

ROCHELLE D. SCHWARTZ-BLOOM, PhD

Curriculum Vitae

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PRESENT ADDRESS

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EDUCATION

1983-1986	Post-doc	NIMH/NIH (Neuropharmacology)
1979-1983	Ph.D.	Georgetown University (Pharmacology)
1976-1977	M.S.	George Washington University (Forensic Toxicology)
1970-1974	B.A.	Ithaca College (Chemistry)

PROFESSIONAL EXPERIENCE

2019 -	Professor Emerita of Pharmacology
2002 - 2019	Professor of Pharmacology
1992 - 2001	Associate Professor of Pharmacology
1986 - 1992	Assistant Professor of Pharmacology Duke University Medical Center, Durham NC
2014 - 2019	Professor of Education Duke University, Durham NC
2007 - 2019	Director, Duke Center for Science Education (sites.duke.edu/scied) Duke University
2002 - 2019	Professor of Psychiatry & Behavioral Sciences
1998 - 2001	Associate Professor of Biological Psychiatry
1987 - 1998	Assistant Professor of Biological Psychiatry Duke University Medical Center, Durham NC
2002 - 2008	Professor of Neurobiology
1994 - 2001	Associate Professor of Neurobiology
1993 - 1994	Assistant Professor of Neurobiology Duke University Medical Center, Durham NC
1989 - 2019	Director, Undergraduate Studies in Pharmacology Duke University, Durham NC
1983 - 1986	Staff Fellow (Postdoctoral Fellow), Section on Molecular Pharmacology, Clinical Neuroscience Branch, NIMH, Bethesda MD

1977 - 1979 Research Chemist, Laboratory of Experimental Pathology
National Cancer Institute, NIH, Bethesda MD

1974 - 1975 Research Specialist, Department of Medicine
University of Wisconsin Medical School, Madison WI

HONORS AND OTHER SPECIAL SCIENTIFIC RECOGNITION

1979 - 1982 NIH Predoctoral Training Fellowship in Pharmacology
1982 Harvey B. Haag Graduate Student Award, ASPET
1982 – 1983 National Research Service Award, NIDA/NIH, Predoctoral Fellowship
1985 American College of Neuropsychopharmacology, Mead Johnson Fellowship
1987 - 1989 Faculty Development Award in Pharmacology, Pharmaceutical Manufacturers
Association Foundation
1987 - 1992 First Independent Research Support and Transition Award, NINDS, NIH
1990 - 1995 Established Investigator Award, American Heart Association
1995 Commencement Speaker--NC School for Science and Math
1997 - 2008 Science Education Drug Abuse Partnership Award (SEDAPA), NIDA
1998 Winner, CINE Golden Eagle Award ([Animated Neuroscience Video](#))
1999 Recommended Viewing ([Animated Neuroscience](#)), AAAS Science Books & Films
2004 Science Educator Award, Society for Neuroscience
2005 - 2010 Science Education Research Award, NIAAA, NIH
2006 - 2009 Student Science Enrichment Program Award, Burroughs Wellcome Fund
2006 Science Education for New Civic Engagements & Responsibilities Award (NSF)
2007 and 2008 Duke Provost's Award: Duke Center for Science Education
2008 Judge: INTEL International Science and Engineering Fair
2008 Recognition Award for Contribution to Science Education; NC Chapter Student
Academy of Science
2008 - 2013 Science Education Drug Abuse Partnership Award (SEDAPA), NIDA
2009 Award for Exemplary Contributions to Education, American Society of
Biochemistry and Molecular Biology (ASBMB)
2009 Semi-finalist: NSF-Science Visualization Challenge Competition (Interactive Media;
[DiVE into Alcohol](#))
2011 Duke Provost's (PFIRST) Award: Persuading Pregnant Women to Abstain from
Drinking Alcohol
2014 - 2018 Science Education Drug Abuse Partnership Award (SEDAPA), NIDA
2015 Pharmacology Educator's Award, ASPET
2016 Elected Fellow, American Association for the Advancement of Science (AAAS)

SOCIETIES

American Society for the Advancement of Science (AAAS)
American Society for Pharmacology and Experimental Therapeutics (ASPET)
Society for Neuroscience
National Science Teachers Association (NSTA)

