Junta de Andalucía
Consejería de Salud y Consumo
Fundación Progreso y Salud

FPS groups are looking for R1, R2 and R3 researchers who can apply for competitive HR grants:

R1 – First Stage Researcher (Predoctoral stage)

DOCTORAL INPhINIT FELLOWSHIPS - RETAINING 2024 of the *Fundación La Caixa*:

Application submission: from 6th November 2023 to **15th February 2024 at 2:00 PM**.

Eligibility requirements:

- **Studies pursued**:
  - Applicants must hold a **higher education degree** that makes them eligible to enrol in a **doctoral programme** before starting at their host institutions.

    Candidates must not have been enrolled in a doctoral programme prior to the start of the fellowship.

- **Language proficiency:**
  - Applicants must accredit their proficiency in the English language (**B2** level or higher).

- **Research experience**:
  - On the **deadline for applications**, applicants must still be within the first four years (full-time equivalent research experience) of their research careers.

- **Mobility:**
  - Candidates must have **resided or carried out their main activity** (work, studies, etc.) in **Spain** for more than twelve months in the three years immediately prior to the deadline for applications.

    Short stays, such as holidays, spent in a country other than their country of usual residence (where they carried out their main activity), will be considered as time spent in their country of usual residence.

    Candidates who are awarded a fellowship must enrol in a doctoral programme at a university that is **different** from where they took up their bachelor's studies.

More information

Information on host group:

1. **Group:** Proteases and Extracellular Matrix**.**

Principal Investigator of the Group: Juan Carlos Rodríguez-Manzaneque. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the candidate will work: Evaluating the key contribution of extracellular matrix components during tumor progression.

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Summary of research line: Fight against cancer requires a deep knowledge of multiple players within the complex tumor heterogeneity, including the composition and nature of the dynamic extracellular matrix (ECM), and its contribution for immune infiltration and bad prognosis.

Profile of the desired candidate:

- Master degree on studies and characterization of cell populations in tumors, using techniques such as immunohistochemistry, cytometry, or others.
- Knowledge of the use of tumor mouse models and their relationships with specific human tumors.
- Knowledge of bioinformatic tools to analyze RNAseq and disease-related big data.

More information about the research group here: Proteases and Extracellular Matrix

Principal Investigator contact: juancarlos.rodriguez@genyo.es

2. Group: Retinal Degeneration: from genetics to therapy.

Principal Investigator of the Group: Francisco Javier Díaz Corrales. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

Research line in which the candidate will work: The retinal degeneration group is focused on developing advanced therapies to treat retinal degenerative diseases and cataracts. The researcher to be hired may join gene therapy or small molecules projects currently financed by the ISCIII or tissue engineering projects funded by the Local Ministry of Health.

Profile of the desired candidate:

- We seek undergraduate students with high grades in medicine, biology, pharmacy, or biotechnology.
- Postgraduate residents are also welcome.

More information about the research group here: Retinal Degeneration: from genetics to therapy

Principal Investigator contact: francisco.diaz@cabimer.es

3. Group: Big Data Department - Computational Medicine Platform.

Principal Investigator of the Group: Miguel Ángel Armengol de la Hoz. Big Data Department - Computational Medicine Platform - Andalusian Public Foundation Progress and Health – FPS (Seville)

Research line in which the candidate will work:

The candidate will primarily support Research and Innovation (R+I) by applying data science techniques, including basic statistics and advanced analytics such as machine learning or deep learning, to healthcare data (structured, image, and non-structured eHR information). Initially, the focus is on knowledge generation to address clinical unmet needs and facilitate the creation of FAIR data repositories. Following this, the candidate will participate in the development of Clinical Decision Support Systems (CDSS). This involves training and validating decision support tools within multidisciplinary teams, incorporating developers, data engineers, clinicians, managers, and SSPA experts.

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Finally the researcher could be involved in the validation of healthcare AI solutions, involving algorithm validation with patient data and employing data science methodologies.

The project ensures a coherent and logical progression from knowledge generation to practical application in clinical decision making. Evaluating the key contribution of extracellular matrix components during tumor progression.

