

## Curriculum Vitae (CV)

### Matthew W. Johnson, Ph.D.

Assistant Professor  
Behavioral Pharmacology Research Unit  
Department of Psychiatry and Behavioral Sciences  
Johns Hopkins University School of Medicine

### Areas of Specialization

Human behavioral pharmacology  
Delay discounting and impulsivity in drug dependence  
Sexual risk behavior and stimulant (cocaine, methamphetamine) abuse  
Behavioral economics of drug self-administration  
Clinical trials assessing novel treatments for drug dependence  
Abuse liability studies for sedative-hypnotics, stimulant, and atypical drugs of abuse (e.g., hallucinogens, club drugs)  
Human psychopharmacology of hallucinogens, including examination of potential therapeutic effects

### Education and Training

<u>Year</u>	<u>Degree</u>	<u>Institution</u>	<u>Discipline</u>
1998	B.S.	Eastern Oregon University	Psychology
2002	M.A.	University of Vermont	General/Experimental Psychology, Biobehavioral Specialization
2004	Ph.D.	University of Vermont	General/Experimental Psychology, Biobehavioral Specialization
2004-2007	Postdoctoral	Johns Hopkins University School of Medicine	Behavioral Pharmacology

### Professional Experience

<u>Dates</u>	<u>Positions</u>	<u>Institutions</u>
2009-Present	Assistant Professor	Johns Hopkins University School of Medicine
2007-2009	Instructor	Johns Hopkins University School of Medicine

### Research Activities

## Publications

1. **Johnson, M.W.** & Ettinger, R.H. (2000). Active cocaine immunization attenuates the discriminative properties of cocaine. *Experimental and Clinical Psychopharmacology*, *8*, 163-167.
2. **Johnson, M.W.** & Bickel, W.K. (2002). Within-subject comparison of real and hypothetical money rewards in delay discounting. *Journal of the Experimental Analysis of Behavior*, *77*, 129-146.
3. **Johnson, M.W.** & Bickel, W.K. (2003). The behavioral economics of cigarette smoking: The concurrent presence of a substitute and an independent reinforcer. *Behavioural Pharmacology*, *14*, 137-144.
4. Baker, F., **Johnson, M.W.**, and Bickel, W.K. (2003). Delay discounting in current and never-before cigarette smokers: similarities and differences across commodity, sign, and magnitude. *Journal of Abnormal Psychology*, *112*, 382-392.
5. Baker, F., **Johnson, M.W.**, & Bickel, W.K. (2003). Decision making in state lotteries: Half now or all of it later? *Psychonomic Bulletin and Review*, *10*, 965-970.
6. Bickel, W.K. & **Johnson, M.W.** (2003). Delay discounting: A fundamental behavioral process of drug dependence. In G. Loewenstein, D. Read & R.F. Baumeister (Eds.) *Time and Decision*. Russell Sage Foundation, New York.
7. Bickel, W.K. & **Johnson, M.W.** (2003). Junk time: Pathological behavior as the interaction of evolutionary and cultural forces. In N. Heather and R. Vuchinich (Eds.), *Choice, Behavioral Economics, and Addictions*. Pergamon, Boston.
8. **Johnson, M.W.**, Bickel, W.K., & Kirshenbaum, A.P. (2004). Substitutes for tobacco smoking: A behavioral economic analysis of nicotine gum, denicotinized cigarettes, and nicotine-containing cigarettes. *Drug and Alcohol Dependence*, *74*, 253-264.
9. Yi, R., **Johnson, M.W.**, & Bickel, W.K. (2005). Relationship between cooperation in an iterated prisoner's dilemma game and the discounting of hypothetical outcomes. *Learning and Behavior*, *33*, 324-336.
10. Heil, S.H., **Johnson, M.W.**, Higgins, S.T., & Bickel, W.K. (2005). Delay discounting in currently using and currently abstinent cocaine-dependent outpatients and non-drug-using matched control. *Addictive Behaviors*, *31*, 1290-1294.
11. Griffiths, R.R. & **Johnson, M.W.** (2005). Relative abuse liability of hypnotic drugs: a conceptual framework and algorithm for differentiating among compounds. *Journal of Clinical Psychiatry*, *66*, 31-41.
12. **Johnson, M.W.** & Bickel, W.K. (2006). Replacing relative reinforcing efficacy with

behavioral economic demand curves. *Journal of the Experimental Analysis of Behavior*, 85, 73-93.

