

BIOGRAPHICAL SKETCH

NAME Donovan, Jennifer L.		POSITION TITLE Assistant Professor	
eRA COMMONS USER NAME DONOVANJL			
EDUCATION/TRAINING (<i>Begin with baccalaureate or other initial professional education, such as nursing,</i>			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Massachusetts at Amherst	BS	1994	Food Science
University of California at Davis	MS	1997	Food Science
University of California at Davis	PhD	1999	Food Chemistry
INRA, Clermont-Ferrand, France	Post-doctoral	1999-2000	Nutrition
Medical University of South Carolina	Post-doctoral	2001-2003	Pharmacology

A: POSITIONS AND HONORS

Positions

2003–2006 Research Assistant Professor, Department of Psychiatry and Behavioral Sciences, MUSC
 2004–present Faculty Member, College of Graduate Studies, MUSC
 2005–present Associate Editor, Journal of the Science of Food and Agriculture
 2006–present Assistant Professor, Department of Psychiatry and Behavioral Sciences, MUSC

Honors

1998 Young Investigator Award, Phytochemical Society of Europe
 1999 Young Investigator Award, American Society for Enology and Viticulture
 2005 Australian National Health and Medical Research Council Study Section Reviewer
 2006,2007 NIH (NCCAM) Scientific Review Group (ZAT1 DB25, ZAT1 DB26, ZAT1 SM07)

B: SELECTED PEER-REVIEWED PUBLICATIONS

1. Waterhouse AL, Shirley JR, **Donovan JL**. Letter: Antioxidants in chocolate. *Lancet* (1996) 38: 834.
2. Luthria DL, Jones AD, **Donovan JL**, Waterhouse AL. GC-MS Determination of catechin and epicatechin levels in human plasma. *Journal of High Resolution Chromatography* (1997) 20: 621-623.
3. Schramm DD, **Donovan JL**, Kelly PA, Waterhouse AL, German JB. Differential effects of small and large molecular weight wine phytochemicals on endothelial cell eicosanoid release. *Journal of Agricultural and Food Chemistry* (1998) 46:1900-1905.
4. Meyer AS, **Donovan JL**, Pearson DA, Waterhouse AL, Frankel EN. Fruit hydroxycinnamic acids inhibit human low-density lipoprotein oxidation in vitro. *Journal of Agricultural and Food Chemistry* (1998) 46: 1783-1787.
5. **Donovan JL**, Meyer AS, Waterhouse AL. Phenolic composition and antioxidant activity of prunes and prune juice (*Prunus domestica*). *Journal of Agricultural and Food Chemistry* (1998) 46: 1247-1252.
6. **Donovan JL**, McCauley JC, Tobella-Nieto N, Waterhouse AL. Effects of small-scale fining on the phenolic composition and antioxidant activity of merlot wine. In: *The Chemistry of Wine Flavor* (Waterhouse AL & Ebeler SE eds., Oxford University Press, Washington, DC) (1998) 142-155.
7. **Donovan JL**, Bell JR, Kasim- Karakas SE, German JB, Walzem RL, Hansen RJ, Waterhouse AL. Catechin is present as metabolites in human plasma after consumption of red wine. *Journal of Nutrition* (1999) 129: 1662-1668.
8. **Donovan JL**, Luthria DL, Stremple P, Waterhouse AL. Analysis of (+)-catechin, (-)-epicatechin and their 3' and 4' O-methylated analogs: A comparison of sensitive methods. *Journal of Chromatography B: Biomedical Applications*. (1999) 726: 277-283.
9. Bell JR, **Donovan JL**, Wong R, Waterhouse AL, German JB, Walzem RL, Kasim-Karakas SE. Catechin in human plasma after ingestion of a single serving of reconstituted red wine. *American Journal of Clinical Nutrition* (2000) 71:103-108.
10. **Donovan JL**, Crespy V, Manach C, Morand C, Besson C, Scalbert A , Rémésy C. Catechin is metabolized by both the small intestine and the liver in rats. *Journal of Nutrition* (2001) 131:1753-1757.
11. **Donovan JL**, DeVane CL. A primer on caffeine pharmacology and its interactions in clinical psychopharmacology. *Psychopharmacology Bulletin* (2001) 35:30-48.
12. Morand C, Manach C, **Donovan JL**, Rémésy C. Preparation and characterization of flavonoid metabolites present in biological samples. *Methods in Enzymology* (2001) 35: 115-121.

