

GUIDE FOR APPLICANTS

Nanomedicine Doctoral Programme

- NanoMedPhD -

Call 2016

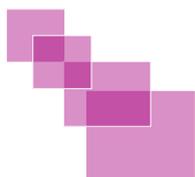


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1.- About NanoMedPhD

1.1.- Summary

Nanomedicine Doctoral Programme (NanoMedPhD) is a new strategic programme which aims to provide trans-national mobility for **early-stage researchers** and offer them training activities that lead to the award of a **doctoral degree** in the emerging and multidisciplinary field of nanomedicine, in three research areas: **Nanodiagnostics, Therapeutic Nanosystems** and **Regenerative Nanomedicine**. PhD fellows participating in the NanoMedPhD program will have the opportunity to receive specific training and participate in nanomedicine research activities in order to **obtain a doctoral degree** on a topic of their choice within the research areas of the program.

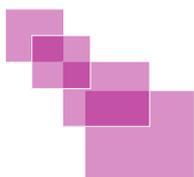
The scientific supervision of their research activity (thesis project) will take place in the **Andalusian Centre for Nanomedicine and Biotechnology (BIONAND)**, located in **Malaga, Spain**) through its Principal Investigators, and regarding the academic formation, the fellows will be enrolled in one of the four Doctoral Programmes related to this discipline, offered by the **University of Malaga (UMA)**, which is the academic partner of this programme. NanoMedPhD has been designed taking into account the seven [EU Principles on Innovative Doctoral Training](#).

NanoMedPhD launches an **open call** for fellowships in 2016 for a total number of **8 three-year incoming doctoral fellowships distributed** as follows:

- ✓ 3 Nanodiagnostics Area fellowships
- ✓ 2 Therapeutic Nanosystem Area fellowships
- ✓ 3 Regenerative Nanomedicine Area fellowships

The selection process will follow the European Charter for Researchers and Code of Conduct for their Recruitment, through an open, transparent, merit-based, impartial, equitable and internationally advertised procedure.

The selected candidates will be offered an **employment contract for a period of 3 years**, including attractive employment conditions (mobility, family and travel allowance). Spanish Labour Regulations ensure access to common social benefits including access to free public healthcare, social security insurance, sickness and parental benefits, pension rights and unemployment benefits.



1.2.- Why apply?

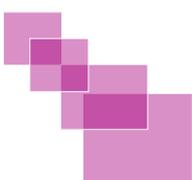
Nanomedicine is a field that is expected to produce great advances in the diagnosis and treatment of diseases based on the use of nanomaterials that have fundamentally different properties from classical materials. This promise has been reflected in the dramatic growth in Nanomedicine research over the last decade and major increases in both public and private investment. Nanomedicine is expected to play a major role in facilitating personalized medicine, one of the most important healthcare objectives of the 21st century.

NanoMedPhD has been designed taking into account the triple “i” dimension (international mobility, inter-sectoral exposure, and inter-disciplinarity), and aims to accelerate scientific progress in nanomedicine by attracting the most promising early-stage researchers of any nationality.

For this purpose, NanoMedPhd has been designed as a strategic programme which comprises research and academic training that lead to the award of a doctoral degree in the emerging field of nanomedicine. NanoMedPhD also provide the participants with a number of transferable skills which will give them more opportunities and competitiveness in the future.

The University of Malaga provides an attractive institutional environment, as demonstrated by the large number of foreign students participating its Masters and PhD programmes, as well as the many ERASMUS undergraduates it receives every year. It is worth highlighting that all the PhD programmes involved in NanoMedPhD are committed to achieving standards defined by a Quality Assurance system, which is based on the analysis of research productivity indicators, knowledge transfer results and employment success, among others.

BIONAND, the research centre where NanoMedPhD participants will develop their thesis and research activity, is characterised by the close collaboration between research groups working in diverse fields such as Biology, Chemistry, Physics, Engineering and Medicine. This diversity results in a highly stimulating and scientifically attractive environment that offers collaboration opportunities both internally and with other institutions in the health, university and private sectors at national and international level. In addition, BIONAND possesses cutting edge research equipment and highly qualified support staff, thus allowing programme participants to develop skills in techniques such as Magnetic Resonance Imaging, Spectroscopy, Advanced Optical Microscopy, Electronic Microscopy, Micro-CT, intra-vital optical imaging, etc...



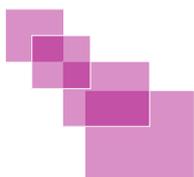
1.3.- Who can apply?

The NanoMedPhD programme is open to researchers of all nationalities. NanoMedPhD is looking for top-class researchers that meet the following requirements (*Eligible Researchers*):

- ✓ Early-Stage Researchers (ESR): applicants shall, at the time of recruitment (the reference date is the expected date of recruitment: 15 September 2017), be in the first four years (full-time equivalent research experience) of their research careers and not yet have been awarded a doctoral degree. Full-time equivalent research experience is measured from the date when a researcher obtained the degree which would formally entitle him or her to embark on a doctorate, either in the country in which the degree was obtained or in the country in which the researcher is recruited, irrespective of whether or not a doctorate is or was ever envisaged.
- ✓ Degree: Applicants must hold a degree which formally entitles them to embark on a doctorate. Therefore, applicants shall certify one of the following situations:
 - EITHER hold a degree from a EHEA (European Higher Education Area) country which grants access to a Master's degree and have achieved a minimum of 300 ECTS credits in university studies of which at least 60 must be at Master's level,
 - OR hold a qualification obtained in accordance with foreign educational systems without the need for official recognition, having previously confirmed with the university that this qualification accredits a level of training equivalent to the official Spanish university Master's degree and that it would serve as a means of access to a PhD in the country in which it was awarded.
- ✓ Mobility Rule: at the time of recruitment, researchers must not have resided or carried out their main activity (work, studies, etc.) in Spain for more than 12 months in the 3 years immediately prior to the reference date (15 September 2017). Compulsory national service and/or short stays such as holidays are not taken into account.

