

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

**MASTER STUDENT**  
to work on  
**GV\_Elkartek\_2020\_nG20\_CIC03\_Bittner**

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 Self-Assembly Group, led by Bittner, Alexander (a.bittner@nanogune.eu). Our group studies and controls the self-assembly of biological (peptides, proteins, and viruses), organic (polyelectrolytes), and inorganic (nanoparticles) building blocks. The assembly systems are applied to the development of novel nanoscale and microscale devices..

The candidate will join a **research line** focusing on the plant viruses as templates, electrospinning of proteins, wetting at the nanoscale, ageing of supercapacitors, bionano self-assembly as well as the protein biomineralization. More information can be found at <https://www.nanogune.eu/self-assembly>. The aim of the **project** is to - Project: CIC032020003 - GV\_Elkartek\_2020\_nG20\_CIC03\_Bittner

- Work Plan: The group of Self-Assembly, in cooperation with the Electron Microscopy group, offers a Master project on Compressed Sensing. This signal processing strategy is a 2D signal acquisition technique, based on sparsity of images - the same property that allows for efficient image compression of photos. We plan to adapt it, in order to replace the simple pixel-by-pixel and line-by-line scanning in a Scanning Electron Microscope by randomized sampling of much fewer points. In this way, image recording could become sufficiently fast for real-time movies, and for reducing the irradiation dose for beam-sensitive materials, such as protein aggregates.

The project can also be carried out by remote operation, without presence at nanogune. It is based on good knowledge of information technology and mathematics..

The successful **candidate** will have a .

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 01/10/2021 and for a total length of up to 9 months (01/10/2021 - 30/07/2022) in the Self-Assembly 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 **30/06/2021**.

**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.