

The “INSTITUTO DE INVESTIGACIÓN HOSPITAL 12 DE OCTUBRE (IMAS12)” is looking to hire researchers for their new groups/labs at the Cancer Research Area:

- Genetics, Genomics & Therapeutics in Prostate Cancer (PI: David Olmos)
- Biomarkers in Genito-urinary cancer (PIs: E. Gonzalez-Billalabeitia, D. Castellano)
- Breast and Gynaecologic Cancer (PI: Eva Ciruelos)

Particularly, we are interested in the following profiles

- **2 INVESTIGATORS/SENIOR RESEARCHERS**
(With experience managing and supervising human teams, wide experience in wet lab and interested in leading novel research lines)
- **3 POSTDOCTORAL RESEARCHERS**
(2 senior and 1 junior Postdocs with experience in cancer organoids, genetic expression and edition, circulating nucleic acids/cells analysis and/or cancer animal models)

GENERAL DESCRIPTION

As an investigator or postdoc in these groups you will you will oversee the translational science focused on understanding cancer biology and its clinical outcomes. Our teams will lead collaborative experimental research and initiation of original research in translational oncology, preclinical testing, and collaborative clinical science. These are positions of considerable responsibility.

These 3 groups share a common goal, which is also extensive to all the Cancer Research area in Imas12- Hospital 12 de Octubre, as they would be working on developing representative models of cancer, that combined with mechanism-based translational science, can enable the development of improved therapies for patients through a comprehensive analysis of basal, on-treatment, and progressive disease biopsies (tumor tissue and liquid) of GU, gynecology and breast cancer patients..

Our groups will also provide clinical overview, regulatory and laboratory support for the identification, development, and initiation of clinical trials. Studies will conduct experimental work with animal models, cell lines and human samples. The work from these three groups has been funded by Prostate Cancer Foundation, “Instituto de Salud Carlos III”, Ministerio

de Innovación, “Asociación Española contra el Cáncer”, “Fundación CRIS contra el Cáncer”, “Fundación FERO”, and the Department of Defense-(CDMRP) among others. Breast cancer team is also deeply involved in clinical research collaboration with SOLTI Group on Breast Cancer Research (Dr Ciruelos is current coChair) Particularly, the projects will involve the “omic” characterisation of aggressive cancer phenotypes, implementation of liquid biopsy as well as preclinical models including GEMMs, patient-derived Organoids and Xenografts.

As an Investigator or Postdoctoral researcher you will write grants, reports, abstracts and manuscripts for meetings and peer-reviewed journals. Furthermore, you will collaborate with the PI and/or senior investigators at these teams in the supervision of PhD and MSc students Apart from the members of the lab, you will interact with researchers from other centers, including physicians, Computational Scientist, clinical fellows from Spain and abroad.

-The Genetics, Genomics and Therapeutics in Prostate Cancer Group is led by David Olmos MD PhD and until very recently developed its work in The Spanish National Cancer Research Centre (CNIO) and the Institute of Biomedical Research in Málaga (IBIMA). Currently, Its team counts with 1 senior clinician scientists, Dr Olmos (team leader), 1 post-doctoral researcher, 1 clinical fellow, 1 senior lab officer, 2 lab technicians, and 2 clinical data managers and clinical projects coordinator. We also count with a visiting pathologist and a medical statistician. We count with national and international funded projects, in which we use a full-circle approach from bedside to bench and back to the bedside, involving bioinformatics, genomics, cell lines, patient derived organoids and xenografts, genetically engineered mouse models, as well as human specimens from well-annotated and curated data from clinical trials and non-interventional studies.

-The Biomarkers in Genito-Urinary Cancer Group is led by Enrique Gonzalez Billalabeitia MD PhD and Daniel Castellanos MD PhD. This multidisciplinary team is composed of a senior clinical scientist, senior medical oncologists, senior urologist and pathologist, junior medical scientist, predoctoral students and a laboratory technician. It is focused on unravelling novel biomarkers and new targets to improve personalized therapies in patients with urological cancers with particular focus on prostate cancer. The group is designing and conducting clinical trials with a translational orientation devoted to bring the knowledge in molecular biology of urological cancer to the clinic. The group is seeking open minded, independent and creative researchers to contribute to this multidisciplinary team.

- The Breast and Gynaecological Cancer Group Group is led by Eva Ciruelos MD PhD, who is the current co-Chair (and former Chair) of SOLTI Breast Cancer Collaborative Group, with more than 140 participating centers in Spain and abroad. Dr Ciruelos current wet lab team counts with 1 postdoctoral and 1 predoctoral fellow. Her team works in collaboration with Centro Nacional de Investigaciones Oncológicas (CNIO, Dr Quintela’s and Malumbres’ labs) and Centro Superior de Investigaciones Científicas (CSIC, Dr Tamayo’s team). The team main focus are: 1) molecular biology (gene expression and organoid cultures) of breast tumors after exposition to therapies (CDK inhibitors); 2) capture of ctDNA and CTCs (CTC-

derived organoids) during and after therapy; 3) integration of molecular, clinical and imaging in a deep-learning database; and 4) ultrasensitive techniques for detection of minimal residual disease in blood and tumor-derived fluids (seroma). Dr Ciruelos' medical team is composed of 6 Medical Oncologists focused on gynecology and breast cancer, as well as more than 25 specialists from other specialities who compose the Multidisciplinary Breast Cancer team. This clinical Unit visits more than 5,000 patients / year and attends about 1,000 new gyn and breast cancer patients / year, with a rate of more than 30% patients participating in clinical trials or research projects

Hospital Universitario 12 de Octubre

These 3 groups are integrated in the Medical Oncology Department at Hospital Universitario 12 de Octubre (H12O) led by Dr Luis Paz-Ares, where Dr Gonzalez Billabeitia (Sub-Chief), Dr Ciruelos (Unit Lead) and Dr Castellanos (Unit-Lead) hold leadership positions that facilitate the integration of the research and clinical activities.

