

A mitoPodCast Interview with Dr. Mark Tarnopolsky

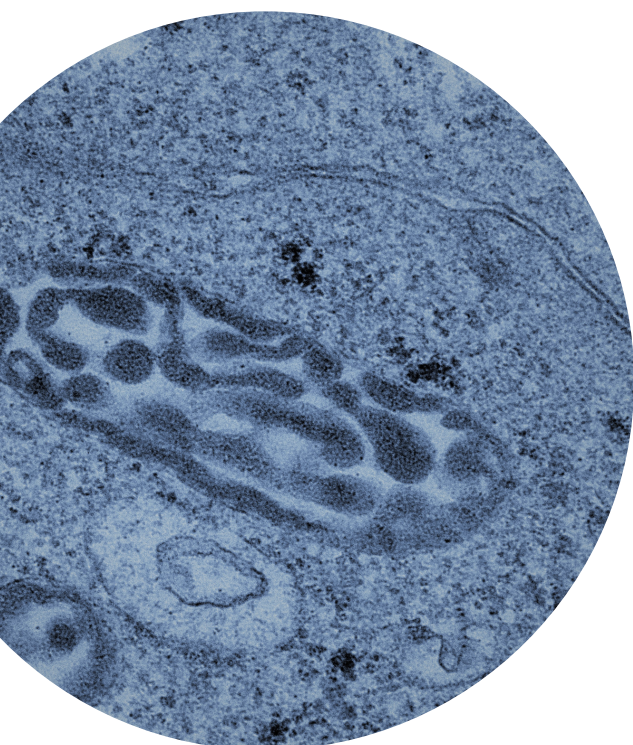


MEET DR. TARNOPOLSKY

Dr. Tarnopolsky is a Professor in the Division of Neurology at McMaster University's Departments of Pediatrics and Medicine. He is also the Clinical and Research Director at McMaster University's Corkins/Lammert Family Neuromuscular and Neurometabolic Clinic.

BACKGROUND OF RESEARCH

Dr. Tarnopolsky is interested in uncovering how exercise and nutrition can help improve the quality of life of patients with muscle weakness and mitochondrial dysfunction. His research program is also interested in discovering gene therapies for these patients.

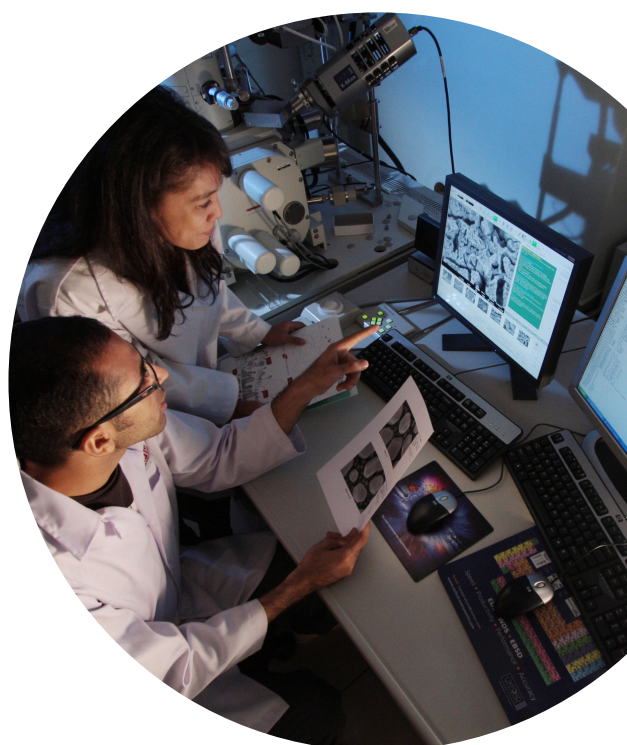


WHAT HAS HE FOUND?

To help patients with MELAS syndrome, Dr. Tarnopolsky targeted "multiple final common pathways" with a combination strategy involving CoQ10, creatine, lipoic acid and vitamin E. This strategy helped to lower levels of damaging oxidative stress and lactate.

HIS NEXT STEPS?

Dr. Tarnopolsky's group is continuing to develop new therapeutic interventions that use a combination strategy to treat mitochondrial diseases. Bringing together therapies that work on different tissues in the body could result in the development of a truly effective treatment for mitochondrial disorders like MERRF syndrome.



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ACCELERATING DRUG DEVELOPMENT?

Bringing together different areas of expertise through frequent meetings will help the research community conserve vital resources that can then be redirected towards the most promising projects. Years of experience have also given us a stronger consensus on the best ways of structuring clinical trials. This will help bring drugs to market safely.

PROMISING NOVEL THERAPIES?

There are a number of exciting therapies for primary mitochondria myopathies, including mitochondrial transplantation. But these new therapies should be compared to a gold-standard like exercise to see if they are truly effective.



WHY BRING DIVERSE VOICES TOGETHER?

The patient voice is a crucial one. They are needed to help guide drug development by informing researchers of the issues most important to them and how its impacting their daily lives. Also, collaboration gives all involved new perspectives they might not have thought of before.

FINAL MESSAGE AND GETTING IN TOUCH

With many more scientists gaining interest in mitochondrial biology, there is reason to believe that new therapies will emerge and benefit all who have mitochondrial disorders.

If you have any questions about his work, you can send an email to tarnopol@mcmaster.ca

