

Research Papers Published by NGP Graduate Students

NGP graduate students are in **BOLD**; Major advisor(s) are *Italized*:

2017 Publications

1. **McDougall M**, Choi J, Magnusson K, Truong L, Tanguay R, *Traber MG*. (2017) Chronic vitamin E deficiency impairs cognitive function in adult zebrafish via dysregulation of brain lipids and energy metabolism. *Free Radic Biol Med*. 112: 308-317. PMID:28790013
2. **McDougall M**, Choi J, Truong L, Tanguay R, *Traber MG*. (2017) Vitamin E deficiency during embryogenesis in zebrafish causes lasting metabolic and cognitive impairments despite refeeding adequate diets. *Free Radic Biol Med*. 110: 250-260. PMID: 28645790
3. **McDougall M**, Choi J, Kim HK, *Bobe G*, Stevens JF, Cadenas E, Tanguay R, *Traber MG*. (2017) Lipid quantitation and metabolomics data from vitamin E-deficient and -sufficient zebrafish embryos from 0 to 120 hours-post-fertilization. *Data Brief*. 11: 432-441. PMID: 28280764
4. **McDougall M**, Choi J, Kim HK, *Bobe G*, Stevens JF, Cadenas E, Tanguay R, *Traber MG*. (2017) Lethal dysregulation of energy metabolism during embryonic vitamin E deficiency. *Free Radic Biol Med*. 104: 324-332. PMID: 28095320
5. **Lytle KA**, Wong CP, *Jump DB*. (2017) Docosahexaenoic acid blocks progression of western diet-induced nonalcoholic steatohepatitis in obese *Ldlr*^{-/-} mice. *PLoS One* 12(4):e0173376. PMID: 28422962
6. Wang W, Gordon JL, **Philbrick KA**, Yang X, Branscum AJ, Löhr CV, Haschek WM, *Turner RT*, *Iwaniec UT*, Helferich WG. (2017) Low calcium diet increases 4T1 mammary tumor carcinoma cell burden and bone pathology in mice. *PLoS One*. 2017 Jul 27;12(7):e0180886. PMID: 28750038
7. *Turner RT*, **Philbrick KA**, Kuah AF, Branscum AJ, *Iwaniec UT*. (2017) Role of estrogen receptor signaling in skeletal response to leptin in female *ob/ob* mice. *J Endocrinol*. 2017 Jun;233(3):357-367. PMID: 28428364
8. **Philbrick KA**, Wong CP, Branscum AJ, *Turner RT*, *Iwaniec UT*. (2017) Leptin stimulates bone formation in *ob/ob* mice at doses having minimal impact on energy metabolism. *J Endocrinol*. 232 (3): 461-474. PMID: 28057869.
9. **Keune JA**, Wong CP, Branscum AJ, *Iwaniec UT*, *Turner RT*. (2017) Bone Marrow Adipose Tissue Deficiency Increases Disuse-Induced Bone Loss in Male Mice. *Sci Rep*. 7:46325. PMID: 28402337
10. **Conley MN**, Roberts C, *Sharpton TJ*, *Iwaniec UT*, *Hord NG*. (2017) Increasing dietary nitrate has no effect on cancellous bone loss or fecal microbiome in ovariectomized rats. *Mol Nutr Food Res*. May;61 (5). PMID: 28087899
11. **Howes E**, Boushey CJ, Kerr DA, *Tomayko EJ*, *Cluskey M*. (2017) Image-Based Dietary Assessment Ability of Dietetics Students and Interns. *Nutrients* 9(2). PMID: 28178196

12. Nielsen SD, **Beverly RL**, Dallas DC. (2017) Peptides Released from Foremilk and Hindmilk Proteins by Breast Milk Proteases Are Highly Similar. *Front Nutr.* 4: 54. PMID: 29164128
13. Nielsen SD, **Beverly RL**, Qu Y, Dallas DC. (2017) Milk bioactive peptide database: A comprehensive database of milk protein-derived bioactive peptides and novel visualization. *Food Chem.* 232: 673-682. PMID: 28490127
14. Newsom SA, Miller BF, Hamilton KL, **Ehrlicher SE**, Stierwalt HD, Robinson MM. (2017) Long-term rates of mitochondrial protein synthesis are increased in mouse skeletal muscle with high-fat feeding regardless of insulin-sensitizing treatment. *Am J Physiol Endocrinol Metab.* 313 (5): E552-E562.

