

Coordinator Researcher Position (Equivalent to Full Professor)

Forefront Research in 3D Disease Cancer Models as in vitro Screening Technologies Scenario (FoReCaST) at University of MINHO

An appointment as a Coordinator Researcher (“categoria de Investigador Coordenador da Carreira de Investigação”) is available at the 3B’s Research Group, University of Minho, located in Northern Portugal, within the framework of the European project H2020-WIDESPREAD-2014-2 ERA Chairs entitled *FoReCaST - Forefront Research in 3D Disease Cancer Models as in vitro Screening Technologies*.

The 3B’s Research Group is a member of the PT Government Associate Laboratory ICVS/3B’s, a partnership with the Health and Life Sciences Research Institute (ICVS) at University of Minho (Portugal).

General information on the FoReCast project

Aim of the Project

The 3B’s - Biomaterials, Biodegradables and Biomimetics (UMINHO), a member of the ICVS/3B’s - Associate Laboratory, the most prestigious, productive and cited research group in PT, comprising 175 researchers from more than 22 countries (more than 70 holding PhDs). It has World leading position on its research area, coordinates several major EU funded programs, and leads the European Institute of Excellence on Tissue Engineering and Regenerative Medicine with headquarters installed in a state of the art building in Avepark-Taipas (Guimarães, Northern region of Portugal, PT11). The UMINHO main areas of research are: biomaterials, tissue engineering, regenerative medicine & stem cells. UMINHO performs top-level research that promotes a strong interface between Health Sciences & Technologies, maximizing the development of innovative biomaterials, diagnostic strategies, regenerative approaches and therapeutic products. It has strong links to spin-off companies, an Academic Clinical Centre and healthcare providers.

Cancer is a leading cause of death worldwide and thus, it is one of the global priority research areas. Cancer is a leading cause of death worldwide and thus, it is one of the global priority research areas. The traditional approaches to study cancer involve the culture of tumour cells in monolayer using 2D surfaces, which oversimplify the microenvironmental context of tumours in vivo. Furthermore, the majority of the in vitro models only involve a single tumour cell population, which represents a small fraction of the tumour development and integrative cell network. Therefore, a new dimension in cancer research has to be developed: the 3D microenvironment. Thus, the FoReCaST project intend to create a new research area at

3B's-UMINHO consisting on the development of *in vitro* 3D cancer study models, which will copycat the complexity and hierarchically organization of natural ECM of tumour cells found *in vivo*. In this context, FoReCaST aims to accomplish the following objectives:

i) Scientific objectives: development of *in vitro* 3D cancer models, replicating the complexity and hierarchically organization of natural ECM of tumour cells found *in vivo*. **3B's-UMINHO** will strategically use the knowledge gained during the last ~20years in the fields of biomaterials sciences and tissue engineering. Five new complementary research topics will be implemented to consolidate this new research topic within the PT11. Experienced researchers (ER) will be hired within the following topics: Metabolic glycoengineering for tumour imaging (RL1); Bioinformatics (RL2); Cell engineering (RL3); Nanotechnologies (RL4); and Cell signalling (RL5) (Fig.1).

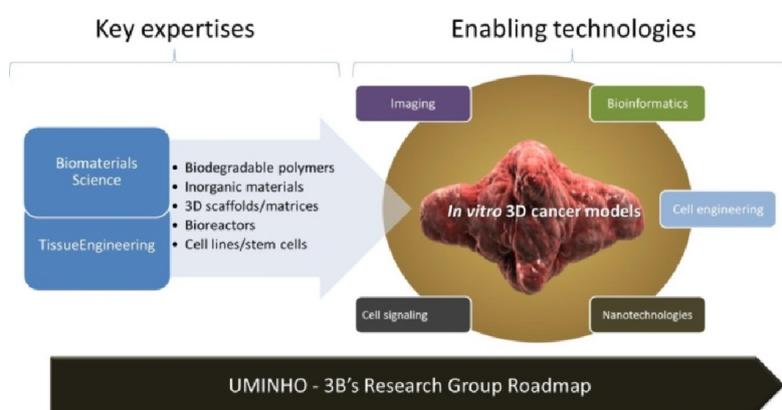


Figure 1. Integration of ERA Chairs research domain in the scientific strategy of 3B's-UMINHO towards the consolidation of cancer research within the Northern Portuguese region (PT11).

ii) Strategic objectives: the 'ERA Chairs' team will support the Group of Excellence at **3B's-UMINHO** to establish itself in the field of cancer research. By increasing the critical mass of excellent researchers, **3B's-UMINHO** aims to enhance its research outputs, including number of publications and citations. Moreover, by supporting the creation of a new research domain, **FoReCaST** will strengthen the 3B's Research Group ability to attract competitive funding, at regional, national and international levels, through an active policy of collaboration with different institutions and financing agencies, e.g. the EU framework programmes.

iii) Regional/Political objectives: The topics identified in this new research domain are critical for the development of new therapies and the translation of these into the clinics. Thus **3B's-UMINHO** expects to impact on: **1) Human health** - by supporting the development of a regional and national policy for internationally recognised research in the field of cancer; **2) Training and education** – by boosting the development of a new generation highly-trained researchers able to work and communicate in multidisciplinary teams and possessing the combination of fundamental and applied skills related to the development of advanced *in vitro* 3D cancer models; **3) Regional networking** – by improving the dialog

and R&D interactions between the regional institutions working in the field of cancer namely hospitals (**IPO-Porto**), academia (**ICVS**), Academic Clinic Center (2CA; <http://www.ccabraga.org/>), local SMEs (**Stematters, iSurgical3D, etc**) and established national networks such as Health Cluster, Portugal and **4) Social and territorial cohesion** – by improvement of the qualification and employment rate of the local population.