1.4.- Eligible Research Areas

As it is explained in Section **1.7 How to apply**, to participate in the selection process applicants must submit a proposal by filling in an online application form and uploading the required documents. Applicants must use official templates for Curriculum Vitae and Expression of Interest, which can be



downloaded in Word format and must be uploaded in PDF format in the specific section of the application form.

In the document “Expression of Interest”, applicants must indicate a Research Area and prioritise, in order of interest, all the thesis research fields offered by BIONAND research groups in that area, as listed on the NanoMedPhD webpage. There will be a specific ranking list for each Research Area.

Thus, for a submitted proposal to become an *Eligible Proposal* it must also meet the following eligibility criteria: the proposal needs to be related to one of the three eligible Research Areas of the Programme to be selected in the on-line application form (Nanodiagnostics, Therapeutics Nanosystems and Regenerative Nanomedicine).

Below the **three NanoMedPhD Research Areas** are detailed:

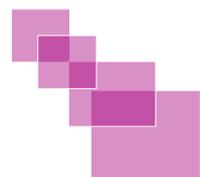
NANODIAGNOSTICS AREA

This area is focused around the implementation of more efficient diagnostic and prognosis devices, both in vivo and in vitro, with the objective of optimising the identification of diseases or predisposition to them, as well as its progression at a cellular or molecular level by using nanodevices. The general research lines within this area are:

- Development of devices and sensors based on nanotechnology for the detection and reliable measurement of the presence or concentration of one or more specific biomarkers and biomolecular interactions by measuring changes in response to thermal, electronic, magnetic, chemical or other stimuli.
- Develop nanomaterials as nanometric markers and contrast agents for improved image-based diagnostic approaches.
- The identification, evaluation and validation of new pathology-specific biomarkers.

THERAPEUTIC NANOSYSTEMS AREA

This area will focus on the development and research of nanosystems which protect, transport and release drugs or therapeutic agents by a controlled method leading to an easier administration, being more selective and effective, and therefore less toxic. The general research lines within this area are:



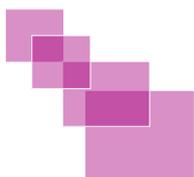
- Study and develop combinations of new agents (enzymes, proteins, nucleic acids) and nanostructures with therapeutic properties.
- Develop nanosystems that improve pharmacokinetic, pharmacodynamic and controlled release of therapeutic agents.
- Identify nanosystem-based transfection methods for gene therapy.
- Development of monitored treatments that combine therapeutic and imaging aspects, thus allowing the administration or effect of a treatment to be more easily followed by in vivo imaging (theranostics).

REGENERATIVE NANOMEDICINE AREA

This area deals with the repair or replacement of diseased or damaged tissues and organs by applying methods from gene therapy, cell therapy, the dosage of bioactive molecules and tissue engineering, by stimulating repair mechanisms of the own body. The production of new materials and support systems, the use of stem cells (adult, embryonic and iPS) and the production of molecules and biomimetic peptides which serve as signals for cell adhesion and differentiation are the main focuses of this area. The general research lines within this area are:

- Molecular and cellular functionalisation of biomaterials for the creation of tissue engineering products.
- Biocompatibility and toxicity of implantable devices.
- Cellular and molecular mechanisms implicated in the regeneration of organs and tissues.

The research activity (**thesis projects**) developed in these scientific areas within the framework of the NanoMedPhD Program will be developed in the **Andalusian Centre for Nanomedicine and Biotechnology** (BIONAND, www.bionand.es), a mixed research centre conceived as a space for research excellence in nanomedicine, being the first specialized centre in Spain focused exclusively towards healthcare-applied nanotechnology research with the aim of creating a world-class centre of excellence. BIONAND has been designed a multidisciplinary centre, which has been created in order to undertake the process of the physical, chemical and functional characterization of nanostructures with biological applications, and for this purpose is exceptionally well-equipped with the latest scientific technologies as consequence of its unique focus on specific scientific areas (<http://www.bionand.es/core-facilities>).



The **research groups** located in BIONAND have a wide expertise in nanomedicine, and deal with the most important clinical challenges considered for Nanomedicine in Horizon 2020, such as inflammation, neurodegenerative diseases, cardiovascular and cancer. Researchers participating in the NanoMedPhD program will become a member of a BIONAND research group and will receive scientific supervision from Principal Investigators of the assigned group. **Principal Investigators** of BIONAND and their **research lines and expertise** are shown in NanoMedPhD website (www.nanomed-cofund.eu).

1.5.- Academic partner

As it is explained above, NanoMedPhD participants will be enrolled in one of the **four Doctoral Programmes** related to this discipline, offered by the **University of Malaga (UMA)**, which is the academic partner of the programme.

The UMA is a young and dynamic university, whose most distinctive signs are quality teaching, innovative research and knowledge transfer. Situated in an exceptional location, the University of Malaga relies on highly qualified teaching and research staff, with a strong track record of creating symbiosis between the industrial and academic sectors.