13. **Johnson, M.W.**, Suess, P.E., & Griffiths (2006). Ramelteon: A novel hypnotic lacking abuse liability and sedative adverse effects. *Archives of General Psychiatry*, 63, 1149-1157.
14. **Johnson, M.W.**, Bickel, W.K., Baker, F. (2007). Moderate drug use and delay discounting: A comparison of heavy, light, and never smokers. *Experimental and Clinical Psychopharmacology*, 15, 187-194.
15. Mintzer, M.Z. & **Johnson, M.W.** (2007) Opioids. In. *The Neuropsychological Consequences of Substance Abuse*. A. Kalechstein and W. Van Gorp (eds.) Taylor Francis: New York, NY.
16. **Johnson, M.W.**, Bickel, W.K. (2008). An algorithm for identifying nonsystematic data in delay discounting research. *Experimental and Clinical Psychopharmacology*, 16, 264-274.
17. Yi, R., **Johnson, M.W.**, Giordano, L.A., Landes, R.D., Badger, G.J., Bickel, W.K. (2008). The effects of reduced cigarette smoking on discounting future rewards: an initial evaluation. *The Psychological Record*, 58, 163-174.
18. Griffiths, R.R., Richards, W.A., **Johnson, M.W.**, McCann, U.D., Jesse, R. (2008) Mystical-type experiences occasioned by psilocybin mediate the attribution of spiritual significance 14 months later. *Journal of Psychopharmacology*, 22, 621-632.
19. **Johnson, M.W.**, Richards, W.A., Griffiths, R.R. (2008). Human hallucinogen research: Guidelines for safety. *Journal of Psychopharmacology*. 22, 603-620.
20. Kirshenbaum, A.P., **Johnson, M.W.**, Schwarz, S.L., Jackson, E.R. (2009). Response disinhibition evoked by the administration of nicotine and nicotine-associated contextual cues. *Drug and Alcohol Dependence*, 105, 97-108.
21. **Johnson, M.W.**, Bickel, W.K., Baker, F., Moore, B.A., Badger, G.J., Budney, A.J. (2010). Delay discounting in current and former marijuana-dependent individuals. *Experimental and Clinical Psychopharmacology*, 18, 99-107.
22. **Johnson, M.W.**, Strain, E.C., Griffiths, R.R. (2010). Effects of oral caffeine pretreatment on response to intravenous nicotine and cocaine. *Experimental and Clinical Psychopharmacology*, 18, 305-15.
23. **Johnson, M.W.**, K.A., MacLean, C.R., Reissig, T.E., Prisinzano, R.R. Griffiths. (2011). Human psychopharmacology and dose-effects of salvinorin A, a kappa-opioid agonist hallucinogen present in the plant *Salvia divinorum*. *Drug and Alcohol Dependence*, 115, 150-5.

24. Griffiths, R. R., **Johnson, M.W.**, Richards, W.A., Richards, B.D., McCann, U., Jesse, R. (in press). Psilocybin occasioned mystical-type experiences: Immediate and persisting dose-related effects. *Psychopharmacology*
25. MacLean, K.A., **Johnson, M.W.**, Griffiths, R.R. (in press). Mystical experiences occasioned by the hallucinogen psilocybin lead to increases in the personality domain of openness. *Journal of Psychopharmacology*
26. Bruner, N.R., **Johnson, M.W.** (submitted). Purchasing task for cocaine: elasticity of demand as an under-recognized aspect of impulsivity. *Behavioural Processes*
27. **Johnson, M.W.** (submitted). An efficient operant choice procedure for assessing delay discounting in humans.
28. **Johnson, M.W.**, Bruner, N.R. (submitted). The Sexual Discounting Task: HIV risk behavior and the discounting of delayed sexual rewards in cocaine dependence.
29. **Johnson, M.W.**, Sewell, R.A., Griffiths, R.R. (submitted). Psilocybin dose-dependently causes headache in healthy volunteers.
30. MacLean, K.A., Leoutsakos, J.S., **Johnson, M.W.**, Griffiths, R.R. (submitted) Validation and factor analysis of a scale to measure mystical experience: A study of experiences occasioned by the hallucinogen psilocybin.