2016 Publications

1. Lindenmaier LB, **Philbrick KA**, Branscum AJ, Kalra SP, Turner RT, Iwaniec UT, (2016) Hypothalamic Leptin Gene Therapy Reduces Bone Marrow Adiposity in ob/ob Mice Fed Regular and High-Fat Diets. *Front Endocrinol (Lausanne).* Aug 16;7:110. PMID: 27579023
2. Iwaniec UT, **Philbrick KA**, Wong CP, Gordon JL, Kahler-Quesada AM, Olson DA, Branscum AJ, Sargent JL, DeMambro VE, Rosen CJ, Turner RT. (2016) Room temperature housing results in premature cancellous bone loss in growing female mice: implications for the mouse as a preclinical model for age-related bone loss. *Osteoporos Int.* 2016 Oct;27(10):3091-101. PMID: 27189604
3. **Gaddini GW**, Turner RT, Grant KA, Iwaniec UT. (2016) Alcohol: A Simple Nutrient with Complex Actions on Bone in the Adult Skeleton. *Alcohol Clin Exp Res.* Apr;40(4): 657-71. PMID: 26971854
4. Kyrylkova K, Iwaniec UT, **Philbrick KA**, Leid M. (2016) BCL11B regulates sutural patency in the mouse craniofacial skeleton. *Dev Biol.* 2016 Jul 15;415(2):251-60. PMID: 26453795
5. **McDougall MQ**, Choi J, Stevens JF, Truong L, Tanguay RL, Traber MG. (2016) Lipidomics and H2(18)O labeling techniques reveal increased remodeling of DHA-containing membrane phospholipids associated with abnormal locomotor responses in α -tocopherol deficient zebrafish (danio rerio) embryos. *Redox Biol.* Aug;8:165-74. PMID: 26774753
6. **Lytle KA**, Jump DB. (2016) Is Western Diet-Induced Nonalcoholic Steatohepatitis in Ldlr-/- Mice Reversible? *PLoS One.* Jan 13;11(1): e0146942. PMID: 26761430
7. Jump DB, Depner CM, Tripathy S, Lytle KA. (2016) Impact of dietary fat on the development of non-alcoholic fatty liver disease in Ldlr-/- mice. *Proc Nutr Soc.* Feb 75(1):1-9. PMID: 26282529.

8. Zhang Z, **Atwell LL**, Farris PE, *Ho E*, Shannon J. (2016) Associations between cruciferous vegetable intake and selected biomarkers among women scheduled for breast biopsies. *Public Health Nutr.* 19 (7): 1288-1295, PMID: 26329135