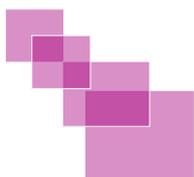
PhD Programs at the University of Malaga are organised by academic research lines, representing the focus of leading research groups in their corresponding fields. Each group comprises program teachers, who are also experienced researchers in the field and in supervising research projects, dissertations, and publication in high impact international journals.

The UMA currently offers **4 PhD Programmes** that match the research areas proposed by NanoMedPhD, whose names, websites and academic research lines are shown below:

- **Advanced Biotechnology** (<http://www.uma.es/doctorado-bioteecnologia/>)

Academic research lines:

- Bioengineering and Tissue Regeneration
- Neurogenesis
- Glutamatergic neurotransmission
- Plant-pathogen interaction
- Plant Biotechnology
- Improvement and Biotechnology of horticultural species



- Biotechnology aquatic systems
- Electrophysiology of aquatic plants

- **Cell and Molecular Biology (<http://www.uma.es/doctorado-bcm/>)**

Academic research lines:

- Molecular Biology
- Systems Biology
- Neurobiology
- Microbiology
- Developmental Biology

- **Chemistry and Chemical Technology. Materials and Nanotechnology (<http://www.uma.es/doctorado-quimica/>)**

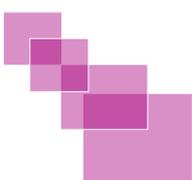
Academic research lines:

- Biochemistry and Organic Chemistry
- Chemical-physical methods in materials science and technology
- Functional Materials
- Materials and processes for sustainability, energy and the environment
- Chemical engineering and environmental technology

- **Biomedicine, Translational Research and New Technologies in Health (<http://www.uma.es/doctorado-biomedicina/>)**

Academic research lines:

- Cardio metabolic and kidney diseases
- Systemic diseases
- Advances in inflammatory cutaneous pathology and oncology
- Molecular cancer biology. Its importance in the diagnosis and treatment
- Genomics applied to medicine
- Clinical and experimental pharmacology, new therapies and technologies



- Basic and applied neuroscience
- Clinical research, technology and experimental radiobiology, medical imaging,
- Hearing and vision.
- Epidemiology and public health
- Surgery, obstetrics and gynecology

Further information about the University of Málaga is shown in the [PhD at University of Málaga](#) section in NanoMedPhD website.

1.6.- Timeline

Opening of call	1 October 2016.
Deadline for applications	30 December 2016 at 2:00 pm CET
Eligibility Check	January-February 2017
Scientific Evaluation	February-May 2017
Interview phase	June 2017
Final Resolution and acceptance of candidates	June-July 2017
Recruitment/enrolment	Expected date: 15 September 2017

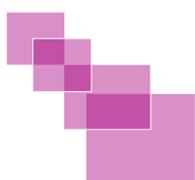
(*) These are approximate periods including the resolution of appeals. The complete evaluation process will last a maximum of 6 months, starting from the deadline for submitting proposals.

1.7.- How to apply?

To start preparing a new proposal, it is highly recommended to read carefully all the call information available from the programme website (www.nanomed-cofund.eu).

Applicants can manage the submission of proposals and follow the evolution of the selection process, via their Personal Area of the programme website.

The evaluation and selection process will be conducted in English. Proposals written in other languages will not be considered for evaluation. The interview phase will also be conducted in English.



A) How to create a proposal: Access to the application form via the Personal Area

Before accessing the Personal Area, applicants should register in the website with a username and password. Once logged in, applicants must click the “*new proposal*” button and start editing a proposal by filling in the online application form and attaching the required documents. Only complete applications by the time of the deadline will be taken into consideration.

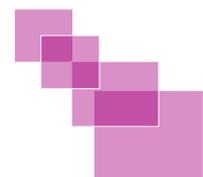
The online application form contains the following fields:

Section 1: Personal data

FIELD	HELP
Name	
Surname(s)	
Nationality	
Passport (ID number)	
Gender	
Full postal address	
Country of residence	
Telephone number	
Email	
Do you have dependent family?	Select Yes / No from the pull-down menu. Family is defined as persons linked to the researcher by (i) marriage, or (ii) a relationship with equivalent status to a marriage recognised by the legislation of the country where this relationship was formalised; or (iii) dependent children who are supported by the researcher. The family status is determined at the time of recruitment and cannot be changed during the lifetime of the project.

Section 2: Mobility

FIELD	HELP
Have you resided or carried out your main activity (work, studies, etc.) in Spain for more than 12 months in the 3 years immediately prior to the reference date (15/09/2017)?	Select Yes / No from the pull-down menu. At the reference date, researchers must not have resided or carried out their main activity (work, studies, etc.) in Spain for more than 12 months in the 3 years immediately prior to the reference date. Compulsory national service and/or short stays such as holidays are not taken into account. The reference date is the expected date of recruitment: 15 September 2017.
Where have you resided in the last three years/will you reside in the following year (reference date 15/09/2017)?	List the places where you have resided/will reside in the 3 years immediately prior to the reference date and include the start date and end date of your stay for each place. The reference date is the expected date of recruitment: 15 September 2017. If you are finally granted, supporting documents will be requested in order to justify the compliance of the mobility rule
	Country
	City
	Start date
	End date
	Duration (months)



