

**JAMES JOHN O'DONNELL**

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EXPERIENCE

Rosalind Franklin University of Medicine and Science

Associate Professor 9/22-present

Assistant Professor 12/16-9/22

Department of Foundational Sciences and Humanities,

Discipline of Cellular and Molecular Pharmacology, Chicago Medical School

Department of Pharmaceutical Sciences, College of Pharmacy

12/16-present

Pharmaconsultant, Inc.

Vice President—Research and Development, Consultant in pharmacology and analytical toxicology

8/15 – present

Indiana University School of Medicine—South Bend

Postdoctoral Fellow 7/14-7/15

University of Chicago Department of Medicine

Section of Pulmonary and Critical Care (Respiratory Biology Training Grant)

Postdoctoral Fellow 5/14/12-5/13/14

Rush University Medical Center

Department of Pharmacology

Research Associate 1/1/12-4/12

University of Wisconsin-Madison

Graduate Research Assistant in organometallic chemistry 2003 – 2005

Northwestern University

Research Assistant in organometallic/polymer chemistry 2002 - 2003

EDUCATION

Rush University Medical Center

Ph.D., Department of Pharmacology 2006-2011

Advisor: Dr. Hazel Lum

Project: "P120 Catenin Suppresses the Inflammatory Response in Endothelial Cells"

University of Wisconsin-Madison

Masters of Science, Chemistry 2003-2005

Northwestern University

Special Student in Chemistry 2001-2003

Massachusetts Institute of Technology (MIT)

S.B. Electrical Engineering and Computer Science 1996-2001

AWARDS

American Society for Pharmacological and Experimental Therapeutics (ASPET)	
Division of Pharmacology Education Faculty Travel Award for Experimental Biology Conference 2018 Meeting	
University of Chicago Department of Medicine Research Day	
Best Abstract, Translational Medicine/Fellow Category	2013
Rush University	
Paul E. Carson, MD Award for Excellence in Pharmacology	2012
Sigma Xi Poster Competition, 3rd out of 63 students at Rush University Research Forum	2010
Other	
National Merit Scholarship Winner	1996

PROFESSIONAL ORGANIZATIONS

American Academy of Clinical Toxicology (AACT)	2015-present
American Society for Pharmacology and Experimental Therapeutics (ASPET)	2013-present
American Physiological Society (APS)	2008-2011
American College of Clinical Pharmacology (ACCP)	2015-present

TEACHING EXPERIENCE

Rosalind Franklin University (2013-present)	
Coordinator of Pharmacology Curriculum, Chicago Medical School (2019-present)	
Multisystems Block	
Pharmacology of Shock	2/20,2/21,3/22
Toxicology	2/20,2/21,2/22
Pharmacology: High Yield Drug Interactions	3/22
Cardiovascular-Pulmonary-Renal (CPR) Block	
Co-course Director (2022-present)	
Antihypertensives	5/22
Antihypertensives Workshop	5/19,4/20,4/21,5/22
Chronic Kidney Disease Case Study Discussion (preceptor)	5/19,5/20,5/21,5/22
Acute Kidney Disease Case Study Discussion (preceptor)	5/19,5/20,5/21,5/22
Hyponatremia Case Study Discussion (preceptor)	4/19,4/20,4/21,4/22
Cough and Fever Case Study Discussion (preceptor)	4/19,4/20,4/21,4/22
Dyspnea Case Study (preceptor)	4/19,4/20,4/21,4/22
Autonomic Nervous System (ANS) Problem Solving Workshop	3/19,3/20,3/21,3/22
Hypoxemia Case Study Case Study Discussion (preceptor)	3/19,3/20,3/21,4/22
Congestive Heart Failure Case Study Discussion (preceptor)	3/19,2/20,3/21,3/22
Heart Murmur Case Study Discussion (preceptor)	3/19,3/20,3/21,3/22
Syncope Case Study Discussion (preceptor)	3/19,3/20,3/21,3/22
Pharmacology of the Autonomic Nervous System	2/19,3/20,3/21,3/22
Anti-hyperlipidemic Agents	3/22
Gastrointestinal Block	