NATIONAL/INTERNATIONAL ADVISORY COMMITTEES

1988	Neurological Sciences 1 Study Section, Ad Hoc Reviewer
1990 - 1992	Drug Abuse Biomedical Research Review Committee, NIDA, Ad Hoc Reviewer
1991	Goodman and Gilman Award Selection Committee, ASPET
1991	Organizer, National Conference on Life Science Education and Scientific Literacy, NIH/ADAMHA
1990 - 1996	Subcommittee on Preprofessional Education, ASPET
1991 - 1994	Committee on Neuroscience Literacy, Society for Neuroscience
1993 - 1996	Committee on Educational Affairs, ASPET
1996 - 1999	Chair, Committee on Educational Affairs, ASPET
1997 - 2002	Advisory Committee on K-12 Science Curriculum Development, NIDA
1998 - 2003	Science Education Development, Special Emphasis Panels, NIDA, NIAAA, & NIH
1999 - 2003	Chair, Short Course & Continuing Education Committee, ASPET
1999 - 2003	Program Committee, ASPET
2003 - 2007	Member, NIDA-F Review Committee, NIDA, NIH
2007 - 2011	Member, Public Education and Communication Committee, Soc. for Neuroscience
2009 - 2012	Member-Ad Hoc, NIDA-F Review Committee, NIDA, NIH
2010 - 2012	Member, Council of Science Advisors for Prime Minister of Belize

EDITORIAL ADVISORY BOARDS

1988 - 1992	Neuropharmacology
1998	Volume Editor, <i>Methods in Enzymology</i> , "Optical Imaging in Living Brain Slices"
2016 - present	BrainFacts.Org; Society for Neuroscience

JOURNAL REVIEWS

Brain Research	Journal Pharmacology and Experimental Therapeutics
Brain Research Bulletin	Molecular Pharmacology
European Journal of Pharmacology	Neuropharmacology
Journal of Behavioral Neuroscience	Pharmacology, Biochemistry and Behavior
Journal of Cerebral Blood Flow and Metabolism	Psychopharmacology
Journal of Neurochemistry	Synapse
Journal of Neuroscience	
Life Science Education (Cell Biology Online)	
Journal of Chemical Education	

RESEARCH & DEVELOPMENT INTERESTS

Development of novel approaches to pharmacology and science education at the K-16, and professional levels
Development of teacher training and course curricula in pharmacology and neurobiology of drug and alcohol abuse
Development of medical education materials in pharmacology for medical students and residents

Regulation of GABA-gated Cl⁻ channels; imaging changes in intracellular Cl⁻ (in living brain slices)
Role of GABA neurotransmission in neuronal degeneration and neuroprotection with GABAergic drugs

TEACHING EXPERIENCE

Medical Students:	Pharm 200: Medical Pharmacology
Graduate Students:	Pharm 835: Innovations in Drug Development (Course Director) Pharm 693/4: Independent Study in Science Education
Undergraduate Students:	Pharm 350: Pharmacology-Drug Actions and Reactions (Teach entire course) Pharm 370: Pharmacogenomics & Personalized Medicine Pharm 293/4: Independent Study in Science Education

OTHER INTERESTS and ACHIEVEMENTS

All American--Triathlon (2013-2015, 2017-2019)
All American--Aquabike; Ranked #1 USA-age group (2013-2015)
All American--Aquathlon; Ranked #1 USA-age group (2010)
All Mid-Atlantic American—Duathlon (2005, 2010)
All North American--Duathlon (2005)

Member, Team USA, World Championships in Triathlon (2005-2010, 2012-2019)
Member, Team USA, World Championships in Aquathlon (2006-2010, 2012-2015, 2018-2021)
Member, Team USA, World Championships in Duathlon (2005, 2006, 2009, 2011, 2016, 2021)

World Championships in Sprint Distance Triathlon, Bronze Medalist (2010)
World Championships in Sprint Distance Duathlon, Silver Medalist (2011)

World Championships in Aquathlon, Gold Medalist (2008, 2014)
World Championships in Aquathlon, Bronze Medalist (2006, 2009, 2010, 2018)

