

Access Protocol

I. SCIENTIFIC AND TECHNICAL CONDITIONS:

The access of the scientific community to NANBIOSIS is a competitive access which is determined by this protocol. Scientific and technical conditions concerning the access to ICTS of external users are subject to the development of projects that require the use of equipment and processes for research on nanomaterials, biomaterials, and medical systems, including preclinical validation, or to facilitate the training to existing techniques in NANBIOSIS, and which have been previously approved by the Access Committee.

There are two kinds of access according to the applicant's experience, the scientific challenge of the proposals and the kind of service required: remote and self-service.

- **Remote service:**

Once the application has been approved by the Access Committee, the project is performed by the NANBIOSIS' technical staff, under the supervision of the research staff. In general the applicant's assistance is required, but not his presence. Many times a previous discussion with researchers who coordinate the required units is needed to find the best strategy to implement the project.

Generally these are researchers, external users from companies, other research centres and hospitals who do not know the procedures or, knowing them, they do not work directly with similar tools or seek techniques that supplement their own. It is also common that the user is only interested in the solution to a specific need or problem.

- **Self-service** is a scientific use available in some services of some units where it is possible to access as self-service.

In this case, the equipment of the units is used by experienced users, but that do not have the facilities of NANBIOSIS in their own centres.

For this modality, it is necessary to check the user's qualifications before allowing them to use the equipments. It is sometimes possible, in certain units and specific circumstances, to qualify them previously. Users are advised by our technical staff on the use of equipment to work independently.

Table 1: List of units and the type of access offered.

Detail of type of service per Unit*	Remote Service	Self-Service
1. Protein Production Platform	X	X
2. Customized Antibody Service	X	
3. Synthesis of Peptides Unit	X	X
4. Biodeposition and Biodetection Unit	X	X
5. Rapid Prototyping Unit	X	X
6. Biomaterial Processing and Nanostructuring Unit	X	X
7. Nanotechnology Unit	X	X
8. Micro/nanotechnology Unit	X	X
9. Synthesis of Nanoparticles Unit	X	
10. Drug Formulation Unit	X	
11. Pharmaceutical Lab Unit		X
12. Nanostructured Liquid Characterization Unit	X	
13. Tissue and Scaffold Characterization Unit	X	X
14. Cell Therapy Unit	X	X
15. Functional Characterization of Magnetic Nanoparticles Unit	X	
16. Surface Characterization and Calorimetry Unit	X	
17. Confocal Microscopy Unit		X
18. Nanotoxicology Unit	X	
19. Clinical Test Lab.	X	X
20. <i>In vivo</i> Experimental Unit	X	X
21. Experimental Operating theatres Unit	X	
22. Animal Housing Unit	X	
23. Assisted Reproduction Unit	X	X
24. Medical Imaging Unit	X	X
25. NMR I Unit	X	X
26. NMR II Unit	X	
27. High Performance Computing Unit	X	X

*Type of service depends on the specific service. See services details offered by each Unit at the Catalogue of Services of each Unit.

Regarding user's required and accredited experience, there are two types of users.

- **Type 1: Non-doctor researchers**, usually working on their doctoral thesis. The proposal to develop and, when appropriate, PhD student's stay must provide him/her with useful knowledge in the context of the thesis.
- **Type 2: PhD or with a minimum of three years accredited research experience.**

Researcher users must belong to R&D institutions, public and private centres or companies, part of a research team or research group or, if applicable, part of a scientific department or similar unit. The access is open to both the national and international scientific community.

As for administrative requirements, first of all, the user must complete the online '**Access Application Form**' and confirm the compliance of the requirements specified there.

Once the project is accepted, all assistance needed for the execution of their experiment will be at users' availability. Specifically:

- Tips on project preparation.
- Advice and assistance in the preparation of the samples.
- Access to the use of facilities and instrumentation.
- Enabling training for the use of the methods.
- Support during the processes.
- Support for the assessment of results.
- Support during equipment maintenance.
- Support for the design of additional experiments.
- Backing in administrative matters, offered by administration managers of NANBIOSIS

Once the access requests are accepted, the Access Protocol, which is explained later, must be followed.

