

The Nanoscience Cooperative Research Center, CIC nanoGUNE, located in Donostia / San Sebastian, Basque Country (Spain), is currently looking for a

Post-doctoral Researcher

to work on

The candidate will work as entrepreneurial researcher, employed by nanoGUNE but working for the spin-off company Prospect Biotech. We are looking for a researcher with experience in optical systems engineering, optical design, and preferably experience with Raman spectroscopy.

NanoGUNE is a research center devoted to conducting world-class nanoscience research for a competitive growth of the Basque Country. NanoGUNE is a member of the Basque Research and Technology Alliance ([BRTA](#)) and is recognized by the Spanish Research Agency as a *Maria de Maeztu* Unit of Excellence.

The **position** is offered in the Nanoengineering Group, led by Seifert, Andreas (a.seifert@nanogune.eu). The Nanoengineering Group focuses on research at the interface between fundamental nanoscience and applied engineering, particularly in the area of photonic medical diagnostics, environmental issues, and food control. By introducing nanotechnology and photonic approaches, we bridge the gap between physical sciences and industrial as well as clinical applications to finally gain added value for novel biomedical methods, devices, and instrumentation. The acceleration of technology transfer is the driving motor for our research activities..

The candidate will join a **research line** focusing on the early detection of alzheimer's, plasmonic detection of biomarkers, photonic monitoring of physiology and vital signs, as well as on the plasmonic supercrystals. More information can be found at <https://www.nanogune.eu/nanoengineering>.

The aim of the **project** is to Lead optical systems engineering: design, integrate and develop Raman optical systems (lasers, spectrographs, optical fibers, probes), including component selection, integration and optimization. Architect automated workflows for biological sample processing, define automation requirements, and validate integrated platforms. Configure spectroscopic measurement systems, design data collection pipelines and develop preprocessing workflows. Build and validate optical prototypes for monitoring, assess reproducibility and conduct feasibility studies. Optimize platform performance through systematic experiments to maximize signal intensity and reproducibility. Generate SOPs, validation reports, technical specifications and scientific manuscripts for regulatory and stakeholder review..

The successful **candidate** will have a PhD in Physics, Optical/Photonic Engineering, Chemistry, Materials Science, Biomedical Engineering or related discipline. 1–2 years of postdoctoral or industry experience with demonstrated leadership in technical projects. Hands-on experience building and troubleshooting optical/analytical systems (microscopy, spectroscopy, laser systems). Proven experience in laboratory automation, instrumentation control or data acquisition systems. Strong experimental design, data analysis and signal/noise optimization skills. Programming proficiency in Python, MATLAB or similar for data processing and instrument control. Technical leadership ability, problem-solving mindset, attention to detail. Strong English communication (minimum B1). Entrepreneurial spirit and curiosity about biotechnology and clinical translation..

Additionally, the candidate should demonstrate experience in the following skills:

Although not compulsory, the following points will be considered:

- **We promote** teamwork in a diverse and inclusive environment and welcome all kinds of applicants regardless of age, disability, gender, nationality, race, religion, or sexual orientation.

The position is expected to start in 01/06/2026 and for a total length of up to 12 months (01/06/2026 - 31/05/2027) in the Nanoengineering Group. The contract will be funded by the .

Candidates should **apply** by completing the form below and attaching the following documents:

- a. A complete CV
- b. A cover letter and at least two reference letters grouped in a single PDF file

The **deadline** for applications is **15/04/2026**.

NOTES:

(i) All applicants will receive an answer after the end of the selection process; but please note that due to the large number of submissions that are expected, we cannot provide individual feedback.

(ii) Additional information about nanoGUNE's commitment towards [HR excellence in Research and Gender Equality](#) are available on our website.

(iii) We encourage you to subscribe to our [HR mailing list](#) to receive information related to nanoGUNE's open positions and open calls for different training and talent attraction programs.