Meeting programme

Virtual Meeting:

Developmental Disorders: From Mechanism to Treatment

14 – 17 September 2021

Online

The Company of Biologists

Tuesday 14 September

12:55 – 13:00	Arrival	
13:00 – 13:15	**Introduction & Who are The Company of Biologists?**	
13:15 – 13:40	**Stefan Mundlos** The Max Planck Institute for Molecular Genetics	Regulation of dorso-ventral patterning by long non-coding RNA MAENLI
13:40 – 14:05	**Karen Liu** Kings College London	Identification of novel causative genes in neural crest anomalies: using animal models to link genes to mechanism
14:05 – 14:20	**Grégoire Michaux** Institute Genetics & Development of Rennes	Short talk: Modeling inherited microvillus atrophy: from C. elegans and mouse intestinal organoids to patients
14:20 – 14:40	**Meet the speaker**	
14:40 – 15:00	Break	
15:00 – 15:25	**Monica J. Justice** The Hospital for Sick Children	Modifier genes as pathways to treatment: Lessons from Rett syndrome
15:25 – 15:35	**Giovanna De Filippi** Axion BioSystems	Sponsor Talk by Axion BioSystems: Modelling (Neuronal) Developmental Disorders with hiPSCs 2D and 3D models in a dish with Axion BioSystems bioelectronic assays
15:35 – 16:00	**Álvaro Rada-Iglesias** IBBTEC	Orphan CpG islands boost the responsiveness of developmental genes to distal enhancers
16:00 – 16:25	**Xin Sun** University of California San Diego	What a rare disease taught us about a fundamental mechanism of lung fluid control
16:25 – 16:40	**Nicole Edwards** Cincinnati Children's Hospital Medical Center	Short talk: The developmental basis of trachea-esophageal birth defects: evidence for endosome-opathies
16:40 – 17:00	**Meet the speaker**	
17:00 – 18:00	**Social activity** Bring a drink of your choice and come and meet your fellow attendees	
18:00	End of day 1	

Wednesday 15 September

12:55 – 13:00	Arrival	
13:00 – 14:00	Selected flash talks	
14:00 – 14:15	Break	
14:15 – 14:40	**Dagan Jenkins** University College London	Evidence that stochastic processes contribute to clinical variability in exact genetic mouse models of ciliopathies
14:40 – 14:55	**Harry Leitch** MRC London Institute of Medical Sciences	Short talk: Rapid trio exome sequencing in acutely unwell neonates: moving beyond diagnosis
14:55 – 15:20	**Han Brunner** Maastrict University Medical Center	Dominant and recessive, mutation and selection: The landscape of human disorders of cognitive development
15:20 – 15:45	**David Rowitch** University of Cambridge	Advanced diagnosis, functional genomics and new treatments for Pelizaeus-Merzbacher Disease (PMD)
15:45 – 16:05	**Meet the speaker**	
16:05 – 16:15	Break	
16:15 – 16:35	Patient testimonials	
16:35 – 16:50	**Han Brunner** Maastrict University Medical Center	Clinicians' perspective
16:50 – 17:20	**Monica J. Justice (Chair), Philip Beales, Han Brunner, Harry Leitch, David Rowitch**	Panel discussion
17:20 – 17:35	**Free discussion**	
17:35	End of day 2	

Thursday 16 September

12:55 – 13:00	Arrival	
13:00 – 13:25	**Ian Smyth** Monash Biomedicine Discovery Institute	Using functional genomics to understand inherited kidney disease
13:25 – 13:50	**Philip Beales** University College London	Coming in from the cold: the changing landscape for creating rare disease therapies
13:50 – 14:05	**Matt Stevenson** University of North Carolina at Chapel Hill	Short talk: Uncovering regulatory mechanisms intrinsic to blastemal-predominant Wilms tumor: From genomics to the development of novel *in vitro* models
14:05 – 14:25	**Meet the speaker**	
14:25 – 14:35	Break	
14:35 – 15:00	**Emily Noël** University of Sheffield	Using zebrafish to understand the role of the extracellular matrix in cardiac morphogenesis
15:00 – 15:25	**Jeanne Amiel** Institut Imagine	The endothelin pathway and shaping the face in human
15:25 – 15:35	**Raquel Andrade** Algarve Biomedical Center Research Institute	Short talk: The segmentation clock in temporal control of HoxB gene expression
15:35 – 15:55	**Meet the speaker**	
15:55 – 17:30	Selected flash talks	
17:30	End of day 3	

Friday 17 September

12:55 – 13:00	Arrival	
13:00 – 14:00	Selected flash talks	
14:00 – 14:15	Break	
14:15 – 14:40	**Eric Olsen** UT Southwestern Medical Centre	CRISPR correction of muscle disease
14:40 – 14:55	**Kate Baker** University of Cambridge	Short talk: Developmental disorders of presynaptic vesicle cycling - network-wide phenotypes and multi-level mechanisms
14:55 – 15:20	**Brian Ciruna** The Hospital for Sick Children	"Fishing" for causes and cures in adolescent idiopathic scoliosis
15:20 – 15:35	**Sumantra Chatterjee** NYU Grossman School of Medicine	Short talk: Deciphering sex and genotype specific cellular changes in mouse models of Hirschsprung disease
15:35 – 15:55	**Meet the speaker**	
15:55 – 16:05	Break	
16:05 – 16:30	**Lori Sussel** University of Colorado	RNA dysregulation in the pancreatic islet contributes to diabetes
16:30 – 16:55	**Lee Niswander** University of Colorado	The what, the why and the how of neural tube defects
16:55 – 17:20	**Lilianna Solnica-Krezel** Washington University School of Medicine in St. Louis	Using zebrafish to solve medical mysteries of the Undiagnosed Diseases Network
17:20 – 17:40	**Meet the speaker**	
17:40 – 17:45	**Meeting summary/closing statements**	
17:45	End of day 4	