## **Independent Extramural Funding**

### Awarded Grants

- |             |  |
|-------------|--|
| 2009 - 2010 | Development of a Novel Trial-by-Trial Consequence Human Delay Discounting Task<br>R03DA026523<br>National Institute on Drug Abuse<br>Role: Principal Investigator          |
| 2009 – 2011 | Sexual HIV Risk Behavior and Impulsive Decision Making in Cocaine Dependence<br>R21 DA026967<br>National Institute on Drug Abuse<br>Role: Principal Investigator           |
| 2011-2013   | Pharmacotherapy for Cocaine Dependence: d-cycloserine with Contingency Management<br>1R21DA029823-01A1<br>National Institute on Drug Abuse<br>Role: Principal Investigator |

2011 – 2013 Smoking cessations with 5-HT<sub>2A</sub> agonist psilocybin and cognitive behavior therapy  
Heffter Research Institute  
Role: Principal Investigator

## **EDUCATIONAL ACTIVITIES**

### **Mentorship of postdoctoral fellow**

Natalie R. Bruner, Ph.D., 2010 - present

### **Teaching, classroom instruction**

1997 – 1998 Various psychology courses, Psychology Department Teaching Assistant (responsible for animal care, grade entry, paper grading, test scoring). Eastern Oregon University

1997 – 1998 General Psychology, Supplemental Instructor (responsible for grade entry, paper grading, test scoring). Eastern Oregon University

2001 – 2002 General Psychology, Instructor. University of Vermont

2002 Psychology of Learning, Instructor (Course included animal learning laboratory component). Saint Michael's College.

2002 – 2003 Medical Student Seminar in Human Behavioral Pharmacology, Guest lecturer: “Behavior Analysis and Pharmacology.” University of Vermont

2002 Psychopharmacology, Instructor. University of Vermont

2008 Current Issues in Public Health, Guest lecturer: “Hallucinogens: History, Current Research, and Public Health Implications.” Johns Hopkins University Bloomberg School of Public Health

## **ORGANIZATIONAL ACTIVITIES**

### **Grant Review**

03/2010 National Institute on Drug Abuse (NIDA) Special Emphasis Panel ZDA1 GXM - A(02) Behavioral Science Track Award for Rapid Transition (B/START) R03 Review Group. March 10, 2010

09/2010 US Army Medical Research and Materiel Command (USAMRMC), American Institute of Biological Sciences (AIBS), Congressionally Directed Medical

Research Programs, Peer Reviewed Medical Research Program 2010: Drug Abuse. Sept. 22-24, 2010

- 01/2011 National Institute on Drug Abuse (NIDA) Special Emphasis Panel ZRG1 BBBP-T (03), member conflict panel for Biobehavioral Regulation, Learning, and Ethology (BRLE) study section. January 7, 2011
- 05/2011 National Institute on Dental and Craniofacial Research (NIDCR) Special Emphasis Panel for RFA-DE-12-001: NIDCR Behavioral or Social Intervention Planning and Pilot Data Grant (R34). Meeting scheduled for May 18, 2011.

### **Editorial Activities**

#### Reviewer

#### Addiction

Addiction Research and Theory

American Journal of Drug and Alcohol Abuse

American Journal of Psychiatric Rehabilitation

Behavioural Pharmacology

Behavioral Processes

CNS Drugs

Drug and Alcohol Dependence

Drug Testing and Analysis

Drugs

Experimental and Clinical Psychopharmacology

Journal of Applied Behavior Analysis

Journal of Experimental Psychology: General

Journal of Experimental Psychology: Learning, Memory, and Cognition

Journal of Neuroscience, Psychology, and Economics

Journal of Pharmacology and Experimental Therapeutics

Journal of Psychopharmacology

Journal of Studies on Alcohol and Drugs

Journal of the Experimental Analysis of Behavior

Nicotine and Tobacco Research

PLoS ONE

Psychiatry 2009

Psychological Record

Psychological Reports

Psychonomic Bulletin and Review

### **Professional Societies**

American Psychological Association, Member

Division 28, Member

Division 28, 2010 Program Chair

Division 28, Member-at-Large elected officer (tem 2012-2014)

