Jonathan M. Curtis

Employment:

Professor: Lipid Chemistry Group (6/2007 - present)
Department of Agricultural, Food and Nutritional Science
UNIVERSITY OF ALBERTA, Edmonton, AB, Canada

Courses: taught in Food Chemistry and Analytical Chemistry.
Research: focused on lipid science - the identification and measurement of lipids of importance in food, agriculture and medical science; converting locally sourced plant oils and animal fat into more valuable biobased chemicals, materials and food ingredients.

Director of Research: Analytical and Functional Food Technologies (4/1999 - 5/2007)
OCEAN NUTRITION CANADA Ltd., Dartmouth, Nova Scotia, Canada.

Industrial R&D position: Directed analytical chemistry and food science groups involved in oil processing, quality, developing microencapsulated oil as a food ingredient and food grade oils with desirable sensory qualities. This involved many interactions with customers, management and production.

Research Officer (1992 - 1999)
Institute for Marine Biosciences, NATIONAL RESEARCH COUNCIL, Halifax, N.S., Canada.

Government Research position: analytical chemistry, mass spectrometry, marine lipids and natural products, NRC certified reference material program, environmental analysis.

Senior Research Fellow (1989 - 1992)
Warwick Institute for Mass Spectrometry and Department of Chemistry, UNIVERSITY OF WARWICK, Coventry, U.K.

Research areas: analytical chemistry, mass spectrometry; joint program with an instrument company

Development Engineer (1988 - 1989)
VG ANALYTICAL (now Waters/MICROMASS), Manchester, U.K.

R&D in an analytical instrument company

Postdoctoral Research Associate (1987-88)
School of Chemical Sciences, UNIVERSITY OF ILLINOIS, Urbana, Illinois, U.S.A.

Education:

Ph.D. Analytical Chemistry (1987)

Royal Society Research Unit, UNIVERSITY COLLEGE OF SWANSEA, Wales, U.K.
Thesis title: "Novel Methods of Structure Determination by Mass Spectrometry"

M.Sc. Analytical Chemistry (1983)

Department of Chemistry, UNIVERSITY OF GUELPH, Ontario, Canada.

B.Sc. Chemistry (1981)

Department of Chemistry, UNIVERSITY OF SOUTHAMPTON, U.K.

Litigation Consulting History (last three years):

***Mara Renewables Corp. v. DSM North America Inc.*, IPR2023-1167**
***Mara Renewables Corp. v. DSM North America Inc.*, IPR2023-1342**

Publication Record:

184 peer-reviewed journal articles published.
7 book chapters.
6 granted patents.

Jonathan M. Curtis - List of Publications

A. Journal Articles

2022-

179. LC-MS/MS quantitation of immune-reactive α- amylase/trypsin inhibitor CM3 and glutathione during wheat sourdough breadmaking
SavannaWon, Jonathan M. Curtis and Michael G.Ganzle
Journal of Applied Microbiology. 133,120–129 (2022)
https://doi.org/10.1111/jam.15346

180. Elucidating the role of the gut microbiota in the physiological effects of dietary fiber
Edward C. Deehan; Zhengxiao Zhang; Alessandra Riva; Anissa M. Armet; Maria Elisa Perez-Muñoz; Nguyen K. Nguyen; Jacqueline A. Krysa; Benjamin Seethaler; Yuan-Yuan Zhao; Janis Cole; Fuyong Li; Bela Hausmann; Andreas Spittler; Julie-Anne Nazare; Nathalie M. Delzenne; Jonathan M. Curtis; Wendy V. Wismer; Spencer D. Proctor; Jeffrey A. Bakal; Stephan C. Bischoff; Dan Knights; Catherine J. Field; David Berry; Carla M. Prado; Jens Walter
Microbiome, (2022) 10:77, https://doi.org/10.1186/s40168-022-01248-5

181. The Degradation and Toxicity of Commercially Traded Vegetable Oils Following Spills in Aquatic Environment
Arularasu Muthaliar Tamothran , Kesaven Bhubalan* , Sabiqah Tuan Anuar , Jonathan M. Curtis
Environmental Research 214, 113985 (2022)

182. Antifungal cultures and metabolites of lactic acid bacteria for use in dairy fermentations
Nuanyi Liang , Zheng Zhao , Jonathan M. Curtis, and Michael G. Gänzle*
International Journal of Food Microbiology 383 (2022) 109938

183. Biobased thermosets from epoxidized linseed oil and its methyl esters
Tolibjon S. Omonov, Vinay R Patel, Jonathan M. Curtis
ACS Applied Polymer Materials, 4, 9, 6531-6542 (2022)
DOI: 10.1021/acsapm.2c00926

184. A study of the sensory attributes of flours and crackers made from sprouted and unsprouted faba beans,
Rami Akkad, Amanda Buchko, Philip O. Soladoye, Jay Han, Jonathan M. Curtis*,
LWT Food Science and Technology, Volume 179, 114650 (2023)
https://doi.org/10.1016/j.lwt.2023.114650.