Participants / Supporting Institutions

1. Hubrecht Institute, The Netherlands
2. Computer Laboratory, University of Cambridge, UK
3. The Hebrew University of Jerusalem, Israel
4. Complex Tissue Regeneration Department, University of Maastricht, The Netherlands
5. Istituto Nazionale per la Ricerca sul Cancro, Italy
6. Department of Oncology and Institute for Cancer Research and Treatment at Candiolo, University of Torino, Italy

Description of the work

The ERA Chair will be responsible for developing at **3B's-UMINHO** and leading a new Research Domain focused in the development of 3D Disease Cancer Models to be used as in vitro Screening Technologies. Thus, he/she will be involved from the beginning in the hiring process of other 5 researchers (one per RL) that will constitute the “ERA Chairs” team. The ERA Chair will be hired for the position of Coordinator Researcher that is the highest position at **3B's-UMINHO** (Portugal). He/she will become immediately a researcher of the 3B's Research Group of UMinho.

Exceptional research and technical conditions will be offered to the appointed Chair, including:

- Internationally competitive salary commensurate with qualifications and experience;
- Salary for 6 full-time collaborators to work at **3B's-UMINHO** (e.g. assistant researchers, and project manager) for the duration of the project;
- Travel budget for training and conference attendance;
- Access to existing state-of-the-art instrumentation at the 3B's Research Group (www.3bs.uminho.pt).
- Access to an existing network of strategic partners.

3B's-UMINHO is an top-level, inclusive, and equal opportunity employer offering attractive conditions and benefits. The working language of the institute is English.

Requirements

The recruitment process will follow the guidelines of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, namely, equal opportunities will be guaranteed by the Equal Opportunities Group (EOG) that is part of the management structure of FoReCaST. The selection of the ERA Chair holder will follow an open and merit-based recruitment process.

List of Requirements:

1. The candidate to be hired must possess a curriculum vitae of excellence, according to highly demanding international standards, in cancer research or related fields.
2. Candidates for the ERA Chairs are expected to be active researchers who have a track-record of significant research achievements in the last 10 years.
3. Applicants must be scientifically independent and have a recent research track-record and profile which identifies them as leaders in the field of cancer research. Thus, the ERA Chair should be an exceptional leader in terms of originality and significance of their research contributions, being able to work integrated with the research strategies of 3B's-UMinho.
4. Candidates should have outstanding research / leadership experience in clinical and academic medical oncology.
5. Applicants should have demonstrated high level research in the areas of clinical and translational research, clinical trials oversight; program development, especially for oncology fellowships; operational problem-solving; resource allocation; conflict resolution; and management of faculty and personnel.
6. Qualified candidates are required to be board certified in internal medicine and oncology.
7. Applicants should be an Internationally Leading or Established Researcher in Cancer research area (holding a PhD) - preference will be given to senior researchers (with > 10 years of research experience); less experienced candidates may also be considered in light of her/his contributions to the research field.
8. Proven experience in: managing research teams; supervising graduate students; and in operating with key international funding agencies allowing securing research funding will be valued.

Selection of ERA Chairs

The ERA Chair selection criteria will be based on the CV of the candidate, evidenced by both high scholarly productivity and impact, and outstanding clinical and research activities.

The criteria for selection will be based on:

1. **Stage 1: Curriculum vitae evaluation (70% weight), of which:**
 - a) Curriculum – 40% weight
 - b) Scientific domains – 30% weight
 - c) Expertise – 30% weight
2. **Stage 2: Individual interviews (30% weight)**

The scores will be attributed from 0 to 20 in each Criteria/subcriteria.

Only candidates with score 16 or above will go through Stage 2 (Interview), therefore, if scoring less than 16 in Stage 1, candidates will be excluded.

An ERA Chair Recruitment committee (ECRC), composed by an international panel, as detailed in the project Grant Agreement, will be constituted and will be responsible for the selection procedure.

Re-appointment of ERA Chair

Terms for renewable are subject to (a) consistent high scholarly productivity and impact, and performance; (b) the availability of funds at UMINHO; (c) the needs of the department as determined by the Vice-Rector for R&D of UMINHO; and (d) a re-appointment review process established by an ad hoc commission and conducted by the Vice-Rector for R&D of UMINHO. At the Vice-Rector for R&D discretion, the re-appointment review may or may not include solicitation of external letters of evaluation.

Contract details

Probable Start Date: November 2015

Duration: Until the end date of the project

Salary: the ERA Chair will be hired for the position of Coordinator Researcher (*categoria de Investigador Coordenador, índice 285, da Carreira de Investigação*) that is the highest position at UMINHO (Portugal) corresponding to a gross base salary of 4 664,97 Euros, equivalent to a full professor level.

Application

Applications must be sent to the following e-mail address:

info@3bs.uminho.pt (Contact person: Prof. Dr. Rui L. Reis).

Please make sure to mark in the “Subject” field of your email in capital letters “ERA- CHAIRS APPLICATION”.

For application please provide:

- A detailed Curriculum Vitae;
- A list of publications (including number of citations, H-index and impact factor of publications);
- A letter of motivation;
- A short description of a 5-year research program;
- A full list of possible reference/ contacts
- A career development plan/action plan for your activities at 3B's-University of Minho.

Please add the scan of an identity document.

Deadline: October 31st, 2015

Incomplete or late applications will not be considered.