Profile of the desired candidate:

Minimum Requirements:

- Bachelor's degree in Computer Science, Telecommunications Engineering, Mathematics, Statistics, Data Science, Bioinformatics, Physics, Psychology, or demonstrable experience in Data Science.
- At least one scientific publication or accessible code repository related to data exploration and analysis, ML model training and validation, data engineering, and ETL

Desirable Requirements:

- Experience in Data Science, statistics, or new technologies.
- Previous experience in solving problems in the healthcare field to understand clinical issues

More information about the research group here: Big Data Department

Principal Investigator contact: mangel.armengol@juntadeandalucia.es

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***CONTRATOS PREDOCTORALES PARA LA FORMACIÓN DE PROFESORADO UNIVERSITARIO*-FPU 2023** of the *Ministerio de Investigación, Innovación y Universidades*:

Application submission: from 17th January to **15th February 2024 at 2:00 PM.**

Eligibility requirements:

- **Academic requirements**:
  - Applicants must accredit that they have enrolled in a **doctoral program** at a Spanish university for the academic year **2023-2024**, at the time of submitting their eligibility application.
  - Alternatively, they may accredit that, at the time of submitting their eligibility application, they hold a master's degree or have enrolled in an official university master's program for the academic year 2023-2024 that grants access to a doctoral program in the academic year 2024-2025.

    Those who already hold a PhD degree are not eligible to apply for this call.

- **Requirements related to the finish date of studies:**

Applicants must have completed the studies corresponding to the degrees they present to meet the academic requirements, after:

- **1 January 2020,** in the case of bachelor's degrees, engineering, architecture or equivalent degrees in university systems not adapted to the European Higher Education Area (EHEA).
- **1 January 2019,** in the case of diplomas, technical engineering, technical architecture degrees or equivalent qualifications in university systems not adapted to the EHEA, provided that they have completed the master's degree required for access to the doctoral program.
- **1 January 2019**, for 180-credit EHEA bachelor's degree programs.
- **1 January 2020**, for 240-credit EHEA bachelor's degree programs.
- The period of completion of studies indicated in sections a), b), c) and d) will be extended by two years, with respect to those who suffer from a disability equal to or greater than 33 percent.

The FPU grants may also be applied for by those who have completed their studies on or after 1 January 2016 in the following cases:

- Those in possession of an official qualification in one of the specialities contemplated in *Real Decreto* 183/2008, of February 8, which determines and classifies specialities in Health Sciences and develops certain aspects of the **specialised health training system**.
- Those who, while they have been pursuing the above-mentioned studies, have devoted themselves to the care of children under six years of age between 1 January 2016 and 1 January 2020.
- Those who have interrupted the above-mentioned studies because of a serious illness or because they are caring for elderly members of the family in the first line of care.

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- **Minimum mark average**:
  - Applicants must accredit that they have obtained an average mark on their academic transcript, on the 0-10 scale, equal to or higher than the reference mark for each level and branch of knowledge. The minimum average mark for 1st cycle, long cycle and Degree will be as follows:
    - Sciences: 8,003
    - Life Sciences: 7,995
    - Health Sciences: 8,041
      - Health Sciences for people with disabilities: 7,454

More information

Information on host group:

1. **Group:** Proteases and Extracellular Matrix**.**

Principal Investigator of the Group: Juan Carlos Rodríguez-Manzaneque. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the candidate will work: Evaluating the key contribution of extracellular matrix components during tumor progression.

Summary of research line: Fight against cancer requires a deep knowledge of multiple players within the complex tumor heterogeneity, including the composition and nature of the dynamic extracellular matrix (ECM), and its contribution for immune infiltration and bad prognosis.

Profile of the desired candidate:

- Master degree on studies and characterization of cell populations in tumors, using techniques such as immunohistochemistry, cytometry, or others.
- Knowledge of the use of tumor mouse models and their relationships with specific human tumors.
- Knowledge of bioinformatic tools to analyze RNAseq and disease-related big data.

More information about the research group here: Proteases and Extracellular Matrix

Principal Investigator contact: juancarlos.rodriguez@genyo.es

2. **Group:** Big Data Department - Computational Medicine Platform**.**

Principal Investigator of the Group: Miguel Ángel Armengol de la Hoz. Big Data Department - Computational Medicine Platform - Andalusian Public Foundation Progress and Health – FPS (Seville)

Research line in which the candidate will work: The candidate will primarily support Research and Innovation (R+I) by applying data science techniques, including basic statistics and advanced analytics such as machine learning or deep learning, to healthcare data (structured, image, and non-structured eHR information). Initially, the focus is on knowledge generation to address clinical unmet needs and facilitate the creation of FAIR data repositories. Following this, the candidate will participate in the development of Clinical Decision Support Systems (CDSS). This involves training and validating decision support tools

within multidisciplinary teams, incorporating developers, data engineers, clinicians, managers, and SSPA experts.