Section 3: Research Career

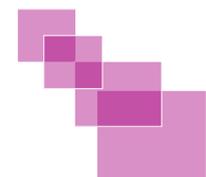
FIELD		HELP
Do you have a degree which formally entitles you to embark on a doctorate?		Select Yes / No from the pull-down menu.
When did you obtain the degree which formally entitles you to embark on a doctorate?	Title	List your official degree of bachelor or equivalent, and master's (if applicable in your country), which formally entitles you to embark on a doctorate, irrespective of whether or not a doctorate is or was ever envisaged.
	Date	
Will you be in the first four years (full-time equivalent research experience) of your research career at the reference date (15/09/2017)?		Select Yes / No from the pull-down menu. You are eligible for this programme if you are in the first four years (full-time equivalent research experience) of your research career or have no research experience at all by the time of the closing date for applications. NanoMedPhD is aimed at Early-Stage Researchers (ESR) who shall, at the reference date, be in the first four years (full-time equivalent research experience) of their research careers. The reference date is the expected date of recruitment: 15 September 2017. Full-Time Equivalent Research Experience is measured from the date when a researcher obtained the degree which would formally entitle him or her to embark on a doctorate.
Have you been awarded a doctoral degree?		Select Yes / No from the pull-down menu. NanoMedPhd programme is aimed at Early-Stage Researchers (ESR) who shall, at the reference date, be in the first four years (full-time equivalent research experience) of their research careers. The reference date is the expected date of recruitment: 15 September 2017. If you have been awarded a doctoral degree by the time of the reference date, you are not eligible for this programme.

Section 4: Selected Research Area

FIELD	HELP
Selected research area within NanoMedPhd Programme	Please choose from the pull-down menu the area of your interest to join NanoMedPhD (Nanodiagnostics Area/Therapeutic Nanosystems Area/Regenerative Nanomedicine Area)

Section 5: Upload required documents

FIELD	HELP
Passport/ID	If no national identity card applies, a passport or driver 's licence will serve the purpose
CV (using the official template)	You must download the CV official template in word format (in section "Official Templates"), fill in the required fields and then upload it in PDF format in this section.
Expression of interest (using the official template)	You must download the Expression of Interest official template in word format (in section "Official Templates"), fill in the required fields and then upload it in PDF format in this section.
Degree/s which formally entitles you to embark on a doctorate	In case of foreign educational systems, you must also provide an official document of your University/School which confirms that this qualification accredits a level of training equivalent to the official Spanish University Master's degree and that it would serve as a means of access to a PhD in the country in which it was awarded (a TEMPLATE including the mandatory information required can be downloaded in section "Official Templates"). Document/s must be TRANSLATED INTO ENGLISH (not necessary an official certified translation in this stage). Please upload all documents as a SINGLE PDF.



Academic record	<p>In order to evaluate the academic record, you must attach the following information: your transcript of records (detailing the subjects, their duration and the marks obtained), a credit-weighted average mark and the grading scale. All this information should be provided in official document/s of your University/School.</p> <p>Document/s must be TRANSLATED INTO ENGLISH (not necessary an official certified translation in this stage).</p> <p>Please upload the documents as a SINGLE PDF.</p> <p>Without this information, the criterion cannot be judged and the score will be 0.</p>
Reference letters (optional)	<p>You can add up to two reference letters (in ENGLISH).</p> <p>Please upload all documents as a single PDF</p>

RECOMENDATION ABOUT REQUIRED DOCUMENTS:

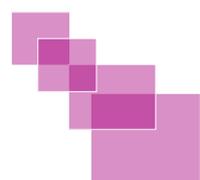
It is important for applicants to be aware that the online platform does not permit changes to their application be saved and edited at a later stage but rather must be completed and **submitted in a single session**. Therefore, it is recommended that the CV and Expression of Interest documents be completed in advance using the provided Word templates and exported as PDFs, such that they can easily be uploaded to the corresponding section of the online application form.

Applicants can download the official templates for CV and Expression of Interest in Word format from the relevant section of the NanoMedPhD website. Once downloaded, candidates must fill in the required fields and upload the document in **PDF FORMAT** to the specific section of the application form (Section “*Upload required documents*”).

In the template document “Expression of Interest” (using the official document), applicants must choose a Research Area and prioritise the corresponding thesis research fields offered by BIONAND research groups according to their interest. The thesis research fields in each area are shown in NanoMedPhD website, and it is highly recommended to prioritize ALL the thesis research fields available in the selected area. Proposals will be ranked in each Research Area.

It is also recommended that the other required documents (passport, degree, academic record, reference letters) be prepared in advance taking into account all the requirements described above (translation into English, unique PDF, ...), such they can easily be uploaded to the corresponding section.

Within the Personal Area candidates can view submitted proposals.



B) Submission of proposals

Only full proposals will be considered for evaluation. The definition of a **complete proposal** is explained in section **2.1.- Stages of the selection process** (STEP 1: Administrative and scientific eligibility check). The applicant will be responsible for submission of all the required information and validation of the respective components before the deadline. Once all the compulsory fields are completed and all the required documents are uploaded, the “*submit*” button must be clicked. All applicants will automatically receive an acknowledgement of receipt to the email address given in the submitted proposal.

Once a proposal is submitted, it will not be possible to modify or re-submit it. The online system allows the submission of multiple proposals, however only one proposal per applicant will be considered for evaluation, according to the rules explained below.

Deadline for submission of proposals will be December, 30th, at 2.00 PM CET. After this deadline the application will not accept any new proposal submissions.

