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NRU conducts translational neuroscience research on brain neurotransmission with the aim to promote preventive, diagnostic and therapeutic advances. We make use of in vivo molecular, structural, and functional brain imaging in healthy individuals as well as in patients with neurological or psychiatric brain disease, to uncover disease mechanisms and risk correlates as well as to determine drug effects. PET-, SPECT- and MRI-imaging are our modalities of expertise. We develop new PET- and SPECT-radiotracers for diagnostics or as biomarkers for use in brain disorders and we identify biomarkers and mechanisms behind affective, aggressive, neurodegenerative and -inflammatory disorders and develop new treatment or prevention strategies.

At the NRU Laboratory, we work with different animal models, cell cultures (primary neuronal cultures and cell lines) and human material to elucidate the role of the several neurotransmitter systems in neuropsychiatric and neurodegenerative diseases. Our overall aim is to understand the role of receptors and the pharmacological ligands that modulate such receptors. We use a number of technologies including fluorescence immunohistochemistry, confocal microscopy, autoradiography, receptor binding studies, PCR, western blot and ELISA.

Students, research associates and postdoctoral fellows as well as members of the senior staff present their ongoing projects and journal clubs at weekly meetings. Such meetings are interactive and create a dynamic forum where ideas that range from the basal to the clinical neuroscience are exchanged and discussed.

You can read more at www.nru.dk