Association for Behavior Analysis International, Member

College on Problems of Drug Dependence, Full Member

College on Problems of Drug Dependence,  
Human Subjects Research Committee Member (term: 2007 to 2010)  
International Study Group Investigating Drugs as Reinforcers, Member  
Society for Quantitative Analysis of Behavior, Member

### **Session Chair**

- 2004 Symposium: Bickel, W.K. & **Johnson, M.W.** (Chairs). Delay discounting: Exploring its association with drug dependence. Symposium held at the Annual Meeting of the American Psychological Association. Honolulu, HI.
- 2010 Symposium: **Johnson, M.W.** (Chair). Psychopharmacology and public policy. Symposium to be held at the Annual Meeting of the American Psychological Association. San Diego, CA.
- 2010 Symposium: **Johnson, M.W.** & Griffiths, R.R. (Chairs). Therapeutic uses of hallucinogens in the treatment of psychological disorders. Symposium held at the Annual Meeting of the American Psychological Association. San Diego, CA.
- 2010 Symposium: **Johnson, M.W.** (Chair). Delay discounting. Symposium held at the Annual Meeting of the Association for Behavior Analysis International. San Antonio, TX.
- 2011 Symposium: **Johnson, M.W.** & Griffiths, R.R. (Chairs). Emerging drugs of abuse. Symposium held at the Annual Meeting of the American Psychological Association. Washington, DC.

### **RECOGNITION**

#### **Awards, Honors**

- 1998 Outstanding Psychology Student Award, Eastern Oregon University
- 2001 Graduate Student Mini-Grant Travel Award, University of Vermont
- 2002 Travel Award for the 9th Annual Graduate Student Workshop in Experimental Economics, George Mason University, Fairfax, VA, International Foundation for Research in Experimental Economics
- 2002 Travel Award for the *64th Annual Scientific Meeting of the College on Problems of Drug Dependence*, Québec City, Québec, Canada, National Institute on Drug Abuse
- 2003 Student Paper Award, Experimental Analysis of Human Behavior Special Interest Group of the Association for Behavior Analysis
- 2003 Graduate Student Mini-Grant Travel Award, University of Vermont
- 2003 Travel Award for the *111th Annual Meeting of the American Psychological Association*, Toronto, Ontario Canada, National Institute on Drug Abuse

- 2004 Student Presenter Grant for the *Annual Convention of the Association for Behavior Analysis*, Boston, MA, Society for the Advancement of Behavior Analysis
- 2004 Woman and Gender Differences Travel Award for the *66th Annual Scientific Meeting of the College on Problems of Drug Dependence*, San Juan, PR, National Institute on Drug Abuse
- 2006 Travel Award for the *114th Annual Meeting of the American Psychological Association*, New Orleans, LA, National Institute on Drug Abuse
- 2007 Early Career Investigator Award for the *69th Annual Scientific Meeting of the College on Problems of Drug Dependence*. Québec City, Québec, Canada, College on Problems of Drug Dependence
- 2008 National Institutes of Health, Extramural Clinical Research Student Loan Repayment Program Award
- 2010 National Institutes of Health, Extramural Clinical Research Student Loan Repayment Program Award Renewal
- 2011 National Institutes of Health, Extramural Clinical Research Student Loan Repayment Program Award Renewal
- 2011 Wyeth Young Psychopharmacologist Award, American Psychological Association Division 28: Substance Abuse and Psychopharmacology

### **Invited Talks, Panels**

- 2008 Delay discounting in marijuana-dependent individuals. *3<sup>rd</sup> Annual Meeting of the Virginia Association for Behavior Analysis*, April 5, 2008, Harrisonburg, VA.
- 2011 Salvia divinorum: An emerging drug of abuse. Meeting of the Maryland *Association of Chemical Dependency Nurses*, January 19, 2011, Baltimore, MD.
- 2011 Understanding Salvia divinorum, an emerging hallucinogenic kappa opioid agonist drug of abuse. *Johns Hopkins Center for Substance Abuse Treatment and Research*, Scheduled for September 9, 2011, Baltimore, MD.