13. **Donovan JL**, Manach C, Rios L, Morand C, Scalbert A, Rémésy C. Procyanidins are not bioavailable in rats fed a single meal containing a grapeseed extract or the procyanidin dimer B₃. *British Journal of Nutrition* (2002) 87: 299-306.
14. **Donovan JL**, Kasim-Karakas SE, German JB, Waterhouse AL. Urinary excretion of catechin metabolites by humans after red wine consumption. *British Journal of Nutrition* (2002) 87: 31-37.
15. Markowitz JS, DeVane CL, Chavin KD, Taylor RM, Ruan Y, **Donovan JL**. Effects of garlic (*Allium sativum* L) supplementation on cytochrome P450 2D6 and 3A4 activity in healthy volunteers. *Clinical Pharmacology and Therapeutics* (2003) 74:170-177.
16. DeVane CL, **Donovan JL**, Liston HL, Markowitz JS, Cheng KT, Risch C, Willard L. Comparative CYP3A4 inhibitory effects of venlafaxine, fluoxetine, sertraline, and nefazodone in healthy volunteers. *Journal of Clinical Psychopharmacology* (2003) 24: 1-7.
17. **Donovan JL**, DeVane CL, Chavin KD, Taylor RM, Markowitz JS. Siberian ginseng (*Eleutherococcus senticosus*) effects on CYP2D6 and CYP3A4 activity in normal volunteers. *Drug Metabolism and Disposition* (2003) 31: 519-522.
18. Markowitz JS, **Donovan JL**, DeVane CL, Spikes L, Chavin KD. Multiple-dose administration of *Ginkgo biloba* did not effect on cytochrome P450 2D6 or 3A4 activity in normal volunteers. *Journal of Clinical Psychopharmacology* (2003) 23: 676-681.
19. **Donovan JL**, DeVane CL, Boulton D, Dodd S, Markowitz JS. Dietary levels of quinine in tonic water do not inhibit CYP2D6 in vivo. *Food and Chemical Toxicology* (2003) 41:1199-1201.
20. Gonthier MP, Cheyner V, **Donovan JL**, Manach C, Morand C, Mila I, Lappierre C, Rémésy C, Scalbert A. Microbial aromatic acid metabolites formed in the gut account for a major fraction of polyphenols excreted in the urine of rats fed red wine polyphenols. *Journal of Nutrition* (2003) 133: 461-467.
21. **Donovan JL**, Malcolm RJ, Markowitz JS, DeVane CL. Chiral analysis of *d*- and *l*-modafinil in human serum: Application to pharmacokinetic studies. *Therapeutic Drug Monitoring* (2003) 25 :197-202.
22. Markowitz JS, **Donovan JL**, DeVane CL, Taylor RM, Ruan Y, Wang J-S, Chavin KD. Multiple-doses of Saw Palmetto (*Serenoa repens*) did not alter CYP2D6 and CYP3A4 activity in normal volunteers. *Clinical Pharmacology and Therapeutics* (2003) 74: 536-542.
23. Gonthier MP, **Donovan JL**, Texier O, Felgines C, Remesy C, Scalbert A. Metabolism of dietary procyanidins in rats. *Free Radical Biology and Medicine* (2003) 35: 837-844.
24. Markowitz JS, **Donovan JL**, DeVane CL, Taylor RM, Ying R, Wang J-S, Chavin KD. Effect of St John's wort on drug metabolism by induction of cytochrome P450 3A4. *Journal of the American Medical Association* (2003) 290:1500-1504.
25. **Donovan JL**, DeVane CL, Chavin KD, Wang J-S, Gibson BB, Gefroh HA, Markowitz JS. Multiple nighttime doses of valerian (*Valeriana officinalis*) had minimal effects on CYP3A4 activity and no effect on CYP2D6 activity in healthy volunteers. *Drug Metabolism and Disposition* (2004) 32:1333-6.
26. Wang J-S, Taylor RM, Ruan Y, **Donovan JL**, Markowitz JS, DeVane CL. Olanzapine penetration into brain is greater in transgenic *Abcb1a* P-glycoprotein deficient mice than FVB1 (wile type) animals. *Neuropsychopharmacology* (2004) 29:551-557.
27. Manach C, **Donovan JL**. Pharmacokinetics and Metabolism of Dietary Flavonoids in Humans. *Free Radical Research* (2004) 38:771-785.
28. **Donovan JL**, Markowitz JS, DeVane CL, Taylor RM, Ying R, Wang J-S, Chavin KD. Green tea (*Camellia sinensis*) extract does not alter cytochrome P-450 3A4 or 2D6 activity in healthy volunteers. *Drug Metabolism and Disposition* (2004) 32:906-908.
29. Kroon PA, Clifford MN, Crozier A, Day AJ, **Donovan JL**, Manach C, Williamson G. Commentary: How should we assess the effects of exposure to dietary polyphenols in vitro? *American Journal of Clinical Nutrition* (2004) 80:15-21.
30. **Donovan JL**. Letter to the Editor: Flavonoids and the risk of cardiovascular disease. *American Journal of Clinical Nutrition* (2004) 79:522-524.
31. Wang JS, Ruan Y, Taylor RM, **Donovan JL**, Markowitz JS, DeVane CL. Brain penetration of methadone (R)-and (S)-enantiomers is greatly increased by P-glycoprotein deficiency in the blood brain barrier of *Abcb1a* gene knockout mice. *Psychopharmacology* (2004) 173:132-138.
32. Markowitz JS, **Donovan JL**, DeVane CL, Wang JS, Ruan Y, Chavin KD. Research Letter: Common herbal dietary supplements did not produce false-positives on urine drug screens analyzed by enzyme immunoassay. *Journal of Analytical Toxicology* (2004) 28:272-273.