Finally the researcher could be involved in the validation of healthcare AI solutions, involving algorithm validation with patient data and employing data science methodologies.

The project ensures a coherent and logical progression from knowledge generation to practical application in clinical decision making. Evaluating the key contribution of extracellular matrix components during tumor progression.

Profile of the desired candidate:

Minimum Requirements:

- Bachelor's degree in Computer Science, Telecommunications Engineering, Mathematics, Statistics, Data Science, Bioinformatics, Physics, Psychology, or demonstrable experience in Data Science.
- At least one scientific publication or accessible code repository related to data exploration and analysis, ML model training and validation, data engineering, and ETL

Desirable Requirements:

- Experience in Data Science, statistics, or new technologies.
- Previous experience in solving problems in the healthcare field to understand clinical issues

More information about the research group here: Big Data Department

Principal Investigator contact: mangel.armengol@juntadeandalucia.es

3. **Group:** Stem Cells and Translational Neurology.

Principal Investigator of the Group: Vivian Capilla Gonzalez. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

Research line in which the candidate will work: Advanced therapies to improve oncological treatments in brain tumor pediatric patients.

Summary of research line: Cranial radiotherapy causes a debilitating cognitive decline in children. The use of cell-based therapies to prevent neurological sequelae of radiotherapy has shown promising results in preclinical models. This opens new avenues to improve quality of life of brain tumor pediatric patients, but also adults. The selected candidate will investigate the neuroprotective effects of MSCs against radiation-related brain damage using cutting-edges technologies, including neuroimaging techniques, multi-omics, iPSC technologies and patient-derived organoids. Importantly, the candidate will collaborate with a multidisciplinary team of biomedical and clinical researchers and will have access to state-of-the-art facilities in CABIMER. In addition, the group is open to innovative or disruptive idea related to regenerative therapies. This is an amazing opportunity to work in a friendly, dynamic and supportive research environment in a wonderful part of the country.

Profile of the desired candidate:

- Bachelor's degree in Health Sciences or Life Sciences (e.g. medicine, biology, pharmacy, biotechnology, etc.)

More information about the research group here: Stem Cells and Translational Neurology

Principal Investigator contact: vivian.capilla@cabimer.es

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4. **Group:** Genetics of Complex Inflammatory Diseases**.**

Principal Investigator of the Group: Concepción Marañón Lizana. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the candidate will work: Identification of new therapeutic strategies for IFN-mediated autoimmune diseases through the intersection with TLR pathways in plasmacytoid dendritic cells.

Our approach integrates computational methods, in vitro screening and in vivo testing, in the search of both new repurposing strategies and the discovery of new active molecules.

Profile of the desired candidate:

- MS in the area of Biomedicine
- Experience in cellular immunology, cell/animal models or data analysis
- Willing to integrate a dynamic, international and translational team

More information about the research group here: Genetics of Complex Inflammatory Diseases

Principal Investigator contact: concepcion.maranon@genyo.es

Junta de Andalucía
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***SUBVENCIONES A LA CONTRATACIÓN Y A LA MOVILIDAD DE PERSONAL INVESTIGADOR PREDOCTORAL EN FORMACIÓN* 2023** of the *Consejería de Universidad, Investigación e Innovación*:

Application submission: **expected to be launched in January**.

Eligibility requirements:

- Have Spanish nationality, or be a national of a member state of the European Union or a foreigner with authorisation or a residence or study permit in Spain, if applicable.
- Hold a degree issued by a Spanish or foreign university with a bachelor's degree, architecture, engineering or degree of at least 240 credits. In the case of applicants who hold degrees with less than 240 credits, they must have achieved these credits in the first and second cycle university studies and in the master's degree studies as a whole.
- **No more than five years have elapsed since the end** of the bachelor's degree, architecture, engineering, degree, technical architecture, technical engineering or diploma studies up to the **date of publication of the call for applications**.

  An extension of two years will be applied in the case of persons with a disability equal to or greater than 33 per cent and in the case of inactivity periods due to situations related to family reconciliation or care of minors, family members or dependents and temporary sick leave.
- **Be enrolled or admitted to a doctoral programme at an Andalusian university.** Alternatively, it may be accredited that, at the time the application is submitted, applicants are in possession of an official university master's degree or are enrolled in such a master's degree in the academic year indicated in the call for applications.
- Accredit, by means of their complete academic record, that they exceed the **minimum average mark required by the call for applications** in the established field of competitiveness.
- Not be in possession of a PhD degree.
- Not having held a pre-doctoral contract for a period of more than twelve months.

