



2019-GEE-A5-FGIV-011510

**FGIV - Scientist - Exploratory Research Project
Irradiation of Nanoparticles to produce Radio-
isotopes (ir-NANO)**

<p>Position for: FG IV Scientist</p>	<p>As the science and knowledge service of the Commission, the mission of DG Joint Research Centre is to support EU policies with independent evidence throughout the whole policy cycle.</p> <p>The JRC is located in 5 Member States (Belgium, Germany, Italy, the Netherlands and Spain). Further information is available at http://ec.europa.eu/jrc/</p> <p>The JRC offers a vacancy for a Contract Agent within the Exploratory Research Project ir-NANO (Irradiation of Nanoparticles to produce Radio-isotopes).</p> <p>The JRC Exploratory Research Programme (ER) is a strategic initiative characterised by ideas that might lead to novel results to qualitatively enrich current JRC scientific work.</p> <p>The ER Project ir-NANO will develop and characterise an innovative process allowing the separation of medical isotopes produced in a nuclear reaction by exploiting the energy of the recoils produced by the nuclear reaction during the irradiation. The material irradiated is a liquid suspension containing nanoparticles of the material to irradiate, with a diameter inferior to the range of the produced recoil. In these conditions, the isotope can escape from the nanoparticle and can be collected directly from the liquid after centrifugation. The process could therefore in principle avoid or strongly reduce the use of chemical processes and even mass separation to isolate the isotopes synthesized during irradiation.</p> <p>The successful candidate will be in charge of:</p> <ul style="list-style-type: none">• Design and carry out scientific and technical research, experiments and developments;• Develop irradiation setups at the GELINA electron accelerator and the MONNET tandem accelerator of JRC Geel;• Executing the experiments;• Perform the irradiations on samples prepared by the collaborators from Petten;• Quantify the amount of Mo-99 produced following irradiation, before and following separation of the Mo-99 from the nano-particles;• Check and evaluate results, propose and evaluate improvements;• Provide regular and accurate reports on scientific activities every twelve months and a final report;• Propose new activities, including competitive activities, where relevant;• Dissemination/publication of results. <p>Qualifications:</p> <ul style="list-style-type: none">• Completed university studies of at least three years attested by a diploma and at least five years professional experience in a field relevant to the position, alternatively a doctoral diploma in Physics,
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<p>Rules and eligibility</p>	<p>The candidate must be on any valid EPSO reserve list for Function Group IV contract staff.</p> <p>Applicants to the following Calls for expression of interest can also be considered:</p> <ol style="list-style-type: none">1. CAST Permanent - EPSO has launched in January 2017 an open-ended selection procedure to create a pool of candidates from which the institutions, bodies, offices and agencies of the European Union (EU) can recruit contract agents. Details available at the link below: https://epso.europa.eu/documents/2240_en2. Call COM/1/2015/GFIV – Research - The JRC has launched in January 2015 a permanent call for researchers FG IV. Details available at the link below: https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-IV-researchers <p>Auxiliary contract staff: https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/contract-staff-members</p> <p>Article 3b of the Conditions of Employment of Other Servants of the European Union applies: the actual period of employment within the Commission under this type of contract, including any period under renewal, shall not exceed 6 years.</p> <p><i>Please note that in case a high number of applications is received only shortlisted candidates will be contacted.</i></p>
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