2021

172. A biobased reactive accelerant and diluent for solvent-free drying oils
Magdalena Hubmann and Jonathan M.Curtis

Progress in Organic Coatings 157, 106024 (2021)
https://doi.org/10.1016/j.porgcoat.2020.106024

173. Buttermilk: an important source of lipid soluble forms of choline that influences the immune system development in Sprague-Dawley rat offspring."
Jessy Azarcoya-Barrera, MSc; Catherine J. Field, PhD, RD; Susan Goruk; Alexander Makarowski; Jonathan M. Curtis, PhD; Yves Pouliot, PhD; René L. Jacobs, PhD; Caroline Richard, Ph.D
European Journal of Nutrition 60, 2807-2818 (2021)
https://doi.org/10.1007/s00394-020-02462-3

174. Dietary phosphatidylcholine supplementation reduces atherosclerosis in Ldlr-/- male mice
Paulina Aldana-Hernández, Jessy Azarcoya-Barrera, Jelske N. van der Veen2, Kelly-Ann Leonard1 Yuan-Yuan Zhao, Randall Nelson, Susan Goruk, Catherine J. Field, Jonathan M Curtis, Caroline Richard, René L Jacobs*
The Journal of Nutritional Biochemistry Volume 92, 108617, June 2021,
DOI: 10.1016/j.jnutbio.2021.108617

175 Advances in the Separation of Gangliosides by High-Speed Counter-Current Chromatography (HSCCC)
Nuanyi Liang, Lucie Necasova, Yuanyuan Zhao, Jonathan M. Curtis
Journal of Chromatography B Volume 1174, 1 June 2021, 122701
https://doi.org/10.1016/j.jchromb.2021.122701

176. The effect of short-term storage temperature on the key headspace volatile compounds observed in Canadian faba bean flour
Rami Akkad, Ereddad Kharraz, Jay Han, James D. House, and Jonathan M. Curtis
Food Science and Technology International 28(2), 135-143 (2021)
First Published March 2, 2021 Issue published: March 1, 2022
https://doi.org/10.1177/1082013221998843

177. "*Sprouting Improves the Flavour Quality of Low- and High-tannin Faba Bean Flours*" by Rami Akkad, Amanda Buchko, Stuart P. Johnston, Jay Han, James D. House, and Jonathan M. Curtis
Food Chemistry, 130355, 364 (2021)
https://doi.org/10.1016/j.foodchem.2021.130355

178. Epoxidized linseed lipids as a durable and fast-curing alternative to drying oils
Magdalena Hubmann*, Konstantin von Gunten, Daniel S. Alessi, Jonathan M. Curtis,
Progress in Organic Coatings 159, 106406 (2021)
https://doi.org/10.1016/j.porgcoat.2021.106406

2020

167. Dietary choline or TMAO supplementation did not influence atherosclerosis development in Ldlr-/- and Apoe-/- male mice
Paulina Aldana-Hernández, Kelly-Ann Leonard, Yuan-Yuan Zhao, Jonathan M Curtis, Catherine J. Field, René L Jacobs
The Journal of Nutrition, Volume 150, Issue 2, February 2020, Pages 249–255, https://doi.org/10.1093/jn/nxz214

168. Inhibition of Autotaxin with GLPG1690 Increases the Efficacy of Radiotherapy and Chemotherapy in a Mouse Model of Breast Cancer
Xiaoyun Tang, Melinda Wuest, Matthew G.K. Benesch, Jennifer Dufour, YuanYuan Zhao, Jonathan M. Curtis, Alain Monjardet, Bertrand Heckmann, David Murray, Frank Wuest and David N. Brindley
Mol Cancer Therapeutics 19 (1) 63-74; (2020)
DOI:10.1158/1535-7163.MCT-19-0386