More information

Information on host group:

1. **Group:** Proteases and Extracellular Matrix**.**

Principal Investigator of the Group: Juan Carlos Rodríguez-Manzaneque. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the candidate will work: Evaluating the key contribution of extracellular matrix components during tumor progression.

Summary of research line: Fight against cancer requires a deep knowledge of multiple players within the complex tumor heterogeneity, including the composition and nature of the dynamic extracellular matrix (ECM), and its contribution for immune infiltration and bad prognosis.

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Profile of the desired candidate:

- Master degree on studies and characterization of cell populations in tumors, using techniques such as immunohistochemistry, cytometry, or others.
- Knowledge of the use of tumor mouse models and their relationships with specific human tumors.
- Knowledge of bioinformatic tools to analyze RNAseq and disease-related big data.

More information about the research group here: Proteases and Extracellular Matrix

Principal Investigator contact: juancarlos.rodriguez@genyo.es

2. Group: Retinal Degeneration: from genetics to therapy.

Principal Investigator of the Group: Francisco Javier Díaz Corrales. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

Research line in which the candidate will work:

The retinal degeneration group is focused on developing advanced therapies to treat retinal degenerative diseases and cataracts. The researcher to be hired may join gene therapy or small molecules projects currently financed by the ISCIII or tissue engineering projects funded by the Local Ministry of Health.

Profile of the desired candidate:

- We seek undergraduate students with high grades in medicine, biology, pharmacy, or biotechnology.
- Postgraduate residents are also welcome.

More information about the research group here: Retinal Degeneration: from genetics to therapy

Principal Investigator contact: francisco.diaz@cabimer.es

3. Group: Big Data Department - Computational Medicine Platform.

Principal Investigator of the Group: Miguel Ángel Armengol de la Hoz. Big Data Department - Computational Medicine Platform - Andalusian Public Foundation Progress and Health – FPS (Seville)

Research line in which the candidate will work:

The candidate will primarily support Research and Innovation (R+I) by applying data science techniques, including basic statistics and advanced analytics such as machine learning or deep learning, to healthcare data (structured, image, and non-structured eHR information). Initially, the focus is on knowledge generation to address clinical unmet needs and facilitate the creation of FAIR data repositories. Following this, the candidate will participate in the development of Clinical Decision Support Systems (CDSS). This involves training and validating decision support tools within multidisciplinary teams, incorporating developers, data engineers, clinicians, managers, and SSPA experts.

Finally the researcher could be involved in the validation of healthcare AI solutions, involving algorithm validation with patient data and employing data science methodologies.

The project ensures a coherent and logical progression from knowledge generation to practical application in clinical decision making. Evaluating the key contribution of extracellular matrix components during tumor progression.

Profile of the desired candidate:

Minimum Requirements:

- Bachelor's degree in Computer Science, Telecommunications Engineering, Mathematics, Statistics, Data Science, Bioinformatics, Physics, Psychology, or demonstrable experience in Data Science.
- At least one scientific publication or accessible code repository related to data exploration and analysis, ML model training and validation, data engineering, and ETL

Desirable Requirements:

- Experience in Data Science, statistics, or new technologies.
- Previous experience in solving problems in the healthcare field to understand clinical issues

More information about the research group here: Big Data Department

Principal Investigator contact: mangel.armengol@juntadeandalucia.es

4. Group: Pancreatic Islet Development & Regeneration.

Principal Investigator of the Group: Benoit R. Gauthier. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

Research line in which the candidate will work:

The research line will focus on deciphering the systemic mode of action of a novel anti-diabetic target in a recently established transgenic mouse model with a special focus on brain, adipose tissue and pancreatic islets.

Profile of the desired candidate:

- Masters in Biochemistry, Biology, Life Sciences, Health and Biotechnology.

More information about the research group here: Pancreatic Islet Development & Regeneration

Principal Investigator contact: benoit.gauthier@cabimer.es

5. Group: Stem Cells and Translational Neurology.

Principal Investigator of the Group: Vivian Capilla Gonzalez. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

Research line in which the candidate will work: Advanced therapies to improve oncological treatments in brain tumor pediatric patients.