It is highly recommended not to wait until the closing date in order to submit your application.

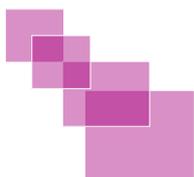
All documents should be uploaded in PDF format.

C) Multiple submissions

Only one proposal per applicant will be considered for evaluation under this call. In the event of multiple submissions, the application will automatically invite the applicant to choose one proposal for evaluation. In case candidates do not specify their preference before the deadline, the first submitted proposal will be considered for evaluation with any other proposals declared inadmissible. It is important for applicants to be aware that no additional information/documents can be added to the chosen submitted proposal after the deadline of the call.

D) Follow the selection process through your Personal Area

Once the Evaluation Process starts, the result of every stage of the process will be published in the Personal Area. Candidates will receive an e-mail inviting them to access their Personal Area to check the status and new information regarding the Evaluation Process.



2.- Selection Process

2.1.- Stages of the selection process

After the call deadline, the programme evaluation procedure follows a four steps process:

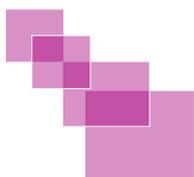
STEP 1. Administrative and scientific eligibility check (Technical Committee)

There are two eligibility criteria in this step: 1) the administrative eligibility criteria (eligible researchers and complete proposals) and the 2) scientific eligibility criteria (proposal related to Nanomedicine). It is necessary to meet both criteria to proceed to the next step.

1) Administrative Eligibility Criteria: An administrative eligibility check for each proposal will be made by the Technical Committee before the evaluation begins. Proposals which do not fulfill administrative eligibility criteria will not be included in the evaluation. The applicants must meet minimal eligibility conditions explained above (*Eligible Researchers*, view section **1.3.- Who can apply?**).

Any proposal can be declared ineligible if the Technical Committee deems it incomplete. A **complete proposal** will include:

- ✓ All the mandatory fields of the on-line **application form**
- ✓ A copy of the **Identity Document** of the applicant
- ✓ A copy of the **Official University degree** which formally entitles the applicant to embark on a doctorate. In case of foreign educational systems, applicants must also provide an official document of their University/School which confirms that this qualification accredits a level of training equivalent to the official Spanish University Master's degree and that it would serve as a means of access to a PhD in the country in which it was awarded (a **TEMPLATE** including the required mandatory information can be downloaded in section "Official Documents" in NanoMedPhD website) . Document/s must be **TRANSLATED INTO ENGLISH** (not necessary an official certified translation in this stage). Please upload all documents as a single PDF.
- ✓ A copy of the **academic record**. Applicants must attach the following information: the transcript of records (detailing the subjects, their duration and the grades obtained), a credit-weighted average mark and the grading scale. All this information should be provided in official document/s of the University/School. Document/s must be **TRANSLATED INTO ENGLISH** (not necessary an official certified translation in this stage). Please upload the documents as a **SINGLE PDF**.



- ✓ The scientific and professional **Curriculum Vitae** of the applicant using the official template from the NanoMedPhD website.
- ✓ An **Expression of Interest** from the applicant, expressing his/her research interests, relevant academic training and professional experience, to be completed using the official template from the NanoMedPhD website.

2) Scientific Eligibility Criteria: A scientific eligibility check for each proposal will be made before the evaluation begins in order to determine if the proposal meets the scientific eligibility criteria, ensuring that the submitted proposal is related to Nanomedicine. Proposals which do not fulfil this criteria will not be evaluated further (view section **1.4.- Eligible Research Areas**)

Complete proposals that meet the eligibility criteria will pass to the next phase of evaluation.

STEP 2. CV and Expression of Interest Evaluation (Scientific Evaluation Committee)

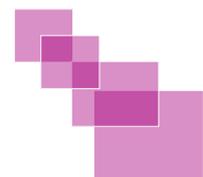
CV and Expression of Interest evaluation will be developed by **DEVA (Directorate of Evaluation and Accreditation)**, an independent regional agency belonging to the Andalusian Knowledge Agency, whose objective is to independently and objectively evaluate the scientific and technical quality of proposals that participate in public and private funding calls. The Scientific Evaluation Committee will be chosen by DEVA according to the principles of objectivity, independence, rigor and internationalisation.

Proposals that meet the Eligibility Criteria will be sent to evaluators, who will evaluate the CV and expression of interest of the applicants. At the same time, these evaluators will identify those proposals that include ethical issues requiring further scrutiny. Proposals including areas excluded for funding will be rejected (view section **2.3.- Ethical issues**). Evaluation criteria are described in section **2.2.- Evaluation criteria**.

For each application two or more peer review evaluations will be conducted. Additional evaluators may be assigned when necessary, such as in case of discrepancies. Experts will evaluate proposals according to call criteria and then DEVA's Area Committee teams will analyse the evaluations to ensure evaluation process standardisation.

Applicants will be ranked in each scientific area, according to the evaluation scores (see section **2.2.- Evaluation criteria**).

Claims and appeals: following the publication of the provision ranking list and emission of the evaluation reports to candidates, a 10 calendar day period will be established to allow candidates to appeal against



the result of their evaluations. Following the claims and appeals, a new ranking list will be published in NanoMed PhD website for each area of research.

Application will have to pass a **threshold of 70%** of the maximum score to be invited to the interview stage. The candidates to be interviewed will be those who reached the highest scores during the CV and scientific expression of interest.