	Gastrointestinal Pharmacology III	2/19,2/20,2/21,2/22
	Gastrointestinal Pharmacology IV and Liver Disease Pharmacology	
2/19,2/20,2/21,2/22	Abdominal Pain Case Study Discussion (preceptor)	2/19,2/20,2/21,2/22
	Jaundice and Liver Disease Case Study Discussion (preceptor)	2/19,2/20,2/21,2/22
	Gastrointestinal Pharmacology I	1/19,1/20,1/21,1/22
	Gastrointestinal Pharmacology II	1/19,1/20,1/21,1/22
	GI Bleed Case Study Discussion (preceptor)	1/20,2/21,2/22
	Lower GI Bleed Case Study Discussion (preceptor)	1/19,1/20,1/21,1/22
	Diarrhea Case Study Discussion (preceptor)	1/19,1/20,1/21,1/22
	Dysphagia Case Study Discussion (preceptor)	1/19
	Infection-Immunology-Hematology Block	
	Sore Throat Case Study Discussion (preceptor)	11/18,11/19,11/20,11/21
	Scientific Foundations of Medicine Block	
	Cancer Case Study	12/21,10/22
	Clinical Pharmacokinetics	10/19
	Neurobehavioral Health	
	Movement Disorder Case Study Discussion (case writer, backup preceptor)	10/21,10/22
	Medical Pharmacology	
	Co-course director (2017-2019)	
	Autonomics Review	4/19
	FDA Regulations & Drug Safety	4/19
	Toxicology	4/19
	Diabetes Small Group Discussion (co-lead facilitator)	3/19
	Gastrointestinal Pharmacology	2/19
	Parkinson's Disease Small Group Discussion (lead facilitator)	1/19
	Psychopharmacology Small Group Discussion (co-facilitator)	12/18
	Asthma Small Group Discussion (co-facilitator)	11/18
	Cardiac Small Group Discussion (co-facilitator)	10/18
	Hypertension Small Group Discussion (lead facilitator)	10/18
	Anti-Hypertensives Problem Solving	10/18
	Integrated Autonomics Problem Solving	10/18
	Autonomic Agents I-IV	9/18
	Psychopharm Small Group Discussion (co-facilitator)	12/18
	Asthma Small Group Discussion (co-facilitator)	11/18
	Cardiac Small Group Discussion (co-facilitator)	10/18
	Hypertension Small Group Discussion (lead facilitator)	10/18
	Anti-Hypertensives Problem Solving	10/18
	Integrated Autonomics (Problem Solving)	10/18
	Autonomic Agents	9/18
	Autonomics Review	5/18
	FDA Regulation & Drug Safety	4/18
	Toxicology	4/18
	Diabetes – Group Discussion (co-facilitator)	3/18
	Gastrointestinal (GI) Pharmacology	2/18
	Parkinson's Disease – Group Discussion (co-facilitator)	1/18
	Psychopharmacology – Group Discussion (co-facilitator)	12/17
	Asthma – Group Discussion (co-facilitator)	12/17
	Cardiac – Group Discussion (co-facilitator)	10/17
	Anti-Hypertensives – Group Discussion (lead facilitator)	10/17
	Autonomic Problem-solving	10/17
	Autonomic Agents	9/17
	Autonomics Review	5/17
	FDA Regulation & Drug Safety	4/17
	Toxicology	4/17
	Diabetes – small group discussion (facilitator)	3/17
	Gastrointestinal Drugs	2/17
	Parkinson's Disease Treatment – Small Group Discussion	1/17
	Psychopharmacology – Small Group Discussion	12/16

Pharmacology III (COP) 2020-present		
Course Director (2020) (2 course directors in this course)		
	Toxicology I-III	3/20,3/21,3/22
	Drugs for Gout	3/20,3/21,3/22
	Gastrointestinal Pharmacology I-II	2/20,3/21,2-3/22
	Gastrointestinal Pharmacology III/Drugs for Liver Disease	3/20,3/21,3/22
	Review Session	5/20,5/21,5/22
Pharmacology II (COP) 2019-present		
Course Director (2020)		
	Ethanol	2/20,2/21,2/22
	Drugs of Abuse	2/20,2/21,2/22
	Opioid Analgesics and Antagonists	1/20,2/21,1/22
	Drugs for Parkinsonism and Other Movement Disorders	12/19,1/21,1/22
	Introduction to Pharmacology II	11/19
Pharmacology I (COP) 2019-present		
Course Director (2019-present)		
Agents)	ANS Pharmacology Review	8/19,8/20,8/21,8/22
	Introduction to Pharmacology 1;Diuretics for Cardiovascular Indications	8/19,8/20,8/21,8/22
	Antihypertensives I-III	8/19,8/20,8/21,8/22
	Review Session (Diuretics, Antihypertensives, and Antihyperlipidemia	8/19
	Drugs for Angina/Cardiotonic Agents	9/19,9/20,9/21,9/22
	Drugs for Hyperlipidemia	9/20,9/21,8/22
	Review Session (Drugs for Angina, Heart Failure, and Hyperlipidemia)	9/20,9/21,9/22
	Anticoagulants	9/20,9/21,9/22
	Antiarrhythmic Drugs I-III	9/19,9/20,9/21,9/22
	Cardiovascular Problem-Solving Session	9/19,9/20,9/21,9/22
	Review Session (Anticoagulants, Antiarrhythmics)	9/20,9/21
	Diabetes Drugs I-III	10/20,10/21,10/22
	Dermatological Drugs	10/20,10/21
	Review Session (NMJ Blockers/Muscle Relaxants; Dermatological	
	Drugs, Diabetes Drugs)	10/20
Fundamentals of Pharmacology (COP) (2019-present)		
Course Director (2019-present)		
3/19,3/20,3/21,3/22	Introduction to Course; Basic definitions, ADME Overview, Drug Absorption and Distribution	2/19,2/20,2/21,3/22
	Drug Elimination	3/19,3/20,3/21,3/22
	Pharmacokinetics I	3/20,3/21,3/22
	Pharmacokinetics II and Pharmacodynamics I	3/19,3/20,3/21,3/22
	Pharmacodynamics II; Drug Biotransformation/Pharmacogenomics; Review Session	
	ANS Agents I	3/19,3/20,3/21,3/22
	ANS Agents II	4/19,4/20,4/21,4/22
	ANS Problem Solving	4/19,4/20,4/21,3-4/22
	Drugs for Asthma	4/19,4/20,4/21,4/22
	Diuretics	4/19,4/20,4/21,4/22
	Cardiovascular Pharmacology	4/19,4/20,4/21,5/22
	OTC Drugs for Self-Care	5/19,5/20,5/21,5/22
	Pharmacology Review Session	5/19,5/20,5/21,5/22
Forensic Toxicology and Pharmacology (COP) (2020-present)		
Course Director (2020-present)		
Concepts	Introduction to Forensic Toxicology and Pharmacology; Overview of Forensic	11/20,11/21
	Basic Pharmacokinetics Review	11/20,11/21
	Alcohol	12/20,12/21
	Opioids	12/20,12/21
	Science of Drug Testing	12/20,12/21