Summary of research line: Cranial radiotherapy causes a debilitating cognitive decline in children. The use of cell-based therapies to prevent neurological sequelae of radiotherapy has shown promising results in

preclinical models. This opens new avenues to improve quality of life of brain tumor pediatric patients, but also adults. The selected candidate will investigate the neuroprotective effects of MSCs against radiation-related brain damage using cutting-edges technologies, including neuroimaging techniques, multi-omics, iPSC technologies and patient-derived organoids. Importantly, the candidate will collaborate with a multidisciplinary team of biomedical and clinical researchers and will have access to state-of-the-art facilities in CABIMER. In addition, the group is open to innovative or disruptive idea related to regenerative therapies. This is an amazing opportunity to work in a friendly, dynamic and supportive research environment in a wonderful part of the country.

Profile of the desired candidate:

- Bachelor's degree in Health Sciences or Life Sciences (e.g. medicine, biology, pharmacy, biotechnology, etc.)

More information about the research group here: Stem Cells and Translational Neurology

Principal Investigator contact: vivian.capilla@cabimer.es

6. **Group:** Genetics of Complex Inflammatory Diseases**.**

Principal Investigator of the Group: Concepción Marañón Lizana. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the candidate will work: Identification of new therapeutic strategies for IFN-mediated autoimmune diseases through the intersection with TLR pathways in plasmacytoid dendritic cells.

Our approach integrates computational methods, in vitro screening and in vivo testing, in the search of both new repurposing strategies and the discovery of new active molecules.

Profile of the desired candidate:

- MS in the area of Biomedicine
- Experience in cellular immunology, cell/animal models or data analysis
- Willing to integrate a dynamic, international and translational team

More information about the research group here: Genetics of Complex Inflammatory Diseases

Principal Investigator contact: concepcion.maranon@genyo.es

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R2 – Recognised Researcher (Posdoctoral junior stage)

***JUAN DE LA CIERVA* GRANTS 2023** of the *Agencia Estatal de Investigación*:

Application submission: from 17th January to **7th February 2024 at 2:00 PM**.

Eligibility requirements:

- Hold a **PhD degree** obtained between 1 January 2022 and 31 December 2023.

  The lower deadline of 1 January 2022 may be extended if between the date of obtaining the doctoral degree and the closing date for filling in the application form, any of the situations indicated in the call (temporary incapacity, pregnancy, birth, adoption, etc.) occur and have affected the research activity.

  In the case of disabled participants, the date of obtaining the doctorate degree must be between 1 January 2021 and 31 December 2023.

- Apply to join an **R&D centre** other than the one where you did your pre-doctoral training.

- Not having submitted an application to participate in the *Ramón y Cajal* grants, in its 2023 call, by the deadline for the submission of applications for these grants.

- Not being a beneficiary of a grant from previous *Juan de la Cierva, Formación Posdoctoral, Juan de la Cierva-formación o Juan de la Cierva incorporación* calls. A beneficiary of these actions means a person included in any of the award resolutions of previous calls for these actions, regardless of whether the researcher joined the R&D Centre or not.

More information

Information on host group:

1. **Group:** Proteases and Extracellular Matrix**.**

Principal Investigator of the Group: Juan Carlos Rodríguez-Manzaneque. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the candidate will work: Control of tumor progression and its immune response by remodelling the extracellular matrix.

Summary of research line: Fight against cancer requires a deep knowledge of multiple players withing the complex tumor heterogeneity, including the composition and nature of the dynamic extracellular matrix (ECM). In this scenario, many studies of extracellular proteases as modifiers of the tumor microenvironment have revealed their participation as oncogenic as well as tumor-protective molecules. Given their extracellular nature, the identification of their substrates together with their modulatory tasks promoting or inhibiting immune infiltration will disclose new and underexplored targeting pathways.

Profile of the desired candidate:

- Expertise in the study and characterization of cell populations, using techniques such as cytometry, western blot, multiplex, and others.

- Expertise in the use and manipulation of tumor mouse models.
- Advanced knowledge and understanding of the complexity of tumor heterogeneity.
- Knowledge of bioinformatic tools to analyze RNAseq and cancer-related big data.

More information about the research group here: Proteases and Extracellular Matrix

Principal Investigator contact: juancarlos.rodriguez@genyo.es

2. Group: Retinal Degeneration: from genetics to therapy.

Principal Investigator of the Group: Francisco Javier Díaz Corrales. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

Research line in which the candidate will work:

The retinal degeneration group is focused on developing advanced therapies to treat retinal degenerative diseases and cataracts. The researcher to be hired may join gene therapy or small molecules projects currently financed by the ISCIII or tissue engineering projects funded by the Local Ministry of Health.