US National Championships in Sprint Distance Triathlon, Gold Medalist (2008)
US National Championships in Sprint Distance Triathlon, Silver Medalist (2010)

US National Championships in Aquabike, Gold Medalist (2018)

US National Championships in Duathlon, Bronze Medalist (2019)
US National Championships in Duathlon, Silver Medalist (2015)

US National Championships in Aquathlon, Bronze Medalist (2018)
US National Championships in Aquathlon, Silver Medalist (2006)
US National Championships in Aquathlon, Gold Medalist (2010)

BIBLIOGRAPHY

JOURNALS—BASIC SCIENCE RESEARCH

1. **RD Schwartz**, VH Cohen and FP Abramson. Drugs, driving and the law: A prospective review. *Cont. Drug Prob.*, 283-306, Fall 1977.
2. H Autrup, FC Wefald, AM Jeffrey, H Tate, **RD Schwartz**, BF Trump and CH Harris. Metabolism of benzo(a)pyrene by cultured tracheobronchial tissues from mice, rats, hamsters, bovines and humans. *Int. J.*

Cancer, 25: 293-300, 1980.

3. H Autrup, **RD Schwartz**, JM Essigmann, L Smith, BF Trump and CH Harris. Metabolism of aflatoxin B₁, benzo(a)pyrene and 1,2 dimethylhydrazine by cultured rat and human colon. *Teratol., Carcinog. Mutagen.*, 1: 3-13, 1980.
4. H Autrup, **RD Schwartz**, J James, BF Trump, L Smith and CH Harris. Metabolism of 1,2 dimethylhydrazine. *Carcinogenesis*, 1: 375-380, 1980.
5. **RD Schwartz**, JM Moerschbaecher, DM Thompson and KJ Kellar. Effects of chronic phencyclidine on fixed-ratio responding: No relation to neurotransmitter receptor binding in rat cerebral cortex. *Pharmacol. Biochem. Behav.*, 16: 647-652, 1982.
6. **RD Schwartz**, R McGee and KJ Kellar. Nicotinic cholinergic receptors labeled by [³H]acetylcholine in rat brain. *Mol. Pharmacol.*, 22: 56-62, 1982.
7. **RD Schwartz** and KJ Kellar. Nicotinic cholinergic receptor binding sites in brain: *In vivo* regulation. *Science*, 220: 214-216, 1983.
8. **RD Schwartz** and KJ Kellar. [³H]Acetylcholine binding sites in brain: Effect of disulfide bond modification. *Mol. Pharmacol.*, 24: 387-391, 1983.
9. **RD Schwartz**, J Lehmann and KJ Kellar. Presynaptic nicotinic cholinergic receptors labeled by [³H]acetylcholine on catecholamine and serotonin axons in brain. *J. Neurochem.*, 42: 1495-1498, 1984.
10. **RD Schwartz**, P Skolnick, EB Hollingsworth and SM Paul. Barbiturate and picrotoxin-sensitive ³⁶chloride efflux in rat cerebral cortical synaptoneurosomes. *FEBS Lett.*, 175: 193-196, 1984.
11. TC Rainbow, **RD Schwartz**, B Parsons and KJ Kellar. Quantitative autoradiography of nicotinic [³H]acetylcholine binding sites in rat brain. *Neurosci. Lett.*, 50: 193-196, 1984.
12. KJ Kellar, **RD Schwartz**, AM Martino and DP Hall, Jr. [³H]Acetylcholine binding to muscarinic and nicotinic cholinergic receptors in brain: Utility for studies of neuropsychiatric disease. *Clin. Neuropharmacol.*, 7: 954-955, 1984.
13. SM Paul, **RD Schwartz**, D Hommer, KH Weber and P Skolnick. Modulation of benzodiazepine/GABA receptors by non-benzodiazepines. *Clin. Neuropharmacol.*, 7: 1984.
14. PBS Clarke, **RD Schwartz**, SM Paul, CB Pert and A Pert. Nicotinic binding in rat brain: Autoradiographic comparison of ³H-acetylcholine, ³H-nicotine and ¹²⁵I-alpha-bungarotoxin. *J. Neurosci.*, 5: 1307-1314, 1985.
15. KJ Kellar, AM Martino, DP Hall, Jr., **RD Schwartz** and RL Taylor. High affinity binding of [³H]acetylcholine to muscarinic cholinergic receptors. *J. Neurosci.*, 5: 1577-1582.
16. **RD Schwartz**, JW Thomas, ES Kempner, P Skolnick and SM Paul. Radiation inactivation of the benzodiazepine/GABA/chloride ionophore receptor complex. *J. Neurochem.*, 45: 108-115, 1985.
17. **RD Schwartz**. Neuroreceptor basis for anxiety and action of anti-anxiety drugs. *Pharmacy Times*, June, 1985.
18. **RD Schwartz** and KJ Kellar. *In vivo* regulation of [³H]acetylcholine binding sites in brain by nicotinic cholinergic drugs. *J. Neurochem.*, 45: 427-433, 1985.

