Curriculum Vitae

Eric James Murphy

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School of Medicine and Health Sciences
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Grand Forks, ND 58202-9037

Degrees:

Hastings College, Hastings, Nebraska	B.A.	1984	Biology and History
The Ohio State University, Columbus, Ohio	Ph.D.	1989	Physiological Chemistry

Employment:

1989-1991	Research Associate, Department of Medical Biochemistry, The Ohio State University, Columbus, Ohio
1991-1992	NIH Fellowship, Department of Medical Biochemistry, The Ohio State University, Columbus, Ohio
1990-1993	Laboratory Director, BrainChemTech Corporation, Columbus, Ohio
1992-1993	Research Associate, Department of Medical Biochemistry, The Ohio State University, Columbus, Ohio
1993-1994	Research Scientist, Cypros Pharmaceutical Corporation, Carlsbad, California
1994-1997	Assistant Research Scientist, Department of Veterinary Pharmacology and Physiology, Texas A & M University, College Station, Texas,
1997-2000	National Research Council Senior Fellow, Laboratory of Neurosciences, National Institute on Aging, National Institutes of Health, Bethesda, Maryland
2000-2010	Assistant Professor, Department of Pharmacology, Physiology, and Therapeutics University of North Dakota, Grand Forks, North Dakota
2004-2009	Adjunct Assistant Professor, Department of Chemistry, University of North Dakota, Grand Fork, North Dakota
2005-present	Chief Scientific Officer, Agragen, LLC, Cincinnati, Ohio,
2006-2013	Chief Scientific Officer, Unicrop, Oy, Helsinki, Finland
2007-present	Associate Professor with tenure, Department of Pharmacology, Physiology, and Therapeutics University of North Dakota, Grand Forks, North Dakota
2009-2013	Executive Vice-President for Research and Development, Agragen, LLC and Unicrop, OY
2013-present	Executive Vice-President for Research and Development, Agragen, LLC and Agragen, OY, Helsinki, Finland
2014-present	Faculty Advisor, North Dakota State Board of Higher Education
2015-present	CEO and CSO, Krampade, LLC, Lincoln, Nebraska

Honors:

Creigh Scholar in History	- Hastings College, 1983-84
Science and Academic Scholar	- Hastings College, 1981-84
Graduated Summa Cum Laude	- Hastings College, May 1984
University Fellow	- The Ohio State University, 1984-85
President, Bennett Grad. Res. Soc.	- The Ohio State University,1987-88
Am. Soc. for Neurochemistry	- Travel Award, 1989, 1992
Int. Soc. for Neurochemistry	- Travel Fellowship, 1993
Neurochemistry of Calcium Fellow	- Montpellier, France, 1993
Jordi Folch-Pi Award	- Am. Soc. for Neurochemistry,1999
Natl. Res. Council Senior Fellow	- NIH/NIA 1997-2000

Thomas Clifford Faculty Research - University of North Dakota 2009
Achievement Award

RESEARCH DIRECTIONS

1. Role of fatty acid binding proteins on heart and brain lipid metabolism
2. Impact of α-synuclein on brain lipid metabolism
3. Brain lipid metabolism including ether lipids in neurodegenerative disease
4. Impact of n-3 fatty acids on human health and disease

SERVICE

Society Memberships:
American Society for Neurochemistry, 1986 to present
International Society for Neurochemistry, 1989 to present
American Oil Chemists' Society, 1992 to present
International Society for Study of Fatty Acids and Lipids, 2001 to present
American Heart Association, 2001 to 2008
United Leukodystrophy Foundation, 2002 to present
American Society for Biochemistry and Molecular Biology, 2008 to present

Ad Hoc Reviewer for:
Aging Research Reviews
Alcohol and Alcoholism
American Journal of Drug and Alcohol Abuse
American Journal of Physiology
Analytical Biochemistry
Animal
Antioxidant and Redux Signaling
Archives Biochemistry and Biophysics
ASNeuro
Biochemistry
Biochemistry and Cell Biology
Biochemical Pharmacology
Biochimica Biophysica Acta
Biochemical Journal
Biophysical Journal
BioMed Research International
Breast Cancer Research
British Journal of Nutrition
Canadian Journal of Physiology and Pharmacology
Cardiovascular Toxicology
Cellular Signaling
Comparative Biochemistry and Physiology
Critical Reviews in Food Science and Nutrition
Current Pharmaceutical Design
European Journal of Lipid Science and Technology
Experimental Gerontology
FEBS Letters
Glia
Handbook of Neurochemistry and Molecular Biology
Hepatology

Insect Molecular Biology
International Journal of Molecular Sciences
Journal of Aging Research
Journal of Alternative and Complementary Medicine
Journal of the American Oil Chemist Society
Journal of Biological Chemistry
Journal of Cellular Biochemistry
Journal of Lipid Research
Journal of Medicinal Food
Journal of Molecular Graphics and Modeling
Journal of Neurochemistry
Journal of Neurodegeneration and Regeneration
Journal of Neuroimmune Pharmacology
Journal of Neuroinflammation
Journal of Neuroscience Research
Journal of Neurotrauma
Journal of Nutrition
Journal of Nutrition and Metabolism
Journal of Science and Engineering Ethics
Laboratory Investigation
Life Sciences
Lipids
Molecular and Cellular Biochemistry
Molecular and Chemical Neuropathology
Molecular and Genetic Medicine
Molecular Neurodegeneration
Molecular Nutrition and Food Research
Neurochemistry International
Neurochemical Research
Neuroscience Letters
New Biotechnology
Pharmacological Reports
PLOS ONE
Prostaglandins, Leukotrienes & Essential Fatty Acids
Protein Purification and Expression
Rapid Communications in Mass Spectrometry

Editorships:

Editor-in-Chief	Lipids 2006-present
Associate Editor	Lipids 2001-2006
Associate Editor	International Society for Study of Fatty Acids and Lipids (ISSFAL) 2001-2010
Handling Editor	Journal of Neurochemistry 2004-present
Editorial Board	Metabolic Brain Disease 2010-present
Editorial Board	Frontiers in Membrane Physiology and Biophysics 2013-present

National service:

American Society for Neurochemistry, Council Member (2005-2009), (2013-present); Folch-Pi Award Committee, 2004-present (Chair 2008-present)

American Oil Chemists Society, Chang Award Committee, 2004-2007 (Chair in 2007); Publication Steering Committee, 2006-2012; Professional Educators Common Interest Group, 2012-present

Grant review and panel service:
Myelin Project 2001-2006
Center for Environmental and Rural Health, Texas A & M Univ. 2003-2004
Alzheimer's Association 2003-2005, 2008
National Science Foundation 2005
U.S. Army Neurotoxin Exposure and Treatment Research Program 2006
NIH CMND ad hoc reviewer 2007
Science Foundation of Ireland 2007
National Cattlemen's Beef Association, 2007
Scottish Rite Charitable Foundation, 2007
Israel Science Foundation, 2008
ELA Research Foundation, 2008, 2009
ERA for Guelph University, Guelph, ON 2008
NIH NIGMS ad hoc reviewer 2009
Wellcome Trust 2009
Michigan Diabetes Research and Training Center Pilot Grant 2011
ZRG1 MDCN-T(5) special emphasis panel member NIH Basic Biology of Neurological Disorders. 2012, 2013
SEEDS grants, OARDC and The Ohio State University 2012
Mitacs Fellowships 2013
FAPESP-FCT 2014 (Portugal)

FUNDING

Current Funding:

Intramural Seed Grant	Total costs: $35,900 Mutant alpha-synuclein and brain arachidonic acid metabolism	03/01/14-06/30/15

Completed Funding:

National Institutes of Health R01 DK078775-01	Total costs: $69,660 (subcontract to EJM) (year to year renewable subcontract) Inborn errors of long chain fat metabolism P.I. Gerald Vockley, Children's Hospital of Pittsburgh of University of Pittsburgh Medical Center	04/01/08-03/31/11
National Institutes of Health R21 NS060141-01	Total costs: $324,843 Alpha-synuclein regulates microglial activation through lipid mediators	06/01/08-05/31/10
ND EPSCoR AURA	Total costs: $7,500 Role of alpha-synuclein in astrocyte cholesterol metabolism	05/16/09-12/04/09
COBRE Pilot Project	Total costs: $30,000 Role of α-synuclein in brain lipid metabolism	09/01/07-5/31/08
National Institutes of Health COBRE 1P20 RR17699-01	Total costs: $1,059,436 (for project) Role of α-synuclein in brain lipid metabolism (No overlap with 1R21- NS043697-01A) ($10.26 M total costs for COBRE grant)	09/13/02-07/31/07
Canadian Flax Council	Total costs: $20,000 (CDN) Phase I dosing trial for flax oil in Winnipeg firefighters Co-P.I. James Friel, University of Manitoba, Winnipeg,MB ($75,000 CDN total project costs)	06/01/05-05/31/06

National Institutes of Health 1R21 NS043697-01A	Total costs: $335,588 Brain lipid metabolism in α-synuclein gene-abated mice No cost extension until 6-30-05	06/01/02-06/30/04
March of Dimes	Total costs: $16,000 Glycerol kinase in lipid and energy metabolism Co-P.I. William J. Craigen, Baylor School of Medicine, Houston, TX, ($242,177 total project costs)	07/01/02-06/30/05
Myelin Project	Total costs: $60,000 Erucic acid uptake and metabolism in brains of awake adult rats	11/01/00-10/31/01
UNDSMHS Research Committee	Total costs: $7,500 Brain lipid metabolism in α-synuclein gene-abated mice	03/01/01-11/30/01
ND EPSCoR	Total costs: $21,300 Microsurgery and brain metabolism core	04/22/02-04/30/02
American Heart Society 0151121Z	Total costs: $100,000 Fatty acid uptake and metabolism in awake adult rats: Effect of heart rate and fatty acid family	07/01/01-06/30/03
ND EPSCoR	Total costs: $2,500 Electrophoresis equipment grant	09/15/03-04/15/04

Pending Funding:

National Institutes of Health 1R01 AG053570-01	Total costs: $1,737,500 Role of FABP3 in brain arachidonic acid metabolism and neuroinflammation in AD	07/01/16-06/30/21
American Heart Assoc. 16GRNT31380025	Total costs: $154,000 Role of fatty acid binding protein-3 in heart fatty acid uptake and metabolism	07/01/16-06/30/18

