# Hosting offer for Marie Sklodowska-Curie Postdoctoral Fellowships (PF) 2022 in design and evaluation of novel tumor ligands for molecular imaging and radionuclide therapy.

MSCA Postdoctoral Fellowships are individual research grants offering excellent postdoctoral researchers the chance to develop their skills by means of international mobility. Through the implementation of an original and personalised research project, MSCA Postdoctoral Fellowships aim to foster excellence through training and mobility and to equip researchers with new skills and competences in order to identify solutions to current and future challenges.

The Center for Radiopharmaceuticals Antwerp (CREANT) part of the IPPON Research Centre of Excellence invites motivated postdoctoral researchers to jointly prepare an application for the MSCA-PF-2022 call Marie Skłodowska-Curie Postdoctoral Fellowships call (MSCA-PF-2022) with them as host organisation.

**Description of Hosting organisation/group**

The Center for Radiopharmaceuticals Antwerp (CREANT) focuses specifically on identifying reliable biomarkers of immune-mediated tumor response to therapy. We aim to apply the acquired knowledge to develop novel diagnostic and therapeutic radiotracers to improve cancer treatment outcome. Keywords are radiotracer development, molecular imaging, radionuclide therapy, immunotherapy, and tumor microenvironment. CREANT has access to a large radiopharmacy/radiochemistry infrastructure, consisting of an on-site 11 MeV cyclotron, 10 different hot cell units (for F-18, C-11 and Ga-68 radiosynthesis) enclosing multiple radiosynthesis modules for automated tracer production, and a fully-equiped QC laboratory (HPLCs, LC-MS, GC, automated gamma-counter, …). The clinical radiopharmacy is a GMP-certified facility. CREANT closely interacts with the preclinical imaging facility - Molecular Imaging Center Antwerp (MICA) – for the development and validation of novel radiotracers in the field of oncology. The imaging infrastructure of MICA consists of 2 microPET/CT systems and 1 microSPECT/PET/CT.

CREANT is part of the IPPON Research Center of Excellence, a consortium whose research activities are at the forefront of integrated personalized cancer medicine. For different cancers in urgent need for improved therapeutic outcomes, our joint mission is:

- To develop novel and more effective therapeutic strategies;
- To improve the detection and understanding of mechanisms driving therapeutic resistance;
- To identify and validate biomarkers for early detection and personalized therapy.

The strong interdisciplinary partnership between basic, translational and clinical researchers within the IPPON consortium enables us to tackle burning research questions and clinical unmet needs and leads us to meaningful advances in the highly innovative and rapidly changing field of personalized cancer medicine and to improved patient outcomes both in terms of survival and quality of life.

**Topics/expertise**

For this MSCA-PF application we are seeking postdoctoral candidates to develop new radiopharmaceuticals and investigate their tumor targeting potential for molecular imaging and radionuclide therapy. This will include synthesizing, purifying, and characterizing (small) molecules,

developing and implementing new (automated) radiolabeling methods, and preclinical evaluation of the radiolabeled molecules for molecular imaging and targeted radionuclide therapy of cancers.

This project aims to deliver novel tumor-targeted theranostic ligands, which combine a targeted therapeutic and a diagnostic companion, to improve targeted cancer therapies, and ultimately enable personalized therapy regimens. Our lab has a strong interest in developing radiopharmaceuticals for molecular imaging of biomarkers/targets that can contribute to the use of immunotherapy in the most effective way, maximizing the likelihood of response. The candidate will work under the supervision of Prof. Filipe Elvas.

**Your profile**

- Expected qualifications/expertise of the candidate:
    - You hold a PhD in radiopharmacy, radiochemistry (or closely related discipline) with experience in synthetic organic chemistry and/or medicinal chemistry.
    - Expertise in organic chemistry is an asset.
    - Experience with radionuclide therapy is an advantage.
    - You have excellent communication, leadership and interpersonal skills.
    - Excellent command of written and spoken English is mandatory.
- You must have a completed PhD at the time of the call deadline (14 September 2022).
- Candidates must have a maximum of 8 years full-time research experience from the PhD award date until September 14, 2022. Periods of inactivity in research (e.g., unemployment, periods of employment outside research, parental or sick leave) do not count towards the time of research experience.
- For European fellowships, candidates can be of any nationality and must not have resided or carried out their main activity (work, studies, etc.) in Belgium for more than 12 months in the 36 months immediately before September 14, 2022.
- Highly motivated candidate with an excellent research track record appropriate to career stage, as evidenced by academic publications and other scientific output.

**What we offer**

- A stimulating, interdisciplinary environment for high-level radiopharmacy research, with state-of-the-art radiochemistry and preclinical molecular imaging infrastructure.
- Support and guidance for the preparation of your MSCA PF proposal from your future supervisor and the IPPON research manager.
- An informative MSCA-PF starter package, a dedicated training session (June 2022), advise on institutional aspects and horizontal issues and administrative support.
- Advise and comprehensive support from the International Staff Office of the University of Antwerp for incoming international researchers.

**How to apply?**

Indicate your interest by contacting the host institution as follows:

Please submit your application by e-mail to debbie.leblon@uantwerpen.be with subject line 'IPPON MSCA PF interest'. Your application must include your academic CV (including a complete list of publications) and a short motivation letter.

After the supervisor agrees to support you as a MSCA-PF candidate, you can start preparation of MSCA PF project proposal and will be supported further by the supervisor and the Research Support Office of the host university.

For more information about the hosting offer, please contact Prof. Filipe Elvas (filipe.elvas@uantwerpen.be). For more information on the MSCA PF scheme or the host institution, you can contact the MSCA coordinator of the University of Antwerp: Dr. Liesbet Cockx (Research, Innovation & Valorisation Antwerp, Grants Office): Liesbet.cockx@uantwerpen.be

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