2015 Publications

1. **Atwell LL**, Zhang Z, Mori M, Farris PE, Vetto JT, Naik AM, Oh KY, Thuillier P, Ho E, Shannon J. (2015) Sulforaphane bioavailability and chemopreventive activity in women scheduled for breast biopsy. *Cancer Prev Res (Phila).* 2015 Oct 28.
2. **Atwell LL**, Beaver LM, Shannon J, Williams DE, Dashwood RH, *Ho E*. (2015) Epigenetic Regulation by Sulforaphane: Opportunities for Breast and Prostate Cancer Chemoprevention. *Curr Pharmacol Rep.* Apr 1;1(2):102-111.
3. **Atwell LL**, Hsu A, Wong CP, Stevens JF, Bella D, Yu TW, Pereira CB, Löhr CV, Christensen JM, Dashwood RH, Williams DE, Shannon J, *Ho E*. (2015) Absorption and chemopreventive targets of sulforaphane in humans following consumption of broccoli sprouts or a myrosinase-treated broccoli sprout extract. *Mol Nutr Food Res.* Mar;59(3):424-33.
4. Choi J, Leonard SW, **Kasper K**, **McDougall M**, Stevens JF, Tanguay RL, *Traber MG*. (2015) Novel function of vitamin E in regulation of zebrafish (*Danio rerio*) brain lysophospholipids discovered using lipidomics. *J Lipid Res.* Jun;56(6):1182-90. PMID: 25855633
5. **Philbrick KA**, *Turner RT*, Brancum AJ, Wong CP, *Iwaniec UT*. (2015), Paradoxical effects of partial leptin deficiency on bone in growing female mice. *Anat Rec (Hoboken).* Sep 15. doi: 10.1002/ar.23267. [Epub ahead of print] PMID: 26370912
6. **Gaddini GW**, Grant KA, Woodall A, Stull C, Maddalozzo GF, Zhang B, *Turner RT*, *Iwaniec UT*. (2015) Twelve months of voluntary heavy alcohol consumption in male rhesus macaques suppresses intracortical bone remodeling. *Bone.* Feb;71:227-36. PMID: 25451322
7. *Turner RT*, **Philbrick KA**, Wong CP, Olson DA, Brancum AJ, *Iwaniec UT*. (2015) Morbid obesity attenuates the skeletal abnormalities associated with leptin deficiency in mice. *J Endocrinol.* Oct;223(1):M1-15. PMID: 24990938
8. Cappelozza BI, Cooke RF, Reis MM, Marques RS, Guarnieri Filho TA, Perry GA, *Jump DB*, **Lytle KA**, Bohnert DW. (2015) Effects of protein supplementation frequency on physiological responses associated with reproduction in beef cows. *J Anim Sci.* Jan;93(1):386-94. PMID:25412746
9. **Lytle KA**, **Depner CM**, Wong CP, *Jump DB*. (2015) Docosahexaenoic acid attenuates Western diet-induced hepatic fibrosis in *Ldlr^{-/-}* mice by targeting the TGF β -Smad3 pathway. *J Lipid Res.* Oct;56(10):1936-46. PMID: 26315048
10. *Jump, D.B.*, **Depner, C.M.**, **Tripathy, S.** and **Lytle, K.A.** (2015), Potential for Dietary ω 3 Fatty Acids to Prevent Nonalcoholic Fatty Liver Disease and Reduce the Risk of Primary Liver Cancer. *Advances in Nutrition* 6 (6): 694-702.

11. **Perera T**, Young MR, Zhang Z, Murphy G, Colburn NH, Lanza E, Hartman TJ, Cross AJ, *Bobe G*. (2015) Identification and monitoring of metabolite markers of dry bean consumption in parallel human and mouse studies. *Mol Nutr Food Res*. Apr;59(4):795-806.. PMID: 25641932

2014 Publications

1. **Cialdella-Kam L**, **Guebels CP**, Maddalozzo GF, *Manore MM*. (2014) Dietary intervention restored menses in female athletes with exercise-associated menstrual dysfunction with limited impact on bone and muscle health. *Nutrients*. 6(8):3018-39.
2. **Guebels CP**, **Kam LC**, Maddalozzo GF, *Manore MM*. (2014) Active women before/after an intervention designed to restore menstrual function: resting metabolic rate and comparison of four methods to quantify energy expenditure and energy availability. *Int J Sport Nutr Exerc Metab*. 24(1):37-46.
3. **Tripathy S**, **Lytle KA**, Stevens RD, Bain JR, Newgard CB, Greenberg AS, Huang LS, *Jump DB*. (2014) Fatty acid elongase-5 (*Elovl5*) regulates hepatic triglyceride catabolism in obese C57BL/6J mice. *J Lipid Res*. 55(7):1448-1464.
4. Cooke RF, Cappelozza BI, Guarnieri Filho TA, **Depner CM**, **Lytle KA**, *Jump DB*, Bohnert DW, Cerri RL, Vasconcelos JL.(2014) Effects of calcium salts of soybean oil on factors that influence pregnancy establishment in *Bos indicus* beef cows. *J Anim Sci*. 92(5):2239-50.
5. Hall JA, *Bobe G*, Vorachek WR, **Kasper K**, *Traber MG*, Mosher WD, Pirelli GJ, Gamroth M. (2014) Effect of supranutritional organic selenium supplementation on postpartum blood micronutrients, antioxidants, metabolites, and inflammation biomarkers in selenium-replete dairy cows. *Biol Trace Elem Res*. 161(3):272-87
6. **Farley SM**, Leonard SW, Stevens JF, *Traber MG*. (2014) Deuterium-labeled phylloquinone fed to α -tocopherol-injected rats demonstrates sensitivity of low phylloquinone-containing tissues to menaquinone-4 depletion. *Mol Nutr Food Res*. 58(8):1610-9.
7. Miller GW, Truong L, Barton CL, Labut EM, **Lebold KM**, *Traber MG*, Tanguay RL. (2014) The influences of parental diet and vitamin E intake on the embryonic zebrafish transcriptome. *Comp Biochem Physiol Part D Genomics Proteomics*. 10:22-9.
8. **Lebold KM**, *Traber MG*. (2014) Interactions between α -tocopherol, polyunsaturated fatty acids, and lipoxygenases during embryogenesis. *Free Radic Biol Med*. 66:13-9.
9. Turner RT, **Philbrick KA**, Wong CP, Olson DA, Branscum AJ, *Iwaniec UT*. (2014) Morbid obesity attenuates the skeletal abnormalities associated with leptin deficiency in mice. *J Endocrinol*. 223(1):M1-15.
10. Hawse JR, Pitel KS, Cicek M, **Philbrick KA**, Gingery A, Peters KD, Syed FA, Ingle JN, Suman VJ, *Iwaniec UT*, Turner RT, Spelsberg TC, Subramaniam M. (2014) TGF β inducible early gene-1 plays an important role in mediating estrogen signaling in the skeleton. *J Bone Miner Res*. 29(5):1206-16.