PATENTS

U.S. 8,148,602 Diacylglycerol acyltransferases from flax
University of Alberta and Agragen, LLC Co-owners
Weselake; Randall (Edmonton, CA), Siloto; Rodrigo (Edmonton, CA), Liu; Qin (Edmonton, CA), Laroche; Andre (Lethbridge, CA), Murphy; Eric (Grand Forks, ND), Koivu; Kimmo (Itasalmi, FI)

PUBLICATIONS

CURRENT H-factor 34 for all refereed publications, 31 without self-citations

REFEREED PUBLICATIONS

1. Jurkowitz-Alexander, M., Ebata, H., Mills, J.S., Murphy, E.J. and Horrocks, L.A. (1989) Solubilization, purification, and characterization of lysoplasmalogen alkenylhydrolase (lysoplasmalogenase) from rat liver microsomes *Biochim. Biophys. Acta* **1002:203-232.**

2. Hirashima, Y., Farooqui, A.A., Murphy, E.J. and Horrocks, L.A. (1990) Purification of

plasmalogens using *Rhizopus delemar* lipase and *Naja naja* phospholipase A_2 *Lipids* **25:344-348.**

3. Murphy, E.J., Joseph, L.B., Stephens, R. and Horrocks, L.A. (1992) Phospholipid composition of cultured human endothelial cells *Lipids* **27:150-153.**

4. Haun, S.E., Murphy, E.J., Bates, C.M. and Horrocks, L.A. (1992) Extracellular calcium is a mediator of astroglial injury during combined glucose-oxygen deprivation *Brain Res.* **593:45-50.**

5. Murphy, E.J. and Horrocks, L.A. (1993) Composition of the phospholipids and their fatty acids in the ROC-1 oligodendroglial cell line *Lipids* **28:67-71.**

6. Murphy, E.J., Anderson, D.K. and Horrocks, L.A. (1993) Phospholipid and phospholipid fatty acid composition of mixed murine spinal cord neuronal cultures *J. Neurosci. Res*. **34:472-477.**

7. Murphy, E.J., Slivka, A.P., Rosenberger, T.A. and Horrocks, L.A. (1993) High-performance liquid chromatography separation and quantitation of methylprednisolone from rat brain *Anal. Biochem*. **209:339-342.**

8. Murphy, E.J. and Horrocks, L.A. (1993) Effects of differentiation on the phospholipid and phospholipid fatty acid compositions of N1E-115 neuroblastoma cells *Biochim. Biophys. Acta* **1167:131-136.**

9. Murphy, E.J. and Horrocks, L.A. (1993) Mechanisms of hypoxic and ischemic injury: use of cell culture models *Mol. Chem. Neuropath*. **19:95-106.**

10. Murphy, E.J., Jurkowitz, M.S., Stephens, R. and Horrocks, L.A. (1993) Acidic hydrolysis of plasmalogens followed by high-performance liquid chromatography *Lipids* **28:565-568.**

11. Murphy, E.J., Roberts, E. and Horrocks, L.A. (1993) Aluminum silicate toxicity in cell cultures *Neuroscience* **55:597-605.**

12. Murphy, E.J., Roberts, E., Anderson, D.K. and Horrocks, L.A. (1993) Cytotoxicity of aluminum silicates in primary neuronal cultures *Neuroscience* **57:483-490.**

13. Murphy, E.J. and Horrocks, L.A. (1994) A model of compression trauma: pressure induced injury in cell cultures *J. Neurotrauma* **10:431-444.**

14. Murphy, E.J., Behrmann, D.L., Bates, C.M. and Horrocks, L.A. (1994) Lipid alterations following impact spinal cord trauma in the rat *Mol. Chem. Neuropath.* **23:13-26.**

15. Murphy, E.J., Haun, S.E., Rosenberger, T.A. and Horrocks, L.A. (1995) Altered lipid metabolism in the presence and absence of extracellular Ca^{2+} during combined oxygen-glucose deprivation in primary astrocyte cell cultures *J. Neurosci. Res*. **42:109-116.**

16. Prows, D.R., Murphy, E.J., and Schroeder, F. (1995) Intestinal and liver fatty acid binding proteins differentially affect fatty acid uptake and esterification in L-cell fibroblasts *Lipids* **30:907-910.**

17. Slivka, A.P., Murphy, E.J. and Horrocks, L.A. (1995) Cerebral edema after temporary

and permanent middle cerebral artery occlusion in the rat *Stroke* **26:1061-1065.**

18. Murphy, E.J., Prows, D., Jefferson, J.R. and Schroeder, F. (1996) Liver fatty acid binding protein expression in transfected fibroblasts stimulates fatty acid uptake and metabolism *Biochim. Biophys. Acta*. **1301:191-196.**

19. Heyliger, C.E., Khesghi, T.J., Murphy, E. J., Myers-Payne, S.C. and Schroeder, F. (1996) Fatty acid double bond orientation alters interaction with L-cell fibroblast *Mol. Cell. Biochem.* **155:113-119.**

20. Moncecchi, D., Murphy, E.J., Prows, D.R., and Schroeder, F. (1996) Sterol carrier protein-2 expression in mouse L-cell fibroblasts alters cholesterol uptake *Biochim. Biophys. Acta.* **1302:110-116.**

21. Murphy, E.J., Rosenberger, T.A. and Horrocks, L.A. (1996) Separation of neutral lipids by high performance liquid chromatography: quantification by ultraviolet, light scattering and fluorescent detectors *J. Chromatog. B* **685:9-14.**

22. Frolov, A., Woodford, J.K., Murphy, E.J., Billheimer, J.T., and Schroeder, F. (1996) Spontaneous and protein mediated sterol transfer between intracellular membranes *J. Biol Chem.* **271:16075-16083.**

23. Frolov, A., Woodford, J.K., Murphy, E.J., Billheimer, J.T., and Schroeder, F. (1996) Fibroblast membrane sterol kinetic domains: Modulation by sterol carrier protein-2 and liver fatty acid binding protein *J. Lipid Res*. **37:1862-1874.**

24. Prows, D.R., Murphy, E.J., Moncecchi, D., and Schroeder, F. (1996) Intestinal fatty acid-binding protein expression stimulates fibroblast fatty acid esterification *Chem. Phys. Lipids* **84: 47-56.**

25. Murphy, E.J., Prows, D., Jefferson, J.R., Incerpi, S., Hertelendy, Z., Heyliger, C.E. and Schroeder, F. (1996) Effect of insulin on fatty acid uptake and esterification in L-cell fibroblasts *Arch. Biochem. Biophys*. **335:267-272.**

26. Fraser, H., Colles, S.M., Woodford, J.K., Frolov, A.A., Murphy, E.J., Schroeder, F., Bernlohr, D.A., and Grund, V. (1997) Fatty acid uptake in diabetic rat adipocytes *Mol. Cell. Biochem.* **167:51-60.**

27. Murphy, E.J. and Schroeder, F. (1997) Sterol carrier protein-2 mediated cholesterol esterification in transfected L-cell fibroblasts *Biochim. Biophys. Acta* **1345:283-292.**

28. Stolowich, N.J., Frolov, A., Atshaves, B., Murphy, E.J., Jolly, C.A., Billheimer, J.T., Scott, I.A., and Schroeder, F. (1997) The sterol carrier protein-2 fatty acid binding site: An NMR, Circular Dichroic, and fluorescence spectroscopic determination *Biochem.* **36:1719-1729.**

29. Frolov, A., Cho, T-H, Murphy, E.J., and Schroeder, F. (1997) Isoforms of rat liver fatty acid binding protein differ in structure and affinity for fatty acids and fatty acyl CoAs *Biochem*. **36:6545-6555.**

30. Murphy, E.J., Rosenberger, T.A. and Horrocks, L.A. (1997) Effects of maturation on the phospholipid and phospholipid fatty acid compositions in primary rat cortical astrocytes *Neurochem. Res*. **22:1205-1213.**

31. Jolly, C.A., Murphy, E.J., and Schroeder, F. (1998) Differential influence of rat liver fatty acid binding protein isoforms on phospholipid fatty acid composition: Phosphatidic acid biosynthesis and phospholipid fatty acid remodeling *Biochim. Biophys. Acta* **1390:258-268.**

32. Murphy, E.J. (1998) Sterol carrier protein-2 expression increases NBD-stearate uptake and cytoplasmic diffusion in L-cells *Am. J. Physiol*. **275:237-243.**

33. Murphy, E.J. (1998) L-FABP and I-FABP expression increases NBD-stearate uptake and cytoplasmic diffusion in L cells *Am. J. Physiol.* **275:244-249.**

34. Murphy, E.J., Edmondson, R.D., Russell, D.H., Colles, S., and Schroeder, F. (1999) Isolation and characterization of two distinct forms of liver fatty acid binding protein from the rat *Biochim. Biophys. Acta.* **1436:413-425.**

35. Murphy, E.J., Stiles, T. and Schroeder, F. (2000) Sterol carrier protein-2 expression alters phospholipid content and fatty acyl composition in L-cell fibroblasts *J. Lipid Res.* **41:788-796.**

36. Murphy, E.J., Schapiro, M.B., Rapoport, S.I., and Shetty, H.U. (2000) Brain phospholipid composition and levels are altered in Down syndrome brain *Brain Res.* **867:9-18.**

37. Murphy, E.J., Zhang, H., Sorbi, S., Rapoport, S.I., and Gibson, G.E. (2000) Phospholipid composition and levels are not altered in fibroblasts bearing presenilin-1 mutations *Brain Res. Bull*. **52:207-212.**

38. Starodub, O., Jolly, C.A., Atshaves, B.P., Roths, J.B., Murphy, E.J., Kier, A.B., and Schroeder, F. (2000) Sterol carrier protein-2 immunolocalization in endoplasmic reticulum and stimulation of phospholipid formation *Am. J. Phys*. **279:1259-1269.**

39. Murphy, E.J., Prows, D., Stiles, T., and Schroeder, F. (2000) Liver and intestinal fatty acid binding protein expression increases phospholipid content and alters phospholipid fatty acid composition in L-cell fibroblast: Effect of intestinal and liver fatty acid binding proteins *Lipids* **35:729-738.**

40. Yarger, D., Patrick, C.B., Rapoport, S.I., and Murphy, E.J. (2000) A continuous fluorometric assay for phospholipase A_2 activity in mouse brain cytosol *J. Neurosci. Meth*. **100:127-133.**

41. Patrick, C.B., Krzywkowski, P., Ramassamy, C., Poirier, J., Rapoport, S.I., and Murphy, E.J. (2000) Phospholipase A_2 activity is decreased selectively in the hippocampus of aged apolipoprotein E deficient mice *Neurosci. Lett*. **288:211-214.**

