

A.N. Gifford, Ph.D.

Selected peer-reviewed publications (from a total of 41)

1. Gatley S.J., **Gifford A.N.**, Volkow N.D., Lan R. and Makriyannis A. (1996) 123I-labeled AM251: a radioiodinated ligand which binds in vivo to mouse brain cannabinoid CB1 receptors. *Eur J Pharmacol.* 307: 331-8.
2. **Gifford A.N.**, Gatley S.J. and Ashby C.R., Jr. (1996) Endogenously released dopamine inhibits the binding of dopaminergic PET and SPECT ligands in superfused rat striatal slices. *Synapse.* 22: 232-8.
3. Volkow N.D., Gatley S.J., Fowler J.S., Logan J., Fischman M., **Gifford A.N.**, Pappas N., King P., Vitkun S., Ding Y.S. and Wang G.J. (1996) Cocaine doses equivalent to those abused by humans occupy most of the dopamine transporters. *Synapse.* 24: 399-402.
4. Gatley S.J., Lan R., Pyatt B., **Gifford A.N.**, Volkow N.D. and Makriyannis A. (1997) Binding of the non-classical cannabinoid CP 55,940, and the diarylpyrazole AM251 to rodent brain cannabinoid receptors. *Life Sci.* 61: PL 191-7.
5. Gatley S.J., Volkow N.D., **Gifford A.N.**, Ding Y.S., Logan J. and Wang G.J. (1997) Model for estimating dopamine transporter occupancy and subsequent increases in synaptic dopamine using positron emission tomography and carbon-11-labeled cocaine. *Biochem Pharmacol.* 53: 43-52.
6. **Gifford A.N.**, Tang Y., Gatley S.J., Volkow N.D., Lan R. and Makriyannis A. (1997) Effect of the cannabinoid receptor SPECT agent, AM 281, on hippocampal acetylcholine release from rat brain slices. *Neurosci Lett.* 238: 84-6.
7. Gatley S.J., Ding Y.S., Brady D., **Gifford A.N.**, Dewey S.L., Carroll F.I., Fowler J.S. and Volkow N.D. (1998) In vitro and ex vivo autoradiographic studies of nicotinic acetylcholine receptors using [18F]fluoronochloroepibatidine in rodent and human brain. *Nucl Med Biol.* 25: 449-54.
8. Gatley S.J., Lan R., Volkow N.D., Pappas N., King P., Wong C.T., **Gifford A.N.**, Pyatt B., Dewey S.L. and Makriyannis A. (1998) Imaging the brain marijuana receptor: development of a radioligand that binds to cannabinoid CB1 receptors in vivo. *J Neurochem.* 70: 417-23.
9. **Gifford A.N.**, Gatley S.J. and Volkow N.D. (1998) Evaluation of the importance of rebinding to receptors in slowing the approach to equilibrium of high-affinity PET and SPECT radiotracers. *Synapse.* 28: 167-75.
10. Gatley S.J., Volkow N.D., **Gifford A.N.**, Fowler J.S., Dewey S.L., Ding Y.S. and Logan J. (1999) Dopamine-transporter occupancy after intravenous doses of cocaine and methylphenidate in mice and humans. *Psychopharmacology (Berl).* 146: 93-100.
11. **Gifford A.N.**, Bruneus M., Gatley S.J., Lan R., Makriyannis A. and Volkow N.D. (1999) Large receptor reserve for cannabinoid actions in the central nervous system. *J Pharmacol Exp Ther.* 288: 478-83.
12. **Gifford A.N.**, Bruneus M., Lin S., Goutopoulos A., Makriyannis A., Volkow N.D. and Gatley S.J. (1999) Potentiation of the action of anandamide on hippocampal slices by the fatty acid amide hydrolase inhibitor, palmitylsulphonyl fluoride (AM 374). *Eur J Pharmacol.* 383: 9-14.
13. Volkow N.D., Wang G.J., Fowler J.S., Gatley S.J., Logan J., Ding Y.S., Dewey S.L., Hitzemann R., **Gifford A.N.** and Pappas N.R. (1999) Blockade of striatal dopamine transporters by intravenous methylphenidate is not sufficient to induce self-reports of "high". *J Pharmacol Exp Ther.* 288: 14-20.