33. Wang JS, Ruan Y, Taylor RM, **Donovan JL**, Markowitz JS, DeVane CL. The brain entry of risperidone and 9-hydroxyrisperidone are greatly limited by P-glycoprotein. *International Journal of Neuropsychopharmacology* (2004) 7:1-5.
34. **Donovan JL**, Waterhouse AL. Bioavailability of flavanol monomers. In: *Flavonoids in Health and Disease* Vol. 2. (Rice-Evans C, Packer L eds., Marcel Decker, NY). (2003) pgs 413-439.
35. Wang J-S, Taylor RM, Ruan Y, **Donovan JL**, Markowitz JS, DeVane CL. Olanzapine penetration into brain is greater in transgenic *Abcb1a* P-glycoprotein deficient mice than FVB1 (wile type) animals. *Neuropsychopharmacology* (2004) 29:551-557.
36. **Donovan JL**, DeVane CL, Chavin KD, Oates JC, Njoku C, Patrick KS, Fiorini RN, Markowitz JS. Oral Administration of a Decaffeinated Green Tea (*Camellia sinensis*) Extract Did Not Alter Urinary 8-epi-prostaglandin F_{2α}, a Biomarker for In Vivo Lipid Peroxidation. *Journal of Pharmacy and Pharmacology* (2005) 57: 1365-1369.
37. Markowitz JS, DeVane CL, Lewis JG, Chavin KD, Wang JS, **Donovan JL**. Effect of a *Ginkgo biloba* extract on plasma steroid concentrations in normal volunteers: A pilot study. *Pharmacotherapy* (2005) 25:1337-1340.
38. Fiorini RN, **Donovan JL**, Rodwell D, Evans Z, Cheng G, Haines JK, Schmidt MG, Markowitz JS, Chavin KD. Short-term administration of (-)-epigallocatechin gallate reduces hepatic fat content and protects against hepatic ischemia/reperfusion injury in steatotic mice. *Liver Transplantation* (2005) 11: 298-308.
39. Wang JS, Markowitz JS, **Donovan JL**, DeVane CL. P-glycoprotein Does Not Actively Transport Nicotine and Cotinine. *Addiction Biology* (2005) 10:127-129.
40. **Donovan JL**, DeVane CL, Malcolm RJ, Mojsiak J, Chiang CN, Elkashef A, Taylor RM. Modafinil influences the pharmacokinetics of intravenous cocaine in healthy cocaine-dependent volunteers. *Clinical Pharmacokinetics* (2005) 44:753-65.
41. **Donovan JL**, DeVane CL, Lewis JG, Wang JS, Ruan Y, Chavin KD, Markowitz JS Effects of St. John's wort (*Hypericum perforatum*) administration on plasma androgen concentrations: A pilot study. *Phytotherapy Research* (2005) 19: 901-906.
42. Malcolm RJ, Swayngim K, **Donovan JL**, DeVane CL, Elkashef A, Chiang N, Khan R, Mojsiak J, Myrick DH, Hedden S, Cochran K, Woolson R. Modafinil and cocaine interactions. *The American Journal of Drug and Alcohol Abuse* (2006) 32:577-87.