169. Feeding Buttermilk-Derived Choline Forms During Gestation and Lactation Modulates Ex Vivo T-Cell Response in Rat Dams
Jessy Azarcoya-Barrera, Susan Goruk, Erin D Lewis, Yves Pouliot, Jonathan M Curtis, Reid Steele, Emily Wadge, Catherine J Field, René L Jacobs, Caroline Richard
The Journal of Nutrition, Volume 150, Issue 7, Pages 1958–1965, (2020)
https://doi.org/10.1093/jn/nxaa089

170. Structure-function relationships of antifungal monohydroxy unsaturated fatty acids (HUFA) of plant and bacterial origin
Nuanyi Liang, Andrea Dacko, Alexander K.Tan, Sheng Xiang, Jonathan M. Curtis, Michael G. Gänzle
Food Research International Volume 134, 109237 (2020)
https://doi.org/10.1016/j.foodres.2020.109237

171. Identification and quantitation of hydroxy fatty acids in fermented sausage samples
Nuanyi Liang, Kaixing Tang, Jonathan M. Curtis, and Michael G. Gänzle
Journal of Agricultural and Food Chemistry 68, 32, 8648-8657 (2020)
DOI: 10.1021/acs.jafc.0c02688

2019

156. Kinetic stabilization of cellulose nanocrystals in a photocurable prepolymer for application as an adhesion promoter in UV-curable coatings
Magdalena Hubmann, Xiaohua Kong, Jonathan Curtis
Progress in Organic Coatings, **129**, 101-115 (2019)
https://doi.org/10.1016/j.porgcoat.2018.12.019

157. Exploiting synergies of sourdough and antifungal organic acids to delay fungal spoilage of bread

Mattia Quattrini, Nuanyi Liang, Maria Grazia Fortina, Sheng Xiang , Jonathan M. Curtis, Michael Gänzle
International Journal of Food Microbiology, **302,** 8-14 (2019)
https://doi.org/10.1016/j.ijfoodmicro.2018.09.007

158. A Role for Phosphatidylcholine and Phosphatidylethanolamine in Hepatic Insulin Signaling
Jelske N. van der Veen, Susanne Lingrell, Nicholas McCloskey , Danny Galleguillos, Yuan Y. Zhao, Jonathan M. Curtis , Simonetta Sipione , Morgan D. Fullerton , Dennis E. Vance , René L. Jacobs
FASEB Journal : **33(4),** 5045-5057 (2019)
https://doi.org/10.1096/fj.201802117R

159. Late-onset megaconial myopathy in mice lacking group I Paks
Giselle A. Joseph; Aviva J. Goel; Mingi Hing; Marysia-Kolbe Rieder; Noam D. Beckmann; Madhavika N. Serasinghe; Jerry E. Chipuk; Parvathi M. Devarakonda; David J. Goldhamer; Paulina Aldana-Hernandaz; Jonathan Curtis; Rene Jacobs; Robert S. Krauss
Skeletal Muscle, 9: 5 (2019)
https://doi.org/10.1186/s13395-019-0191-4

160. Experimental testing of the tensile elastic properties of cellulose braided composites
Brianna Bruni-Bossio, Cagri Ayranci, Jason P. Carey Tolibjon Omonov, Jonathan Curtis
Composites Part B: Engineering **166**, 542-548 (2019)
https://doi.org/10.1016/j.compositesb.2019.02.052

161. Characterisation of the volatile flavour compounds in low and high tannin faba beans (*Vicia faba* var. minor) grown in Alberta, Canada
Rami Akkad, Ereddad Kharraz, Jay Han, James D. House, and Jonathan M. Curtis
Food Research International **120**, 285-294 (2019)
https://doi.org/10.1016/j.foodres.2019.02.044

162. Impact of clinical use of parenteral lipid emulsions on bile acid metabolism and composition in neonatal piglets
Celeste M. Lavallee; David W. Lim; Pamela R. Wizzard; Vera C. Mazurak; Si Mi; Jonathan M. Curtis; Benjamin P. Willing; Jason Y. Yap; Paul W. Wales; and Justine M. Turner
Journal of Parenteral and Enteral Nutrition **43**(5), 668–676 (2019)
DOI:10.1002/jpen.1437 (published on-line ahead of print 2018)

163. Repeated Fractions of X-Radiation to the Breast Fat Pads of Mice Augment Activation of the Autotaxin-Lysophosphatidate-Inflammatory Cycle
Guanmin Meng, Melinda Wuest, Xiaoyun Tang, Jennifer Dufour, YuanYuan Zhao, Jonathan M. Curtis, David Murray, Todd P.W. McMullen, Frank Wuest and David N. Brindley
Cancers **11**, 1816 (2019)
doi:10.3390/cancers11111816