	Cocaine	1/20,1/21
	Forensic Case #1 - lorazepam	1/20,1/21
	Marijuana	1/20,1/21
	Forensic Case #2 - oxycodone	2/20,2/21
Seminars in Cellular and Molecular Pharmacology		
Course Director (2017-present)		
BBS Capstone Week (Board Review for Podiatry Students) (2018-present)		
	Autonomic Nervous System Pharmacology Review	2/21
	Diabetes and Gastrointestinal Pharmacology Review	6/20
	Hormones and Gout Drugs Review	6/20
	NSAIDS and Glucocorticoids Review	6/20
	Muscle Relaxants Review	6/20
	Cardiovascular Pharmacology Review	6/18,6/19,6/20,3/21
	Diabetes and Gastrointestinal Pharmacology Review	6/18,6/19,6/20,6/21
	Hormones and Gout Drugs Review	6/18,6/19,6/20,6/21
	NSAIDS and Glucocorticoids Review	6/18,6/19,6/20,6/21
	Muscle Relaxants Review	6/18,6/19,6/20,6/21
	Cancer Pharmacology Review	6/18
Pharmacology (Pharmacy and Podiatry students 2017-6/2019; Podiatry students		
2019-)		
	Gout Pharmacology	2/22,9/22
	Gastrointestinal Pharmacology	2/22
	Drugs for Parkinsonism and Other Movement Disorders	1/22
	Gout Pharmacology	2/21
	Gastrointestinal Pharmacology	2/21
	Drugs for Parkinsonism and Other Movement Disorders	1/21
	Autonomic Problem Solving	7/20
	Gout Pharmacology	10/20
	Gastrointestinal Pharmacology	10/20
	Drugs for Parkinsonism and Other Movement Disorders	10/20
	Gout Pharmacology	2/19
	Gastrointestinal Pharmacology	1/19
	Drugs for Parkinsonism and Other Movement Disorders	1/19
	Hypertension and Heart Disease Small Group Discussion (facilitator)	11/18
	Drugs for Gout	2/18
	GI Drugs	1/18
	Diabetes Small Group Discussion (facilitator)	1/18
	Drugs for Parkinsonism and Other Movement Disorders	1/18
	Asthma Small Group Discussion (facilitator)	11/17
	Hypertension and Heart Disease Small Group Discussion (facilitator)	11/17
	Drugs for Gout	2/17
Neuropharmacology (Neuroscience graduate students) (2018, 2020)		
	Treatment for Parkinson's Disease	1/18,1/20,1/22
Advanced Molecular Pharmacology (GCMP 545)		
	Co-course director, research graduate students	8/17-12/17
	Taught pharmacokinetics with emphasis on research applications	
Pharmaceutics II		
	Radiopharmaceuticals	1/19
	Radiopharmaceuticals	1/18
Pharmaceutics I		
	Colligative Properties	8/18
	Colligative Properties	8/17
General Pharmacology of the CNS		4/15

Advanced Clinical Medicine (Pharmacology component for physical therapy program)	2015
Analgesics and DMARDS	10/14
NSAIDs and Glucocorticoids	10/14
Advanced Clinical Medicine and Pharmacology (HPTH 724),	2013
Advanced Clinical Medicine and Pharmacology (HPTH 724)	
Lecturer (5 lecture hours, physical therapy students)	
NSAIDs and Glucocorticoids	9/13
Analgesics	9/13
Muscle Relaxants and Local Anesthesia	10/13
Medications for Traumatic Brain Injury (TBI) and Other Neurological Conditions	10/13
Cardiovascular Pharmacology	10/13
Rush University Medical Center (2008-2019)	
Cellular Pharmacology (GCC520-General Pharmacology)	8/16,1/18,1/19
Preparing a Scientific Manuscript (GCC508—Writing Practicum)	2016-18
Mechanisms of Disease (2 nd year Medical School)	
Pharmacokinetics	2013-2015
Medical Pharmacology (2 nd year Medical School)	
Pharmacokinetics	2008-2015
Safety Pharmacology	10/15
Neurological Clinical Medicine and Pharmacology (HPTH644-15SP)	2015
Introduction to Medical Pharmacology with Medical Physiology, (course for all students in PhD, physician assistantship (P.A.), and biotechnology programs); taught Pharmacokinetics	2011
Advanced Pharmacokinetics	2010
taught course to 2 nd year Pharmacology graduate students	
University of Wisconsin-Madison	
Teaching Assistant for General Chemistry	2003-2005