### **OTHER PROFESSIONAL ACCOMPLISHMENTS**

#### **Published Abstracts and Encyclopedia Entries:**

1. Baker, F., Bickel, W.K., & **Johnson, M.W.** (2001). Delay discounting of money, cigarettes, and health in cigarette smokers: A comprehensive study. *Drug and Alcohol Dependence*, *63*, Supplement 1, 10.

2. Bickel, W.K., **Johnson, M.W.**, & Giordano, L.A. (2002). Discounting: An evolved psychological mechanism commandeered in drug dependence? *Problems of drug dependence, NIDA Research Monograph*, 182, 67-69.
3. **Johnson, M.W.**, Baker, F., & Bickel, W.K. (2002). Delay Discounting in Ecstasy Users. *Drug and Alcohol Dependence*, 66, Supplement 1, 87.
4. **Johnson, M.W.** & Griffiths, Roland, R. (2005). Ramelteon: A viewpoint by Matthew W. Johnson and Roland R. Griffiths. *CNS Drugs*, 19, 1066-1067.
5. **Johnson, M.W.** (in press). Hallucinogens. In *Encyclopedia of Lifestyle Medicine and Health*. Rippe, J.M. (ed.) Sage Publications.
6. **Johnson, M.W.** (in press). Opioids. In *Encyclopedia of Lifestyle Medicine and Health*. Rippe, J.M. (ed.) Sage Publications.
7. **Johnson, M.W.** (2011). Cocaine. In *Encyclopedia of Drug Policy*. Kleiman, M., Hawdon, J., Golson, J.G. (eds.) Sage Publications.
8. **Johnson, M.W.** (2011). Rational addiction model of drug use. In *Encyclopedia of Drug Policy*. Kleiman, M., Hawdon, J., Golson, J.G. (eds.) Sage Publications.
9. **Johnson, M.W.** (2011). Salvia divinorum. In *Encyclopedia of Drug Policy*. Kleiman, M., Hawdon, J., Golson, J.G. (eds.) Sage Publications.
10. **Johnson, M.W.** (2011). Tobacco. In *Encyclopedia of Drug Policy*. Kleiman, M., Hawdon, J., Golson, J.G. (eds.) Sage Publications.

#### **Presentations at Professional Societies:**

1. **Johnson, M.W.** & Bickel, W.K. (2001). The behavioral economics of cigarette smoking: The concurrent presence of a substitute and an independent reinforcer. Paper presented at the *Annual Scientific Meeting of the International Study Group Investigating Drugs as Reinforcers*. Scottsdale, AZ.
2. **Johnson, M.W.** & Bickel, W.K. (2001). Matching law analysis on police motor vehicle drug searches. Poster presented at the *109th Annual Meeting of the American Psychological Association*. San Francisco, CA.
3. **Johnson, M.W.** & Bickel, W.K. (2001). A within-subject comparison of real and hypothetical rewards in delay discounting research. Poster presented at the *Annual Convention of the Association for Behavior Analysis*. New Orleans, LA.
4. Giordano, L.A., Bickel, W.K. & **Johnson, M.W.** (2001). Differences in discounting and demand for cigarettes and money after a brief period of abstinence. Paper presented at the

*Annual Convention of the Association for Behavior Analysis*. New Orleans, LA.