14. Cosenza M., **Gifford A.N.**, Gatley S.J., Pyatt B., Liu Q., Makriyannis A. and Volkow N.D. (2000) Locomotor activity and occupancy of brain cannabinoid CB1 receptors by the antagonist/inverse agonist AM281. *Synapse*. 38: 477-82.
15. Gatley S.J., **Gifford A.N.**, Carroll F.I. and Volkow N.D. (2000) Sensitivity of binding of high-affinity dopamine receptor radioligands to increased synaptic dopamine. *Synapse*. 38: 483-8.
16. **Gifford A.N.**, Bruneus M., Gatley S.J. and Volkow N.D. (2000) Cannabinoid receptor-mediated inhibition of acetylcholine release from hippocampal and cortical synaptosomes. *Br J Pharmacol*. 131: 645-50.
17. **Gifford A.N.**, Park M.H., Kash T.L., Herman L.M., Park E.H., Gatley S.J. and Volkow N.D. (2000) Effect of amphetamine-induced dopamine release on radiotracer binding to D1 and D2 receptors in rat brain striatal slices. *Naunyn Schmiedebergs Arch Pharmacol*. 362: 413-8.
18. Rice O.V., Gatley S.J., Shen J., Huemmer C.L., Rogoz R., DeJesus O.T., Volkow N.D. and **Gifford A.N.** (2001) Effects of endogenous neurotransmitters on the *in vivo* binding of dopamine and 5-HT radiotracers in mice. *Neuropsychopharmacology*. 25: 679-89.
19. Gerasimov M.R., Ferrieri R.A., Schiffer W.K., Logan J., Gatley S.J., **Gifford A.N.**, Alexoff D.A., Marsteller D.A., Shea C., Garza V., Carter P., King P., Ashby C.R., Jr., Vitkun S. and Dewey S.L. (2002) Study of brain uptake and biodistribution of [11C]toluene in non-human primates and mice. *Life Sci*. 70: 2811-28.
20. **Gifford A.N.**, Makriyannis A., Volkow N.D. and Gatley S.J. (2002) *In vivo* imaging of the brain cannabinoid receptor. *Chem Phys Lipids*. 121: 65-72.
21. Li Z., Ding Y.S., **Gifford A.**, Fowler J.S. and Gatley J.S. (2003) Synthesis of structurally identical fluorine-18 and iodine isotope labeling compounds for comparative imaging. *Bioconjug Chem*. 14: 287-94.
22. Li Z., **Gifford A.**, Liu Q., Thotapally R., Ding Y.S., Makriyannis A. and Gatley S.J. (2005) Candidate PET radioligands for cannabinoid CB(1) receptors: [(18)F]AM5144 and related pyrazole compounds. *Nucl Med Biol*. 32: 361-6.
23. Deng H, **Gifford A.N.**, Zvonok AM, Cui G, Li X, Fan P, Deschamps J.R., Flippen-Anderson J.L., Gatley S.J., Makriyannis A. (2005). Potent cannabinergic indole analogues as radioiodinatable brain imaging agents for the CB1 cannabinoid receptor. *J Med Chem* 48: 6386-6392
24. Glaser S.T., Gatley S.J., **Gifford A.N.** (2006) Ex-vivo imaging of fatty acid amide hydrolase (FAAH) activity and its inhibition in the mouse brain. *J Pharmacol Exp Ther* 316: 1088-1097
25. Dhawan J.D., Deng H., Gatley S.J., Makriyannis A., Akinfeleye T., Bruneus M., DiMaio A.A., **Gifford A.N.** (2006) Evaluation of the *in vivo* receptor occupancy for the behavioral effects of cannabinoids using a radiolabeled cannabinoid receptor agonist, R-[^{125/131}I]AM2233. *Synapse* 60: 93-101
26. Tovar-Salazar A., Dhawan J., Lovejoy A., Liu Q.A., **Gifford A.N.** (2006) Preparation of radioiodinated peptide nucleic acids with high specific activity. *Anal. Biochem*. In press