PROGRAMS/CONFERENCES ATTENDED

"At the Forefront of Hepatology", University of Chicago Digestive Diseases Center, Chicago, IL. 5/18.
 National Board of Medical Examiners (NBME) Invitational Conference for Educators, Philadelphia, PA. 5/18.
 ASPET Annual Meeting. San Diego, CA. 4/18.
 ASPET Annual Meeting. Chicago, IL. 4/17.
 National Institute of Health (NIH) -- PCR Methodology: Principles, Optimization and Applications (NIH Course)
 Bethesda, MD 7/14.
 Marine Biological Laboratory—Strategies and Techniques for Analyzing Microbial Populations, Woods Hole, MA 8/15.
 American College of Medical Toxicology Seminars in Forensic Toxicology: a Legal "Potpourri" (marijuana/alcohol)
 Denver, CO, 12/15.
 MRO and Beyond: Advanced Drug Testing Interpretation (American College of Medical Toxicology Annual Scientific
 Meeting, Satellite Session) Huntington Beach, CA 3/16.
 SEAK National Expert Witness Conference. Chicago, IL 5/16.
 World Preclinical Congress. Boston, MA 6/16

SERVICE

President, American Society for Pharmacology and Experimental Therapeutics -- Great Lakes Chapter (ASPET–
 GLC) (2023-present)
 Vice President, American Society for Pharmacology and Experimental Therapeutics -- Great Lakes Chapter
 (ASPET–GLC) (2021-23)
 Secretary, American Society for Pharmacology and Experimental Therapeutics -- Great Lakes Chapter (ASPET–
 GLC) (2017-21)
 Judge for Oral Presentations and/or Poster Session, All School Research Forum, Rosalind Franklin University of
 Medicine and Science (2017-18)
 Reviewer, Microvascular Research (2016-present)
 Reviewer, American Journal of Therapeutics (2013-present)
 Reviewer, PLoS One (2014)
 Poster Session Judge, American Society for Pharmacology and Experimental Therapeutics-Great Lakes Chapter

(ASPET-GLC) Annual Meeting (2015)
 Councilor, American Society for Pharmacology and Experimental Therapeutics, Great Lakes Chapter (ASPET-GLC) (2013-2015)
 Activities Coordinator, Graduate Student Council (2006-2008)
 -coordinated silent auction and participated in other facets of running Emerald Ball fundraiser event (2007-2008)

PUBLICATIONS – JOURNAL ARTICLES/ABSTRACTS

1. 8/2021, American Society for Pharmacology and Experimental Therapeutics (ASPET) Great Lakes Chapter Meeting, *A Novel Pharmacokinetic Model of Ethanol Absorption for Forensic Use*. Chicago, IL. Horner K. and **O'Donnell III, J.J.** (Abstract. Poster session. Presented by trainee, K. Horner)
2. 8/2021, American Society for Pharmacology and Experimental Therapeutics (ASPET) Great Lakes Chapter Meeting, *The Relationship Between Hydrophobicity and Fraction of Drug Metabolism*. Chicago, IL. Zimulinda, D., Walters, D.E., **O'Donnell III, J.J.** (Abstract. Poster session. Presented by trainee, D. Zimulinda)
3. Zimulinda D and O'Donnell III, J.J., *The Relationship Between Hydrophobicity and Fraction of Drug Metabolism*. American Association of Pharmaceutical Scientists (AAPS) Pharmsci 360, (virtual) 10/2020. (Abstract).
4. Mosnaim A.D., Wolf, M.E.; **O'Donnell III, J.J.**; Hudzik, T. (2019) β -Phenylethylamine and various monomethylated and para-halogenated analogs. Acute toxicity studies in mice, *Drug and Chemical Toxicology*, DOI: 10.1080/01480545.2018.1551899
5. O'Donnell JT, **O'Donnell JJ**, Vogenberg FR. Forensic Analysis in Drug Litigation Finds Most Errors Occur with Commonly Used Therapies and Practices. *P&T Journal*. March 2019. 44(3).
6. O'Donnell JT, **O'Donnell JJ**. Forensic Issues in OBGYN. Abstract of Proceedings. *AJRI*. September, 2017.
7. Tian, Y.; Gawlak, G.; **O'Donnell III, J.J.**; Birukova, A.A.; Birukov, K.G.; *Activation of Vascular Endothelial Growth Factor (VEGF) receptor-2 mediates endothelial permeability caused by cyclic stretch*. *J Biol Chem*. 2016 May 6;291(19):10032-45. doi: 10.1074/jbc.M115.690487. Epub 2016 Feb 16.
8. Gawlak, G.; Son, S.; Tian, Y.; O'Donnell III, J.J.; Birukov, K.; Birukova, A.; *Chronic high magnitude cyclic stretch stimulates EC inflammatory response via VEGF Receptor 2 dependent mechanism*. *Am J Physiol Lung Cell Mol Physiol*. 2016 Jun 1;310(11):L1062-70.
9. Birukova, A.; Tian, Y.; Gawlak, G.; **O'Donnell III, J.J.**; Mambetsariev, I.; *Modulation of endothelial inflammation by low and high magnitude cyclic stretch*. *PLoS One*. 2016 Apr 29;11(4):e0153387.
10. Tian, Y.; Tian, X.; Gawlak, G.; **O'Donnell III, J.J.**; Sacks, D.B.; and Birukova, A.B.; *IQGAP1 regulates endothelial barrier function via EB1 – cortactin crosstalk*. *Mol Cell Biol*. 2014 Sep 15;34(18):3546-58.
11. **O'Donnell III, J.J.**; Birukova, A.A.; Beyer, E.C.; Birukov, K.G.; 2014. *Gap Junction Protein Connexin 43 (Cx43) Exacerbates Lung Vascular Permeability*. *PLoS One*. 2014 Jun 26;9(6):e100931.
12. Gawlak, G., Tian, Y.; **O'Donnell III, J.J.**; Tian, X.; Birukova, A.A.; and Birukov, K.G. Paxillin mediates stretch-induced Rho signaling and endothelial permeability via assembly of paxillin - p42/44MAPK - GEF-H1 complex. *FASEB J*. 2014 Jul; 28(7):3249-60.
13. Cowan, C.; **O'Donnell III, J.J.**; Lum, H.; and Xu, S.; MicroRNA-146 Inhibits Thrombin-induced NF- κ B Activation and Subsequent Inflammatory Responses in Human Retinal Endothelial Cells. 2014. *Invest Ophthalmol Vis Sci*. 2014 Jul 1;55(8):4944-51.
14. O'Donnell JT, Marks D.H., Danese P., and **O'Donnell III JJ**, Marks DM. Drug Induced Liver Disease: Primer for the Primary Care Physician. *DILD Vol 60, No 2* pages 49-104 Feb 2014 ISSN 0011-5029
15. **O'Donnell III JJ**, O'Donnell JT and Juettner VM. 2012. *Clinical Pharmacology for the Primary Care Physician*. Disease-a-Month, October 2012. Elsevier.
16. **O'Donnell III, J.J.**; Zhuge, Y.; Holian, O.; Cheng, F; Thomas L. L.; Forsyth C. B.; Lum, H., 2011. *Loss of P120 Catenin Upregulates Transcription of Pro-inflammatory Adhesion Molecules in Human Endothelial Cells*. *Microvasc Res*. 82(2), 105-12.
17. Zhang, J.; **O'Donnell III, J. J.**; Holian, O.; Vincent, P.A.; Kim, K.S.; Lum, H., 2010. *P120 Catenin Represses Transcription through Kaiso in Endothelial Cells*. *Microvasc. Res*. 80(2), 233-9.
18. **O'Donnell, J. J.**; Zhang, J.; Forsyth, C.; Lum, H., 2009. Intracellular movement of p120-catenin in Endothelial Cells and Implications for Transcriptional Regulation. *FASEB J*. 23, 1028.2, (abstract)
19. Lum, H.; Cheng, F. **O'Donnell, J. J.**; Im, H.; and Holian, O., 2009. *Adherens Junction Protein, P120 Catenin, Represses Transcriptional Activity of Endothelial Cells*. *FASEB J*. 23:1028.3. (abstract)
20. Jensen, T.R.; **O'Donnell III, J. J.**; Marks, T.J. 2004. D^o/Fⁱ-Mediated Ring-Opening Ziegler Polymerization (ROZP) and Copolymerization with Mono- and Disubstituted Methylenecyclopropanes. Diverse Mechanisms and a New Chain-Capping Termination Process. *Organometallics*. 23(4), 740-754.
21. Seyam, A.M.; Stubbert, B.D.; Jensen, T.R.; **O'Donnell III, J.J.**; Stern, C.L.; Marks, T.J. 2004. Organolanthanide Constrained Geometry Complexes Modified for Catalysis: Synthesis, Structure, and Aminoalkane Hydroamination Properties of a Pyrrolidine-substituted Constrained Geometry Organolanthanum Complex. *Inorganica Chimica Acta*, 357, 4029-4035.