11. Johnson TL, **Gaddini G**, Branscum AJ, Olson DA, Caroline-Westerlind K, *Turner RT, Iwaniec UT*. (2014) Effects of chronic heavy alcohol consumption and endurance exercise on cancellous and cortical bone microarchitecture in adult male rats. *Alcohol Clin Exp Res*. May;38(5):1365-72. PMID: 24512198
12. Howe SM, **Hand TM**, *Manore MM*. (2014) Exercise-trained men and women: role of exercise and diet on appetite and energy intake. *Nutrients*. Nov 10;6(11):4935-60. PMID: 25389897

2013 Publications

1. **Lebold KM**, *Traber MG*. (2013) Interactions between α -tocopherol, polyunsaturated fatty acids, and lipoxygenases during embryogenesis. *Free Radic Biol Med*. Aug 3. doi:pii: S0891-5849(13)00383-3.
2. **Lebold KM**, Löhrr CV, Barton CL, Miller GW, Labut EM, Tanguay RL, *Traber MG*. (2013) Chronic vitamin E deficiency promotes vitamin C deficiency in zebrafish leading to degenerative myopathy and impaired swimming behavior. *Comp Biochem Physiol C Toxicol Pharmacol*. May;157(4):382-9.
3. Qu Y, **Lytle K**, *Traber MG*, Bobe G. (2013) Depleted serum vitamin E concentrations precede left displaced abomasum in early-lactation dairy cows. *J Dairy Sci*. May;96(5):3012-22.
4. **Depner CM**, **Philbrick KA**, *Jump DB*. (2013) Docosahexaenoic acid attenuates hepatic inflammation, oxidative stress, and fibrosis without decreasing hepatosteatosis in a *Ldlr*^{-/-} mouse model of western diet-induced nonalcoholic steatohepatitis. *J Nutr*. Mar;143(3):315-23.
5. *Jump DB*, **Tripathy S**, **Depner CM**. (2013) Fatty acid-regulated transcription factors in the liver. *Annu Rev Nutr*. 33:249-69.
6. **Depner CM**, *Traber MG*, Bobe G, Kensicki E, Bohren KM, Milne G, *Jump DB*. (2013) A metabolomic analysis of w-3 fatty acid-mediated attenuation of western diet-induced nonalcoholic steatohepatitis in *Ldlr*^{-/-} mice. *PLoS One*. 8(12):e83756.
7. *Turner RT*, Kalra SP, Wong CP, **Philbrick KA**, Lindenmaier LB, Boghossian S, *Iwaniec UT*. (2013) Peripheral leptin regulates bone formation. *J Bone Miner Res*. Jan;28(1):22-4.
8. **Tripathy S**, *Jump DB*. (2013) Elov15 regulates the mTORC2-Akt-FOXO1 pathway by controlling hepatic cis-vaccenic acid synthesis in diet-induced obese mice. *J Lipid Res*. Jan;54(1):71-84.
9. Shorey LE¹, Madeen EP, **Atwell LL**, Ho E, Löhrr CV, Pereira CB, Dashwood RH, *Williams DE*. (2013) Differential modulation of dibenzo[def,p]chrysene transplacental carcinogenesis: maternal diets rich in indole-3-carbinol versus sulforaphane. *Toxicol Appl Pharmacol*. 270(1):60-9.
10. **Lebold KM**, Kirkwood JS, Taylor AW, Choi J, Barton CL, Miller GW, La Du J, *Jump DB*, Stevens JF, Tanguay RL, *Traber MG*. (2013) Novel liquid chromatography-mass

spectrometry method shows that vitamin E deficiency depletes arachidonic and docosahexaenoic acids in zebrafish (*Danio rerio*) embryos. *Redox Biol.* 2:105-113.