STEP 3. Interview (Selection Committee)

A maximum of 5 candidates, selected from those who have exceeded the established threshold, will be invited to the interview for each doctoral fellowship offered, strictly in the order of the score obtained within each corresponding area.

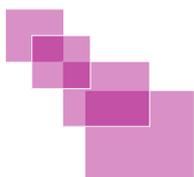
Interviews will either be held in person or via videoconference and will be carried out in English. Each interview will be carried out by the Selection Committee, which is formed by 3 members of BIONAND's Scientific Advisory Board. This last phase of selection will also be attended by the Scientific Project Coordinator, and University of Malaga PhD Programmes Coordinators responsible for NanoMedPhD-related programmes, who will be able to participate in the interview but without being involved in evaluating the candidate or deciding their final score. The Selection Committee may deem it necessary to request the advice of scientific supervisors of the selected area, in order to confirm that the scientific interests of the candidates are aligned with the research activity of potential host groups.

For each area, there will be a final ranking list of the selected candidates and a reserve list.

STEP 4. Acceptance and signature of fellowships

The Technical Committee will propose a financial offer to the selected candidates, in accordance to the financial parameters of the fellowship programme. At this moment, selected candidates shall choose the thesis research field of interest, according to the order of preference indicated in the submitted proposal. If any candidate refuses the offer, an offer will be sent to the next candidate on the reserve list, and so on.

The selected candidates will have to communicate to the Technical Committee the **acceptance of the fellowship** within a maximum period of **2 weeks** after the communication of the final results, and must be available to **join the programme** within a **maximum period of 2 months**, counting from the date of notification of the selection (expected date for recruitment: 15 September 2017).



A **3 year full-time employment contract** will be signed, which will define the legal and financial basis of the programme, including rights and obligations of each party and financial provisions.

At this stage, the selected candidates must provide additional documents that are mandatory to enroll in a Doctoral Programme at the University of Malaga. Submitted documents must be authenticated either by the candidate's embassy or, when applicable, by the Hague Convention Apostille. This will not be required for documents issued by authorities in European Union Member States or countries that have signed the European Economic Area Agreement. Submitted documents must also be officially translated into Spanish. The official translation can be done by a sworn translator (duly authorised or registered in Spain), by any Spanish embassy or consular office abroad, by any embassy or consular office in Spain of the country the applicant is a national of, or when applicable, where the document comes from.

2.2.- Evaluation criteria

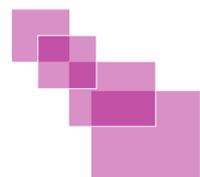
The aim of the Evaluation Criteria established for NanoMedPhD Programme is to improve the objectivity and uniformity of evaluations.

Candidates will be evaluated in relation to their CV, the expression of interest and the capacities demonstrated in the interview phase.

- **CV Assessment (100 points, weight 70%)**

CV assessment will be made according to the following criteria:

- Academic record (maximum score 60 points). For this criterion, only the official degree/s which formally entitles the applicant to embark on a doctorate will be considered.
- Research Experience in areas related with the PhD programme (maximum score 10 points)
- Research Experience in areas related with Nanomedicine (maximum score 5 points)
- Research Fellowships/Contracts (maximum score 10 points)
- Professional experience in companies related with the objectives of NanoMedPhD (maximum score 10 points)
- Other merits (maximum score 5 points)



- **Expression of Interest Assessment (100 points, weight 20%)**

Expression of interest assessment will be made according to the following criteria:

- Adequacy of the expression of interest with the programme of NanoMedPhD (maximum score 50 points)
- Relationship of the expression of interest with his/her previous academic and scientific background (maximum score 50 points)

- **Interview Assessment (100 points, weight 10%)**

Interview assessment will be made according to the following criteria:

- Defense of the expression of interest (maximum score 70 points)
- Presentation skills (maximum score 20 points)
- Motivation (maximum score 10 points)

2.3.- Ethical issues

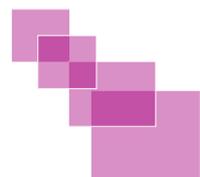
Ethics are crucial to scientific integrity, honesty and clarity of science. The beneficiary will ensure that all the research activities should respect fundamental ethical principles, including those reflected in the Charter of Fundamental Rights of the European Union and the relevant ethics rules of H2020.

Therefore, NanoMedPhD Team will ensure that all fellowships to be financed under the programme are in compliance with the fundamental ethical principles (in particular: Decision 2006/1982/EC, OJ L 412/1, 30.12.2006, Decision 2006/971/EC, OJ L 54/30, 22.02.2007 and OJ L 412/42, 30.12.2006). and the relevant ethics rules of H2020. These principles include the need to ensure the freedom of research and the need to protect the physical and moral integrity of individuals and the welfare of animals.

Those proposals flagged with ethical concerns will be classified and monitored by NanoMedPhD Management Team.

The fields of research that **will not be financed** by NanoMedPhD are:

- Research activities aiming at human cloning for reproductive purposes



- Research activity intended to modify the genetics of human beings that could make such changes heritable (with the exception of research relating to cancer treatment of the gonads, which may be financed)
- Research activities intended to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer.

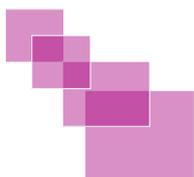
The main ethics issues that can be identified in advanced and should be addressed are the following:

- Informed consent
- Privacy and data protection
- Human embryonic stem cells
- Use of human biological samples
- Research on animals

BIONAND will ensure that research activity needing ethical approval will not start before receiving favourable written consent from the appropriate local, regional or national ethics committee.