5. Bickel, W.K, Giordano, L.A., & **Johnson, M.W.** (2001). Reframing behavioral mechanisms with behavioral economics. Paper presented at the *109th Annual Meeting of the American Psychological Association*. San Francisco, CA.
6. Baker, F., Bickel, W.K. & **Johnson, M.W.** (2001). Delay discounting of money, cigarettes, and health in cigarette smokers: A comprehensive study. Poster presented at the *Annual Meeting of the College on Problems of Drug Dependence*. Scottsdale, AZ.
7. **Johnson, M.W.** & Bickel, W.K. (2002). Risk sensitive foraging in the drug-dependent. Poster presented at the *110th Annual Meeting of the American Psychological Association*. Chicago, IL.
8. **Johnson, M.W.**, Baker, F., & Bickel, W.K (2002). Delay discounting in ecstasy users. Poster presented at the *Annual Convention of the Association for Behavior Analysis*. Toronto, Ontario Canada.
9. **Johnson, M.W.**, Baker, F., & Bickel, W.K (2002). Delay discounting in ecstasy users. Paper presented at the *64th Annual Scientific Meeting of the College on Problems of Drug Dependence*. Québec City, Québec, Canada.
10. Yi, R., Baker, F., **Johnson, M.W.**, & Bickel, W.K. (2003). Differentiating current smokers from non-smokers: Comparison of impulsivity and delay discounting measures. Poster presented at the *65th Annual Scientific Meeting of the College on Problems of Drug Dependence*. Bal Harbor, FL.
11. Plebani Lussier, J., Higgins, S.T., **Johnson, M.W.**, & Heil, S.H. (2003). Delay discounting in pregnant smokers: An initial examination. Poster presented at the *111th Annual Meeting of the American Psychological Association*. Toronto, Ontario Canada.
12. **Johnson, M.W.** & Bickel, W.K. (2003). The relative reinforcer efficacy of cigarettes and money: A behavioral economic analysis. Poster presented at the *65th Annual Scientific Meeting of the College on Problems of Drug Dependence*. Bal Harbor, FL.
13. **Johnson, M.W.** & Bickel, W.K. (2003). The behavioral economics of cigarette smoking: The concurrent presence of a substitute and an independent reinforcer. Experimental Analysis of Human Behavior Student Paper Award presented at the *Annual Convention of the Association for Behavior Analysis*. San Francisco, CA.
14. **Johnson, M.W.** & Bickel, W.K. (2003). Pharmacological and nonpharmacological cigarette-smoking stimuli: A behavioral economic analysis. Poster presented at the *111th Annual Meeting of the American Psychological Association*. Toronto, Ontario Canada.
15. **Johnson, M.W.** & Bickel, W.K. (2003). Comparison of traditional and behavioral economic measures of relative reinforcer efficacy. Poster presented at the *Society for the Quantitative*

*Analyses of Behavior*. San Francisco, CA.

16. **Johnson, M.W.** & Bickel, W.K. (2004). Replacing relative reinforcing efficacy with behavioral economic demand curves: Congruence and parsimony despite manipulation of reinforcer magnitude. Paper presented at the *Annual Convention of the Association for Behavior Analysis*. Boston, MA.
17. **Johnson, M.W.**, Bickel, W.K., & Baker, F. (2004). Gender differences in delay discounting: Heavy, light, and nonsmokers. Paper presented at the *66th Annual Scientific Meeting of the College on Problems of Drug Dependence*. San Juan, PR.
18. **Johnson, M.W.** & Bickel, W.K. (2004). Delay discounting: A reanalysis and critique of models and assessment. Paper presented at the *112th Annual Meeting of the American Psychological Association*. Honolulu, HI.
19. Griffiths, R.R., Seuss, P.E., & **Johnson, M.W.** (2005). Ramelteon and triazolam in humans: Behavioral effects and abuse potential. Poster presented at the *Associated Professional Sleep Societies 19<sup>th</sup> Annual Meeting*. Denver, CO.
20. **Johnson, M.W.**, Patricia E. Seuss, & Roland R. Griffiths. (2005). Dose-effect comparison of ramelteon and triazolam: Abuse potential and behavioral effects. Poster presented at the *67th Annual Scientific Meeting of the College on Problems of Drug Dependence*. Orlando, FL.
21. **Johnson, M.W.**, Strain, E.C., & Griffiths, R.R. (2006). Gamma-hydroxybutyric acid (GHB) and ethanol: Comparison of behavioral, subject-rated, and observer-rated effects in subjects with histories of sedative abuse. Poster presented at the *68th Annual Scientific Meeting of the College on Problems of Drug Dependence*. Scottsdale, AZ.
22. **Johnson, M.W.**, Carter, L.P., Umbricht, A., & Griffiths, R.R. (2006) Clinical characterization of high dose gamma-hydroxybutyric acid (GHB) intoxication. Poster presented at the *114th Annual Meeting of the American Psychological Association*. New Orleans, LA.
23. **Johnson, M. W.** & Griffiths, R. R. (2007). Effects of acute oral caffeine pretreatment on response to intravenous nicotine in stimulant users. Paper presented at the *2007 Meeting of the Behavioral Pharmacology Society*, Washington, DC.
24. **Johnson, M.W.**, W.K, Baker, F., Moore, B.A., Badger, G.J., Budney, A.J. (2007). Delay discounting in marijuana-dependent individuals. Paper presented at the *Annual Convention of the Association for Behavior Analysis*. San Diego, CA.
25. **Johnson, M. W.**, Richards, W. A., Griffiths, R. R. (2007). Human hallucinogen research: Guidelines for safety. Poster presented at the *69th Annual Scientific Meeting of the College on Problems of Drug Dependence*. Québec City, Québec, Canada.