PUBLICATIONS – BOOKS/BOOK CHAPTERS

1. **O'Donnell III JJ.** "Introduction to Endocrine Pharmacology". In: Osborn S and Wecker L, eds. Brody's Human Pharmacology, 7th ed. Elsevier, Inc. *In press*.
2. **O'Donnell III JJ,** Call GB, "The Pharmacology of Adrenocorticosteroid Disorders", In: Osborn SI and Wecker L, eds. Brody's Human Pharmacology, 7th ed. Elsevier, Inc. *In press*.
3. Call GB, **O'Donnell III JJ** "Treatment of Hypothalamic and Pituitary Disorders", In: Osborn SI and Wecker L, eds. Brody's Human Pharmacology, 7th ed. Elsevier, Inc. *In press*.
4. **O'Donnell III JJ,** Call GB, "Drug Therapy for the Management of Thyroid Disorders", In: Osborn SI and Wecker L, eds. Brody's Human Pharmacology, 7th ed. Elsevier, Inc. *In press*.
5. **O'Donnell III JJ,** Call GB, "Calcium Regulating Hormones and Other Agents Affecting Bone", In: Osborn SI and Wecker L, eds. Brody's Human Pharmacology, 7th ed. Elsevier, Inc. *In press*.
6. **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
7. **O'Donnell III JJ.,** O'Donnell JT, Juettner V. "General Principles of Pharmacology" In: **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
8. O'Donnell JT, **O'Donnell III JJ.** "Adverse Drug Reactions: Allergic focus" In: **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
9. **O'Donnell III JJ.,** O'Donnell JT "Drug Induced Falls". In: **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
10. O'Donnell JT, **O'Donnell III JJ.,** Marks DH, Danese P. "Drug Induced Liver Disease" In: **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
11. Splawski JA, O'Donnell JT, **O'Donnell III JJ.** "Dangers of Opioids" In: **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
12. Parran D, O'Donnell JT, **O'Donnell III JJ.** "Fetal Drug Exposure" In: **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
13. O'Donnell JT, **O'Donnell III JJ.** "Medication Errors" In: **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
14. O'Donnell JT, **O'Donnell III JJ.,** Tedford SE. "Anticoagulants: Therapeutics, Risks, and Toxicities" In: **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
15. O'Donnell JT, **O'Donnell III JJ.** "Pharmacist Malpractice and Liability" In: **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
16. O'Donnell JT, **O'Donnell III JJ.** "Alcohol" In: **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
17. Tedford SE, O'Donnell JT, **O'Donnell III JJ,** Bederka JP. "Marijuana: Pharmacology, Toxicology, and Forensic Issues" In: **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
18. O'Donnell JT, **O'Donnell III JJ,** Vaughn W. "Involuntary Intoxication" In: **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
19. **O'Donnell III JJ,** O'Donnell JT, ImobergSted A. "Forensic Drug Testing" In: **O'Donnell III JJ,** O'Donnell JT, Patel GP, Splawski JA, eds. O'Donnell's Drug Injury, 5th Ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: *In press*.
20. **O'Donnell III JJ,** Somberg J, Idemyor V., O'Donnell JT, Eds. Drug Discovery and Development. Taylor & Francis Publishing. 2020.
21. **O'Donnell III JJ,** Somberg J, O'Donnell JT, "Introduction to Drug Discovery and Development". In: **O'Donnell III JJ,** Somberg J, Idemyor V., O'Donnell JT, eds. Drug Discovery and Development. Taylor & Francis Publishing. 2020.
22. **O'Donnell JJ,** O'Donnell JT. Drug Induced Falls. In Bakken GM, LaRue C, Cohen HH, Eds. *Slips, Trips, Missteps and Their Consequences*. Third Edition. L&J Publ., Tucson, 2020, *In Press*.
23. O'Donnell J.T., **O'Donnell III, J.J.** Pharmacology of Marijuana. In: Nesci J., St. Louis J.P. and Tiftickjian J.M. *Medicolegal Aspects of Marijuana Arizona Edition*. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: 2018.
24. O'Donnell J.T., **O'Donnell III, J.J.** Marijuana: Pharmacology and Medical-Legal Issues. In: Callahan L.M. and Tiftickjian J.M. *Medicolegal Aspects of Marijuana Washington Edition*. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: 2016.
25. O'Donnell, J.T., **O'Donnell III, J.J.** eds. *O'Donnell's Drug Injury*. 4th ed. Tucson, AZ: Lawyers &

