



**New Frontiers of Mitochondrial Medicine**  
**Mayo Clinic**  
**September 21, 2018**

8:30-9:00 **Check In and Breakfast**

9:00-9:10 **Opening Remarks:** Dr. Ralitzia Gavrilova, Mayo Clinic, Rochester

9:10-10:00 **Plenary lecture**

Chair: Dr. Eva Morava-Kozicz and Dr. Tamas Kozicz, Mayo Clinic, Rochester

*A Mitochondrial Etiology of Common and "Complex" Diseases;* Douglas C. Wallace, Ph.D., Children's Hospital of Philadelphia, Philadelphia

10:00-10:45 **Frontiers in Translational Mitochondrial Medicine I** (3X15 min talks)

Chair: Dr. Devin Oglesbee and Dr. Ralitzia Gavrilova, Mayo Clinic, Rochester

1. *Lessons learned from iPSC disease modeling of MELAS;* Timothy Nelson M.D., Ph.D., Mayo Clinic, Rochester
2. *A Neurophysiological Model of MELAS Disease;* Tamas Kozicz, M.D., Ph.D., Mayo Clinic, Rochester
3. *Engineering the Powerhouse of the Cell;* Stephen Ekker, Ph.D., Mayo Clinic, Rochester

10:45-11:00 **Roundtable discussion**

11:00-11:15 **Break - Coffee**

11:15-12:00 **Frontiers in Translational Mitochondrial Medicine II** (3X15 min talks)

Chair: Dr. Stephen Ekker and Dr. Eugenia Trushina, Mayo Clinic, Rochester

1. *NAD Metabolism in Health and Disease;* Eduardo Chini, M.D., Ph.D., Mayo Clinic, Rochester
2. *Mitochondrial Influence on the Microbiome: A Role for Reactive Oxygen Species;* Tal Yardeni, Ph.D., Children's Hospital of Philadelphia, Philadelphia
3. *To be determined;* Amel Karaa, M.D., Massachusetts General Hospital

12:00-12:15 **Roundtable discussion**

12:15-1:00 **Lunch**

1:00-2:15 **Frontiers in Diagnostics and Therapy of Mitochondrial Disorders** (5X15min talks)

Chair: Dr. Ralitzia Gavrilova and Dr. Eduardo Chini, Mayo Clinic, Rochester

1. *Challenges in Mitochondrial Medicine;* Amy Goldstein, M.D., Children's Hospital of Philadelphia, Philadelphia
2. *Revisiting Mitochondrial Diagnostic Criteria in the New Era of Genomics;* Eva Morava-Kozicz, M.D., Ph.D., Mayo Clinic Rochester
3. *Biomarkers of Mitochondrial Medicine;* Devin Oglesbee, Ph.D., Mayo Clinic, Rochester
4. *Modulation of Mitochondrial Complex I as a Therapeutic Strategy for Multiple Human Conditions;* Eugenia Trushina, Ph.D., Mayo Clinic, Rochester
5. *Mitochondrial Treatments;* Sumit Parikh, M.D., Cleveland Clinic

2:15-2:30 **Roundtable discussion**

2:30-2:45 **Break - Coffee**

2:45-4:30

**Clinical case presentation and discussion with Experts** (Dr. Ralitzia Gavrilova, Mayo Clinic, Dr. Ava Morava-Kozicz, Mayo Clinic, Dr. Karl Nath, Mayo Clinic, Dr. Amy Goldstein, Children's Hospital of Philadelphia, Dr. Amel Kaara, Massachusetts General Hospital, Dr. Sumit Parikh, Cleveland Clinic)

4:30-5:00 **Roundtable discussion about the future of mitochondrial medicine**

Moderators: Dr. Ralitzia Gavrilova, Mayo Clinic, Dr. Amy Goldstein, Children's Hospital of Philadelphia, Dr. Sumit Parikh, Cleveland Clinic

5:00-5:05 **Closing remarks:** Dr. Ralitzia Gavrilova, Mayo Clinic, Rochester