164. The Development of Epoxidized Hemp Oil Prepolymers for the Preparation of Thermoset Networks
Tolibjon S. Omonov, Vinay Patel, , Jonathan M. Curtis
J. Am Oil Chem. Soc. **96**, 1389-1403 (2019)
https://doi.org/10.1002/aocs.12290

165. Dexamethasone decreases the autotaxin-lysophosphatidate-inflammatory axis in adipose tissue: Implications for the Metabolic Syndrome and breast cancer
Guanmin Meng, Xiaoyun Tang, Zelei Yang, YuanYuan Zhao,
Jonathan M. Curtis, Todd P.W. McMullen and David N. Brindley
FASEB Journal **33**(2) 07 Sep 2018
https://doi.org/10.1096/fj.201801226R
Published online 30th Jan 2019

166. Mixed lipid, fish oil and soybean oil parenteral lipids impact cholestasis, hepatic phytosterol and lipid composition"
Daniela Migliarese Isaac *, Abeer S. Alzaben, Vera C. Mazurak, Jason Yap, Pamela R. Wizzard; Patrick N. Nation; Yuan-Yuan Zhao, Jonathan M. Curtis, Consolato Sergi, Paul W. Wales, Diana R. Mager and Justine M. Turner
Journal of Pediatric Gastroenterology and Nutrition 68(6):861-867, (2019)
doi: 10.1097/MPG.0000000000002313

2018

152. The dietary form of choline affects maternal immune function during lactation in rodents
N. S. Dellschaft, C. Richard, E. D. Lewis, S. Goruk, R. L. Jacobs, J. M. Curtis, C. J. Field
Eur J Nutr. **57**: 2189-2199 (2018)
https://doi.org/10.1007/s00394-017-1493-0

153. HDL protects against doxorubicin induced cardiotoxicity in a scavenger receptor class B type 1, PI3K, and AKT dependent manner.
Kristina K. Durham, Kevin M. Chathely, Kei Cheng Mak, Abdul Momen, Cyrus T. Thomas , Yuan-Yuan Zhao, Melissa E. MacDonald, Jonathan M. Curtis, Mansoor Husain, Bernardo L. Trigatti.
American Journal of Physiology- Heart and Circulatory Physiology
314(1), H31-H44 (2018)
DOI: 10.1152/ajpheart.00521.2016

154. Hepatic expression of Pemt, but not dietary choline supplementation, reverses the protection against atherosclerosis in Pemt-/- /Ldlr-/- mice
Yumna Zia, Ala Al Rajabi, Si Mi, Tingting Ju, Kelly-Ann Leonard, Randal Nelson, AducioThiesen, Benjamin P. Willing, Catherine J. Field, Jonathan M. Curtis, Jelske N. van der Veen, René L. Jacobs*
The Journal of Nutrition, 148(10), 1513–1520 (2018)

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155. The Preparation and Characterization of Polyurethane Reinforced by Cellulose Nanocrystals
Xiaohua Kong, John Wolodko, Liyan Zhao, and Jonathan M. Curtis*
Progress in Organic Coatings 125, 207-214 (2018)
https://doi.org/10.1016/j.porgcoat.2018.08.034

2017

141. Supplemental parenteral vitamin E into conventional soybean lipid emulsion does not improve parenteral nutrition-associated liver disease in full-term neonatal piglets
Muto, Mitsuru; Lim, David; Soukvilay, Amanda; Field, Catherine;
Wizzard, Pamela; Goruk, Susan; Ball, Ronald; Pencharz, Paul; Mi, Si; Curtis, Jonathan; Wales, Paul;
Turner, Justine;
Journal of Parenteral and Enteral Nutrition
41(4), 575-582 (2017)
doi: 10.1177/0148607115612030

142. The development of a choline rich cereal based functional food: effect of processing and storage
J. Asomaning, Y-Y. Zhao, E.D. Lewis, J. Wu, R.L. Jacobs, C.J Field and J.M. Curtis
LWT – Food Science and Technology, 75, 447-452 (2017)
Final version published online: 31-OCT-2016
DOI: 10.1016/j.lwt.2016.09.022