- Judges Publishing Company, Inc.: 2016.
26. O'Donnell III, J.J., O'Donnell J.T., and ImObersteg, A.D. Forensic Drug Testing. In: O'Donnell J.T., **O'Donnell III, J.J.**, eds. *O'Donnell's Drug Injury*. 4th ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: 2016.
 27. **O'Donnell III, J.J.**, O'Donnell, J.T., Juettner V. General Principles of Pharmacology. In: O'Donnell J.T., **O'Donnell III, J.J.**, eds. *O'Donnell's Drug Injury*. 4th ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: 2016.
 28. O'Donnell, J.T., **O'Donnell III, J.J.** Allergic Drug Reactions. In: O'Donnell J.T., **O'Donnell III, J.J.** eds. *O'Donnell's Drug Injury*. 4th ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: 2016.
 29. O'Donnell, J.T., Marks, D.H., Danese, P., and **O'Donnell III, J.J.** Drug-induced Liver Disease. In: O'Donnell J.T., **O'Donnell III, J.J.** eds. *O'Donnell's Drug Injury*. 4th ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: 2016.
 30. O'Donnell, J.T., **O'Donnell III, J.J.** Dangers of Opiates. In: O'Donnell J.T., **O'Donnell III, J.J.** eds. *O'Donnell's Drug Injury*. 4th ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: 2016.
 31. **O'Donnell III, J.J.**, O'Donnell, J.T. Drug-induced Falls. In: O'Donnell J.T., **O'Donnell III, J.J.**, eds. *O'Donnell's Drug Injury*. 4th ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: 2016.
 32. **O'Donnell III, J.J.**, O'Donnell, J.T., ImObersteg, A.D. Drug Testing in the Workplace. In: O'Donnell J.T., **O'Donnell III, J.J.**, eds. *O'Donnell's Drug Injury*. 4th ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: 2016.
 33. O'Donnell, J.T., **O'Donnell III, J.J.** Alcohol. In: O'Donnell J.T., **O'Donnell III, J.J.**, eds. *O'Donnell's Drug Injury*. 4th ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: 2016.
 34. O'Donnell, J.T., **O'Donnell III, J.J.**, Benjamin, D.M. Marijuana: Pharmacology and Medical-Legal Issues. In: O'Donnell J.T., **O'Donnell III, J.J.**, eds. *O'Donnell's Drug Injury*. 4th ed. Tucson, AZ: Lawyers & Judges Publishing Company, Inc.: 2016.
 35. Benjamin D, O'Donnell JT and **O'Donnell JJ.** Pharmacology and Toxicology of Marijuana. In: *Legal Medicine and Medical Ethics*, 9th Edition, American College of Legal Medicine, 2015.
 36. O'Donnell JT and **O'Donnell JJ.** Pharmacology of Marijuana, in Tiftickjian J. *Medical Legal Aspects of Marijuana* – Colorado Edition. L&J Publishers, Tucson, 2015.
 37. O'Donnell JT and **O'Donnell JJ.** Alcohol in Civil Litigation. In: Caplan Y and Goldberger B eds., *Garriott's Medicolegal Aspects of Alcohol*, 6th Edition, October 2014.
 38. **O'Donnell III J.J.**, O'Donnell JT, and Juettner VM. 2012. In: *Basic Pharmacology in Drug Injury: Liability, Analysis, and Prevention*, 3rd Ed. L&J Publ, Tucson, AZ.