19. **RD Schwartz**, JA Jackson, D Weigert, P Skolnick and SM Paul. Characterization of barbiturate-stimulated chloride efflux from rat brain synaptoneurosomes. *J. Neurosci.*, 5: 2963-2970, 1985.
20. SM Paul, **RD Schwartz**, CR Creveling, EB Hollingsworth, JW Daly and P Skolnick. γ -Aminobutyric acid receptor-mediated chloride transport in a "cell-free" membrane preparation from the brain. *Science*, 233: 228-229, 1986.
21. PD Suzdak, **RD Schwartz**, P Skolnick and SM Paul. Ethanol stimulates γ -aminobutyric acid receptor-mediated chloride transport in rat brain synaptoneurosomes. *Proc. Natl. Acad. Sci. USA*, 83: 4071-4075, 1986.
22. MD Majewska, NL Harrison, **RD Schwartz**, JL Barker and SM Paul. Steroid metabolites are barbiturate-like modulators of the GABA receptor. *Science*, 232: 1004-1007, 1986.
23. **RD Schwartz**. Autoradiographic distribution of high affinity muscarinic and nicotinic cholinergic receptors labeled with [3 H]acetylcholine in rat brain. *Life Sci.*, 38: 2111-2119, 1986.
24. **RD Schwartz**, PD Suzdak and SM Paul. GABA and barbiturate-mediated 36 chloride uptake in rat brain synaptoneurosomes: Evidence for rapid desensitization of the GABA receptor-coupled chloride ion channel. *Mol. Pharmacol.*, 30: 419-426, 1986.
25. **RD Schwartz**, SM Paul and MD Majewska. Factors modulating the sensitivity of the GABA-gated chloride ion channel. *Clin. Neuropharmacol.*, 9: 389-391, 1986.
26. PD Suzdak, JR Glowa, JN Crawley, **RD Schwartz**, P Skolnick and SM Paul. A selective imidazobenzodiazepine antagonist of ethanol in the rat. *Science*, 234: 1243-1247, 1986.
27. SM Paul, L Morrow, P Skolnick, **RD Schwartz** and PD Suzdak. Short and long term regulation of the GABA_A receptor coupled chloride ion channel via multiple allosteric recognition sites and perturbation of membrane lipids. *Clin. Neuropharmacol.*, 9: 122-124, 1986.
28. MD Majewska and **RD Schwartz**. Pregnenolone-sulfate: An endogenous antagonist of the γ -aminobutyric acid receptor complex in brain? *Brain Res.*, 404: 355-360, 1987.
29. ML Caspers, **RD Schwartz**, R Labarca and SM Paul. Autoradiographic visualization and characterization of 3 H-ouabain binding to the (Na⁺ + K⁺)-ATPase of rat brain and pineal. *Brain Res.*, 409: 335-342, 1987.
30. **RD Schwartz**, MJ Wess, R Labarca, P Skolnick and SM Paul. Acute stress enhances the activity of the GABA-receptor gated chloride ion channel in brain. *Brain Res.*, 411: 151-155, 1987.
31. MD Luu, AL Morrow, SM Paul and **RD Schwartz**. Characterization of GABA_A receptor-mediated 36 chloride uptake in rat brain synaptoneurosomes. *Life Sci.*, 41: 1277-1287, 1987.
32. PD Suzdak, JR Glowa, JN Crawley, **RD Schwartz**, P Skolnick, SM Paul. Response: Seizures in drug-treated animals. *Science*. 235:1127b-1128b, 1987.
33. **RD Schwartz**, P Skolnick and SM Paul. Regulation of γ -aminobutyric acid/barbiturate receptor-gated chloride ion flux in brain vesicles by phospholipase A₂: Possible role of oxygen radicals. *J. Neurochem.*, 50: 565-571, 1988.
34. **RD Schwartz** and MC Mindlin. Inhibition of the GABA receptor-gated chloride ion channel in brain by

