





The Mitochondrial ARS (Mt-aaRS) Genes Annual Scientific Symposium 2023

February 10, 2023

Time Scheduled	Presenter Information
10:00 am - 10:08 am	Welcome & Introduction
	Brent Dethlefs, Executive Director, CHOC Research Institute
10:08 am - 10:15 am	CureARS Introduction
	Desiree Magee & Ashley Rowland
	Founders of CureARS
10:15 am – 11:00 am	Panel #1: Natural History Studies in Rare Diseases
	Ali Fatemi, MD
	Kennedy Krieger Institute
	Amy Goldstein, MD
	Children's Hospital of Philadelphia
	Catarina Olimpio, MD
	University of Cambridge, Horvath Laboratory
11:00 am - 11:15 am	A Diagnostic Odyssey: Pathway from symptoms to diagnosis
	Neda Zadeh, MD
44.45 44.25	Children's Hospital of Orange County
11:15 am – 11:35 am	Mechanistic and Therapeutic Modeling in ARS2 Class of Primary Mitochondrial
	Disease in C. elegans and zebrafish animal models
	Christina Remes, PhD
	Children's Hospital of Philadelphia
	Neal Mathew, PhD
11:35 am - 11:55 am	Children's Hospital of Philadelphia
11:35 am - 11:55 am	The clinical spectrum of ARS disorders: A case study
	Jennifer H. Yang, MD
	University of California San Diego (UCSD) and Rady Children's Hospital San Diego
11:55 am - 12:05 pm	How common Mitochondrial ARS (Mt-aaRS) Genes-related disease are in patients
	tested by clinical exome sequencing at GeneDx
	Renkui Bai, MD, PhD, FACMG
	GeneDx
12:05 pm - 12:15 pm	MitoSHARE Registry
	Phil Yeske
	United Mitochondrial Disease Foundation (UMDF)
12:15 pm - 1:00 pm	Lunch Break (patient video/slides)
1:00 pm - 1:30 pm	Multi-gene Research Modeling mitochondrial aminoacyl-tRNA synthetase defects in
	vitro in neurons
	Oliver Podmanicky, PhD Student
	University of Cambridge, Horvath Laboratory







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1:30 pm – 1:45 pm	AARS2 & SARS2 Research
	Henna Tyynismaa, PhD
	University of Helsinki, Finland
1:45 pm - 2:15 pm	YARS2 [Tyrosyl-tRNA synthetase] Project & Modeling
	Rebecca Ganetzky, MD
	Children's Hospital of Philadelphia
	Ya-Ming Hou, PhD
	Thomas Jefferson University
2:15 pm - 2:45 pm	Panel #2: Mito Cocktail as a Therapeutic
	Rebecca Ganetzky, MD
	Children's Hospital of Philadelphia
	Melissa A. Walker M.D., PhD
	Massachusetts General Hospital
	Brian Kirmse, MD
	University of Mississippi Medical Center
	Divakar S. Mithal MD, PhD
	Lurie Children's Hospital and Northwestern University in Chicago
2:45 pm - 3:00 pm	Break
3:00 pm – 3:30 pm	Enhanced Energy Metabolism in Aminolevulinate/Iron-Exposed DARS2 deficient
	Fibroblasts
	Jose Abdenur, MD
	Children's Hospital of Orange County
3:30 pm – 4:00 pm	AAV9 and ASO therapy in LBSL
	Christina Nemeth Mertz, PhD
	Kennedy Krieger Institute
4:00 pm – 4:30 pm	Research Opportunities and Advances for the ARS Community at the NIH
	Eliza Gordon-Lipkin, MD
	National Institute of Health
4:30 pm – 5:00 pm	Diagnosing ARS2 defects in fibroblasts: Functional studies and the role of protein-
	based diagnostics
	Johan Van Hove, MD
	Children's Hospital of Colorado
	David Stroud, PhD
	University of Melbourne in Australia
5:00 pm	Closing Remarks