Profile of the desired candidate:

- We are looking for a young researcher interested in starting a scientific career in the study of retinal neurodegeneration, lens opacity, and new treatments.

More information about the research group here: Retinal Degeneration: from genetics to therapy

Principal Investigator contact: francisco.diaz@cabimer.es

3. Group: Big Data Department - Computational Medicine Platform.

Principal Investigator of the Group: Miguel Ángel Armengol de la Hoz. Big Data Department - Computational Medicine Platform - Andalusian Public Foundation Progress and Health – FPS (Seville)

Research line in which the candidate will work:

The candidate will primarily support Research and Innovation (R+I) by applying data science techniques, including basic statistics and advanced analytics such as machine learning or deep learning, to healthcare data (structured, image, and non-structured eHR information). Initially, the focus is on knowledge generation to address clinical unmet needs and facilitate the creation of FAIR data repositories. Following this, the candidate will participate in the development of Clinical Decision Support Systems (CDSS). This involves training and validating decision support tools within multidisciplinary teams, incorporating developers, data engineers, clinicians, managers, and SSPA experts.

Finally the researcher could be involved in the validation of healthcare AI solutions, involving algorithm validation with patient data and employing data science methodologies.

The project ensures a coherent and logical progression from knowledge generation to practical application in clinical decision making. Evaluating the key contribution of extracellular matrix components during tumor progression.

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Profile of the desired candidate:

Minimum Requirements:

- Bachelor's degree in Computer Science, Telecommunications Engineering, Mathematics, Statistics, Data Science, Bioinformatics, Physics, Psychology, or demonstrable experience in Data Science.
- At least one scientific publication or accessible code repository related to data exploration and analysis, ML model training and validation, data engineering, and ETL.
- Demonstrable experience in either Python or R.
- Demonstrable experience in SQL

Desirable Requirements:

- Possession of a Ph.D. degree in areas related to ETL Platforms around data, data science, or Machine Learning.
- Previous experience in solving problems in the healthcare field to understand clinical issues.
- Development of dashboards using agile open-source technologies.
- Strong written and verbal communication skills in both English and Spanish.

More information about the research group here: Big Data Department

Principal Investigator contact: mangel.armengol@juntadeandalucia.es

4. Group: Pancreatic Islet Development & Regeneration.

Principal Investigator of the Group: Benoit R. Gauthier. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

Research line in which the candidate will work: Opening of a new research line using artificial intelligence to model type 1 diabetes and identify new druggable pathways.

Profile of the desired candidate:

- PhD in Biochemistry, Biology, Life Sciences, Health and Biotechnology
- Experience in physiology
- Motivated to work.

More information about the research group here: Pancreatic Islet Development & Regeneration

Principal Investigator contact: benoit.gauthier@cabimer.es

5. Group: Genomic Editing applied to Advanced Therapies.

Principal Investigator of the Group: Karim Benabdellah. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

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Research line in which the candidate will work:

The main research line where the candidate will be involved are:

1. Improvement of the outcome of CAR-T cell therapy in AML, by the design and the validation of a combinatorial approach involving the use of "Off-the-shelf" CAR-T lymphocyte.
2. The development of an allogeneic exosome-based system that allows the selective recognition of AML cells and the blockade of humoral immunosuppression

Profile of the desired candidate:

- Previous experience in Gene editing
- Authored papers in the field (Articles Q1 as First or last authors).
- Previous skill with mice handling is essential.
- Previous experience in FACS procedure and analysis is indispensable

More information about the research group here: Genomic Editing applied to Advanced Therapies

Principal Investigator contact: karim.benabdel@genyo.es

6. Group: Genetics of Complex Inflammatory Diseases.

Principal Investigator of the Group: Concepción Marañón Lizana. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the candidate will work: Early and sensitive detection of organ involvement and treatment responses in lupus patients using non-invasive biomarkers.

Our aim to identify minimally invasive biomarkers of renal involvement and non-response to therapy in SLE using body fluid (urine and blood), using cutting-edge technologies related with flow cytometry: blood mass cytometry, urinary inflammatory mediators, extracellular vesicle analysis and urinary microbiome.