143. Enzymatic modification of egg lecithin for improved properties
J. Asomaning and J.M. Curtis
Food Chemistry, **220**, 385-392 (2017)
http://dx.doi.org/10.1016/j.foodchem.2016.09.155

144. Simultaneous determination of trimethylamine and trimethylamine N-oxide in mouse plasma samples by hydrophilic interaction liquid chromatography coupled to tandem mass spectrometry
Si Mi, Yuanyuan Zhao, René L. Jacobs, Jonathan M. Curtis
Journal of Separation Science **40**(3), 688–696 (2017)
DOI: 10.1002/jssc.201600926

145. The use of ATR-FTIR Spectroscopy to Measure Changes in the Oxirane Content and Iodine Value of Vegetable Oils during Epoxidation
M. H. Tavassoli-Kafrani, F.R.van de Voort, J. M. Curtis*
European Journal of Lipid Science and Technology 119(7), 1600354 (2017)
http://doi.wiley.com/10.1002/ejlt.201600354

146. Doxycycline attenuates breast cancer related inflammation by decreasing plasma lysophosphatidate concentrations and inhibiting NF-κB activation
Xiaoyun Tang, Xianyan Wang, Yuan Y. Zhao, Jonathan M. Curtis and David N. Brindley
Molecular Cancer 16:36 (2017)
DOI 10.1186/s12943-017-0607-x

147. Feeding a mixture of choline forms to lactating dam improves the development of the immune system in offspring
Caroline Richard, Erin D. Lewis, Susan Goruk, Emily Wadge, Jonathan M. Curtis, René L. Jacobs, Catherine J. Field
Nutrients, **9**, 567 (2017)
doi:10.3390/nu9060567

148. Camelina (*Camelina Sativa*) oil polyols as an alternative to Castor oil
Tolibjon S. Omonov, Ereddad Kharraz and Jonathan M. Curtis*
Industrial Crops and Products, **107**, 378-385 (2017)
http://dx.doi.org/10.1016/j.indcrop.2017.05.041

149. Feeding a mixture of choline forms representative of human dietary intake during lactation in rats improves offspring growth and maternal lymphocyte response to ex vivo immune challenges
Erin Lewis, Caroline Richard, Susan Goruk, Emily Wadge, Jonathan Curtis, Rene Jacobs, Catherine Field
Nutrients **9**, 713 (2017)
doi:10.3390/nu9070713

150. Encapsulation of Lutein in Liposomes Using Supercritical Carbon Dioxide
Lisha Zhao, Feral Temelli, Jonathan M. Curtis, Lingyun Chen
Food Research International 100, 168-179 (2017)
http://dx.doi.org/10.1016/j.foodres.2017.06.055

151 Nuanyi Liang, Pengfei Cai, Datong Wu, Yuanjiang Pan, Jonathan M. Curtis and Michael G. Gänzle* High-Speed Counter-Current Chromatography (HSCCC) Purification of Antifungal Fatty Acids from Plant Seed Oil and *Lactobacillus* Fermentation
Journal of Agriculture and Food Chemistry **65**, 11229-11236 (2017)

2016

123. Glucagon-like peptide-2 alters bile acid metabolism in parenteral nutrition associated liver disease David W. Lim, Paul W. Wales, Si Mi, Jason Y. K. Yap, Jonathan M. Curtis, Diana R. Mager, Vera C. Mazurak, Pamela R. Wizzard, David L. Sigalet, Justine M. Turner
Journal of Parenteral and Enteral Nutrition
40(1), 22-35 (2016)
doi: 10.1177/0148607115595596

124. Measurement of the total choline content in 48 commercial dairy products or dairy alternatives
Caroline Richard , Erin D. Lewis , Yuan-Yuan Zhao , Justice Asomaning , René L. Jacobs , Catherine J. Field , Jonathan M. Curtis *
Journal of Food Composition and Analysis
45, 1-8 (2016)
doi:10.1016/j.jfca.2015.09.009

125. Evaluation of Fumagilin-B® and other potential alternative chemotherapies against *Nosema ceranae*-infected honey bees (*Apis mellifera*) in cage trial assays
Johan P. van den Heever, Thomas S. Thompson, Simon J.G. Otto, Jonathan M. Curtis, Abdullah Ibrahim, Stephen F. Pernal
Apidologie, **47**, 617–630 (2016)
DOI: 10.1007/s13592-015-0409-3