11. **Farley SM**, Leonard SW, Taylor AW, Birringer M, Edson KZ, Rettie AE, *Traber MG*. (2013) ω -Hydroxylation of phylloquinone by CYP4F2 is not increased by α -tocopherol. *Mol Nutr Food Res.* 57(10):1785-93

2012 Publications

1. **Marrone JA**, Maddalozzo GF, Branscum AJ, Hardin K, **Cialdella-Kam L**, **Philbrick KA**, Breggia AC, Rosen CJ, *Turner RT*, *Iwaniec UT*. (2012) Moderate alcohol intake lowers biochemical markers of bone turnover in postmenopausal women. *Menopause.* Sep;19(9):974-9.
2. Miller GW, Ulatowski L, Labut EM, **Lebold KM**, Manor D, Atkinson J, Barton CL, Tanguay RL, *Traber MG*. (2012) The α -tocopherol transfer protein is essential for vertebrate embryogenesis. *PLoS One* 7(10):e47402.
3. **Lebold KM**, Ang A, *Traber MG*, Arab L. (2012) Urinary α -carboxyethyl hydroxychroman can be used as a predictor of α -tocopherol adequacy, as demonstrated in the Energetics Study. *Am J Clin Nutr.* Oct;96(4):801-9.
4. Asleh R, Nakhoul FM, Miller-Lotan R, Awad H, Farbstein D, Levy NS, Nakhoul N, Iancu TC, Manov I, Laue M, *Traber MG*, **Lebold KM**, Levy AP. (2012) Poor lysosomal membrane integrity in proximal tubule cells of haptoglobin 2-2 genotype mice with diabetes mellitus. *Free Radic Biol Med.* Aug 15;53(4):779-86.
5. **Farley SM**, Leonard SW, Labut EM, Raines HF, Card DJ, Harrington DJ, Mustacich DJ, *Traber MG*. (2012) Vitamin E decreases extra-hepatic menaquinone-4 concentrations in rats fed menadione or phylloquinone. *Mol Nutr Food Res.* Jun;56(6):912-22.
6. **Sweat W**, *Manore MM*. (2012) Too Good to Be True? Eating More and Losing Weight with a Low Energy-Dense Diet. *ACSM's Health and Fitness Journal* 16(4):22-28. **Depner CM**, Torres-Gonzalez M, **Tripathy S**, Milne G, *Jump DB*. (2012) Menhaden oil decreases high-fat diet-induced markers of hepatic damage, steatosis, inflammation, and fibrosis in obese *Ldlr^{-/-}* mice. *J Nutr.* Aug;142(8):1495-503.
7. Tal TL, Franzosa JA, Tilton SC, **Philbrick KA**, *Iwaniec UT*, *Turner RT*, Waters KM, Tanguay RL. (2012) MicroRNAs control neurobehavioral development and function in zebrafish. *FASEB J.* Apr;26(4):1452-61.
8. Kirkwood JS, **Lebold KM**, Miranda CL, Wright CL, Miller GW, Tanguay RL, Barton CL, *Traber MG*, Stevens JF. (2012) Vitamin C deficiency activates the purine nucleotide cycle in zebrafish. *J Biol Chem.* Feb 3;287(6):3833-41.
9. Miller GW, Labut EM, **Lebold KM**, Floeter A, Tanguay RL, *Traber MG*. (2012) Zebrafish (*Danio rerio*) fed vitamin E-deficient diets produce embryos with increased morphologic abnormalities and mortality. *J Nutr Biochem.* May;23(5):478-86.

10. *Jump DB, Depner CM, Tripathy S.* (2012) Omega-3 fatty acid supplementation and cardiovascular disease. *J Lipid Res.* Dec;53(12):2525-45.