Profile of the desired candidate:

- PhD in the area of Biomedicine
- Experience in the area of autoimmunity, rheumatology or biomarker discovery
- Willing to integrate a dynamic, international and translational team

More information about the research group here: Genetics of Complex Inflammatory Diseases

Principal Investigator contact: concepcion.maranon@genyo.es

Junta de Andalucía
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***CONVOCATORIA DE INCORPORACIÓN DE INVESTIGADORES POSDOCTORALES A GRUPOS DE LOS CENTROS SANITARIOS Y DE INVESTIGACIÓN DEL SSPA* 2023** of the *Consejería de Salud y Consumo*:

Application submission: **expected to be launched**.

Eligibility requirements: in case that they remain the same as in the last call (2022) - Candidates should:

Junior postdoctoral contract:

- Hold a **PhD degree** of **less or equal to five years**.
- Being the **author of at least two biomedical research publications**, indexed in the Journal Citation Report (JCR), **being the lead person** as first author, last author or corresponding author, **in at least one of them**.
- Have a **research trajectory** with the capacity **to translate into health results** and **aligned with the hosting research group**.

Specialist postdoctoral contract:

- **Hold of the Specialist in Health Sciences title** of any of the specialties listed in *Real Decreto* 183/2008, of February 8. Regarding to foreign titles of Specialist in Health Sciences, obtained in non-member States of the European Union, they must be recognized or approved by the competent institution, and the application for recognition and homologation will not be valid.
- Hold a **PhD degree** in the **field of health sciences and technologies**.

More information

Information on host group:

1. **Group:** Proteases and Extracellular Matrix**.**

Principal Investigator of the Group: Juan Carlos Rodríguez-Manzaneque. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the candidate will work: Evaluating the key contribution of extracellular matrix components during tumor progression.

Summary of research line: Fight against cancer requires a deep knowledge of multiple players within the complex tumor heterogeneity, including the composition and nature of the dynamic extracellular matrix (ECM), and its contribution for immune infiltration and bad prognosis.

Profile of the desired candidate for Junior Postdoctoral contract:

- Expertise in the study and characterization of cell populations in tumors, using techniques such as immunohistochemistry, cytometry, or others.
- Knowledge of the use of tumor mouse models and their relationships with specific human tumors.
- Knowledge of bioinformatic tools to analyze RNAseq and disease-related big data.

More information about the research group here: Proteases and Extracellular Matrix

Principal Investigator contact: juancarlos.rodriguez@genyo.es

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2. **Group:** Retinal Degeneration: from genetics to therapy.

Principal Investigator of the Group: Francisco Javier Díaz Corrales. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

Research line in which the candidate will work: Molecular mechanism of retinal degeneration and development of new therapeutic approaches.

Summary of research line: Our research group is focused in the study of cellular models of retinal diseases using iPS-derived retinal pigment epithelium (RPE) cells and retinal organoids. In addition, our main research lines are focused in developing new advanced therapies (cell and gene therapy) and neuroprotective drugs for retinal degenerative diseases.

Profile of the desired candidate for Junior Postdoctoral contract:

- Postdoctoral researcher with experience in biomedical sciences.

Profile of the desired candidate for Specialist Postdoctoral contract:

- Postdoctoral researcher with experience in ophthalmology or vision sciences.

More information about the research group here: Retinal Degeneration: from genetics to therapy

Principal Investigator contact: francisco.diaz@cabimer.es

3. **Group:** Stem Cells and Translational Neurology.

Principal Investigator of the Group: Vivian Capilla Gonzalez. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

Research line in which the candidate will work: Advanced therapies to improve oncological treatments in brain tumor pediatric patients.

Summary of research line: Cranial radiotherapy causes a debilitating cognitive decline in children. The use of cell-based therapies to prevent neurological sequelae of radiotherapy has shown promising results in preclinical models. This opens new avenues to improve quality of life of brain tumor pediatric patients, but also adults.

The selected candidate will investigate the neuroprotective effects of MSCs against radiation-related brain damage using cutting-edges technologies, including neuroimaging techniques, multi-omics, iPSC technologies and patient-derived organoids. Importantly, the candidate will collaborate with a multidisciplinary team of biomedical and clinical researchers and will have access to state-of-the-art facilities in CABIMER. In addition, the group is open to innovative or disruptive idea related to regenerative therapies.

This is an amazing opportunity to work in a friendly, dynamic and supportive research environment in a wonderful part of the country.

Profile of the desired candidate for Junior Postdoctoral contract:

- Knowledge of the relevant literature in the field of the project
- Previous experience in biomedicine projects

- Cellular and molecular biology skills (e.g., cell culture, microscopy, gen and protein expression techniques)
- Publications in relevant scientific journals
- Stays in renowned research centers
- Statistical ability
- Written and spoken English.

