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(71) Applicant *(for all designated States except US)*: **GE HEALTHCARE LIMITED** [GB/GB]; Amersham Place, Little Chalfont, Buckinghamshire, HP7 9NA (GB).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **WADSWORTH, Harry John** [GB/GB]; GE Healthcare Limited, The Grove Centre, White Lion Road, Amersham, Buckinghamshire HP7 9LL (GB). **O'SHEA, Dennis** [GB/GB]; GE Healthcare Limited, The Grove Centre, White Lion Road, Amersham, Buckinghamshire HP7 9LL (GB). **PASSMORE, Joanna** [GB/GB]; GE Healthcare Limited, The Grove Centre, White Lion Road, Amersham, Buckinghamshire HP7 9LL (GB). **TRIGG, William** [GB/GB]; GE Healthcare Limited, The Grove Centre, White Lion Road, Amersham, Buckinghamshire HP7 9LL (GB). **EWAN, Amanda** [GB/GB]; GE Healthcare Limited, The Grove Centre, White Lion Road, Amersham, Buckinghamshire HP7 9LL (GB). **SHAN, Bo** [GB/CN]; Shanghai ChemPartner Co, Building 6 998 Halei Road, Zhangjiang Hi-Tech Pakr, Pudong New Area, Shanghai 201203 (CN).

(74) Agent: **CANNING, Lewis Reuben**; GE Healthcare Limited, Pollards Wood, Nightingales Lane, Chalfont St Giles, Buckinghamshire HP9 4SP (GB).

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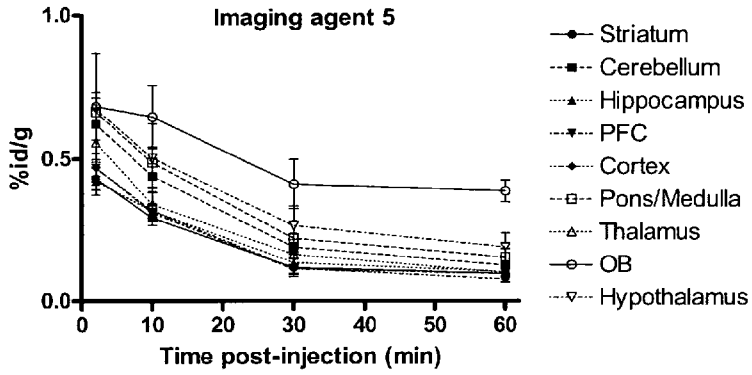


Figure 8: Brain biodistribution of imaging agent 5

(57) Abstract: An indole-based *in vivo* imaging agent is provided by the present invention that binds with high affinity to PBR, has good uptake into the brain following administration, and which has good selective binding to PBR. The invention also includes a precursor compound useful in the synthesis of the in vivo imaging agent of the invention, as well as a method for synthesis of said *in vivo* imaging agent comprising use of said precursor compound, and a kit for carrying out said method. Also provided is a cassette for automated synthesis of the *in vivo* imaging agent. Further aspects of the invention include a radiopharmaceutical composition comprising the *in vivo* imaging agent of the invention, and methods for the use of said *in vivo* imaging agent.

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