

Richard Lehner

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Professional Overview:

Postdoctoral Fellows, Graduate Students:

Current:

- Dr. Jihong Lian
- Dr. Ariel Quiroga
- Michelle Mausof
- Zuzana Papackova
- Wesam Bahitham

Industry Relationships:

Research grants in the last 10 years from GlaxoSmithKline, Millennium Pharmaceuticals and Pfizer Cardiovascular Canada.

Scientific Focus:

Current Research Interests

We are investigating regulation of lipid turnover with respect to lipoprotein assembly and secretion. We have generated several animal models to address the function of lipolytic enzymes in lipid partitioning for storage and/or secretion.

Key words: atherosclerosis, obesity, hepatic steatosis, lipid metabolism, fat absorption, lipases, organelle biogenesis

Publications:

Selected from last 2 years (trainees supervised by RL underlined):

1. J. Lian, A.D. Quiroga, L. Li, and **R. Lehner**. Ces3/TGH deficiency improves dyslipidemia and reduces atherosclerosis in *Ldlr*^{-/-} mice. **Circ. Res.** (in press) (CIHR MOP-69043)
2. A.D. Quiroga, L. Li, M. Trötz Müller, R. Nelson, S.D. Proctor, H. Köfeler, and R. Lehner. Deficiency of Carboxylesterase1/Esterase-x in mice results in obesity, hepatic steatosis and hyperlipidemia. **Hepatology** (in press) (CIHR MOP106518)
3. J. Lian, E. Wei, S. Wang, A.D. Quiroga, L. Li, A. Di Pardo, J. van der Veen, S. Sipione, G.A. Mitchell and **R. Lehner**. Liver specific inactivation of Ces3/TGH decreases blood lipids without causing severe steatosis. **Hepatology** (in press) (CIHR MOP-69043)
4. **R. Lehner**, J. Lian and A.D. Quiroga. (2012) Lumenal lipid metabolism: Implications for lipoprotein assembly. **Arterioscler. Thromb. Vasc. Biol.** 32, 1087-1093 (CIHR MOP-69043, CHIR MOP-106518, HSFA)
5. H. Wang, E. Wei, A.D. Quiroga, X. Sun, N. Touret and **R. Lehner** (2010) Altered lipid droplet dynamics in hepatocytes lacking triacylglycerol hydrolase expression. **Mol. Biol. Cell** 21, 1991-2000 (CIHR MOP-69043)
6. E. Wei, Y. Ben Ali, J. Lyon, H. Wang, R. Nelson, V.W. Dolinsky, J.R. Dyck, G.A. Mitchell, G. S. Korbitt and **R. Lehner** (2010) Loss of TGH/Ces3 in mice decreases blood lipids, improves glucose tolerance and increases energy expenditure. **Cell Metab.** 11, 183-193 (CIHR MOP-69043)