42. Murphy, E.J., Rosenberger, T.A., Patrick, C.B., and Rapoport, S.I. (2000) Intravenously injected [1-^{14}C]arachidonic acid targets phospholipids, and [1-^{14}C]palmitic acid targets neutral lipids in hearts of awake rats *Lipids* **35:891-898.**

43. Slivka, A.P. and Murphy, E.J. (2001) High dose methyprednisolone treatment in experimental focal ischemia *Expt. Neurol.* **167:166-176.**

44. DasGupta, S.F., Rapoport, S.I., Gerschenson, M., Murphy, E.J., Fiskum, G., Russell, S.J., and Chandrasekaran, K. (2001) ATP synthesis is coupled to rat liver mitochondrial RNA

synthesis *Mol. Cell Biochem.* **221:3-10.**

45. Rosenberger, T.A., Oki, J., Purdon, A.D., Rapoport, S.I., and Murphy, E.J. (2002) Rapid synthesis and turnover of brain microsomal ether phospholipids in the adult rat *J. Lipid Res.* **43:59-68.**

46. Murphy, E.J. (2002) Sterol carrier protein-2: Not just for cholesterol anymore *Mol. Cell. Biochem.* **239:87-93.**

47. Golovko, M.Y. and Murphy, E.J. (2004) An improved method for tissue long chain acyl-CoA extraction and analysis *J. Lipid Res.* **45:1777-1782.**

48. Murphy, E.J., Barceló-Coblijn, G., Binas, B., and Glatz, J.F.C. (2004) Heart fatty acid uptake is decreased in heart fatty acid binding protein gene-ablated mice *J. Biol. Chem.* **279:34481-34488.**

49. Collison, L.W., Collison, R.E., Murphy, E.J., and Jolly, C.A. (2005) Dietary n-3 polyunsaturated fatty acids increase T-lymphocyte phospholipid mass and acyl-CoA binding protein expression *Lipids* **40:81-87.**

50. Patrick, C.B., Rosenberger, T.A., McHowat, J., Rapoport, S.I., and Murphy, E.J. (2005) Arachidonic acid incorporation and turnover is decreased in sympathetically denervated rat heart *Am. J. Phys*. **288:2611-2619.**

51. Murphy, E.J., Owada, Y., Kitanaka, N., Kondo, H., and Glatz, J.F.C. (2005) Brain arachidonic acid incorporation is decreased in heart-fatty acid binding protein gene-ablated mice *Biochemistry* **44:6350-6360.**

52. Golovko, M.Y., Hovda, J., Zong-Jin, C, Craigen, W.J., and Murphy, E.J. (2005) Tissue-dependent alterations in lipid mass in mice lacking glycerol kinase *Lipids* **40:287-293.**

53. Castagnet, P.I., Golovko, M.Y., Barceló-Coblijn, G., Nussbaum, R.L., and Murphy, E.J. (2005) Fatty acid incorporation is decreased in astrocytes cultured from alpha-synuclein gene-ablated mice *J. Neurochemistry* **94:839-849.**

54. Golovko, M.Y., Faergeman, N.J., Cole, N.B., Castagnet, P.I., Nussbaum, R.L., and Murphy, E.J. (2005) α-Synuclein gene-deletion decreases brain palmitate uptake and alters the palmitate metabolism in the absence of α-synuclein palmitate binding *Biochemistry* **44:8251-8259.**

55. Barceló-Coblijn, G., Collison, L.W., Jolly, C.A., and Murphy, E.J. (2005) Dietary α-linolenic acid increases brain but not heart and liver docosahexaenoic acid levels *Lipids* **40:787-798.**

56. Ellis, C.E., Murphy, E.J., Mitchell, D.C., Golovko, M.Y., Scaglia, F., Barceló-Coblijn, G., and Nussbaum, R.L. (2005) Mitochondrial lipid abnormality and electron transport chain impairment in mice lacking α-synuclein *Molecular and Cellular Biology* **25:10190-10201.**

57. Murphy, E.J., Huang, H-M, Cowburn, R.F., Lannfelt, L, and Gibson, G.E. (2006) Phospholipid mass is increased in fibroblasts bearing the Swedish amyloid precursor

mutation *Brain Res. Bull.* **69:79-85.**

58. Relling, D.P., Esberg, L.B., Fang, C.X., Johnson, W.T., Murphy, E.J., Carlson, E.C., Saari, J.T., and Ren, J. (2006) High fat diet induced-obesity leads to cardiomyocyte dysfunction and upregulation of Foxo3a transcription factor independent of lipotoxicity and apoptosis *J. Hypertension* **24:549-561.**

59. Maddock, T.D., Bauer, M.L., Koch, K., Anderson, V.L., Maddock, R.J., Barcelo-Coblijn, G., Murphy, E.J., and Lardy, G.P. (2006) Effect of processing flax in beef feedlot rations on performance, carcass characteristics, and trained sensory panel ratings *J. Anim. Sci.* **84:1544-1551.**

60. Donarum, E.A., Stephan, D.A., Gupta, M., Switzer, R.C., Pearl, P.L., Snead III, O.C., Jansen, E.E.W., Jakobs, C., Murphy, E.J., and Gibson, K.M. (2006) Expression profiling reveals multiple myelin alterations in murine succinate semialdehyde dehydrogenase deficiency *J. Inherited Met. Dis.* **29:143-156.**

61. Golovko, M.Y. and Murphy, E.J. (2006) Uptake and metabolism of plasma derived erucic acid by rat brain *J.Lipid Res.* **47:1289-1297.**

62. Golovko, M.Y., Rosenberger, T.A., Faergeman, N.J., Feddersen, S., Cole, N.B., Pribill, I, Berger, J., Nussbaum, R.L., and Murphy, E.J. (2006) Acyl-CoA synthetase activity links wild-type but not mutant α-synuclein to brain arachidonate metabolism *Biochemistry* **45:6956-6966.**

63. Ghribi, O., Golovko, M.Y., Larsen, B., Schrag, M., and Murphy, E.J. (2006) Deposition of iron and β-amyloid plaques is associated with cortical neuronal damage in rabbits fed with long-term cholesterol enriched diets *J. Neurochemistry* **99:438-449.**

64. Austin, S.A., Floden, A.M., Murphy, E.J., and Combs, C.K. (2006) Alpha-synuclein expression modulates microglial activation phenotype *J. Neurosci.* **26:10558-10563.**

65. Kronberg, S.L., Barceló-Coblijn, G., Shin, J., Lee, K. and Murphy, E.J. (2006) Bovine muscle n-3 fatty acid content is increased with flaxseed feeding *Lipids* **41:1059-1068.**

66. Barceló-Coblijn, G., Golovko, M.Y., Berger, J., Weinhofer, I., and Murphy, E.J. (2007) Brain neutral lipids mass is increased in α-synuclein gene-ablated mice *J. Neurochemistry* **101:132-141.**

67. Golovko, M.Y., Rosenberger, T.A., Faergeman, N.J., Feddersen, S., and Murphy, E.J. (2007) α-Synuclein gene ablation increases docosahexaenoic acid incorporation and turnover in brain phospholipids *J. Neurochemistry* **101:201-211.**

68. Barceló-Coblijn, G., Murphy, E.J., Mills, K., Winchester, B., Jakobs, C., Snead III, O.C., and Gibson, K.M. (2007) Lipid abnormalities in succinate semialdehyde dehydrogenase (*Aldh5a*$^{-/-}$) deficient mouse brains provide additional evidence for myelin alterations *Biochim. Biophys. Acta* **1772:556-562.**

69. Relling, D.P., Esberg, L.B., Johnson, W.T., Murphy, E.J., Carlson, E.C., Saari, J.T., and Ren, J. (2007) Dietary interaction of high fat and marginal copper deficiency on cardic contractile function *Obesity* **15:1242-1257.**

70. Kronberg, S.L., Scholljegerdes, E.J., Barceló-Coblijn, G., and Murphy, E.J. (2007) Flaxseed treatments to reduce hydrogenation of α-linolenic acid by ruman microbes in cattle *Lipids* **42:1105-1111.**

71. Golovko, M.Y. and Murphy, E.J. (2008) Brain prostaglandin formation is increased by α-synuclein gene-ablation during global ischemia *Neurosci. Lett.* **432:243-247.**

72. Golovko, M.Y. and Murphy, E.J. (2008) An improved LC-MS/MS procedure for brain prostanoid analysis using brain fixation with head-focused microwave irradiation and liquid-liquid extraction *J. Lipid Res.* **49:893-904.**

73. Murphy, C.C., Murphy, E.J., and Golovko, M.Y. (2008) Erucic acid is differentially taken up and metabolized in rat liver and heart *Lipids* **43:391-400.**

74. Collison, L.W., Murphy, E.J., and Jolly, C.A. (2008) Glycerol-3-phosphate acyltransferase-1 regulates murine T-lymphocyte proliferation and cytokine production *Am. J. Phys* **295:1543-1549.**

75. Barceló-Coblijn, G., Murphy, E.J., Othman, R., Moghadasian, M.H., Kashour, T, and Friel, J.K. (2008) Flaxseed oil and fish oil capsule consumption alters human red blood cells n-3 fatty acid composition: A multiple dosing trial comparing two different n-3 fatty acid sources *Am. J. Clin. Nutr.* **88:801-809**.

76. Barceló-Coblijn, G. and Murphy, E.J. (2008) An improved method for separating cardiolipin by HPLC *Lipids* **43:971-976.**

77. Golovko, M.Y., Barceló-Coblijn, G., Castagnet, P.I., Austin, S.A., Combs, C.K., and Murphy, E.J. (2009) The role of α-synuclein in brain lipid metabolism: A downstream impact on brain inflammatory response *Mol. Cell Biochem*. **326:55-66**.

78. Barceló-Coblijn, G. and Murphy, E.J. (2009) Alpha-linolenic acid and its conversion to longer chain n-3 fatty acids: Benefits for human health and a role in maintaining n-3 fatty acid levels *Prog. Lipid Res.* **48:355-374**.

79. Murphy, E.J. (2009) Brain fixation for analysis of brain lipid-mediators of signal transduction and brain eicosanoids requires head-focused microwave irradiation: A historical perspective *Prost. Other Lipid Mediat.* **91:63-67**.

80. Deiuliis, J., Shin, J., Murphy, E.J., Kronberg, S.L., Eastridge, M.L., Suh, Y., Yoon, J-T, and Lee, K. (2010) Bovine adipose triglyceride lipase expression is not altered and adipocyte fatty acid binding protein expression is increased by flaxseed supplementation *Lipids* **45:963-973**.

