

Department of Anatomy & Cell Biology Seminar Series

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Understanding Coenzyme Q and fixing Coenzyme Q deficiency.

Coenzyme Q (CoQ), also known as ubiquinone, comprises a benzoquinone head group and a long isoprenoid sidechain. It is thus extremely hydrophobic and resides in membranes. It is best known for its complex function as an electron transporter in the mitochondrial electron transport chain (ETC) but is also required for several other crucial cellular processes. In fact, CoQ appears to be central to the entire redox balance of the cell. It is synthesized in all cells and is found in all biological membranes. CoQ is also known as a nutritional supplement, mostly because of its involvement with antioxidant defenses. However, whether there is any health benefit from oral consumption of CoQ has not been convincingly documented. However, people can suffer severely from inborn primary CoQ deficiency and from secondary CoQ deficiency due to a number of conditions. Unfortunately, oral CoQ deficiency is unable to alleviate symptoms. I will describe our efforts to identify new means to alleviate CoQ deficiency and how it led us into uncovering previously uncharted aspects of CoQ biology.



Wednesday, Mar. 6, 2024
11:30am - 12:30pm

Hosted by: Dieter Reinhardt, PhD



Room 1/12 - Strathcona
Anatomy and Dentistry
Building



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