression control
11:10 – 11:35 PM	Cecilia Cotta-Ramusino, PhD. Senior Scientist Editas Medicine, Inc. Cambridge, MA, USA Title: Effect of different CRISPR/Cas9 variants on repair pathway choices	11:15 – 11:45 PM	Xue Jun (June) Li, PhD. Associate Professor University of Illinois, Rockford, IL, USA Title: Elucidating the degeneration of spinal motor neurons in human models of spinal muscular atrophy
11:35 – 12:00 PM	Victor Dillard Chief Operating officer Desktop Genetics Ltd., London, United Kingdom Title: Bioinformatic tools to design genome editing experiments using CRISPR/Cas9 system	11:45 – 12:15 PM	Andrey Kovalevsky, PhD. R & D Scientist Oak Ridge National Lab., Oak Ridge, TN, USA Title: Neutron crystallographic studies of HIV-1 protease: Drug binding, drug resistance and proton transfer
12:00 – 12:25 PM	Cheryl H. Cui, PhD. candidate	12:15 – 12:45 PM	Bruno Combettes, PhD. Business Dev. Manager

	Mass. Inst. of Technology, Cambridge, MA, USA Title: Massively parallel combinatorial genetic perturbation screening with CRISPR-Cas9 in human cells		Andor Technology PLC, Belfast, United Kingdom Title: TBA
12:45 – 2:00 PM	1 Hour 15 min Lunch Break		
2:00 – 2:30 PM	JOINT SESSION VIII: Chair: Krishnarao Appasani, PhD. AFTER NOON KEYNOTE SPEAKER: DENNIS J. SELKOE, MD. The Vincent and Stella Coates Professor of Neurologic Diseases Brigham and Women's Hospital, Harvard Medical School, Boston MA, USA Title: Molecular Elucidation of Alzheimer's and Parkinson's Diseases Predicts Novel Therapies		
2:30 – 3:00 PM	AFTER NOON KEYNOTE SPEAKER: ALAN D. D'ANDREA, MD. The Fuller-American Cancer Society Professor Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA, USA Title: Targeting Ubiquitin pathways in cancer therapy		
3:00 – 3:25 PM	James L. Sherley, MD., PhD. Director Asymmetrex, LLC., Boston, MA, USA Title: Bringing precision to gene-editing therapeutics by counting hematopoietic stem cells		
3:25 – 3:45 PM	20 min. BREAK		
3:45 – 6:00 PM	JOINT SESSION on Genome Editing in Stem Cells IX: Chair: JAMES SHERLEY, MD, PhD. USA		
3:45 – 4:10 PM	Miguel Moreno-Mateos, PhD. Research Scientist Yale Univ. School of Med. New Haven, CT, USA Title: Applying an optimized CRISPR/Cas9 system to uncover genes involved in brain development		
4.10 – 4.35 PM	Richard L. Frock, PhD. Fellow in Genetics Children's Hospital Boston, Boston MA, USA Title: Breaking Bad: Genome-wide detection of designer Nuclease targeting and its ensuing collateral damage		
4.35 – 5.00 PM	Raffaella Sordella, PhD. Associate Professor Cold Spring Harbor Laboratory, NY, USA Title: CRISPR-based Genome Editing		
5.00 – 5.25 PM	Xiaohong (Mary) Zhang, PhD. Associate Professor University of South Florida, Tampa, FL, USA Title: HDAC6 as a deacetylase and E3 ligase		
5.25 - 5:30 PM	End of The Meeting: Concluding remarks by Organizer		