43. **Donovan JL**, Crespy V, Oliveira M, Cooper K, Gibson BB, Williamson G. (+)-Catechin is more bioavailable than (-)-catechin: Relevance to the bioavailability of catechin from cocoa. *Free Radical Research* (2006) 40:1029-1034.
44. Zhu H, Wang JS, DeVane CL, Williard RL, **Donovan JL**, Middaugh LD, Gibson BB, Patrick KS, Markowitz JS The Role of the Polymorphic Efflux Transporter P-glycoprotein on the Brain Accumulation of d-Methylphenidate and d-Amphetamine. *Drug Metabolism and Disposition* (2006) 34;1116-1121.
45. Wang JS; Zhu H; Markowitz JS; **Donovan JL**; DeVane CL. Evaluation of Antipsychotic Drugs as Inhibitors of Multidrug Resistance Transporter P-glycoprotein. *Psychopharmacology* (2006) 187:415-423.
46. DeVane CL, Stowe ZN, **Donovan JL**, Newport DJ, Pennell PB, Ritchie JC, Owens MJ, Wang JS. Therapeutic drug monitoring of psychoactive drugs during pregnancy in the genomic era: Challenges and Opportunities. *Journal of Psychopharmacology* (2006) 20: 54-59.
47. Zhu H, Wang JS, Markowitz JS, **Donovan JL**, Gibson BB, Gefroh HA. Characterization of P-glycoprotein inhibition by major cannabinoids from marijuana. *Journal of Pharmacology and Experimental Therapeutics*. (2006) 317 850-857.
48. Wang JS, DeVane CL, Gibson BB, **Donovan JL**, Markowitz JS, Zhu H. Population pharmacokinetic analysis of drug-drug interactions among risperidone, bupropion, and sertraline in CF-1 mice. *Psychopharmacology* (2006) 183: 490-499.
49. Markowitz JS, DeVane CL, Malcolm RJ, Gefroh HA, Wang J-S, Zhu, H, **Donovan JL**. Pharmacokinetics of olanzapine after single dose oral administration of standard tablet versus normal and sublingual administration of an orally disintegrating tablet in normal volunteers. *Journal of Clinical Pharmacology* (2006) 46:164-171.
50. **Donovan JL**, Manach C, Kroon PA. Absorption and Metabolism of Plant Secondary Metabolites in Plant Secondary Metabolites: Occurrence, Structure and Role in the Human Diet. (Crozier A, Clifford M, Ashihara H eds., Blackwell Publishing, Oxford, UK). (2006) pgs 303-353.
51. **Donovan JL**, Crespy V, Oliviera M, Cooper KA, Gibson BB, Williamson G. (+)-Catechin is more bioavailable than (-)-catechin: relevance to the bioavailability of catechin from cocoa. *Free Radical Research* (2006) 40:1029-1034.

