

A.N. Gifford Ph.D.

Selected peer-reviewed publications (from a total of 42)

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 *in 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. 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.
13. 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.

14. Gatley S.J., **Gifford A.N.**, Carroll F.I. and Volkow N.D. (2000) Sensitivity of the *in vivo* binding of high-affinity dopamine receptor radioligands to increased synaptic dopamine. *Synapse*. 38: 483-8.
15. **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.
16. 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.
17. 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.
18. **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.
19. 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.
20. 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.
21. 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
22. 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
23. 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
24. Tovar-Salazar A., Dhawan J., Lovejoy A., Liu Q.A., **Gifford A.N.** (2007) Preparation of radioiodinated peptide nucleic acids with high specific activity. *Anal. Biochem*. 360: 92-98
25. **Gifford A.N.**, Espaillet M.P. AND Gatley S.J. (2008) Biodistribution of radiolabeled ethanol in rodents. *Drug Metab. Dispos.* In press