



Centre for
Heart Lung Innovation
UBC and St. Paul's Hospital

Centre for Heart Lung Innovation Research in Progress (R.I.P.)



The combination of a cholesterol-rich Western Diet and thermoneutrality results in increased muscle wasting in muscular dystrophic mice

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9:00 a.m. – 10:00 a.m.

Zoom Video Conference

(Meeting ID: 667 2274 6502; Passcode: 234833)

“Our team has recently shown that increased plasma lipids in mice can cause severe exacerbation of muscular dystrophy-associated muscle wasting, an unexpected observation considering statins, a cholesterol-lowering drug, are linked to muscle pain. However, these studies were done with genetic models of hyperlipidemia (Apolipoprotein E KO mice), whereas patients have an intact ApoE gene. Research has shown that housing mice in their thermoneutral zone (about 30°C) can alter fat metabolism and increase plasma lipid levels. We show that mice with muscular dystrophy housed in thermoneutral conditions, while on a modified western diet, exhibit a 4-fold increase in muscle damage in certain muscles. Surprisingly, females showed worse muscle wasting compared to males. Further investigation is needed to elucidate the underlying mechanisms.”

This event is a Self-Approved Group Learning Activity as defined by the Maintenance Certification Program of the Royal College of Physicians and Surgeons of Canada



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