126. The effect of dicyclohexylamine and fumagillin on *Nosema ceranae*-infected honey bee (*Apis mellifera*) mortality in cage trial assays
Johan P. van den Heever, Thomas S. Thompson, Simon J.G. Otto, Jonathan M. Curtis, Abdullah Ibrahim, Stephen F. Pernal
Apidologie **47**, 663–670 (2016)
DOI: 10.1007/s13592-015-0411-9

127. Lysotropic Agents Selectively Target Chronic Lymphocytic Leukemia Cells Due to Altered Sphingolipid Metabolism.
Rebecca F Dielschneider, Hannah Eisenstat, Si Mi, Jonathan M Curtis, Wenyan Xiao, James B Johnston, Spencer B Gibson
Leukemia
30(6),1290-1300 (2016)
doi: 10.1038/leu.2016.4.

128. Quantification of Nonanal and Oleic acid formed during the Ozonolysis of Vegetable Oil Free Fatty Acids or Fatty Acid Methyl Esters
M. H. Tavassoli-Kafrani, P. Foley, E. Kharraz, J. M. Curtis
Journal of the American Oil Chemists' Society
93(3), 303-310 (2016)
doi: 10.1007/s11746-015-2780-7

129. The form of choline in the maternal diet affects immune development in the suckled offspring
Erin D. Lewis, Caroline Richard, Susan Goruk, Neele S. Dellschaft, Jonathan M. Curtis, René L. Jacobs, Catherine J. Field
Journal of Nutrition
146, 823-830 (2016)
doi:10.3945/jn.115.225888

130. Oxidative stress contributes to the tamoxifen-induced killing of breast cancer cells: implications for tamoxifen therapy and resistance
Raie Taye Bekele, Ganesh Venkatraman, Rong-Zong Liu, Xiaoyun Tang,
Si Mi, Matthew Benesch John R Mackey and Roseline Godbout, Jonathan M. Curtis, Todd McMullen, David N.Brindley*
Nature Scientific Reports, 6:21164 (2016)
DOI: 10.1038/srep21164

131. Determination of Bile Acids in Piglet Bile by Solid Phase Extraction and Liquid Chromatography-Electrospray Tandem Mass Spectrometry
Si Mi, David W. Lim, Justine M. Turner, Paul W. Wales, Jonathan M. Curtis
Lipids
51(3), 359-372 (2016)
DOI 10.1007/s11745-016-4125-1

132. Tetracyclines increase the expression of lipid phosphate phosphatases on plasma membranes and the turnover of plasma lysophosphatidate
Xiaoyun Tang, Yuan Y. Zhao , Jay Dewald, Jonathan M. Curtis and David N. Brindley
Journal of Lipid Research **57(4),** 597-606 (2016)
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133. Vaccenic acid suppresses intestinal inflammation by increasing anandamide and related N-acylethanolamines in the JCR:LA-cp rat
Jacome-Sosa MM, Vacca C, Diane A, Reaney MJ, Shen J, Curtis JM, Vine D, Field C, Banni S and Proctor SD.
Journal of Lipid Research
57(4), 638-649 (2016)
doi:10.1194/jlr.M066308

134. Stoichiometric determination of moisture in edible oils by Mid-FTIR spectroscopy
F. R. van de Voort, M. H. Tavassoli-Kafrani and J. M. Curtis
Analytica Chimica Acta, **918**, 1-7 (2016)
http://dx.doi.org/10.1016/j.aca.2016.03.016

135. Polyurethane nanocomposites incorporating biobased polyols and reinforced with a low fraction of cellulose nanocrystals
Xiaohua Kong, Liyan Zhao, Jonathan M. Curtis,
Carbohydrate Polymers **152,** 487-495 (2016)
DOI: 10.1016/j.carbpol.2016.07.032

136. An LC/MS/MS method for the simultaneous determination of individual sphingolipid species in B cells
Si Mi, Yuan-Yuan Zhao, Rebecca F Dielschneider, Spencer B Gibson, Jonathan M. Curtis
Journal of Chromatography B, **1031**, 50–60 (2016)
Doi: 10.1016/j.jchromb.2016.07.028