PUBLICATIONS – VIDEOS

1. **O'Donnell III J.J.** *Understanding Opiate Toxicity*; 7/2017. Available at: <http://pharmaconsultantinc.com/category/videos/>
2. **O'Donnell III J.J.** *Autobrewery*; 11/2016. Available at: <http://pharmaconsultantinc.com/category/videos/>
3. **O'Donnell III J.J.** *Ambien Sleep Driving*; 10/2016. Available at: <http://pharmaconsultantinc.com/category/videos/>
4. **O'Donnell III J.J.** *Retrograde Extrapolation*; 8/2016. Available at: <http://pharmaconsultantinc.com/category/videos/>

CONFERENCES/DEPARTMENTAL SEMINARS

1. Lake Cook Dental Study Club, *Cannabis and Dentistry*. Glenview, IL. **O'Donnell III JJ.** 4/2022. (Invited Talk)
2. 2021 National Association of Criminal Defense Lawyers (NACDL)/National College for DUI Defense (NCDD) DUI Defense Seminar, *Changing the Variables in Retrograde Extrapolation*. Las Vegas, NV. **O'Donnell III JJ.** 10/2021. (Invited Talk)
3. 2021 National Association of Criminal Defense Lawyers (NACDL)/National College for DUI Defense (NCDD) DUI Defense Seminar, Challenging Drug Testing. Las Vegas, NV. O'Donnell III JJ. 10/2021. (Invited Talk)
4. Chicago Medical School Faculty Retreat, *Jigsaw Pedagogical Method Demonstration – Autonomic Nervous System Pharmacology*. Zion, IL. **O'Donnell III J.J.** 5/2019.
5. Chicago Medical School Faculty Retreat, *Pecha Kucha Pedagogical Method Demonstration – Autonomic Nervous System Pharmacology*, Zion, IL. **O'Donnell III J.J.** 5/19
6. 11/2017. The Opioid Epidemic – Is Your Workplace Prepared?, conference sponsored by MRA-The Management Association and International Association of Employee Benefit Plans, *Your Drug Testing Procedures–Time to Reevaluate*. Waukesha, WI. **O'Donnell III J.J.** (Invited Talk)
7. 9/2017. American Society for Reproductive Immunology (ASRI). *Forensic Analysis of Adverse Drug Events and Litigation Claims in Ob/Gyn*. Chicago, IL. O'Donnell J.T. and **O'Donnell III J.J.** (Invited Talk)
8. 3/2016, Traffic Law CLE, Northwest Suburban Bar Association, *DUI and Prescription Drugs*, Arlington