81. Austin, S.A., Rojanathammanee, L., Golovko, M.Y., Murphy, E.J., and Combs, C.C. (2011) Lack of alpha-synuclein modulates microglial phenotype *in vitro* *Neurochem. Res.* **36:994-1004**.

82. Rojanathammanee, L., Murphy, E.J., and Combs, C.K. (2011) Expression of mutant alpha-synuclein modulates microglial phenotype *in vitro* *J. Neuroinflammation* **8:44**.

83. Kakani, R., Fowler, J., Haq, A., Murphy, E.J., Rosenberger, T.A., Berhow, M.,and Bailey, C.A. (2012) Camelina meal increases egg n-3 fatty acid content without altering egg

quality or production in laying hens *Lipids* **47:519-526**.

84. Kronberg, S.L., Scholljegerdes, E.J., Murphy, E.J., Ward, R.E., Maddock, T.D., and Schauer, C.S. (2012) Treatment of flaxseed to reduce biohydrogenation of α-linolenic acid by ruminal microrobes in sheep and cattle increases n-3 fatty acid concentration in red meat *J. Anim. Sci.* **90:4618-4624.**

85. Gulvady, A., Cabrera, R., Murphy, E.J.,, Ciolino, H.P., and Jolly, C.A. (2013) Glycerol-3-phosphate acyltransferase-1 gene ablation alters thymocyte lipid content and reduces T cell production in mice *Lipids* **48:3-12.**

86. Barceló-Coblijn, G., Wold, L.E., Ren, J., and Murphy, E.J. (2013) Prenatal ethanol exposure increases brain cholesterol content in adult rats *Lipids* **48:1059-1068.**

87. Jangula, A. and Murphy, E.J. (2013) Lipopolysaccharide (LPS)-induced blood brain barrier permeability is influenced by alpha-synuclein expression *Neurosci.Lett*. **551:23-27.**

88. Faris, R., Cavazos, D., deGraffenried, L., Seeger, D.R., Murphy, E.J., and Jolly, C.A. (2016) Mitochondrial glycerol-3-phosphate acyltransferase regulates IL-2 production, phospholipid mass, and apoptosis in Jurkat T cells *Lipids* **In Press**.

89. Seeger, D.R. and Murphy, E.J. (2016) Mouse strain impacts fatty acid uptake and trafficking in liver, heart, and brain: A comparision of C57BL/6 and Swiss Webster mice. *Lipids* **In Press.**

90. Picklo, M.J. and Murphy, E.J. (2016) A high-fat, high-oleic acid diet, but not a high-fat, saturated diet, reduces hepatic alpha-linolenic acid and eicosapentaenoic acid content in mice. *Lipids* **In Press**.

91. Kronberg, S.L., Scholljegerdes, E.J., Maddock, R.J., Barceló-Coblijn, G., and Murphy, E.J. (2015) Rump and shoulder muscle from grass-fed cattle supplemented with flax are more significant source of n-3 fatty acids than loin muscle. *Eur. J. Lipid Sci. Tech* **submitted**.

92. Martin, G.G., Chung, S., Landrock, D., Landrock, K.K., Dangott, L.J., Kaczocha, M., Murphy, E.J., Kier, A.B., and Schroeder, F. FABP1 ablation differentially impats the brain endocannabinoid system of male, but not female mice. *J. Neurochem.* **submitted**.

93. Seeger, D.R., Murphy, C.C., and Murphy, E.J. Astrocyte arachidonate and palmitate uptake and metabolism is differentially modulated by dibutyryl-cAMP treatment. *Prost. Leuko. Ess. Fatty Acids* **submitted**.

94. Schroeder, F., McIntosh, A.L., Martin, G.G., Huang, H., Landrock, D., Chung, S., Landrock, K.L., Dangott, L.J., Li, S., Kaczocha, M., Murphy, E.J., Atshaves, B.P. and Kier, A.B. Fatty acid binding protein-1 (FABP1) and the human FABP1 T94A variant: Roles in the endocannabinoid system and dyslipidemias. *Lipids* **submitted**.

95. Seeger, D.R. and Murphy, E.J. Lipid binding proteins in the brain: Beyond fatty acid binding protein. *Lipids* **submitted**.

NON-REFEREED PUBLICATIONS

Book Chapters:

1. Murphy, E.J. and Horrocks, L.A. (1990) Mechanisms of action of CDPcholine and CDPethanolamine on fatty acid release during ischemia of brain. In *Lipid Mediators in Ischemic Brain Damage and Experimental Epilepsy*, ed. N.G. Bazan, S. Kargar A.G., Basel, Switzerland, p. 67-84.

2. Murphy, E.J. and Horrocks, L.A. (1993) CDPcholine, CDPethanolamine, lipid metabolism and disorders of the central nervous system. In *Phospholipids and Signal Transmission*, ed. by R. Massarelli, L.A. Horrocks, J.N. Kanfer and K. Loffelholz, Springer-Verlag GmbH Heidelberg, Germany, p. 353-372.

3. Haun, S.E., Murphy, E.J., Bates, C.M. and Horrocks, L.A. (1993) Nimodipine decreases astroglial injury during combined glucose-oxygen deprivation. In *Drugs in Development: Ca^{2+} Antagonists in CNS*. Neva Press, Branford, CT, p. 299-306.

4. Murphy, E.J. and Horrocks, L.A. (1994) Models of Neurotrauma *ex vivo*. In *Neurobiology of Central Nervous System Trauma*, ed. S.K. Salzman, and A.I. Faden, Oxford University Press, New York, p. 28-40.

5. Schroeder, F., Frolov, A.A., Murphy, E.J., Atshaves, B.P., Pu, L., Wood, W.G., Foxworth, W.B, and Kier, A.B. (1996) Recent Advances in Membrane Cholesterol Domain Dynamics and Intracellular Cholesterol Trafficking. In *Proceedings of the Society for Experimental Biology and Medicine* **213:150-177.**

6. Jolly, C.A. and Murphy, E.J. (2002) Role of FABP in cellular phospholipid metabolism. In *Mammalian Fatty Acid Binding Proteins: Structure and Roles in Cell Homeostasis,* ed. A.K. Dutta-Roy and F. Spener, Wiley-VCH Press, p. 327-342.

7. Murphy, E.J. (2007) Inositol In *McGraw-Hill Encyclopedia of Science & Technology* 10th edition**,** volume 9, p. 225-226.

8. Murphy, E.J. (2009) Lipid Metabolism: From fatty acids to phospholipids. In *Lipids: Diet, Metabolism, and Membrane Structure in the Immune System* ed. C.A. Jolly and G. Fernandes, Research Signposts.

9. Barceló-Coblijn, G. Murphy, C.C., and Murphy, E.J. (2010) Methods for Measuring Fatty Acids Using Chromatographic Techniques. In *Lipid-mediated Signaling: Methods in Signal Transduction* ed. E.J. Murphy and T.A. Rosenberger, CRC Press, Taylor and Francis Group, Boca Raton, FL p. 352-371**.**

10. Milner, P.G., Lackman, S.M. Murphy, E.J. (2010) Methods for Measuring Fatty Acid Uptake and Targeting in Cultured Cells and *in vivo*. In *Lipid-mediated Signaling: Methods in Signal Transduction* ed. E.J. Murphy and T.A. Rosenberger, CRC Press, Taylor and Francis Group, Boca Raton, FL p. 373-394.

11. Hostetler, H.A., McIntosh, A.L., Petrescu, A.D., Huang, H., Atshaves, B.P., Murphy, E.J., Kier, A.B., and Schroeder, F. (2010) Fluoresence Methods Useful for Assessing the Impact of Fatty Acid Binding Proteins on Ligand Mediated Activation of Gene Expression. In *Lipid-mediated Signaling: Methods in Signal Transduction* ed. E.J. Murphy and T.A. Rosenberger, CRC Press, Taylor and Francis Group, Boca Raton, FL p. 299-348.

12. Benjamins, J.A., Murphy, E.J., and Seyfried, T. (2012) Lipids. In *Basic Neurochemistry*, *8th Edition*, ed. J.A. Benjamins, S.T. Brady, R.W. Albers, D.L. Price, G.J. Siegel, Elsevier Press, New York, NY, p. 81-100**.**

13. Murphy, E.J. (2011) Inositol In *McGraw-Hill Encyclopedia of Science & Technology* 11th edition**, In Press.**

14. Murphy, E.J. (2011) Versatile Camelina: The future of biofuel and much more *INFORM*, **22:604-608.**

15. Murphy, E.J. (2015) *Camelina sativa.* In *Industrial Oilseed* Crops, ed. T. McKeon and R. Weselake, AOCS Press**,** Champaign-Urbana, IL, **In Press.**

Non-Refereed Articles

1. Murphy, E.J. (2011) Versatile Camelina: The future of biofuel and much more *INFORM*, **22:604-608**.

2. Murphy, E.J. (2013) Why we care about scientific misconduct: A view from an Editor-in-Chief *INFORM*, **24:379-381**

3. Murphy, E.J. (2013) A lipid neurochemist's siren: Docosahexaenoic acid and its elusive function in the central nervous system *J. Neurochemistry* **127:299-302***.*

4. Murphy, E.J. (2014) Carbon recycling goes full circle: Fatty acids to excitatory amino acids and now excitatory amino acids to fatty acids *J. Neurochemistry* **129:363-365**.

5. Murphy, E.J. (2015) Blood brain barrier and brain fatty acid uptake: Role of arachidonic acid and PGE_2 *J. Neurochemistry* **135:845-848**.

Editorials and Commentaries**:**

1. Murphy, E.J. (2006) The inequality in science. *The Scientist* **20(10):15**

2. Murphy, E.J. (2007) Is USDA the problem? *The Scientist* **21(7):16**

3. Murphy, E.J. (2007) Editorial: New publishing arrangement between AOCS and Springer *Lipids* **42:1**

4. Murphy, E.J. (2008) Editorial *Lipids* **43:105-106.**

5. Murphy, E.J. (2009) Citation debate hits *Cell The Scientist* **23(1):16**

6. Murphy, E.J. (2009) Stimulated discussion *The Scientist* **23(4):18**

7. Murphy, E.J. (2009) View from the top *The Scientist* **23(5):15**

8. Murphy, E.J. (2010) The counterfeiter *The Scientist* **24(4):14**

9. Murphy, E.J. (2010) More money, fewer postdocs *The Scientist* **24(6):19**

10. Murphy, E.J. (2010) NIH, Science, and Baseball: Time for Reform *Lipids* **45:889-890**

11. Murphy, E.J. (2011) Are you a good citizen of science? *Lipids* **46:207**

12. Murphy,E.J. (2011) Citations: The rules they didn't teach you *Lipids* **46:307-309**

13. Murphy, E.J. (2013) Scientific Misconduct and *Lipids*: A view from an Editor-in-Chief *Lipids* **48:1-2**.

14. Murphy, E.J. (2013) Impact Factor and science publishing: What impact should it have on selecting journals in which we publish? *Lipids* **48:431-433**.

