

## NOMATEN Seminar

Tuesday NOVEMBER 9 2021 at 1PM CET (13:00)

<https://gotomeet.me/ncbjmeetings/nomaten-seminar>

### Exploring changes in PD-L1 expression via immune-PET

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#### ABSTRACT:

Positron emission tomography (PET), using radiolabelled mAbs, antibody fragments or engineered protein scaffolds (immuno-PET), has the potential to acquire information non-invasively and can be highly complementary to analyses based on tissue acquisition. Accordingly, immuno-PET agents might accurately identify the presence and accessibility of the target and provide a rapid assessment of tumour response to a variety of treatments in a timely fashion (e.g. within 1-2 weeks of treatment initiation). Furthermore, immuno-PET agents can provide information about the heterogeneity of both target expression and therapeutic response, which are increasingly recognised as key factors in treatment resistance. This especially relates to patients with advanced disease in whom target expression may vary from site to site and a biopsy of a single local or metastatic deposit may not accurately reflect the situation across the entire disease burden. Although introduction of immuno-PET into routine clinical practice may add complexity and increase costs, with appropriate use this imaging modality has the potential to identify patients likely to benefit from therapy and assess the efficacy of novel target-specific drugs. During drug development, this might minimise the wasted expense of taking ineffective treatments through further clinical testing and, for approved drugs, this might reduce futile ineffective therapy in patients whose tumours are likely to display intrinsic or acquired resistance.

#### BIO:

Professor Kramer-Marek received her Ph.D. degree in Medical Physics in 2005 from Silesian University, Poland and the following year, she joined the Radiation Oncology Branch, NCI/NIH, Bethesda, USA to work as a postdoctoral research fellow on the development and characterization of molecular probes for *in vivo* detection and quantification of tumour-specific markers. In 2012 she accepted the first faculty position (Research Assistant Professor) in the Department of Medicine, at the Indiana University, Indianapolis, US. From July 2013 she is leading the Preclinical Molecular Imaging Team at the Institute of Cancer Research in London, UK. Her research focuses on the development and characterisation of targeted-PET radiotracers, including protein-based theranostic agents that enable smart monitoring of immunotherapies and expand opportunities for personalised medicine approaches. Professor Kramer-Marek research has resulted in 47 PubMed-listed publications, US patent (No. US 8,303,960 B2) and several other awards (e.g. prize for the basic science investigation manuscript published in the Journal of Nuclear Medicine in 2012; DOI: [10.2967/jnumed.111.100354](https://doi.org/10.2967/jnumed.111.100354)).