- noncompetitive inhibitors of the nicotinic receptor-gated cation channel. *J. Pharmacol. Exp. Ther.*, 244: 963-970, 1988.
35. PD Suzdak, **RD Schwartz**, P Skolnick and SM Paul. Alcohols stimulate γ -aminobutyric acid receptor-mediated chloride uptake in brain vesicles: Correlation with intoxication potency. *Brain Res.*, 444: 340-345, 1988.
 36. **RD Schwartz**. The GABA_A receptor-gated ion channel: Biochemical and pharmacological studies of structure and function. *Biochem. Pharmacol.*, 37: 3369-3375, 1988.
 37. **RD Schwartz**, TW Seale, P Skolnick and SM Paul. Differential seizure sensitivities to picrotoxinin in two inbred strains of mice (DBA/2J and BALB/c ByJ): Parallel changes in GABA receptor-mediated chloride flux and receptor binding. *Brain Res.* 481: 169-174, 1989.
 38. G Heuschneider and **RD Schwartz**. cAMP and forskolin decrease GABA-gated chloride flux in rat brain synaptoneurosomes. *Proc. Natl. Acad. Sci. USA*, 86: 2938-2942, 1989.
 39. HA Tilson, **RD Schwartz**, SF Ali and RL McLamb. Colchicine administered into the area of the nucleus basalis decreases cortical nicotinic cholinergic receptors labelled by [³H]acetylcholine. *Neuropharmacology* 28: 855-862, 1989.
 40. HA Navarro, FJ Seidler, **RD Schwartz**, FE Baker, SS Dobbins and TA Slotkin. Prenatal exposure to nicotine impairs nervous system development at a dose which does not affect viability or growth. *Brain Res. Bull.* 23: 187-192, 1989.
 41. PP Edgar and **RD Schwartz**. Localization and characterization of [³⁵S]t-butylbicyclophosphorthionate binding in rat brain: An autoradiographic study. *J. Neurosci.* 10: 603-612, 1990.
 42. **RD Schwartz**, G Heuschneider, PP Edgar, and JA Cohn. cAMP Analogs inhibit GABA-gated chloride flux and activate protein kinase A in brain synaptoneurosomes. *Mol. Pharmacol.* 39: 370-375, 1991.
 43. BE Mileson and **RD Schwartz**. The use of locomotor activity as a behavioral screen for neuronal damage following transient forebrain ischemia in gerbils. *Neurosci. Lett.* 128: 71-76, 1991.
 44. TJ McGown, PP Edgar, **RD Schwartz** and GR Breese. Unilateral kindling of the inferior collicular cortex does not transfer to the contralateral seizure sensitive site or alter ³H-flunitrazepam and ³⁵S-TBPS binding. *Epilepsy Res.* 9: 132-138, 1991.
 45. **RD Schwartz**, X Yu, J Wagner, M Ehrmann and BE Mileson. Cellular Regulation of the benzodiazepine/GABA receptor: Arachidonic acid, calcium, and cerebral ischemia. *Neuropsychopharmacology* 6: 119-125, 1992.
 46. BE Mileson, ML Ehrmann, and **RD Schwartz**. Alterations in the GABA-gated chloride channel following transient forebrain ischemia in the gerbil. *J. Neurochem.* 58: 600-607, 1992.
 47. PP Edgar and **RD Schwartz**. Functionally relevant GABA_A receptors: Equivalence between receptor affinity (K_d) and Potency (EC₅₀). *Mol. Pharmacol.* 41: 1124-1129, 1992.
 48. **RD Schwartz** and X Yu. Inhibition of GABA-gated chloride channel function by arachidonic acid. *Brain Res.* 585: 405-410, 1992.
 49. H Li, RE Siegel, and **RD Schwartz**. Rapid decline of GABA_A receptor subunit mRNA expression in hippocampus following transient cerebral ischemia in the gerbil. *Hippocampus* 3:527-537, 1993.