To access the services, the application must be done through www.nanbiosis.es

II. COST OF THE ACCESS FOR THE FACILITY AND CONSEQUENCES FOR THE USERS WHERE RELEVANT

The user will assume the 100% of the service to cover maintenance and operation costs, except when funding from public resources, for instance from the National Plan or specific funds assigned to support existing ICTS, are available to finance access to NANBIOSIS. These costs will be calculated based on specific rates existing for the services provided by the different units, which can be found on the website. In those rates, different costs depending on the type of access, for instance self-service mode, if available, are considered.

Once the proposal is approved, costs and deadlines are estimated and communicated to the user. The user will contact the Unit/s involved to know the estimated costs. Before starting the project, it is necessary that customer accepts the budget. Any deviation of the project will be considered, estimated and reported to the user.

In terms of billing, this could be made by either, the institution/s where the Units involved are located, through CIBER-BBN and/or JUMISC, always on basis on published rates.

III. ACCESS CRITERIA AND PROCEDURES

i. Description of the access Protocol

NANBIOSIS' technical and scientific access conditions were explained in the previous section.

The potential user must register and complete an application that will be evaluated by the Access Committee. There is a form available to this end that must be filled and send online though www.nanbiosis.es.

Four regular calls will be launched yearly in order the scientific community to apply for access on basis on competitive criteria, as indicated in this protocol. Applications received outside the periods established by the competitive calls could be considered if the availability of the infrastructures is not completed. Dates of calls will be announced at www.nanbiosis.es.

Once the application is approved and the unit or units involved determined, user will be contacted and invited to get in touch with the Scientific Coordinators of the required units to communicate necessary details and set the dates, conditions, etc.

The details of the general access to facilities protocol are shown in the Teble 1. In case of selecting the self-service modality, access protocols for each of the units involved will be communicated to users by the corresponding Unit, once the proposals have been approved.

ii. Access Committee (members, functions)

After receiving the application, a preliminary administrative evaluation will be conducted to determine the compliance of the proposal requirements. If necessary, a 10 days period will be given to the applicant to make the corresponding corrections. This first evaluation will be carried out by:

- **Ms. Raquel Ruiz Hidalgo;** R&D&i Coordinator of JUMISC. Deputy Coordinator of NANBIOSIS
- **Dr. Jesús M^a Izco Zaratiegui;** Responsible for Infrastructures and Research Services of CIBER BBN. Coordinator of NANBIOSIS

Later on, the application form will be sent to the Access Committee in order to evaluate the project according to the criteria specified in the next section. The members of this Access Committee are listed below:

- **Leif Sörnmo** (Lund University, Sweden)
- **Matthias Epple** (Inorganic Chemistry, University of Duisburg-Essen, Germany)
- **Patrick Boisseau** (ETPN Chair Executive Board, CEA-Leti, Grenoble, France)
- **Miguel Angel de Gregorio** (Prof. of Interventional Radiology, University of Zaragoza)
- **Prof. Jaume Veciana**, Scientific Director of NANBIOSIS; Director of Molecular Nanoscience & Organic materials Dpt. 8ICMAB-CSIC) and Coordinator of Platform Programme of CIBER BBN.
- **Dr. Francisco Miguel Sánchez Margallo**; Assistant Director of NANBIOSIS and Scientific Director of JUMISC
- **Dr. Virginio García Martínez** (University of Extremadura, Spain)
- **Hector Ferral**. (Department of Radiology, Section of Interventional Radiology, NorthShore University HealthSystem)
- **Dra. M^a Eugenia Fernández Santos**, (Director of Cellular Production Unit and Regenerative Medicine, Director of GMP facilities of Hospital Gregorio Marañón)

Due to the high complexity and variability of the units and large number of services involved in NANBIOSIS, for solving specific technical issues, if necessary, the Access Committee could also consult the corresponding Scientific Responsible of the different units involved, although these scientist do not take part in the Access Committee. Also, these Coordinators can be consulted by the applicants before applying for competitive access (contact details at www.nanabiosis.es). These scientific Heads of the units are internationally recognized researchers of the associated areas of the units that they coordinate.

iii. Assessment Process

The assessment of NANBIOSIS platform access application is evaluated by the Access Committee.

