

## 8<sup>th</sup> Ataxia Investigators Meeting (AIM) 2021 – Rescheduled "Leveraging Therapeutic Opportunity into Novel Treatment Paradigms" Virtual – Times are in Central Daylight Time 4/21/2021

Due to unforeseen circumstances, this schedule is subject to change.

MONDAY, May 24, 2021

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10:00-10:05 AM	NAF announcements, Andrew Rosen, NAF Executive Director
10:06-10:17 AM	Welcome to virtual meeting orientation, Chair, Albert La Spada, MD, PhD
	Theme 1 – Basic Cerebellar Function and Dysfunction
	Session Chair: Marija Cvetanovic*, PhD, University of Minnesota
10:20-11:00 AM	Keynote: Sascha du Lac, PhD, Johns Hopkins Signaling and plasticity in cerebellum
11:03-11:30 AM	Sheng-Han Kuo*, MD, Columbia University
	Cerebellar movement control
11:30-11:40 AM	Break – Exhibit/Sponsor Hall and Lobby open for networking
11:40-12:07 PM	Andreea Bostan*, PhD, University of Pittsburgh
	Cerebellar communications with cortex and the basal ganglia
12:10-12:22 PM	David Bushart*, PhD, University of Michigan
	Region-specific dysfunction of an ion channel module in SCA1
12:25-12:37 PM	Ashley Robbins, PhD, The Children's Hospital of Philadelphia
	Spatiotemporally barcoded single-cell RNA-Seq enables characterization of the
	murine cerebellum at fine resolution
12:40-12:52 PM	Naiara Akizu*, PhD, University of Pennsylvania <i>Uncovering pathogenic mechanisms</i>
	of SNX14 associated cerebellar ataxia
12:55-1:15 PM	Theme 1 Open Discussion led by Marija Cvetanovic, PhD
1:15-2:00 PM	Lunch – Exhibit/Sponsor Hall and Lobby open for networking
2:00-2:45 PM	Keynote: Nobel Laureate, Thomas Cech, PhD, University of Colorado, Boulder
	Thirty years after the Nobel: Some thoughts on science, medicine and trinucleotide
	expansion
2:45-2:50 PM	Tech Break
	Theme 2 – Disease Modeling and Mechanisms
	Session Chair: Sokol Todi, PhD, Wayne State University
2:50-3:17 PM	Matthew Scaglione*, PhD, Duke University
	Novel chaperone systems for therapy
3:20-3:47 PM	Karl Herrup, PhD, University of Pittsburgh
	Ataxia-Telangiectasia
3:50-4:20 PM	Theme 2 Open Discussion led by Sokol Todi, PhD
	Completion of Day 1

## TUESDAY, May 25, 2021

10205/11, may 20, 2021		
Theme 3 – Neuroprotective Targets and Strategies		
Session Chair: Vikram Shakkottai, MD, PhD, University of Texas Southwestern, Dallas		
10:00-10:40 AM	Keynote: Walter Koroshetz, MD, NINDS Director	
	NINDS strategy for funding from discovery to therapy	
10:43-11:10 AM	Henry Houlden, MD, PhD, University College London	

	Genetics of late-onset ataxia
11:10-11:25 AM	Break – Exhibit/Sponsor Hall and Lobby open for networking
11:25-11:37 AM	Mandi Gandelman*, PhD, University of Utah, Salt Lake City  Altered calcium signaling and STAU1-dependent ER stress in models of SCA2
11:40-11:52 AM	Monica Banez-Coronel*, PhD, University of Florida, Gainesville CCG CGG interruptions found on highly penetrant SCA8 alleles increase RAN protein levels and cellular toxicity
11:55 -12:07 РМ	Pawel Switonski*, PhD, University of California, Irvine Epigenetic Dysregulation Impairs High-Fidelity DNA Repair to Promote Cerebellar Degeneration in SCA7
12:10-12:25 PM	Theme 3 Open Discussion led by Vikram Shakkottai, MD, PhD
12:25-12:30 PM	Tech Break
12:35-12:55 PM	<ul> <li>"Hot Chair" Junior Poster Presenters</li> <li>1. Owen Morgan*, BA, Johns Hopkins University</li> <li>Motor and Cognitive Sequencing in Cerebellar Ataxia</li> <li>2. Esther Becker*, PhD, University of Oxford</li> <li>Human iPSC-derived cerebellar organoids recapitulate development of the cerebellum</li> <li>3. Adam Avery*, PhD, Oakland University</li> <li>Drug discovery for SCA, using novel fluorescence technology targeting β-III-spectrin</li> <li>4. Larissa Nitschke*, BS, Baylor College of Medicine, Houston, TX</li> <li>Modulating phosphorylation of ATXN1's serine 776: a potential therapeutic approach for SCA1</li> </ul>
12:55-1:00 PM	Tech Break
1:00-2:00 PM	Scientific Poster Session A and Lunch-Exhibit/Sponsor Hall is open
2:00-2:40 PM	Keynote: Paul Taylor, MD, PhD, St. Jude's Research Hospital Bridging biophysics and neurology: the role of phase transitions in neurodegeneration
2:40-2:45 PM	Tech Break
2:45-3:10 PM	"Hot Chair" Junior Poster Presenters  1. Leon Tejwani*, MS, Yale School of Medicine  Longitudinal single nucleus transcriptomic profiling of the SCA1 mouse cerebellum  2. Celeste Suart*, BHSc, McMaster University, Ontario, Canada Ataxin-1 is signalled to DNA damage by ATM kinase 3. Young Woo Park*, PhD, University of Minnesota Measurements of cross-sectional differences and longitudinal changes with DTI in SCA1/2/3/6  4. David Szmulewicz, MD, Monash University Bioinformatics-Based Identification of Expanded Repeats: A Non-reference Intronic Pentamer Expansion in RFC1 Causes CANVAS  5. Jennifer Faber*, MD, German Center for Neurodegenerative Diseases Data-driven model of dynamic biomarkers in SCA3
3:10-3:15 PM	Tech Break
3:15-4:30 РМ	Moderated Breakout Session – Moderator: Liana Rosenthal, MD, PhD & Sokol Todi, PhD Divya Singhal, MD, FAAN Diversity and Inclusion
4:30 PM	Completion of Day 2