The "Hospital Universitario 12 de Octubre" (H12O) is one of the top reference hospitals in Spain with internationally renowned specialists and departments, and scientific contributions in several medical fields. It is located in the south of Madrid city, being the referral tertiary hospital site for 3.3 millions of residents in the South Madrid region and receiving patient referred from all parts of Spain, especially for cancer-related treatment. The Research Institute Hospital 12 de Octubre in Madrid (i+12) is one of the most prominent 30 biomedical research organizations in Spain, and coordinates the scientific research activities of H12O and their academic partners distributed in 9 scientific areas and multiple core units.

As a comprehensive medical centre, H12O and i+12, aims to further personalise medicine through the integration of basic and clinical research. In 2019, i+12 published 935 scientific articles with an accumulated impact factor of 5,415.45. H12O is also a university teaching hospital linked to the Universidad Complutense de Madrid (UCM), the third biggest university in Europe. The groups involved in the cancer research area at i+12 are acknowledged as outstanding, highlighting those linked to the Medical Oncology department who are involved in key clinical cancer research activities leading to the most important advances in the treatment of these diseases, including more than 280 on-going clinical trials. The Medical Oncology department at H12O and i+12 also leads the ONCOSUR clinical cancer research network that brings together more than 20 public hospitals and over 250 researchers. In the area of prostate cancer, several factors converge in the institution to develop a translational research unit that could lead the translational research in the field and could facilitate the integration of these advances in the clinical practice. These factors include the research opportunities to integrate molecular medicine advances in Cancer patients' care, an outstanding clinical multidisciplinary cancer specific units care team, as well as consolidated

international leadership in clinical cancer research of solid tumours including Breast, Gynecological, Prostate and other GU cancers

POSITION RESPONSABILITIES, TRAINING AMND SKILLS

- Responsibilities

According to specific position may include

- Designing, performing and supervising experiments within the unit projects
- Writing abstracts, manuscripts and grants in collaboration with the team
- Supporting experimental work of PhD students, MSc students and junior technicians within the frame of the projects of the unit
- Present data in lab meeting and conferences
- Supervise junior personnel in the team and support to other researchers in the team
- Supporting budget management and administrative team work

Essential Requirements

- Bachelor in biology, biochemistry, molecular biology, biotechnology, medicine, veterinary, pharmacy or any related bioscience discipline
- Master degree in any discipline biosciences and/or PhD in molecular oncology, genomics and/or genetics, molecular biology or related disciplines. Experience in translational science is preferred

Valuable skills, training and Experience

Training, qualifications and track record

- **Capacitation to work and design experiment with animal models, FELASA C or D or equivalent**
- **Competitive track record: publications, awards, fellowships, previous positions at investigation and clinical centres**
- International mobility with stays in reference research centres abroad

Knowledge

- Cancer biology, especially genomics and/or prostate cancer would be valued
- Immunology
- Bioinformatics / computational analysis
- Spoken and written English: high-level
- Spoken and written Spanish: optional

Skills and experience

- Molecular biology and pathology, basic cell culture
- Primary cultures from human samples and organoids
- Viral transfection, shRNA/siRNA or CRISPR tools
- Managing GEMMs colonies, or cancer xenografts models, including Mice surgery and/or treatment delivery
- Projects using NGS technologies, including WGS, WES, RNAseq and other gene expression techniques
- Liquid biopsy analysis: ctDNA, CTCs, protein biomarkers and genetics

Other characteristics

- Eligibility to apply competitive Postdoctoral fellowships (especially junior candidates)
- Capacity to establish good interpersonal relationship, team-work and communicating complex concepts
- Motivation and interest in the academic success
- Initiative, autonomy, work planning, problem-solving and organization capacity
- Strategic planning, adapt at planning and prioritizing work to meet goals and commitments
- Creativity and thinking outside the box
- Learning interest, willingness to improve, team-work abilities, flexibility and adaptation

WE OFFER

The contact will be performed with the “Fundación de Investigación Sanitaria 12 de Octubre”, and salaries will vary according to the candidate qualifications and merit and the

institutional official payroll scale, which is updated every year. The net salary per year could range from 29,000 to 36,500 euros for this position according to the 2022 scale.

The contract duration for these positions ranges from 18-36 months according to project, with the possibility to extend it beyond this time according to the research results, the incorporation of projects as well as these groups development and consolidation.

CONTACT

Please send an email with your CV or questions to 1 or more of the following email addresses with the SUBJECT title “Imas12- BC & PC positions”

Dr. Eva Ciruelos: eva.ciruelos@gmail.com

Dr. David Olmos: Olmos@prostatelab.net

Dr. Enrique Gonzalez-Billalabeitia: enrique.gonzalezbilla@gmail.com