50. **RD Schwartz**, J Wagner, X Yu and D Martin. Bidirectional modulation of GABA-gated chloride channels by divalent cations: Inhibition by Ca^{2+} and enhancement by Mg^{2+} . *J. Neurochem.* 62:916-922, 1994.
51. **RD Schwartz**, RA Huff, X Yu, M Carter and M Bishop. Post-ischemic diazepam is neuroprotective in the gerbil hippocampus. *Brain Res.* 647: 153-160, 1994.
52. **RD Schwartz**, X Yu, MR Katzman, DM Hayden-Hixson and JM Perry. Diazepam, given post-ischemia, protects selectively vulnerable neurons in rat striatum and hippocampus. *J. Neurosci.* 15:529-539, 1995.
53. JR Inglefield, JM Perry and **RD Schwartz**. Post-ischemic inhibition of GABA reuptake by tiagabine slows neuronal death in the gerbil hippocampus. *Hippocampus* 5:460-468, 1995.
54. B Alicke and **RD Schwartz-Bloom**. Rapid down-regulation of GABA_A receptors in gerbil hippocampus following cerebral ischemia. *J. Neurochem.* 65; 2808-2811, 1995.
55. **RD Schwartz** and X Yu. Optical imaging of intracellular chloride ions in living brain slices. *J. Neurosci. Meth.* 62:185-192, 1995.
56. BM Fubara, JH Casseday, E Covey and **RD Schwartz-Bloom**. Distribution of GABA_A , GABA_B and glycine receptors in the central auditory system of the big brown bat, *ptesicus fuscus*. *J. Comp. Neurol.* 369:83-92, 1996.
57. **RD Schwartz-Bloom**, TA Cook and X Yu. Inhibition of GABA-gated chloride channels in brain by the arachidonic acid metabolite, thromboxane A_2 . *Neuropharmacology* 35:1347-1353, 1996.
58. ED Levin, D. Torry, NC Chrtistopher, X Yu, G Einstein and **RD Schwartz-Bloom**. Is binding to nicotinic acetylcholine and dopamine receptors related to working memory in rats?. *Brain Res. Bull.* 43:295-304, 1997.
59. JR Inglefield and **RD Schwartz-Bloom**. Confocal imaging of intracellular chloride in living brain slices: Measurement of GABA_A receptor activity. *J. Neurosci. Meth.* 75:127-135, 1997.
60. JR Inglefield, CA Wilson and **RD Schwartz-Bloom**. Effect of transient cerebral ischemia on GABA_A receptor $\alpha 1$ -subunit-immunoreactive interneurons in the gerbil CA1 hippocampus. *Hippocampus* 7:511-523, 1997.
61. **RD Schwartz-Bloom**, KJ McDonough, PD Chase, LE Chadwick, JR Inglefield and ED Levin. Long-term neuroprotection by benzodiazepine full vs partial agonists following transient cerebral ischemia in the gerbil. *J. Cereb. Blood Flow Metab.* 18:548-558, 1998.
62. EM Gabriel, JR Inglefield, LE Chadwick and **RD Schwartz-Bloom**. Ischemic injury and extracellular amino acid accumulation in hippocampal area CA1 are not dependent upon an intact septo-hippocampal pathway. *Brain Res.* 785:279-286, 1998.
63. JR Inglefield and **RD Schwartz-Bloom**. Optical imaging of hippocampal neurons with a chloride-sensitive dye: Early effects of in vitro ischemia. *J. Neurochem.* 70:2500-2509, 1998.
64. JR Inglefield and **RD Schwartz-Bloom**. Activation of excitatory amino acid receptors in the rat hippocampal slice increases intracellular Cl^- and cell volume. *J. Neurochem.* 71:1396-1404, 1998.
65. JR Inglefield and **RD Schwartz-Bloom**. Using confocal microscopy and the fluorescent indicator, MEQ, for measurement of changes in intracellular chloride. *Confocal Microscopy. Meth. in Enzymol.* 307:469-481, 1999.

