

Dr Jane Sosabowski

Barts
Cancer Institute
Queen Mary University of London



Research Interests

My main interests are in the use of pre-clinical molecular imaging in drug development, especially biopharmaceuticals and radiopharmaceutical development.

Specifically, my research interests are:

- Drug development studies that involve imaging to show specific tissue targeting of small antibodies. The aim is to use these targeting proteins to carry a therapeutic payload to the site of disease - this work is carried out in collaboration with GSK.
- Radiolabelling and imaging peptides and proteins for use in diagnosis and cancer therapy. These might be radiolabelled with positron emitters such as Ga-68, Zr-89 or Cu-64 for PET imaging; In-111 or Tc-99m for SPECT imaging or therapy radioisotopes such as Y-90, Lu-177 or At-211.
- Monitoring efficacy and response to treatment using radioisotope and fluorescence/bioluminescence imaging.
- Improved imaging techniques for reducing and refining the use of animals in scientific research.

Major Funders

- Industrial sponsorship (GlaxoSmithKline)
- EU (WHRI-COFUND)
- Engineering and Physical Sciences Research Council
- NC3R's

Contact Details

Email: j.k.sosabowski@qmul.ac.uk

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Recent Publications

- PET and SPECT Imaging of a Radiolabeled Minigastrin Analogue Conjugated with DOTA, NOTA, and NODAGA and Labeled with ^{64}Cu , ^{68}Ga , and ^{111}In . Roosenburg S, Laverman P, Joosten L, Cooper M, Kolenc-Peitl PK, Foster JM, Hudson C, Leyton J, Burnet J, Oyen WJ, Blower PJ, Mather SJ, Boerman OC, **Sosabowski JK**. *Mol Pharm*. 2014, Nov 3;11(11):3930-7.
- Development of the designed ankyrin repeat protein (DARPin) G3 for HER2 molecular imaging. Goldstein R, **Sosabowski J**, Livanos M, Leyton J, Vigor K, Bhavsar G, Nagy-Davidescu G, Rashid M, Miranda E, Yeung J, Tolner B, Plückthun A, Mather S, Meyer T, Chester K. *Eur J Nucl Med Mol Imaging*. (2):288-301
- Liver-targeting of interferon-alpha with tissue-specific domain antibodies. Coulstock E, **Sosabowski J**, Ovečka M, Prince R, Goodall L, Mudd C, Sepp A, Davies M, Foster J, Burnet J, Dunlevy G, Walker A. *PLoS One*. 2013;8(2)
- Prognostic and therapeutic impact of argininosuccinate synthetase 1 control in bladder cancer as monitored longitudinally by PET imaging. Allen MD, Luong P, Hudson C, Leyton J, Delage B, Ghazaly E, Cutts R, Yuan M, Syed N, Lo Nigro C, Lattanzio L, Chmielewska-Kassassir M, Tomlinson I, Roylance R, Whitaker HC, Warren AY, Neal D, Frezza C, Beltran L, Jones LJ, Chelala C, Wu BW, Bomalaski JS, Jackson RC, Lu YJ, Crook T, Lemoine NR, Mather S, Foster J, **Sosabowski J**, Avril N, Li CF, Szlosarek PW. *Cancer Res*. 2014 Feb 1;74(3):896-907.