Once the selected candidates design their thesis research project in liaison with their scientific supervisor, they will be informed about which Ethics Committee they have to apply for and will provide and support them with documentation necessary. In this sense, we will inform researcher that:

- ✓ When thesis research projects include research in human embryos, they should apply for approval to the Andalusian research committee in human pre-embryos (CIPH).
- ✓ When thesis research projects include research in genetic and reproduction, they should apply for approval to the Andalusian research committee in genetic and reproduction (CIRC).
- ✓ Thesis research projects arising any other ethics issues other than embryos or genetic issue, they should apply for approval to the Ethics coordination committee of Biomedical Research of Andalusia (CEIBA). CEIBA has its own platforms where researchers can download applications and can upload their application.
- ✓ When thesis research projects include research in animals, they should apply for approval first to the Animal Ethics Committee of BIONAND and then to the competent authority in the region (Consejería de Agricultura, Pesca y Desarrollo Rural de la Junta de Andalucía). Applicants must ensure compliance with the Directive 2010/63/EU on the Protection of Animals used for Scientific Purposes



Over the course of the PhD, the NanoMedPhD Management Team will monitor if any approval needs to be renewed.

Further information about Ethics is available in the NanoMedPhD website (www.nanomed-cofund.eu).

3.- Enrolment

3.1.- Employment conditions

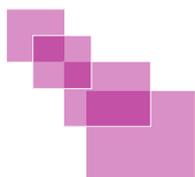
NanoMedPhD offers selected candidates attractive salary conditions and equitable social security provisions in accordance with existing Spanish national law. Selected candidates will be offered a **3 year** standard-fixed full time employment contract. Spanish Labour Regulations ensure access to common social benefits such as access to free public healthcare, social security insurance, sickness and parental benefits, pension rights and unemployment benefits.

The fellowship includes a fixed living and mobility allowance amounting to a **gross annual salary of approximately 25100 €**.

The Fellowship also includes the following allowances, which depend on the particular/personal status of each candidate:

- **Family allowance:** a fixed amount per year only for fellows with family, which will increase the **gross annual salary to approximately 27600€**. In this context family is defined as persons linked to the researcher by (i) marriage, or (ii) a relationship with equivalent status to a marriage recognised by the legislation of the country where this relationship was formalised; or (iii) dependent children who are actually being maintained by the researcher.
- **Travel allowance:** a fixed amount per year to cover travel expenses during the fellowship. There are three **travel schemes according the country of origin of the researcher:**

Scheme	Researcher	Researcher with family
	(annual)	(annual)
within Europe	600,00 €	1.200,00 €
Europe / US	1.500,00 €	3.000,00 €
Europe-Asia/rest of the world	2.000,00 €	4.000,00 €



NanoMedPhD Management Team will provide assistance to candidates in all necessary administrative procedures to obtain any residency permits or research visas, and will also offer assistance to the selected candidates during the implementation of the fellowships to ensure that they are undertaken in a correct and timely manner, and fulfil all relevant ethical, legal, intellectual property and dissemination aspects etc.

As a NanoMedPhD participant, **the selected researchers will also be Marie Skłodowska-Curie fellows.**

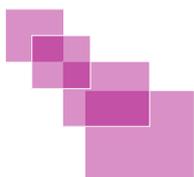
3.2.- Supervision, training and career development support

A) Supervision arrangements

Tutor and PhD supervisor: Participants in NanoMedPhD programme will have the opportunity to receive specific training and participate in nanomedicine research activities in order to obtain a doctoral degree, complimented by **dual tutoring**:

- ✓ **Scientific Supervision:** the scientific PhD supervisor will be the person responsible for the research activity of the NanoMedPhD participant. Each NanoMedPhD participant will be supported by a scientific PhD supervisor, selected among the research groups of BIONAND. This Centre will be the physical space where NanoMedPhD participants undertake their research activities, with the objective that they can benefit from its multidisciplinary nature, the expertise of its groups and its technological infrastructure specifically oriented towards nanomedicine.
- ✓ **Academic Supervision:** the academic PhD tutor will be the person responsible for the orientation and monitoring of the academic formation of the NanoMedPhD participant during the doctoral period. Each NanoMedPhD participant will be supported by an academic tutor. In some cases, tutor and supervisor functions can be performed by the same person.

Evaluation follow-up of the PhD programme: All PhD students at University of Malaga will be evaluated annually by a Committee designed by the Doctoral School. This Committee assesses two documents prepared by the PhD student, the Research Plan (describing the progress of the research) and the Activity Report (describing the training activities performed), together with yearly reports from the tutor and supervisor. Additionally, the Committee can require the student attend a personal interview. The result of this evaluation can be positive, positive with recommendations or negative. In the case of a negative evaluation, the student will have a second chance after six months to obtain a positive evaluation. If the evaluation is again negative, the student will be excluded from the PhD programme. This process is performed through an on-line system where the students maintain a register of their activities.



NanoMedPhD participants career guidance: NanoMedPhD participants, in liaison with the scientific supervisor, will draw up a Personal Career Development Plan in the first two months. The Personal Career Development Plan will comprise his/her training needs (including complementary skills) and scientific objectives and will later on report upon the success with which these objectives were met. In this way the researchers will be encouraged to play an active role in shaping their own training programme and professional development. Annual meetings will be held between all the fellows and the Scientific Project Coordinator, who will be the **Responsible of the Career Guidance** of the fellows, acting as a bridge between the academic tutor, the PhD supervisor and the specialised technical staff of the Programme.