## WEDNESDAY, May 26, 2021

The	Theme 4 – Biomarker Discovery and Clinical Disease Phenotyping		
Session Chair: Joel Gottesfeld, PhD, The Scripps Research Institute			
10:00-10:40 AM	Keynote: Viviana Gradinaru*, PhD, Caltech		
	Vectors that cross the blood-brain barrier		
10:43-11:10 AM	Leonard Petrucelli, PhD, Mayo Clinic, Jacksonville, FL		
	CSF biomarkers		
11:10-11:25 AM	Break – Exhibit/Sponsor Hall and Lobby open for networking		
11:25-12:05 PM	Keynote: Alice Chen-Plotkin, MD, University of Pennsylvania		
	Lessons from biomarker work in PD		
12:08-12:20 PM	Theme 4 Open Discussion Led by Joel Gottesfeld, PhD		
12:20-12:25 PM	Tech Break		
12:25-1:15 PM	"Shark Tank": Single therapies for patients with DIFFERENT forms of ataxia!		
	Presenters – Vikram Shakkottai, MD, PhD, and Sokol Todi, PhD		
	Sharks – Harry Orr, PhD and Joel Gottesfeld, PhD and Susan Perlman, MD		
1:15-2:20 PM	Scientific Poster Session B and Lunch – Exhibitor/Sponsor Hall is open		
2:20-2:50 PM	Gilles Guillemin, PhD, OM, MacQuarie, Australia		
	TRP metabolism, kynurenine		
2:53-3:20 PM	Matthis Synofzik, MD		
	Update on Ataxia Global Initiative (AGI)		
3:20-3:25 PM	Tech Break		
3:25-4:30 PM	Break-out Session II		
	Puneet Opal, MD, PhD, Northwestern University - Biomarkers		
	Henry Paulson, MD, PhD, University of Michigan – <i>Mentorship</i>		
	Marija Cvetanovic, PhD, University of Minnesota and Janghoo Lim, PhD, Yale		
	Single Cell RNA Sequencing		
4:30 PM	Completion of Day 3		

## **THURSDAY, May 27, 2021**

9:00-9:55 AM	SARA/Clinical Ataxia rating scales training session		
	Jennifer Faber, MD and Heike Jacobi, MD		
9:00-10:00 AM	Exhibitor/Sponsor Hall is open		
	Theme 5 – Clinical Trial Organization		
Session Chair: Liana Rosenthal*, MD, PhD, Johns Hopkins School of Medicine			
10:00-10:35 AM	Sophie Tezenas du Montcel*, MD, PhD, Sorbonne University, Paris		
	Trial Design for Rare Diseases		
	Conversion of individuals at risk for SCA types 1, 2, 3, and 6 to manifest ataxia		
10:38-11:10 AM	Keynote: Holly Kordasiewicz, PhD, Ionis Pharmaceuticals		
	ASO therapy development		
11:13-11:23 AM	Melissa Beiner, MD, Biohaven		
	Title		
11:23-11:48 AM	Break – Exhibit/Sponsor Hall and Lobby open for networking		
11:51-12:04 PM	Robert Wessells*, PhD, Wayne State School of Medicine Chronic Exercise slows		
	disease progression in Drosophila models of SCA		
12:07-12:20 PM	Phyllis Faust, MD, PhD, Columbia University A pathologomic approach in a		
	spectrum of cerebellar degenerative diseases		

12:20-12:40 PM	Theme 5 Open Discussion Led by Liana Rosenthal, MD, PhD
12:40-12:45 PM	Tech Break
	Late Breaking Abstracts
	Session Chair – Al La Spada, MD, PhD University of California Irvine
12:45-1:00 PM	Jayashree Chandrasekaran, MS, University of Minnesota
	Multimodal MRI detects premanifest and early brain alterations in SCA1 and
	SCA3
1:03-1:18 РМ	Megan Keiser, PhD, Children's Hospital of Philadelphia
	Translating Gene Therapy for Spinocerebellar Ataxia Type 1: Optimization of
	efficacious therapeutic vectors in nonhuman primates
1:21-1:36 PM	David Lynch, MD, PhD, Children's Hospital of Philadelphia
	Efficacy of Omaveloxolone in Patients with Friedreich's Ataxia: Baseline-
	Controlled Study
1:39-1:54 PM	Xiang-Dong Fu, PhD, University of California San Diego
	Making New Neurons To Replenish Lost Ones In Neurodegenerative Disease
1:57-2:17 PM	Giulia Coarelli, MD, Hopital de la Salpetriere, Paris, France
	Plasma neurofilament light chain predicts cerebellar atrophy and clinical
	progression in spinocerebellar ataxia
2:20-2:40 PM	Al La Spada, MD, PhD
	Wrap-up of the 2020-21 Conference, AIM farewell and Closing Remarks
2:40 PM	AIM 2020-21 Adjourned
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<sup>\*</sup>Junior Investigators may include post docs, professors, and graduate students.