137. Feeding a diet devoid of choline during suckling restricts growth and impairs T cell

expansion and function in offspring
Erin D. Lewis, Susan Goruk, Caroline Richard, Neele S. Dellschaft, Jonathan M.Curtis, René L. Jacobs, Catherine J. Field
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138. Fatty Acid Composition of Novel Host Jack Pine Do Not Prevent Host Acceptance and Colonization by the Invasive Mountain Pine Beetle and Its Symbiotic Fungus
Guncha Ishangulyyeva, Ahmed Najar, Jonathan M. Curtis, Nadir Erbilgin,*
PLoS ONE 11(9): e0162046 (2016)
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139. The Epoxidation of Canola Oil and its Derivatives
T.Omonov*, E Kharraz and J.M.Curtis
RSC Advances, 6, 92874 – 92886 (2016)
DOI: 10.1039/c6ra17732h

140. Characterization of linoleate 10-hydratase of Lactobacillus plantarum and novel antifungal metabolites
Yuan Yao Chen, Nuan Yi Liang, Jonathan M. Curtis, Michael Gänzle
Frontiers in Microbiology **7**, 1561 (2016)
doi: 10.3389/fmicb.2016.01561

2015

111. A single-sample method to determine the hydroxyl values of polyols using mid-FTIR spectroscopy
M. H. Tavassoli-Kafrani, J. M. Curtis and F.R. van de Voort*
Eur. J. Lipid Sci. Technol. **117(1)**, 65-72 (2015)
DOI: 10.1002/ejlt.201400256

112. Determination of dicyclohexylamine and fumagillin in honey by LC-MS/MS
Johan P. van den Heever, Thomas S. Thompson, Jonathan M. Curtis, Stephen F. Pernal
Food Analytical Methods 8(3), 767-777 (2015)
Published on-line 12 Aug 2014; DOI 10.1007/s12161-014-9956-x

113. Oxidative stability of UHT milk rich in conjugated linoleic acid and *trans*-vaccenic acid
Sergio I. Martínez-Monteagudo, Metzeri Leal-Dávila, Jonathan Curtis, Marleny D.A. Saldaña
International Dairy Journal **43**, 70-77(2015)

114. Profiling of Phospholipids by Two Dimensional Liquid Chromatography coupled to in-line Ozonolysis-Mass Spectrometry
Chenxing Sun, Yuan-Yuan Zhao and Jonathan M. Curtis
J. Agric. Food Chem., **63(5),**1442–1451(2015)
DOI: 10.1021/jf5049595

115. Choline deficiency impairs intestinal lipid metabolism in the lactating rat
Robin P da Silva, Karen B Kelly, Kelly-Ann Leonard, Sue Goruk, Jonathan Curtis, Donna Vine, Spencer Proctor, Catherine J Field, René L Jacobs
Journal of Nutritional Biochemistry **26**, 1077-1083 (2015)
http://dx.doi.org/10.1016/j.jnutbio.2015.04.015

116. Regulation of autotaxin expression and secretion by lysophosphatidate and sphingosine 1-phosphate
Matthew G. K. Benesch, Yuan Y. Zhao, Jonathan M. Curtis, Todd P. W. McMullen, and David N. Brindley
Journal of Lipid Research **56**, 1134-1144 (2015)
DOI 10.1194/jlr.M057661

117. Stability of dicyclohexylamine and fumagillin in honey
Johan Philip van den Heever; Thomas S Thompson; Jonathan M Curtis, Stephen .F.Pernal
Food Chemistry, **179**, 152-158 (2015)
http://dx.doi.org/10.1016/j.foodchem.2015.01.111

118. A Flow-Through Enzymatic Microreactor for the Rapid Conversion of Triacylglycerols into FAEE or FAME Derivatives for GC Analysis
S. T. Anuar, S. M. Mugo and J. M. Curtis
Analytical Methods, **7**,5898-5906 (2015)

119. Choline is required in the diet of lactating dams to maintain maternal immune function
Neele S. Dellschaft, Megan R. Ruth, Susan Goruk, Erin Lewis, Caroline Richard, René L. Jacobs, Jonathan M. Curtis, Catherine J. Field
British Journal of Nutrition **113(11)**, 1723-31 (2015)
doi: 10.1017/S0007114515001221.

