mitoPodcast: An Interview with Dr. Andrew Haller

MEET DR. HALLER

Dr. Haller is the Founder and CEO of Phoenix Pharma. He is also an adjunct lecturer at the University of Toronto’s Department of Pharmacology and Toxicology as well as an Industry Outreach Associate with Clinical Trials Ontario.

ORIGINS OF PHOENOX

While at Toronto’s Princess Margaret Hospital, Dr. Haller was investigating a class of drugs that activate in the low oxygen (hypoxic) environment of cancer tumors and release a payload that damages a cell’s DNA and causes it to die. But these types of drugs are not very effective. So, he thought of targeting mitochondria in tumors instead. Phoenix Pharma began through a desire to develop a drug that would stop mitochondrial function in cancer cells and prevent tumor growth.

PHOENOX PHARMA

CURRENT RESEARCH AND FUTURE STEPS

Phoenix Pharma designs small molecules that target and prevent mitochondrial function that otherwise helps cancer cells grow. Phoenix leverages artificial intelligence to make associations and predictions that assist in the exploration of the vast small molecule drug space that scientists cannot explore on their own. In the future, Dr. Haller wishes to use AI to assist in developing drugs that work for multiple disease pathways.
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HOW DO WE FAST-TRACK DRUG DEVELOPMENT

Clinical trials are very expensive and time-consuming. And with 90% of drug candidates failing to complete clinical trials, the current drug development process is not working. Innovating and optimizing trial designs and encouraging interconnected data networks that allow for open data sharing are important steps to fast-track drug development for mitochondrial disorders.

IMPORTANCE OF COLLABORATION

Bringing people together of different professional backgrounds and expertise can bring many new perspectives to the drug development process. Bringing a community together will build these connections and aid in finding solutions to pressing issues in the mitochondrial medicine community. We must expose trainees to industry professionals and clinicians to ensure they know “how” we find solutions as well as to patients so they know the true purpose of research.

FINAL MESSAGE AND HOW TO GET IN TOUCH

Collaboration, creativity, and confidence is key, curing disease is too important not to do it. If you have any questions, please contact Dr. Haller at andrew@phoenix.ca