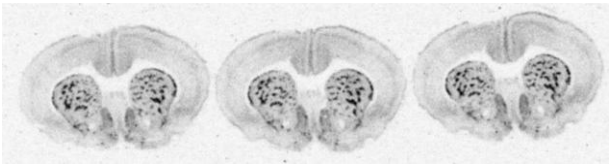
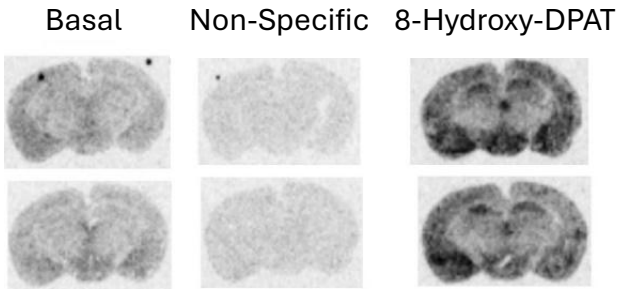
Gifford Bioscience specialize in the measurement of target distribution and ligand binding in animal and human tissue using autoradiography.

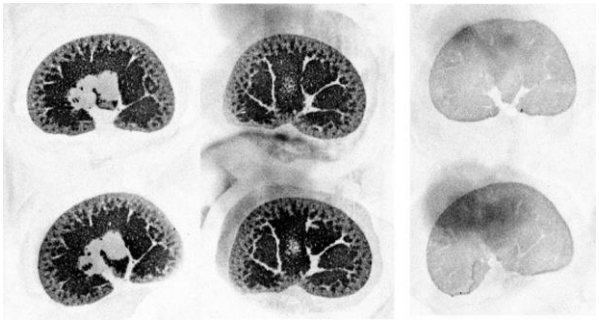
In Vitro Receptor Autoradiography



Binding of [^{3}H]DAMGO to μ opioid receptors in coronal sections at the level of the corpus striatum in rat brain.

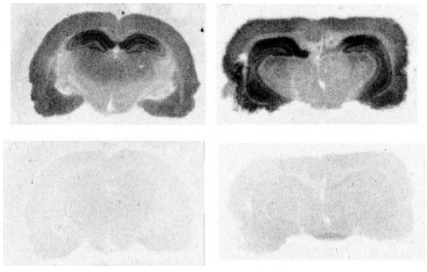


[^{35}S]GTPγS binding in rat brain slices. In the presence of the 5-HT1a agonist, 8-hydroxy-DPAT (10 μM), [^{35}S]GTPγS binding was increased relative to basal levels in the hippocampus, ventral cortex and hypothalamus, reflecting the distribution of agonist-activated receptors. Non-specific [^{35}S]GTPγS binding was defined using unlabeled GTPγS (10 μM).



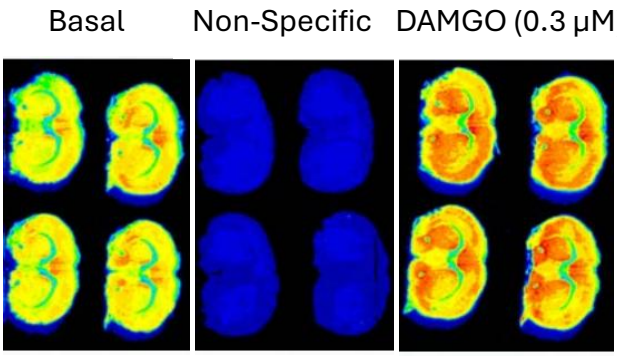
Binding of [^{3}H]LRRK2-IN-1 to the LRRK2 enzyme in rat kidney. Sections on the left are total binding and the two sections on the right non-specific binding, defined using unlabeled LRRK2-IN-1 (10 μM).

Binding of [^{35}S]TBPS to GABA$_{a}$ receptors in dog cerebellum. The two sections on the left are total binding and the two sections on the right non-specific binding, defined using picrotoxin (30 μM)



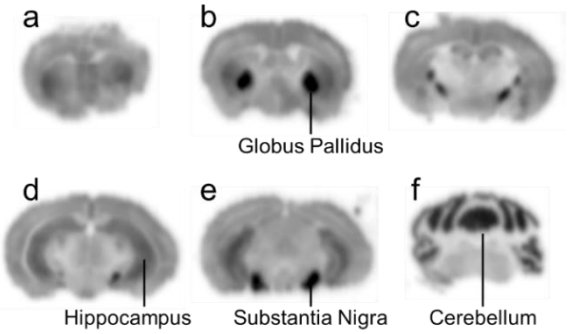
[^{3}H]MK801 binding to NMDA receptors in coronal sections in rat brain. Upper two sections are total binding and lower two sections non-specific binding, defined using unlabeled MK801 (10 μM).

Gifford Bioscience specialize in the measurement of target distribution and ligand binding in animal and human tissue using autoradiography.



[^{35}S]GTPγS binding in mouse brain sections. In the presence of DAMGO (0.3 µM), [^{35}S]GTPγS binding was increased relative to basal levels, especially in the striatum and nucleus accumbens, due to activation of mu receptors. Non-specific [35S]GTPγS binding was defined using unlabeled GTPγS (10 µM). Radioactivity levels shown using a color "heat map" scale.

Ex Vivo Receptor Autoradiography



Autoradiography in brain from a mouse administered the radioiodinated cannabinoid CB1 receptor radioligand, [125I]AM2233. Sections (coronal) imaged using phosphor imaging. Radioactivity distribution is consistent with selective binding to the CB1 receptor.