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
Machine learning-assisted 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 María de Maeztu Unit of Excellence.

The position is offered in the **Nanoengineering Group** under the direction of Prof. Andreas Seifert (a.seifert@nanogune.eu). The Nanoengineering Group focuses on research in the fields of optics and photonics, with a special focus on new methods for medical diagnostics, environmental monitoring, and food analysis. We combine photonic approaches with nanotechnology and artificial intelligence to further advance technological maturity for future biomedical methods, devices, and instrumentation. The acceleration of technology transfer is the driving force behind our research activities.

The candidate will join a highly multidisciplinary research line that focuses on Raman spectroscopy for in vivo applications supported by chemometrics. More information can be found at
https://www.nanogune.eu/nanoengineering

The **aim** of the research **project** is to identify intrapartum physiological risks such as perinatal asphyxia. A particular focus is on data analysis using chemometric methods, the simulation of data, and the transfer of the knowledge gained to hardware components. An understanding of biocompatibility and regulatory matters is a great advantage for the position.

Important **tasks** of the work plan:

• Development of classification methods from in vivo Raman spectra
• Applying chemometrics methods to machine learning models
• Simulations and modification of data
• Carrying out Raman measurements in vitro and in vivo
• Development of protocols for biocompatibility and strict compliance with regulations

The **successful candidate** will preferably have a PhD in Physics, Chemometrics, Informatics, Chemistry, or related Engineering field and experience in the following skills:

-   Chemometrics
-   Machine learning
-   Raman spectroscopy
-   Biomedical engineering
-   Experience with regulations for medical devices.

Although not compulsory, the following points will be considered:

-   Profound knowledge in optics/photonics/spectroscopy
-   Experience with interdisciplinary research
-   Self-motivated and able to work in a team, willing to coordinate research work
-   Proficiency in written and spoken English, knowledge of Spanish is an advantage

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 to be filled no earlier than **01/04/2024** for a total duration of up to **24 months** in the Nanoengineering Group.

Candidates should apply by completing the **form bel**ow and attaching the following documents:
a complete CV, motivation letter, certificates and 2 reference contacts, all grouped in a **single PDF file**.

The **deadline** for applications is **25/03/2024**.

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.*