26. **Johnson, M. W.** & Griffiths, R. R. (2007). Multiple choice procedure for drug reinforcement: Comparing different drugs. Paper presented at the *115th Annual Meeting of the American Psychological Association*. San Francisco, CA.
27. **Johnson, M. W.**, Richards, W. A., Griffiths, R. R. (2007). Human psilocybin research: Guidelines for safety. Paper presented at the *115th Annual Meeting of the American Psychological Association*. San Francisco, CA.
28. McKerchar, T.L., Heil, S.H., **Johnson, M.W.**, & Higgins, S.T. (2007). Delay discounting of various commodities by cocaine-dependent outpatients: Comparison of two equations and associated measures of discounting. Poster presented at the annual meeting of the Society for Quantitative Analyses of Behavior, San Diego, CA.
29. Griffiths, R.R., **Johnson, M.W.**, Richards, W.A., & McCann, U.D. (2008). Psilocybin occasions mystical-type experiences: Dose effects. Poster presented at the *70th Annual Scientific Meeting of the College on Problems of Drug Dependence*. San Juan, Puerto Rico.
30. **Johnson, M. W.** & Griffiths, R. R. (2008). Linguistic analysis of psilocybin session narratives. Poster presented at the *70th Annual Scientific Meeting of the College on Problems of Drug Dependence*. San Juan, Puerto Rico.
31. **Johnson, M. W.** & Griffiths, R. R. (2008). Effects of Acute Oral Caffeine on Response to Intravenous Nicotine. Poster presented at the *116th Annual Meeting of the American Psychological Association*. Boston, MA.
32. **Johnson, M. W.**, Strain, E. C. & Griffiths, R. R. (2009). Effects of acute oral caffeine pretreatment on response to intravenous nicotine and cocaine in stimulant users. Poster presented at the *71th Annual Scientific Meeting of the College on Problems of Drug Dependence*. Reno, NV.
33. Dunn, K.E., Saulsgiver, K.A., Sigmon, S.C, **Johnson, M. W.** (2010). HIV and Hepatitis-C risk among injection and noninjection drug users. Poster to be presented at the *118th Annual Meeting of the American Psychological Association*. San Diego, CA.
34. **Johnson, M.W.** (2010). An efficient operant choice procedure for assessing delay discounting in humans. Paper to be presented at the *Association for Behavior Analysis International*. San Antonio, TX.
35. **Johnson, M.W.** (2010). Sexual discounting: HIV risk behavior and the discounting of delayed sexual rewards. Poster to be presented at the *Society for Quantitative Analysis of Behavior*. San Antonio, TX.
36. **Johnson, M. W.** (2010). Sexual discounting: HIV/AIDS risk behavior and the delay discounting of sexual rewards in cocaine dependence. Poster to be presented at the *72th Annual Scientific Meeting of the College on Problems of Drug Dependence*. Scottsdale, AZ.