B) Training in research-oriented skills

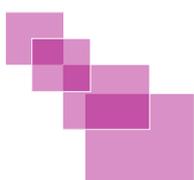
The main objective of NanoMed PhD Programme is that participants acquire suitable training and scientific expertise through the research groups where they are integrated in order to obtain a doctoral degree. Moreover, they will receive broad training in relevant scientific techniques in order to improve their scientific background. These training activities, described below, aim to enhance the skills and competitiveness of programme participants and thus increase their future employability in this emerging field.

The training programme includes:

- Training in the use of unique scientific equipment, offered by BIONAND's specialist technicians.
- Technical Courses organised by the University of Malaga Research Support Services.
- Annual Conference Series of BIONAND, where international researchers specialised in Nanomedicine are invited to give lectures on their work.
- University of Malaga Conference and Seminar Series, with the participation of renowned national and international researchers.

C) Training in non-research oriented transferable skills

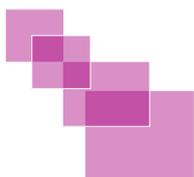
The Doctoral School of the University of Malaga organizes interdisciplinary courses and activities of interest for PhD students of all the programmes. These activities are free for the PhD students. The current plan of training activities includes the following:



- Cycle of conferences: “Science and Society: The power of knowledge”. With the participation of renowned specialists in the relationships between science and society.
- Workshop on Professional Orientation for PhD students.
- Training in Information Skills.
- Academic English.
- English for Teaching.
- English for Oral Communication
- Professional Orientation
- Observational Methodology and Qualitative Data Analysis.
- Impact Factors and Writing of Scientific Texts for Journals.

In addition, the NanoMedPhD Team, formed by professionals from BIONAND and the beneficiary institution, the FPS (Fundación Pública Andaluza Progreso y Salud), boasts diverse departments that offer ongoing advice and training related to other capabilities important to a researcher’s career, including:

- Advice on preparing proposals for regional, national and international funding calls, including specific courses on preparing European projects organized by the FPS International Projects Office.
- Consultancy on the ethical aspects of projects.
- Advice and guidance on technology transfer and intellectual property, including annual courses such as “Intellectual and Industrial Property”, “Technology Transfer” and “Creating and launching spinoffs” that are organized by the Technology Transfer Office in conjunction with partners from the private sector.
- Assistance with aspects related to the dissemination of research results to both specialist and non-specialist audiences, with the involvement of the FPS Communication Department which is responsible for preparing press releases and organizing the participation of researchers in events that disseminate scientific activities to the public, such as the European Researchers’ Night.
- Legal advice on all aspects related to biomedical research, such as Material Transfer Agreements or the import/export of biological samples.



Following their incorporation, NanoMedPhD participants will receive an “immersion session” in which all aspects of the training offered by the project team will be explained.

4.- Helpdesk and other support for the applicants

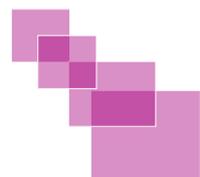
Project Management Team of NanoMed PhD Programme will be at the candidate’s disposal through its electronic and telephone help desk to provide any further explanation regarding the Programme:

By email: team@nanomed-cofund.eu

By phone: +34 952 36 76 04

5.- Definitions used throughout this Guide

- **Fundación Pública Andaluza Progreso y Salud (FPS):** beneficiary institution responsible for executing NanoMedPhD programme.
- **Andalusian Centre for Nanomedicine and Biotechnology (BIONAND):** This Centre will be the physical space where NanoMedPhD participants undertake their research activities (thesis projects)
- **University of Malaga (UMA):** NanoMedPhD participants will be enrolled in one of the four Doctoral Programmes related to nanomedicine, offered by this University, which is the academic partner of the programme.
- **Early-Stage Researchers (ESR):** applicants shall, at the time of recruitment (the reference date is the expected date of recruitment: 15 September 2017), be in the first four years (full-time equivalent research experience) of their research careers and not yet have been awarded a doctoral degree.
- **Full-Time Equivalent Research Experience:** Full-time equivalent research experience is measured from the date when a researcher obtained the degree which would formally entitle him or her to embark on a doctorate, either in the country in which the degree was obtained or in the country in which the researcher is recruited, irrespective of whether or not a doctorate is or was ever envisaged.
- **Mobility Rule:** at the time of recruitment, researchers must not have resided or carried out their main activity (work, studies, etc.) in Spain for more than 12 months in the 3 years immediately prior to the reference date (15 September 2017). Compulsory national service and/or short stays such as holidays are not taken into account.



- **Selected candidates/NanoMedPhD participants:** applicants finally selected for a PhD fellowship within NanoMedPhD, who join the programme after signing a 3 year full-time employment contract.
- **PhD Students:** NanoMedPhD participants will be PhD students at the University of Malaga, as they will be enrolled in one of the four Doctoral Programmes related to nanomedicine offered by this University
- **Scientific PhD supervisor:** the person responsible for the research activity of the NanoMedPhD participant, selected among the research groups of BIONAND
- **Academic PhD tutor:** the person responsible for the orientation and monitoring of the academic formation of the NanoMedPhD participant during the doctoral period.