15. Murphy, E.J. (2015) *Lipids*: 50th Anniversary Celebration and the Future *Lipids* **50:1-2**.

16. Murphy, E.J. (2015) The importance of ethical peer-review: Why do we ask authors to suggest reviewers anyway? *Lipids* **50:1165-1166**.

17. Murphy, E.J. (2016) A new era for Lipids: Introduction of Rapid Communications *Lipids* **51:xx-xx**.

Books Edited:

1. Lipid-mediated Signaling: Methods in Signal Transduction (2010) ed. E.J. Murphy and T.A. Rosenberger, CRC Press, Taylor and Francis Group, Boca Raton, FL, ISBN978-0-8493-8141-6.

2. Lipid-mediated Signaling: Methods in Signal Transduction in Plants and Mammals (2017) ed. E.J. Murphy, M.Y. Golovko, and T.A. Rosenberger, CRC Press, Taylor and Francis Group, Boca Raton, FL, under contract.

3. Brain Fatty Acid Uptake and Metabolism (2017) ed. E.J. Murphy and M.Y. Golovkko, Springer Press, New York, NY, under contract.

Meeting Research Presentations:

1. Murphy, E.J., Joseph, L., Stephen, R. and Horrocks, L.A. (1986) Phospholipid composition of human endothelial cultures of vascular tissue. American Society for Neurochemistry, March 16-21, 1986, Montreal, PQ, Canada, Trans. Am. Soc. Neurochem. 17:303.

2. Jurkowitz, M., Dugan, L., Murphy, E.J., Waugh, M. and Horrocks, L.A. (1986) Inhibition of lysoplasmalogenase by 2-acylglycerophosphoethanolamine. American Society for Neurochemistry Satellite Symposium. March 21-23, 1986, Burlington, Vermont.

3. Murphy, E.J., Anderson, D.K., Means, E.D. and Horrocks, L.A. (1987) Pressure induced trauma in neuronal cell cultures: a novel model for spinal cord injury. ISN-ASN Joint Meeting, June 1-5, 1987, La Guaira, Venezuela. J. Neurochem. 48:S50.

4. Murphy, E.J., Anderson, D.K., Means, E.D. and Horrocks, L.A. (1987) Plasmalogen quantitation in cell culture lipids by acid hydrolysis followed by high performance liquid chromatography. ISN-ASN Joint Meeting, June 1-5, 1987, La Guaira, Venezuela. J. Neurochem. 48:S60

5. Jurkowitz, M.S., Flynn, C., Murphy, E.J. and Horrocks, L.A. (1987) Properties of alkenyl hydrolase of native and solubilized liver and brain microsomal fractions. ISN-ASN Joint Meeting, June 1-5, 1987, La Guaira, Venezuela. J. Neurochem. 48:S150.

6. Murphy, E.J., Anderson, D.K., Means, E.D. and Horrocks, L.A. (1988) Pressure induced trauma in neuronal cell cultures. American Society for Neurochemistry, March 5-11, 1988, New Orleans, LA, Trans. Am. Soc. Neurochem. 19:175.

7. Hirashima, Y., Murphy, E.J. and Horrocks, L.A. (1989) Purification of plasmalogens with *Rhizopus delemar* lipase and *Naja naja* phospholipase A_2. American Society for Neurochemistry, March 5-10, 1989, Chicago, IL, Trans. Am. Soc. Neurochem. 20:A265.

8. Murphy, E.J., Anderson, D.K., Means, E.D. and Horrocks, L.A. (1989) Pressure induced trauma in ROC-1 oligodendroglial cell cultures. American Society for Neurochemistry, March 5-10, 1989, Chicago, IL, Trans. Am. Soc. Neurochem. 20:A141.

9. Murphy, E.J., Roberts, E. and Horrocks, L.A. (1989) Aluminum silicate toxicity in cell cultures. American Society for Neurochemistry, March 5-10, 1989, Chicago, IL, Trans. Am. Soc. Neurochem. 20:A221.

10. Murphy, E.J. and Horrocks, L.A. (1989) Cell culture model for mechanical trauma induced by pressure. 7th Annual Neurotrauma meeting, October 28-29, 1989, Phoenix, AZ, J. Neurotrauma 6:217.

11. Murphy, E.J. and Horrocks, L.A. (1989) Pressure induced trauma in cell cultures. Society for Neuroscience, November 29 - December 3, 1989, Phoenix, AZ Soc. Neurosci. Abstr. 15:(2)1114.

12. Murphy, E.J., Roberts, E. and Horrocks, L.A. (1990) Aluminum silicate toxicity in cell cultures. American Society for Neurochemistry, March 4-9, 1990, Phoenix, AZ, Trans. Am. Soc. Neurochem. 21:A108.

13. Murphy, E.J., Roberts, E., Anderson, D.K. and Horrocks, L.A. (1990) Aluminum silicate toxicity in primary neuronal cultures. Society for Neuroscience, October 28 - November 2, 1990, St. Louis, MO, Soc. Neurosci. Abstr. 16:(1)447.

14. Murphy, E.J., Slivka, A.P. and Horrocks, L.A. (1991) Effect of methylprednisolone and CDPcholine on ischemic infarct volume. American Society for Neurochemistry, March 10-15, 1991, Charleston, SC, Trans. Am. Soc. Neurochem. 22:132.

15. Haun, S.E., Murphy, E.J., Bates, C.M. and Horrocks, L.A. (1991) Astrocyte cell death secondary to combined glucose-oxygen deprivation is dependent on extracellular calcium. Society for Neuroscience, November 10-15, 1991, New Orleans, LA, Soc. Neurosci. Abstr. 17:(1)184.

16. Murphy, E.J., Antalis, S., Haun, S.E. and Horrocks, L.A. (1991) Lipid metabolism during ischemic injury in astrocyte cell cultures. Neurotrauma Society, November 9-10, 1991, New Orleans, LA.

17. Murphy, E.J., Haun, S.E. and Horrocks, L.A. (1992) Lipid metabolism following ischemic injury in astrocytes in the absence of calcium. American Society for Neurochemistry. March 15-20, 1992, Houston, TX, Trans. Am. Soc. Neurochem. 23:192.

18. Murphy, E.J., Rosenberger, T.A. and Horrocks, L.A. (1993) Maturation effects on lipid composition of primary rat astrocytes. American Society for Neurochemistry, March 21-25, 1993, Richmond, VA, Trans. Am. Soc. Neurochem. 24:120.

19. Murphy, E.J., Haun, S.E. and Horrocks, L.A. (1993) Effects of oxygen-glucose deprivation on astrocyte lipid metabolism: a role for extracellular Ca^{2+}. International Society for Neurochemistry, August 22-27, 1993, Montpellier, France, J. Neurochem. 61:S229.

20. Murphy, E.J., Farooqui, A.A., Yang, H-C. and Horrocks, L.A. (1993) Signal transduction, plasmalogen-specific phospholipase A_2 and plasmalogens: a common role in differentiation. International Society for Neurochemistry, August 22-27, 1993, Montpellier, France, J. Neurochem. 61:S238.

21. Prows, D.R., Jefferson, J.R., Incerpi, S., Heylinger, C.E., Hertelendy, Z.I., Murphy, E.J. and Schroeder, F. (1993) *cis*-Parinaric acid uptake in L-cell fibroblasts: hormone effects. Federation of American Societies for Experimental Biology, March 28 - April 1, 1993, New Orleans, LA.

22. Murphy, E.J., Prows, D.R., and Schroeder, F. Liver and intestinal fatty acid binding protein expression differentially affects fatty acid uptake and esterification. Gordon Conference 1995.

23. Murphy, E.J. and Rapoport, S.I. Decreased ethanolamine plasmalogen levels in affected regions of Alzheimer disease brain. Am. Soc. Neurochem., March 7-11, 1998 Denver, CO. J. Neurochem. 70:S26C.

24. Murphy, E.J., Oki, J., Rapoport, S.I., and Purdon, A.D. Rapid incorportation of [^{3}H]-hexadecanol from plasma into brain plasmalogens. Am. Soc. Neurochem., March 7-11, 1998 Denver, CO, J. Neurochem. 70:S73D.

25. Lahtivirta, S., Jones, C.R., Murphy, E.J., and Rapoport, S.I. Developing a histochemical assay for detection of phospholipase A_2 activity. Am. Soc. Neurochem., March 7-11, 1998 Denver, CO, J. Neurochem. 70:S74A.

26. Rosenberger, T.A., Rapoport, S.I., and Murphy, E.J [1,1-^{3}H]-Hexadecanol incorporation into rat brain: A novel way to study *de novo* ether lipid synthesis in awake animals. Am. Soc. Neurochem., March 14-17, 1999 New Orleans, LA, J. Neurochem. 72:S48A.

27. Yarger, D.E., Rapoport, S.I., and Murphy, E.J. A continuous fluorometric assay for phospholipase A_2 activity in brain cytosol. Am. Soc. Neurochem., March 14-17, 1999 New Orleans, LA, J. Neurochem. 72:S66A.

28. Yarger, D.E., Ramassamy, C., Krzywkowski, P., Poirier, J., Rapoport, S.I., and Murphy, E.J. Regional phospholipase A_2 activity in apolipoprotein E genotyped Alzheimer disease brains. Am. Soc. Neurochem., March 14-17, 1999 New Orleans, LA, J. Neurochem. 72:S74A.

29. Murphy, E.J., Rosenberger, T.A., and Rapoport, S.I. Intravenously injected [1-^{14}C]arachidonic acid targets phospholipids, and [1-^{14}C]palmitic acid targets neutral lipids in hearts of awake rats. Brain Uptake and Utilization of Fatty Acids: Applications to Peroxisomal Biogenesis Disorders, March 2-4, 2000 Bethesda, MD.