66. AC Grobin, JR Inglefield, **RD Schwartz-Bloom**, LL Devaud and AL Morrow. Characterization of functional GABA_A receptors in neuron-like P19 cells using a chloride-sensitive fluorophore (MEQ). *Brain Res.* 827:1-11, 1999.
67. JR Inglefield and **RD Schwartz-Bloom**. Fluorescence imaging of changes in intracellular chloride in living brain slices. *Methods.* 18: 197-203, 1999.
68. AC Grobin, JR Inglefield, **RD Schwartz-Bloom**, LL Devaud and AL Morrow. Characterization of functional GABA_A receptors in neuron-like P19 cells using a chloride-sensitive fluorophore (MEQ). *Brain Res.* 827: 1-11, 1999.
69. R Sah and **RD Schwartz-Bloom**. Optical imaging reveals elevated intracellular chloride in hippocampal pyramidal neurons following oxidative stress. *J. Neurosci.* 19: 9209-9217, 1999.
70. **RD Schwartz-Bloom**, KA Miller, DA Evenson, BJ Crain and JV Nadler. Benzodiazepines protect hippocampal neurons from degeneration after transient cerebral ischemia: An ultrastructural study. *Neuroscience* **98**: 471-483, 2000.
71. F Galeffi, S Sinnar and **RD Schwartz-Bloom**. Diazepam promotes ATP recovery and prevents cytochrome c release in hippocampal slices after *in vitro* ischemia. *J. Neurochem.* **75**: 1242-1249, 2000.
72. **Schwartz-Bloom** and R Sah. GABA neurotransmission and cerebral ischemia. *J. Neurochem.* 77: 353-371, 2001.
73. R Sah, F Galeffi, R Ahrens, G Jordan and **RD Schwartz-Bloom**. Modulation of the GABA_A-gated chloride channel by reactive oxygen species. *J. Neurochem.* 80: 383-391, 2002.
74. F Galeffi, R Sah, BB Pond, A George and **RD Schwartz-Bloom**. Changes in intracellular chloride after oxygen-glucose deprivation of the adult hippocampal slice: Effect of diazepam. *J. Neurosci.* 24:4478-4488, 2004.
75. BB Pond, F Galeffi, R Ahrens and **RD Schwartz-Bloom**. Chloride transport inhibitors influence recovery from oxygen-glucose deprivation-induced cellular injury in adult hippocampus. *Neuropharmacology* 47:253-2262, 2004.
76. BB Pond, K Berglund, T Kuner, G Feng, GJ Augustine, and **RD Schwartz-Bloom**. The chloride transporter NKCC-1 contributes to intracellular chloride increases after *in vitro* ischemia. *J. Neurosci.* 26:1396-1406, 2006.
77. R Zhan, JV Nadler, and **RD Schwartz-Bloom**. Depressed responses to applied and synaptically-released GABA in CA1 pyramidal cells, but not in CA1 interneurons, after transient forebrain ischemia. *J. Cereb. Blood Flow Metab.* 26:112-124, 2006.
78. R Zhan, JV Nadler, and **RD Schwartz-Bloom**. Impaired firing and sodium channel function in CA1 hippocampal interneurons after transient cerebral ischemia. *J. Cereb. Blood Flow Metab.* 27:1444-1452, 2007.

JOURNALS--SCIENCE EDUCATION RESEARCH

1. **RD Schwartz-Bloom** and MJ Halpin. Integration of pharmacology topics into high school biology and chemistry classes improves student performance. *J. Res. Sci. Teach.* 40: 922-938, 2003.
<http://www3.interscience.wiley.com/cgi-bin/fulltext/106561992/PDFSTART>
2. IM Lipkus, CM McBride, KI Pollack, **RD Schwartz-Bloom**, E Tilson and PN Bloom. A randomized trial comparing the effects of self-help materials and proactive telephone counseling on teen smoking cessation. *Health Psychology* 23:397-406, 2004.
3. IM Lipkus, KI Pollack, CM McBride, **RD Schwartz-Bloom**, P Lyna, and PN Bloom. Assessing attitudinal ambivalence towards smoking and its association with desire to quit among teen smokers. *Psychology & Health* 20:373-387, 2005.