Currently, this assessment is made regarding the following parameters:

- Scientific quality and interest of the proposal (40%).
- Adaptation to platform profile provided and feasibility of the proposal in the context of the available access to ICTS (20%).
- Justification for the applicant, endorsed by their Thesis supervisor or, alternatively, by the scientist responsible of the unit or Head Investigator of the project to which the applicant is assigned (10%).
- Potential interest to industry and/or translational research (20%).
- Applicant Curriculum (10%).

Scores of less than 50 points are discarded.

The scientific-technological quality of those applications derived from R&D projects funded in competitive calls by a national or European R&D funding agency or administration that, consequently, are supported by a previous assessment process, will be considered good enough and this parameter will be positively scored.

In case of access availability, applications from companies interested in subcontracting the services of NANBIOSIS to carry our R&D projects will be positively scored.

IV. ACCESS TO THE FACILITY

i. Access Schedule

- The equipment of the 27 units included in NANBIOSIS is available approximately 280 days per year, that is, every day except Sundays and national and regional holidays.
- Opening hours will be the same of the institution where the unit is located. However, it is possible to contact the management unit through www.nanabiosis.es.
- For the corresponding Units, authorization from the Scientific responsible of the unit must be requested to access to the facility, outside the opening hours established by the institution where is located the infrastructure, except emergencies.
- Any person not included in the list of users can't enter the facilities.

ii. Access to the facilities

- Each Scientific Responsible of the unit is able to deny access if any incompatibility with other works in progress is observed at the same time, e.g. an experiment is running. Access will need to be rescheduled according to the availability of the Unit.
- It is compulsory to be accredited to access the laboratories and, if required, show the corresponding card.

Access to other facilities throughout the different Units will be possible only with express permission given by the Scientific Responsible and following the rules for access to the premises.

iii. Entrance and Exit to facilities

- Entrance and exit to facilities will follow the standards set by each unit. Such rules must be available to users at its application's approval, once the applicant contacts the corresponding Unit.

iv. Access to materials and products

- It is not allowed to introduce any type of equipment, material and/or consumable product without express authorisation of the Scientist Responsible.
- It is forbidden to introduce cartons, boxes and packaging.

- It is forbidden to introduce food or drink.
- Any material (previously authorized) that enters to the facilities must be cleaned and, if applicable, sterilized before being used.
- Animals (previously authorized) that may be introduced will follow the established quarantine period.

V. RULES OF BEHAVIOUR

i. Behaviour in the facility

General rules of behaviour are aimed at guaranteeing the safety of people

- It is mandatory to use gowns and gloves in labs, and depending on the units, may be necessary to use hat, and mask.
- Do not touch any unsterile object with gloves to avoid contamination, if it occurs gloves should be changed.
- Do not run or make sudden movements or violent in the facilities.
- Regarding any problem with the equipment, decisions of the personnel that accompany the person must respect.
- If the facilities remain in the dark by a power failure, it is compulsory to go out of the place in the company of the personnel.
- In case of doubt, consult the Scientific Responsible.
- It is strictly forbidden to take pictures inside the facility without the authorisation of the management.
- It is forbidden the access to places where other projects are developing.
- It is denied the access to other computer terminals than those assigned.

ii. Behaviour in the facilities

- There could be chemicals and gases in the facilities that are particularly flammable. In case of fire or activation of any alarm or in any emergency situation, users must leave the facilities as fast as possible warning then the person responsible of maintenance.