30. Murphy, E.J., Shapiro, M.D., Rapoport, S.I., and Shetty, H.U. Phospholipid levels and composition are altered in Down syndrome brain. Am. Soc. Neurochem., March 25-29, 2000 cago, IL, J. Neurochem. 74:S88D.

31. Murphy, E.J. Plasmalogens and lipid-mediated signal transduction: Compatibility in the central nervous system. Am. Soc. Neurochem., March 25-29, 2000 Chicago, IL, J. Neurochem. 74:S55B.

32. Patrick, C.B., Ramassamy, C., Krzywkowski, P., Poirier, J., Rapoport, S.I., and Murphy, E.J. Phospholipase A_2 activity is decreased in the hippocampus of ApoE deficient mice. Am. Soc. Neurochem., March 25-29, 2000 Chicago, IL, J. Neurochem. 74:S89A.

33. Patrick, C.B., Rapoport, S.I., and Murphy E.J. A fluorometric method to measure 85 kDa phospholipase A_2 (Type IV) in brain cytosol. Am. Soc. Neurochem., March 25-29, 2000 Chicago, IL, J. Neurochem. 74:S89B.

34. Rosenberger, T.A., Rapoport, S.I., and Murphy, E.J. Heterogeneous *de novo* synthesis and disposition of ether phospholipids in brain of the awake adult rat. Am. Soc. Neurochem., March 25-29, 2000 Chicago, IL., J. Neurochem. 74:S88C.

35. Murphy, E.J. Differential effects of fatty acid binding proteins on cellular fatty acid uptake and lipid metabolism. PUFA in Maternal and Child Health, September 10-13, 2000 Kansas City, MO.

36. Murphy, E.J. Differential effects of fatty acid binding protein expression on fatty acid uptake and trafficking. 4^{Th} International Lipid Binding Protein Conference, June 10-12, 2001 Maastricht, The Netherlands.

37. Murphy, E.J. Sterol carrier protein-2: Not just for cholesterol anymore. 4^{Th} International Lipid Binding Protein Conference, June 10-12, 2001 Maastricht, The Netherlands.

38. Patrick, C.B., Rapoport, S.I., Goldstein, D. and Murphy E.J. Sympathetic denervation decreases arachidonic acid flux in rat heart. XVII International Society for Heart Research World Congress, July 6-11, 2001 Winnipeg, Canada.

39. Murphy, E.J. Is erucic acid a therapy for X-adrenoleukodystrophy? International United Leukodystrophy Foundation Conference, July 17-22, 2001 DeKalb, IL.

40. Murphy, E.J. Lorenzo's oil and the blood brain barrier. 12^{th} Annual Myelin Project meeting, September 28-30, 2001 Paris, France.

41. Murphy, E.J. Intracellular lipid binding proteins influence cellular lipid metabolism. International Society for the Study of Fatty Acids and Lipid, May 7-11, 2002 Montreal, Canada, Lipids.

42. Murphy, E.J. Lorenzo's oil, adrenoleukodystrophy, and the blood brain barrier. Am. Soc. Neurochem., June 22-26, 2002 Palm Beach, FL, J. Neurochem. 81:CP10-02.

43. Cole, N., Glynn, A., Nussbaum, R.L, and Murphy, E.J. Brain phospholipid levels and composition are altered in alpha-synuclein gene-abated mice. Am. Soc. Neurochem., June 22-26, 2002 Palm Beach, FL, J. Neurochem. 81:AP03-11.

44. Cole, N., Nussbaum, R.K., and Murphy, E.J. Alpha-synuclein alters fatty acid uptake but not targeting in stably transfected HEK-293 cells. Parkinson's Disease Fast Track Awards Meeting, March 15, 2003 Washington, D.C.

45. Murphy, E.J., Binas, B., and Glatz, J. Heart fatty acid binding protein expression alters

fatty acid uptake and targeting in heart. Molecular and Cellular Biology of Lipids, Gordon Research Conference, Meriden, NH, July 20-25, 2003.

46. Barceló-Coblijn, G., Cinnamon, M., Jolly, C.A., and Murphy, E.J. Effects of dietary lipids on brain phospholipid composition. Am. Soc. Neurochem., August 14-18 2004, New York, NY, J. Neurochem. 90:DP3-03.

47. Castagnet, P.I., Cole, N.B., Nussbaum, R.L., and Murphy, E.J. Alteration of fatty acid uptake in HEK cells by wild type, A30P, and A53T a-synuclein expression involves a protein component. Am. Soc. Neurochem., August 14-18, 2004 New York, NY, J. Neurochem. 90:DP4-08.

48. Castagnet, P.I., Cole, N.B., Nussbaum, R.L., and Murphy, E.J. Expression of A30P or A53T a-synuclein mutants alters cellular fatty acid uptake and trafficking. Am. Soc. Neurochem., August 14-18, 2004 New York, NY, J. Neurochem. 90:DP4-07.

49. Golovko, M.Y. and Murphy, E.J. Method for long chain acyl-CoA analysis. Am. Soc. Neurochem., August 14-18, 2004 New York, NY, J. Neurochem. 90:DP3-02.

50. Murphy, E.J., Binas, B., and Glatz, J.F.C. H-FABP expression increases arachidonic acid, but not palmitic acid uptake into brain. Am. Soc. Neurochem., August 14-18, 2004 New York, NY, J. Neurochem. 90:DP3-01.

51. Murphy, E.J., Golovko, M.Y., Castagnet, P.I., Glatz, J.F.C., and Nussbaum, R.L. Brain fatty acid uptake: Role of alpha-synuclein and heart-type fatty acid binding protein. 5th International Conference on Lipid Binding Proteins, September 27-29, 2004, Sendai, Japan.

52. Barceló-Coblijn, G., Cinnamon, M., Jolly, C.A., and Murphy, E.J. Effects of dietary n-3 fatty acid on liver, heart, and brain phospholipid composition and phospholipid acyl chain mass. Brain Uptake and Utilization of Fatty Acids, Lipids, and Lipoproteins, October 1-9, 2004, Bethesda, MD.

53. Castagnet, P.I., Nussbaum, R.L., and Murphy, E.J. a-Synuclein gene-ablation decreases astrocyte fatty acid uptake and alters fatty acid trafficking. Brain Uptake and Utilization of Fatty Acids, Lipids, and Lipoproteins, October 1-9, 2004, Bethesda, MD.

54. Murphy, E.J. and Glatz, J.F.C. Heart fatty acid binding protein expression differentially increases brain fatty acid uptake. Brain Uptake and Utilization of Fatty Acids, Lipids, and Lipoproteins, October 1-9, 2004, Bethesda, MD.

55. Golovko, M.Y., Castagent, P.I., Nussbaum, R.L., and Murphy, E.J. a-Synuclein expression enhances brain palmitate uptake and differentially affects palmitate incorporation and turnover in brain phospholipids. Brain Uptake and Utilization of Fatty Acids, Lipids, and Lipoproteins, October 1-9, 2004, Bethesda, MD.

56. Barceló-Coblijn, G., Golovko, M., Nussbaum, R.L., and Murphy, E.J. Brain lipid composition is altered by alpha-synuclein deficiency. Recent Advances in Lipid Metabolism and Related Disorders, June 21-24, 2005, Dijon, France.

57. Golovko, M.Y., Faergeman, N.J., Cole, N.B., Castagnet, P.I., Nussbaum, R.L., and Murphy, E.J. alpha-Synuclein gene-ablation decrease brain palmitate uptake and alters palmitate metabolism in brain phospholipids. Am. Soc. Neurochem., June 25-29, 2005,

Madison, WI, J. Neurochem. 94:PSM06-06.

58. Golovko, M.Y., Faergeman, N.J., Cole, N.B., Castagnet, P.I., Nussbaum, R.L., and Murphy, E.J. α-Synuclein gene-ablation alters brain palmitate and arachidonate metabolism in the absence of α-synuclein binding. Int. Soc. Neurochem., August 21-26, 2005, Innsbruck, Austria, J. Neurochem. 94:P462.

59. Murphy, E.J. Alpha-synuclein modulates brain fatty acid metabolism. Am. Soc. Neurochem., March 11-15, 2006, Portland, OR, J. Neurochem. 96:S04-4.

60. Ellis, C.E., Murphy, E.J., Mitchell, D.C., Golovko, M.Y., Scaglia, F., Barceló-Coblijn, G., and Nussbaum, R.L. Mitochondrial lipid abnormality and electron transport chain impairment in mice lacking α-synuclein. Am. Soc. Neurochem., March 11-15, 2006, Portland, OR, J. Neurochem. 96:S04-3.

61. Austin, S.A., Floden, A.M., Nussbaum, R.L., Murphy, E.J., and Combs, C.K. Alpha-synuclein expression regulates microglial activation phenotype. Am. Soc. Neurochem., March 11-15, 2006, Portland, OR, J. Neurochem. 96:LB-5.

62. Golovko, M.Y., Færgeman, N.J., Nussbaum, R.L., and Murphy, E.J. Alpha-synuclein gene-deletion increases docosahexaenoic acid metabolism in brain phospholipids. Am. Soc. Neurochem., March 11-15, 2006, Portland, OR, J. Neurochem. 96(Suppl.1):PTW-06-8.

63. Barceló-Coblijn,G., Golovko, M.Y., Carr, P.A., Nussbaum, R.L., and Murphy, E.J. Brain lipid composition is altered by α-synuclein deficiency. Am. Soc. Neurochem., March 11-15, 2006, Portland, OR, J. Neurochem. 96(Suppl.1):PTW03-15.

64. Golovko, M.Y., Rosenberger, T.A., Færgeman, N.J., Feddersen, S., Cole, N.B., Pribill, I., Berger, J., Nussbaum, R.L., and Murphy, E.J. α-Synuclein is a key mediator of brain fatty acid metabolism. Nat. IdeA Symposium of Biomedical Research Excellence (NISBRE), July 20-22, 2006, Washington, D.C..

65. Othman, R.A., Barceló-Coblijn,G., Murphy, E.J., Kashour, T., Friel, J., and Moghadasian, M. Multiple doseing trial comparing the effects of flaxseed oil and fish oil in healthy volunteers. Canadian Lipoprotein Conference, September 28-October 1, 2006, Gimli, Manitoba.

66. Golovko, M.Y., Nussbaum, R.L., Ellis, C.E., Mitchell, D.C., Scaglia, F., Barceló-Coblijn, G., and Murphy E.J. α-Synuclein modulates mitochondrial membrane properties and funcitons. Am. Soc. Neurochem., March 1-5, 2008, San Antonio, TX, J. Neurochem. 104:C01-03.