37. **Johnson, M.W.** (2010). The Johns Hopkins guidelines for safely conducting human hallucinogen research. Paper presented at *Psychedelic Science in the 21<sup>st</sup> Century*. San Jose, CA.
38. **Johnson, M. W.** & Griffiths, R. R. (2010) Psilocybin in smoking cessation: a pilot study. Paper presented at the *118th Annual Meeting of the American Psychological Association*. San Diego, CA.
39. Griffiths, R.R., Johnson, M.W. (2010) Psilocybin dose-effects in healthy volunteers: Mystical-type experience, fear, and headache. Poster presented at the *72th Annual Scientific Meeting of the College on Problems of Drug Dependence*. Scottsdale, AZ.
40. MacLean, K., **Johnson, M.W.**, Griffiths, R.R. (2010). Psilocybin-occasioned mystical experience predicts increases in the NEO-PI personality trait of openness. Poster presented at the *72th Annual Scientific Meeting of the College on Problems of Drug Dependence*. Scottsdale, AZ.
41. Bruner, N.R., **Johnson, M.W.** (2010). Hypothetical demand curves for cocaine in cocaine-dependent individuals. Paper presented at the *Annual Scientific Meeting of the International Study Group Investigating Drugs as Reinforcers*. Scottsdale, AZ.
42. **Johnson, M. W.** & Griffiths, R. R. (2010). Human psychopharmacology of the kappa opioid agonist salvinorin A. Poster presented at the *European College of Neuropsychopharmacology*. Amsterdam, The Netherlands.
43. **Johnson, M. W.** (2011) Sexual Discounting Task: HIV Risk Behavior and Discounting of Delayed Sexual Rewards in Cocaine Dependence. Poster presented at the *Association for Behavior Analysis International Behavioral Economics Conference*. Chicago, IL.
44. **Johnson, M.W.** & Bruner, N.R. (2011) Sexual Discounting: Contribution to HIV risk in cocaine dependence. Poster presented at the *Association for Behavior Analysis International*. Denver, CO.
45. MacLean, K.A., Leoutsakos, J.S., **Johnson, M.W.**, Griffiths, R.R. (2011) Web-based survey of psilocybin-occasioned mystical experience. Poster presented at the American Psychological Society. Washington, DC.
46. MacLean, K.A., Leoutsakos, J.S., **Johnson, M.W.**, Griffiths, R.R. (2011) Web-based survey of psilocybin-occasioned mystical experience. Poster presented at the *73rd Annual Scientific Meeting of the College on Problems of Drug Dependence*. Hollywood, FL.
47. Bruner, N.R. & **Johnson, M.W.** (2011) Reliability of the Sexual Discounting Task: HIV-risk behavior and the discounting of delayed sexual rewards in cocaine dependence. Presented at the *73rd Annual Scientific Meeting of the College on Problems of Drug Dependence*. Hollywood, FL.

48. Bruner, N.R. & **Johnson, M.W.** (2011) Reliability of the Sexual Discounting Task: HIV-risk behavior and the discounting of delayed sexual rewards in cocaine dependence. Poster presented at the *119th Annual Meeting of the American Psychological Association*. Washington, DC.
49. Griffiths, R.R., **Johnson, M.W.** (2011) Psilocybin dose-effects: Ascending dose sequence associated with greater persisting positive effects at higher doses. Presented at the *73rd Annual Scientific Meeting of the College on Problems of Drug Dependence*. Hollywood, FL.
50. **Johnson, M.W.**, K.A., MacLean, C.R., Reissig, T.E., Prisinzano, R.R. Griffiths. (2011). Human psychopharmacology and dose-effects of salvinorin A, a kappa-opioid agonist hallucinogen present in the plant *Salvia divinorum*. Presented at the *73rd Annual Scientific Meeting of the College on Problems of Drug Dependence*. Hollywood, FL.
51. Carter, L.P., Reissig, C.J., Mintzer, M.Z., **Johnson, M.W.**, Griffiths, R.R. (2011). Human psychopharmacology and dose-effects of dextromethorphan, an NMDA antagonist hallucinogen present in over-the-counter cough medications. Presented at the *119th Annual Meeting of the American Psychological Association*. Washington, DC.
52. **Johnson, M.W.**, MacLean, K.A., Reissig, C.R., Prisinzano, T.E., Griffiths, R.R. (2011). Human psychopharmacology and dose-effects of salvinorin A, a kappa-opioid agonist hallucinogen present in the plant *Salvia divinorum*. Presented at the *119th Annual Meeting of the American Psychological Association*. Washington, DC.
53. **Johnson, M.W.** (2011). Guidelines for safe psychotherapeutic administration of hallucinogens. Presented at the *119th Annual Meeting of the American Psychological Association*. Washington, DC.
54. **Johnson, M.W.** (2011). From microeconomics to mystical experience: expanding the frame of human psychopharmacology. Wyeth Young Psychopharmacologist Award Lecture, Presented at the *119th Annual Meeting of the American Psychological Association*. Washington, DC.