9. Heights, IL. (Invited Talk)
10. 3/2016, Traffic Law CLE, Northwest Suburban Bar Association, *Retrograde Extrapolation*, Arlington Heights, IL. (Invited Talk)
11. 4/2014, Indiana University School of Medicine Seminar, *Gap Junction Protein Connexin 43 (Cx43) Exacerbates Lung Vascular Permeability*, South Bend, IN. **O'Donnell III, J.J.** (Invited Talk)
12. 2/2014, Haim and Jane Graumann Nagirner Weinstein Centennial Symposium Series, Rosalind Franklin University. *Gap Junction Protein Connexin 43 (Cx43) Exacerbates Lung Vascular Permeability*, Chicago, IL. **O'Donnell III, J.J.** (Invited Talk)
13. 7/2013, International Gap Junction Conference, Gap Junction Protein Connexin 43 (Cx43) Exacerbates Lung Vascular Permeability. Charleston, SC. **O'Donnell III, J.J.**; Birukova, A.A.; Beyer, E.C.; Birukov, K.G. (Invited Talk)
14. 6/2013, American Society for Pharmacology and Experimental Therapeutics (ASPET) Great Lakes Chapter Meeting, *Gap Junction Protein Connexin 43 (Cx43) Exacerbates Lung Vascular Permeability*. Chicago, IL. **O'Donnell III, J.J.**; Birukova, A.A.; Beyer, E.C.; Birukov, K.G.
15. 5/2013, American Thoracic Society Conference, *Gap Junction Protein Connexin 43 (Cx43) Exacerbates Lung Vascular Permeability*. Philadelphia, PA. **O'Donnell III, J.J.**; Birukova, A.A.; Beyer, E.C.; Birukov, K.G.
16. 2/2013, Rush University Pharmacology Department Seminar, *The Role of Connexins in the Regulation of Endothelial Permeability*. Chicago, IL. **O'Donnell III, J.J.** (invited)
17. 5/2011, Chicago Signal Transduction Symposium, *Loss of P120catn Upregulates Transcription of Pro-inflammatory Adhesion Molecules in Human Endothelial Cells*. Chicago, IL. **O'Donnell III, J.J.**; Zhuge, Y.; Cheng, F.; Thomas, L.L.; Forsyth, C. B.; Lum, H.
18. 5/2011, Rush University Research Forum. *Loss of P120catn Upregulates Transcription of Pro-inflammatory Adhesion Molecules in Human Endothelial Cells*. Chicago, IL. **O'Donnell III, J.J.**; Zhuge, Y.; Cheng, F.; Thomas, L.L.; Forsyth, C. B.; Lum, H.
19. 3/2011, Rush University Pharmacology Department Seminar, *Loss of P120 Catenin Upregulates Transcription of Pro-inflammatory Adhesion Molecules in Human Endothelial Cells*. Chicago, IL. **O'Donnell, J.J.**
20. 4/2010, Rush University Research Forum, *P120 Catenin Suppresses the Inflammatory Response in Endothelial Cells*. Chicago, IL. **O'Donnell, J.J.**; Cheng, F.; Zhang, J.; Zhuge, Y.; Holian, O.; Lum, H.
21. 4/2010, Experimental Biology Conference, *P120 Catenin Suppresses the Inflammatory Response in Endothelial Cells*. Anaheim, CA. **O'Donnell, J.J.**; Cheng, F.; Zhuge, Y.; Zhang, J.; Holian, O.; Lum, H.
22. 2/2010, Rush University Pharmacology Department Seminar, *P120 Catenin Suppresses the Inflammatory Response in Endothelial Cells*. Chicago, IL. **O'Donnell, J.J.**
23. 3/2009, Experimental Biology Conference, Nuclear Translocation of P120-catenin in Endothelial Cells and Implications for Transcriptional Regulation. New Orleans, LA, **O'Donnell, J. J.**; Zhang, J.; Forsyth, C.; Lum, H.
24. 3/2009, Experimental Biology Conference, *Adherens Junction Protein, P120 Catenin, Represses Transcriptional Activity of Endothelial Cells*. New Orleans, LA. Lum, H.; Cheng, F.; **O'Donnell, J. J.**; Im, H.; Holian, O.
25. 5/2009, Rush University Pharmacology Department Seminar, Intercellular Movement of P120-catenin in Endothelial Cells: Implications for Transcription Regulation. Chicago, IL. **O'Donnell, J.J.**
26. 4/2009, Rush University Research Forum, Intracellular Movement of P120-catenin in Endothelial Cells and Implications for Transcriptional Regulation. Chicago, IL. **O'Donnell, J.J.**; Zhang, J.; Forsyth, C.; Lum, H.
27. 4/2009, Rush University Research Forum, Adherens Junction Protein, P120 Catenin, Suppresses Transcription of Inflammatory Genes in Human Microvascular Endothelial Cells. Chicago, IL. Cheng, F.; **O'Donnell III, J.J.**; Im, H.J.; Holian, O.; Kim, K.S.; Lum, H.
28. 5/2008, Rush University Pharmacology Department Seminar, Junctional Protein P120 Catenin Enhances Barrier Function and Represses Transcription in Endothelial Cells. Chicago, IL. **O'Donnell, J.J.**
29. 4/2008, Rush University Research Forum, *Junctional Protein P120 Catenin Enhances Barrier Function and Represses Transcription in Endothelial Cells*. Chicago, IL. **O'Donnell III, J. J.**; Cheng, F.; Zhang, J.; Holian, O.; Predescu, S.; Lum, H.
30. 5/2007, Rush University Pharmacology Department Seminar, Role of P120 Catenin in the Regulation of Kaiso-mediated Transcription Repression in Endothelial Cells, Chicago, IL. **O'Donnell, J.J.**
31. 9/2006, Rush University Pharmacology Department Seminar, Role of P120 Catenin in the Regulation of Kaiso-mediated Transcription Repression in Endothelial Cells, Chicago, IL. **O'Donnell, J.J.**

SELECTED LABORATORY TECHNIQUES

Bioinformatics/Computer skills:

QIIME, Uparse, UClust, Usearch, Oligotyping, UNIX, python, R, ADMET Predictor, Mathcad, Excel, SPSS, Reference Manager, Powerpoint, Microsoft Word

Analytical Chemistry: method validation for analytical instrumentation, nuclear magnetic resonance (nmr) spectroscopy, gas chromatography (GC), mass spectrometry (MS), high performance liquid

chromatography (HPLC), Liquid chromatography/mass spectrometry (LC/MS), infrared spectrometry, thermal gravimetric analysis (TGA), differential scanning calorimetry (DSC), thin layer chromatography (TLC)

Synthetic Chemistry: air-free chemistry for organometallic synthesis (Schlenk line, glovebox), organic synthetic chemistry

Molecular biology:
molecular cloning and subcloning, DNA gel electrophoresis, RNAi technology, RT-PCR (with primer design,) RNA/DNA concentration measurement with Nanodrop

Protein work:
SDS-PAGE, Western blot, protein concentration determination

Imaging techniques:
immunofluorescence, immunohistochemistry, confocal microscopy, live imaging, Licor/Odyssey

Animal models:
intraperitoneal and subcutaneous injection, submandibular bleed, cardiac exsanguination, euthanasia, restraint.

Cell culture:
transfection, endothelial cell types (HPAEC, PMVEC, HBMEC, BPAEC)

Specialized techniques:
Luciferase reporter assay, dye transfer assay (gap junction function), dye uptake assay (hemichannel function), neutrophil isolation and adhesion assay, electrical cell-substrate impedance signaling (ECIS) for monitoring barrier function, cyclic stretch, adenovirus infection, UV spectroscopy

ADDITIONAL COURSEWORK

Design and Development of Educational Technology (MITx)	2017
Basic Computing for Bioinformatics (SP15-BIOS-60132-01) (audited, completed all exams and projects)	2015
Introduction to Computer Science and Programming Using Python (MITx – 6.00.1x)	2015
Introduction to Computational Thinking and Data Science (MITx – 6.00.2x)	2015