67. Austin, S.A., Murphy, E.J., and Combs, C.K. Elevated PLD-mediated signaling contributes to the elevated basal reactivity in α-synuclein -/- microglia. Am. Soc. Neurochem., March 1-5, 2008, San Antonio, TX, J. Neurochem. 104:PTW04-01.

68. Barceló-Coblijn,G, Martin, M.L., Egea, C., Murphy, E.J., and Escribá, P.V. Metabolism of Minerval (2-hydroxy oleic acid), a potent antitumor drug. International Society for the Study of Fatty Acids and Lipid, May 17-22, 2008, Kansas City, Kansas.

69. Murphy, E.J. H-FABP and alpha-synuclein, divergent roles in brain lipid metabolism 49th

International Conference on the Bioscience of Lipids, August 26-30, 2008, Maastricht, The Netherlands.

70. Murphy, E.J., Murphy, C.C., Khan, M.B., and Golovko, M.Y. Increased cholesterol synthesis accounts for elevated cholesterol levels in alpha-synuclein gene ablated mice Am. Soc. Neurochem., March 7-11, 2009,Charleston, SC, J. Neurochem. 108:PSM02-04.

71. Golovko, M.Y. and Murphy, E.J. An improved method for prostanoid profiling in brain tissue using LC-MS/MS Am. Soc. Neurochem., March 7-11, 2009,Charleston, SC, J. Neurochem. 108:OP04-05.

72. Golovko, M.Y. Combs, C.K., and Murphy, E.J. A new pathway for regulation of brain prostanoid levels 11th International Conference on Bioactive Lipids in Cancer, Inflammation, and Related Diseases, October 25-28, Cancun, Mexico.

73. Murphy, C.C., Golovko, M.Y., Combs, C.K., and Murphy, E.J. Apo-E does not impact brain arachidonic acid uptake, but does impact steady-state lipid levels Am. Soc. Neurochem., March 6-10, 2010, Santa Fe, NM, Trans. Am. Soc. Neurochem. 41:91.

74. Murphy, C.C., Lackman S.M., and Murphy, E.J. Alpha-synuclein gene-ablation does not impact astrocyte cholesterol uptake, but does increase cholesterol efflux Am. Soc. Neurochem., March 6-10, 2010, Santa Fe, NM, Trans. Am. Soc. Neurochem. 41:108.

75. Murphy, E.J. Brain fatty acid uptake and incorporation: What kinetics tells us about downstream lipid function in brain pathophysiology Am. Soc. Neurochem., March 6-10, 2010, Santa Fe, NM, Trans. Am. Soc. Neurochem. 41:17-18.

76. Golovko, M.Y., Murphy, E.J., and Combs, C.K. A novel pool of esterified prostanoids: Role in brain prostanoid level regulation Am. Soc. Neurochem., March 6-10, 2010, Santa Fe, NM, Trans. Am. Soc. Neurochem. 41:90.

77. Van Dyke, A., Uliasz, T.F., Murphy, E.J., Golovko, M.Y., Hewett, J.A., and Hewett, S.J. Characterization of L-12/15 lipoxygenase expression in cells comprising the neurovascular unit. Am. Soc. Neurochem., March 6-10, 2010, Santa Fe, NM, Trans. Am. Soc. Neurochem. 41:72.

78. Murphy, E.J. The use of biotechnology to alter agronomic properties of Camelina sativa: From oil production to herbicide resistance Am. Oil Chem. Soc., May 16-19, 2010, Phoenix, AZ.

79. Murphy, C.C. and Murphy, E.J. Processing method used to crush Camelina sativa inhibits myrosinase activity in Camelina meal Am. Oil Chem. Soc., May 16-19, 2010, Phoenix, AZ.

80. Murphy, E.J. Alpha-synuclein is a key regulator of brain inflammatory response via its regulation of brain arachidonic acid metabolism Am. Oil Chem. Soc., May 16-19, 2010, Phoenix, AZ.

81. Murphy, E.J. Alpha-linoleic acid is a key dietary source of n-3 fatty acids: What kinetics tells us Am. Oil Chem. Soc., May 16-19, 2010, Phoenix, AZ.

82. Koivu, K., Kushinov, V., Kaijalainen, S., Weselake, R., and Murphy, E.J. Use of biotechnology to increase oil content of *Camelina sativa* Am. Oil Chem. Soc., May 16-19,

2010, Phoenix, AZ.

83. Koivu, K., Kushinov, V., Kaijalainen, S., Weselake, R., and Murphy, E.J. Production of a high lauric acid containing *Camelina sativa* using biotechnology Am. Oil Chem. Soc., May 16-19, 2010, Phoenix, AZ.

84. Koivu, K., Kushinov, V., Kaijalainen, S., Weselake, R., and Murphy, E.J. Production of class-2 herbicide tolerant *Camelina sativa* via introduction of specific mutations in the acetolactate synthase gene from *Arabidopsis thaliana* Am. Oil Chem. Soc., May 16-19, 2010, Phoenix, AZ.

85. Kakani, R., Haq, A., Fowler, J., Murphy, E.J., Rosenberger, T.A., Berhow, M., Bailey, C.A. Quality characteristics and fatty acid composition of eggs from hens fed *Camelina sativa* (camelina meal) Poultry Science Association, July 11-15, 2010, Denver, CO.

86. Murphy, C.C., Golovko, M.Y., Rojanathammanee, L., Combs, C.K., and Murphy, E.J. Brain prostaglandin synthesis is increased during LPS-induced inflammation in alpha-synuclein deficient mice Am. Soc. Neurochem., March 19-23, 2011, St. Louis, MO Trans. Am. Soc. Neurochem. 42:xx.

87. Seeger, D.R. and Murphy, E.J. Astrocyte arachidonate and palmitate uptake and metabolism is differentially modulated by dibutyryl-cAMP treatment Am. Soc. Neurochem., March 3-7, 2012 Baltimore, MD Trans. Am. Soc. Nerochem. 43:xx.

88. Seeger, D.R. and Murphy, E.J. LPS-induces increased brain arachidonic acid uptake and incorporation in α-synuclein gene-ablated mice Am. Soc. Neurochem., April 20-25, 2013 Cancun, Mexico, Trans. Am. Soc. Nerochem. 44:11.

89. Murphy, E.J. Importance of proper statistical analysis in lipid biochemistry: From basic to clinical research. Am. Oil Chem. Soc. April 29-May 1, 2013, Montreal, Canada.

90. Murphy, E.J. Role of lipid binding proteins in brain fatty acid uptake and downstream impact on inflammation. Am. Soc. Neurochem, March 8-12, 1014, Long Beach, CA, Trans. Am. Soc. Neurochem. 45:xx

91. Seeger, D.R., Murphy, C.C., and Murphy, E.J. Dibutyrul-cAMP modulates expression of key enzymes associated with acyl-CoA metabolism in primary murine astrocytes. Am. Soc. Neurochem, March 8-12, 2014, Long Beach, CA, Trans. Am. Soc. Neurochem. 45:xx

92. Picklo, M. and Murphy, E.J. A high-fat, high-oleic acid diet, but not a high-fat, saturated diet, reduces hepatic n-3 fatty acid content in mice. Lipid Nutrition and Metabolism is Human Health, A Post-Canadian Nutrition Society Workshop, May 31-June 1, 2015, University of Manitoba, Winnipeg, MB

93. Seeger, D.R., Murphy, C.C., and Murphy, E.J. Dibutyryl-cAMP treatment of murine astrocytes alters arachidonic acid and palmitic acid metabolism via regulating key acyl-CoA metabolism genes. Lipid Nutrition and Metabolism is Human Health, A Post-Canadian Nutrition Society Workshop, May 31-June 1, 2015, University of Manitoba, Winnipeg, MB.

94. Seeger, D.R. and Murphy, E.J. Mouse strain impacts fatty acid uptake and trafficking in liver, heart, and brain: A comparison of C57bl/6j and Swiss Webster mice. Lipid Nutrition and Metabolism is Human Health, A Post-Canadian Nutrition Society Workshop, May

31-June 1, 2015, University of Manitoba, Winnipeg, MB.

95. Seeger, D.R. and Murphy, E.J. Is alpha-synuclein a molecular switch for regulating microglial phenotype in the brain? Am. Soc. Neurochem, March 19-23, 2016, Denver, CO, Trans. Am. Soc. Neurochem. 47:xx

96. Martin, G.G., Chung, S., Landrock, D., Landrock, K.K., Huang, H., Dangott, L.J., Peng, X., Kaczocha, M., Murphy, E.J., Kier, A.B., and Schroeder, F. Fatty acid binding protein-1 ablation differentially impacts the brain endocannabinoid system of male versus female mice. Marijuana and Cannabinoids: A Neuroscience Research Summit, NIH, March 22-23, 2016, Bethesda, MD.

97. Picklo Sr., M. and Murphy, E.J. Obesogenic diets enriched in oleic acid vs. saturated fatty acids differentially modify polyunsaturated fatty acid composition in liver and visceral adipose. Experimental Biology, April 2-6, 2016, San Diego, CA.

INVITED SEMINARS AND ORAL PRESENTATIONS

1. Differential effects of fatty acid binding proteins on cellular fatty acid uptake and lipid metabolism. PUFA in Maternal and Child Health, September 10-13, 2000 Kansas City, MO.

2. Blood-Brain Barrier Penetrance of Erucic Acid: Effectiveness of Therapy for Treatment of X-linked Adrenoleukodystrophy. 11th Annual Myelin Project Meeting, October 6-8, 2000 Leesburg, VA.

3. The Role of Plasmalogens in Lipid-mediated Signal Transduction. University of North Dakota, BIMD Lecture Series, October 20, 2000 Grand Forks, ND.

4. Sterol carrier protein-2: Not just for cholesterol anymore. 4Th International Lipid Binding Protein Conference, June 10-12, 2001 Maastricht, The Netherlands.

5. Is erucic acid a therapy for X-adrenoleukodystrophy? International United Leukodystrophy Foundation Conference, July 17-22, 2001 DeKalb, IL.

6. Lorenzo's oil and the blood brain barrier. 12th Annual Myelin Project meeting, September 28-30, 2001 Paris, France.

7. Lorenzo's oil and the blood brain barrier: Ramifications for the treatment of X-ALD, University of North Dakota, Department of Anatomy, February 11, 2002 Grand Forks, ND.

8. Intracellular lipid binding proteins influence cellular lipid metabolism. ISSFAL 2002 meeting, May 7-11, 2002 Montreal, Canada.