4. **RD Schwartz-Bloom.** The Pharmacology Education Partnership: Improving high school biology and chemistry. *The Pharmacologist* 47:13-16, 2005. http://www.aspet.org/public/The_Pharmacologist/v47n1_3_05.pdf
5. **RD Schwartz-Bloom.** Science education: A neuroscientist's view of translational medicine. *J. Neurosci.* 25:5667-5669, 2005. <http://www.jneurosci.org/cgi/reprint/25/24/5667> PMID: 15958732
6. MJ Halpin, L Hoeffler, and **RD Schwartz-Bloom.** Pharmacology topics help high school students learn basic principles of biology and chemistry. *Sci. Teach.* 72:48-51, 2005.
7. PN Bloom, CM McBride, KI Pollack, **RD Schwartz-Bloom** and IM Lipkus. Recruiting teen smokers in shopping malls to a smoking cessation program using the foot-in-the-door technique. *J. Appl. Soc. Psychol.* 36: 1129-1144, 2006.
8. NC Kwiek, MJ Halpin, JC Reiter, LA Hoeffler, and **RD Schwartz-Bloom.** Pharmacology in the high school classroom. *Science* 317: 1871-1872, 2007. <http://www.sciencemag.org/cgi/reprint/317/5846/1871.pdf>
9. P Apa-Hall, **RD Schwartz-Bloom**, and ES McConnell. The current state of teenage drug abuse: Trend toward prescription drugs. *J. Sch. Nurs.* (Supplement), June, 2008.
10. SS Sikes and **RD Schwartz-Bloom.** Direction Discovery: A science enrichment program for high school students. *Biochem. Mol. Biol. Ed.* 37:77-83, 2009.
11. MM Yang, DP McMullen, R Brady, and **RD Schwartz-Bloom.** DiVE into alcohol: A biochemical immersive experience. *IEEE-Virtual Reality Conference Proceedings*, March, 2009.
12. SS Sikes and **RD Schwartz-Bloom.** LEAP! Launch into Education About Pharmacology: Transforming students into scientists. *Molec. Interven.* 9:215-219, 2009.
13. **RD Schwartz-Bloom**, MJ Halpin, and JR Reiter. Teaching high school chemistry in the context of pharmacology helps both teachers and students learn. *J. Chem. Ed.* 88:744-750, 2011. PMID: 24882881 PMCID: PMC4037129
14. I Lipkus, T Eissenberg, **RD Schwartz-Bloom**, AV Prokhorov, and J Levy. Affecting perceptions of harm and addiction among college waterpipe tobacco smokers. *Nic. Tob. Res.* 13:500-610, 2011. PMID: 21471304 PMCID: PMC3129239
15. CHJ Chen, A Jiang, E Litkowski, AR Elia, JA Shuen, K Xu, A Bonhivert, H Hsu-Kim, and **RD Schwartz-Bloom.** Females Excelling More in Math, Engineering, and Science (FEMMES): An after-school STEM program for girls that fosters hands-on learning and female to female mentorship" *J. Wom. Min. Sci. Eng.* 17: 313-324, 2011.
16. JA Shuen, AR Elia, K Xu, CHJ Chen, A Jiang, E Litkowski, A Bonhivert, H Hsu-Kim, and **RD Schwartz-Bloom.** Females Excelling More in Math, Engineering, and Science (FEMMES): One-day mentorship program to engage 4th-6th grade girls in STEM activities. *J. Wom. Min. Sci. Eng.* 17: 295-312, 2011.
16. IM Lipkus, T Eissenberg, **RD Schwartz-Bloom**, AV Prokhorov, and J Levy. Relationships among factual and perceived knowledge of harms of waterpipe tobacco, perceived risk, and desire to quit among college users. *J. Health Psychol.* (August, 2103) (epub: <http://hpq.sagepub.com/content/early/2013/08/08/1359105313494926.long> PMID: 23928987
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