120. Autotaxin is an inflammatory mediator and therapeutic target in thyroid cancer
Matthew G.K. Benesch, Yi M. Ko, Xiaoyun Tang, Jay Dewald, Ana Lopez-Campistrous, Yuan Y. Zhao, Raymond Lai, Jonathan M. Curtis, David N. Brindley* and Todd P.W. McMullen*
Endocrine Related Cancer **22(4)**, 593-607 (2015)

121. Preparation of Liposomes Using Supercritical Carbon Dioxide Technology: Effects of Phospholipids and Sterols
Lisha Zhao, Feral Temelli*, Jonathan Curtis, Lingyun Chen
Food Research International **77**, 63-72(2015)
DOI/10.1016/j.foodres.2015.07.006

122. Measurement of the abundance of choline and the distribution of choline-containing moieties in meat
Erin D. Lewis, Yuan-Yuan Zhao, Caroline Richard, Heather L. Bruce, René L. Jacobs, Catherine J. Field, Jonathan M. Curtis*
International Journal of Food Sciences and Nutrition **66**(7), 743-748 (2015)

DOI 10.3109/09637486.2015.1088942

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Chapter 7 Plant Oil-Based Epoxy Intermediates for Polymers pp 99- 125
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DOI:10.1039/9781788013109-00175

C. Issued Patents

1. Microcapsules and emulsions containing low bloom gelatin and methods of making thereof
Described herein are microcapsules and emulsions prepared from low Bloom gelatin and methods of making and using thereof.
Inventors: Jonathan Michael **Curtis**, Wei **Zhang**, Yulai **Jin**, Colin James **Barrow**
US 8,034,450 issued Oct 11, 2011
US Pat. App 11227961 - Filed 15 Sep 2005

2. Homogenized formulations containing microcapsules and methods of making and using thereof
US Pat. App 11435605 - Filed 17 May 2006
Disclosed are homogenized formulations that comprise microcapsules. Also, disclosed are methods of making and using the disclosed homogenized formulations.
Inventors: Jonathan Michael **Curtis**, Wei **Zhang**, Sharon Ann **Spurvey**, Suzelle Rejeanne **Robert**
US 9,968,120 issued May 15, 2018

3. Microcapsules with improved shells
US Pat. App 12/308,045 filed 4 Jun 2007
Disclosed are microcapsules and methods for preparing and using them, as well as methods for improving various properties of microcapsules like impermeability.
Inventors: Jin **Yulai**, Colin James **Barrow**, Wei **Zhang**, Cuie **Yan**, Jonathan Michael **Curtis**, Shawn **Moulton**, Nancy Beatrice **Diogbenou**, Lesek Alexa **Demont**
US 9,056,058 issued June 16, 2015

4a. Polyol synthesis from fatty acids and oils
US Patent Application, filing date July 2010
The present invention relates to a process for the preparation of polyols from vegetable oils.
Inventors: **CURTIS**, Jonathan; **LIU**, Guoguang; **OMONOV**, Tolibjon and **KHARRAZ**, Ereddad
United States Patent US 9,216,940 B2 issued Dec 22 2015

4b. Polyol synthesis from fatty acids and oils
Canadian Patent 2,806,105 issued August 16th, 2017
(examined 11th July 2017) 17 claims
Inventors: **CURTIS**, Jonathan; **LIU**, Guoguang; **OMONOV**, Tolibjon and **KHARRAZ**, Ereddad

4c. Polyol synthesis from fatty acids and oils
European Patent 2,595,949 B1 issued July 24th, 2019
(filing date 11th July 2017) 17 claims
Inventors: **CURTIS**, Jonathan; **LIU**, Guoguang; **OMONOV**, Tolibjon and **KHARRAZ**, Ereddad

5. Method for Polyol Synthesis from Triacylglyceride Oils
The present invention relates to an improved process for the preparation of polyols from unsaturated triacylglycerol oil
Inventors: **CURTIS**, Jonathan; **OMONOV**, Tolibjon; **KHARRAZ**, Ereddad; **KONG**, Xiaohua and **TAVASSOLI-KAFRANI**, Mohammad Hossein
Date of Filing – June 24, 2015
PCT/CA2016050753 filed Jun.27,2016
PCT Pub.No.: WO2016/205958 Dec. 15, 2017
U.S. Patent Application Serial No. 15/736,999
U.S. Patent No. 10,189,761 issued Jan.29, 2019

6. Synthesis of Polyols Suitable for Castor Oil Replacement
The present invention relates to a process for the preparation of polyols from unsaturated triacylglycerol oils, which polyols may have properties similar to castor oil.
Inventors: **CURTIS**, Jonathan; **OMONOV**, Tolibjon and **KHARRAZ**, Ereddad

Filed July 31, 2015, Allowed Feb 22 2019
U.S. Patent No. 10,301,239 issued May 28, 2019

U.S. Patent Application Serial No. 15/748,149
International Patent Application Serial No. PCT/CA2016/050895 and an International Filing Date of July 29, 2016.