9. Effect of lipid binding proteins on cellular lipid metabolism, Grand Forks Human Nutrition Research Center, ARS, USDA, August 13, 2002 Grand Forks, ND.

10. Lorenzo's oil and the blood brain barrier: Ramifications for the treatment of X-ALD, Department of Biology, St. Olaf College, March 3, 2003 Northfield, MN.

11. Lorenzo's oil and the blood brain barrier: Ramifications for the treatment of X-ALD, Department of Chemistry, Gustavus Adolphus College, March 7, 2003 St. Peter, MN.

12. Role of fatty acid binding proteins in cellular fatty acid uptake and trafficking: Similarities

between cells and mice, Division of Nutrition, The University of Texas at Austin, September 29, 2003 Austin, TX.

13. Is alpha-synuclein a fatty acid binding protein in brain?, 1st Annual COBRE Symposium, University of North Dakota, October 4, 2003, Grand Forks, ND.

14. Is alpha-synuclein a fatty acid binding protein in the brain? Society of Argentine Neurochemistry, October 25, 2003 Los Cocos, Argentina.

15. Role of fatty acid binding proteins in cellular fatty acid uptake and trafficking: Similarities between cells and mice, Department of Biochemistry, School of Medicine, University of Cordoba, October 27, 2003 Cordoba, Argentina.

16. Brain fatty acid uptake: Role of alpha-synuclein and heart-type fatty acid binding protein. 5th International Conference on Lipid Binding Proteins, September 28, 2004 Sendai, Japan.

17. Fatty acid binding proteins: From cells to mice. Richardson Centre for Functional Foods and Nutraceuticals, University of Manitoba, October 18, 2004 Winnipeg, Canada.

18. Role of FABP in cellular fatty acid uptake and trafficking: From cells to mice. Hastings College, November 19, 2004 Hastings, NE.

19. Role of FABP in cellular fatty acid uptake and trafficking: From cells to mice. Department of Pharmacology, Physiology, and Therapeutics, University of North Dakota, December 3, 2004 Grand Forks, ND.

20. Brain fatty acid uptake: Role of alpha-synuclein and heart-type fatty acid binding protein. Basic Science Seminar, Loma Linda School of Medicine, February 10, 2005 Loma Linda, CA.

21. High omega-3 foods: Improved health and well-being, 2005 Research Results and Technology Conference, Northern Great Plains Research Laboratory, USDA, ARS, February 22, 2005 Mandan, ND.

22. Impact of fatty acid binding proteins on cellular lipid metabolism. Department of Chemistry, University of North Dakota, March 11, 2005 Grand Forks, ND.

23. Heart-type fatty acid binding protein increases both brain and heart fatty acid uptake. FEBS Workshop on Recent Advances in Lipid Metabolism and Related Disorders, June 23, 2005 Dijon, France.

24. Impact of alpha-synuclein on brain lipid metabolism. Brain Research Institute, Medical University of Vienna, August 29, 2005 Vienna, Austria.

25. Role of heart-type fatty acid binding protein on heart and brain fatty acid metabolism. Department of Nutrition, The Ohio State University, February 9, 2006 Columbus, OH.

26. Alpha-synuclein modulates brain fatty acid metabolism. American Society for Neurochemistry, March 13, 2006 Portland, OR.

27. ALA vs. DHA: Which is better or does it really matter? Department of Nutrition, University of Alberta, August 23, 2006 Edmonton, Alberta.

28. Unraveling the function of alpha-synuclein in the brain: A role in lipid metabolism with downstream effects on cellular function. NIH, NIAAA, September 26, 2006 Rockville, MD.

29. Unraveling the function of alpha-synuclein in the brain: A role in lipid metabolism with downstream effects on cellular function. Tver State Medical Academy, October 19, 2006 Tver, Russia.

30. Unraveling the function of alpha-synuclein in the brain: A role in lipid metabolism with downstream effects on cellular function. Department of Pharmacology, University of Minnesota, December 8, 2006, Minneapolis, MN.

31. An odyssey in the study of lipid metabolism: From cells to Man. Department of Human Nutritional Sciences. University of Manitoba, February 28, 2007, Winnipeg, Manitoba.

32. Unraveling the function of alpha-synuclein in the brain: A role in lipid metabolism with downstream effects on cellular function. Buck Institute, May 25, 2007, Novato, CA.

33. α-Synuclein is a key mediator of brain fatty acid metabolism and inflammatory response. 6th International Conference on Lipid Binding Proteins, June 5, 2007, Burnaby, British Columbia.

34. Evidence of ALA conversion in rats: A tissue selective process. Canadian Nutrition Congress, June 21, 2007 Winnipeg, Manitoba.

35. *Camelina sativa*: An ideal opportunity for biodiesel? 125th Anniversary Meeting of the Vavilov Institute of Plant Industry, November 27, 2007, St. Petersburg, Russia.

36. α-Synuclein is a key mediator of brain fatty acid metabolism and inflammatory response. Department of Physiology, Michigan State University, December 19, 2007, East Lansing, MI.

37. Unraveling the function of α-synuclein in the brain: A role in lipid metabolism with downstream effects on cellular function. Department of Biochemistry, The Ohio State University, March 11, 2008, Columbus, OH.

38. So why is alpha-synuclein's impact on lipid metabolism important anyway? Department of Anatomy and Cell Biology, University of North Dakota, March 23, 2009, Grand Forks, ND.

39. So why is alpha-synuclein's impact on lipid metabolism important anyway? Department of Molecular and Integrative Physiology, University of Illinois, October 22, 2009, Urbana-Champaign, IL.

40. ALA-containing oils are excellent sources of dietary n-3 fatty acids: What kinetics tells us. 2009 International Society for Nutraceuticals and Functional Foods Conference, November 3, 2009, San Francesco, CA.

41. Brain fatty acid uptake and incorporation: What kinetics tells us about downstream lipid function in brain pathophysiology. American Society for Neurochemistry, March 3, 2010, Santa Fe, NM.

42. The use of biotechnology to alter agronomic properties of Camelina sativa: From oil production to herbicide resistance. American Oil Chemists' Society, May 17, 2010,

Phoenix, AZ.

43. Alpha-linoleic acid is a key dietary source of n-3 fatty acids: What kinetics tells us. American Oil Chemists' Society, May 18, 2010, Phoenix, AZ.

44. Alpha-synuclein is a key regulator of brain inflammatory response via it regulation of brain arachidonic acid metabolism. American Oil Chemists' Society, May 18, 2010, Phoenix, AZ.

45. Unraveling the function of α-synuclein in the brain: A role in lipid metabolism with downstream effects on cellular function. Department of Biology, University of Balearic Islands, June 7, 2010, Pama de Mallorca, Spain.

46. Brain fatty acid uptake and incorporation: What kinetics tells us about downstream lipid function in brain pathophysiology. COBRE Symposium, University of North Dakota, October 15, 2010, Grand Forks, ND.

47. The intersection of plant biotechnology, plant made pharmaceuticals, biofuels, and mammalian lipid metabolism: Life of an academic entrepreneur. Biomedical Sciences Seminar, University of North Dakota, December 3, 2010, Grand Forks, ND.

48. Teaching lipid biochemistry and nutrition in graduate education American Oil Chemist's Society, May, 2011, Cincinnati, OH.

49. Alpha-linolenic acid is a vital source for n-3 enriched foods for human health. American Oil Chemists' Society, May 2011, Cincinnati, OH.

50. Scientific Misconduct: View of an Editor-in-Chief, 2012 Quest for Research Excellence, a meeting of the Office of Research Integrity, March 15, 2012, Washington, D.C.

51. Camelina: A platform for biofuels and biopharmaceuticals, Agricultural Research Service, March 26, 2012, Maricopa, AZ.

52. Unraveling the function of α-synuclein in the brain: A role in lipid metabolism with downstream effects on cellular function. Department of Pharmacology, University of Manitoba, April 27, 2012, Winnipeg, Canada.

53. Are you a Good Citizen of Science? Strategies for Responsible Peer-Review and Beyond, Graduate School of Arts and Sciences, Columbia University, June 18, 2012, New York, NY.

54. Citations: The rules they don't teach you and other critical unspoken rules on publishing. Graduate School of Arts and Sciences, Columbia University, June 19, 2012, New York, NY.

55. Science careers and interviewing: What matters and what doesn't or start building your credentials today. Graduate School of Arts and Sciences, Columbia University, June 20, 2012, New York, NY.

56. Unraveling the function of α-synuclein in the brain: A role in lipid metabolism with downstream effects on cellular function. Department of Biochemistry and Molecular Biology, Saint Louis University, November 5, 2012, St. Louis, MO.

57. Importance of alpha-linolenic acid in human diets: The other n-3 fatty acid Grand Forks Human Nutrition Center, ARS, 16 January 2012, Grand Forks, ND.

58. Importance of proper statistical analysis in lipid biochemistry: From basic to clinical research. American Oil Chemists' Society, May 2013, Montreal, Canada.

59. Role of lipid binding proteins in brain fatty acid uptake and downstream impact on inflammation, American Society for Neurochemistry, March 2014, Long Beach, CA.

60. Scientific misconduct and you: Why do we care. Workshop at American Society for Neurochemistry, March 2014, Long Beach, CA.

61. Metabolic syndrome and beef consumption: A targeted group for flax-fed beef? 65th Flax Institute of the United States meeting, March 27, 2014, Fargo, ND.

62. Ethical publishing and you: What to do and what not to do. American Oil Chemists' Society, May 5, 2014, San Antonio, TX.

63. Brain lipid binding proteins: Role in brain fatty acid uptake and downstream impact on inflammation. 50th Anniversary Symposium for Lipids, American Oil Chemists' Society, May 4, 2015, Orlando, FL.

64. How peer review advances your career trajectory. American Oil Chemists' Society, May 4, 2015, Orlando, FL.

65. Lipid Techniques: From old to new. Lipid Nutrition and Metabolism is Human Health, A Post-Canadian Nutrition Society Workshop, May 31, 2015 University of Manitoba, Winnipeg, MB.

66. Camelina as an oil seed crop: What does the future hold? Agriculture for Life, Life for Agriculture, June 4, 2015, University of Agronomic Sciences and Veterinary Medicine of Bucharest, Bucharest, Romania.

67. Brain lipid binding proteins: Role in brain fatty acid uptake and downstream impact on inflammation. Faculty of Veterinary Medicine, University of Agronomic Sciences and Veterinary Medicine, June 5, 2015, Bucharest, Romania.