Profile of the desired candidate for Specialist Postdoctoral contract:

- Knowledge of the relevant literature in the field of the project
- Previous experience in biomedicine projects
- Demonstrated ability to conceptualize relevant theoretical questions, and design appropriate experimental tests of these questions.
- Cellular and molecular biology skills (e.g., cell culture, microscopy, gen and protein expression techniques)
- Publications in relevant scientific journals as main author
- Stays in renowned research centers, preferably in international centers.
- Statistical ability
- Written and spoken English

More information about the research group here: Stem Cells and Translational Neurology

Principal Investigator contact: vivian.capilla@cabimer.es

4. Group: Big Data Department - Computational Medicine Platform**.**

Principal Investigator of the Group: Miguel Ángel Armengol de la Hoz. Big Data Department - Computational Medicine Platform - Andalusian Public Foundation Progress and Health – FPS (Seville)

Research line in which the candidate will work:
Development of a common Andalusian framework for the Evaluation of Health Technologies based on Artificial Intelligence solutions in collaboration between AETSA-FPS and the Big Data Area of FPS.

Profile of the desired candidate for Junior Postdoctoral contract:
PhD in Computer Engineering or Telecommunications Engineering or Mathematics or Statistics or Data Science or Bioinformatics or Physics or Psychology, with proven experience in data analysis and scientific papers published in health journals. Knowledge of Python, R, SQL or JS. B2 level in English or similar.

Profile of the desired candidate for Specialist Postdoctoral contract:
PhD in engineering, mathematics or statistics, studies related to data science or machine learning. Experience in health technology assessment, data science, statistics or ML-based decision support systems. Knowledge of Python, R, SQL and JS.C1 level of English or similar.

More information about the research group here: Big Data Department

Principal Investigator contact: mangel.armengol@juntadeandalucia.es

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5. **Group:** Pancreatic Islet Development & Regeneration.

Principal Investigator of the Group: Benoit R. Gauthier. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

Research line in which the candidate will work: Opening of a new research line using artificial intelligence to model type 1 diabetes and identify new druggable pathways.

Profile of the desired candidate for Specialist Postdoctoral contract:

- PhD in Health and biotechnology
- Experience in islet physiology/drug development/omics
- Motivated to work.

More information about the research group here: Pancreatic Islet Development & Regeneration

Principal Investigator contact: benoit.gauthier@cabimer.es

6. **Group:** Genomic Editing applied to Advanced Therapies.

Principal Investigator of the Group: Karim Benabdellah. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the candidate will work:

- Preclinical development of universal EXO-CARTs and their potential application in cancer immunotherapy protocols.
- Universal CAR-T immunotherapy based on the selection of subpopulations and generation of TCR and HLA-/- universal CAR-Ts.
- Enhancement of anti-CD19 CAR-Ts through controlled expression of factors and cytokines that improve persistence and efficacy (Fourth-generation CAR-T strategy).

Profile of the desired candidate for Junior Postdoctoral contract:

- PhD in Biology related field.
- Strong background and expertise in the chosen area of research.
- Experience in preclinical models.
- Proficient in experimental design, data analysis, and relevant statistical methods.
- Excellent written and verbal communication skills in English.
- Ability to work independently and collaboratively in a team-oriented environment

More information about the research group here: Genomic Editing applied to Advanced Therapies

Principal Investigator contact: karim.benabdel@genyo.es

7. **Group:** Genetics of Complex Inflammatory Diseases.

Principal Investigator of the Group: Marta E. Alarcón-Riquelme. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the candidate will work:
a) Understanding the mechanisms of non-responses to therapies in systemic lupus erythematosus (SLE) and other inflammatory diseases.

b) The use of preclinical models to understand the roles of genes in lupus.

We perform basically two lines of research: Understanding the heterogeneity of immune-mediated diseases with a particular focus on SLE with analyses that may help elucidate biomarkers of flares and remission as well as therapeutic responses and the study of the function of genes and their mechanisms of action using preclinical models of disease. We focus on the B-cell gene Bank1.

Profile of the desired candidate for Junior Postdoctoral contract:

- Work on immunophenotyping using mass cytometry, extensive and documented experience in mass cytometry design and analyses. This is related to the first research line.

Profile of the desired candidate for Specialist Postdoctoral contract:

- Basic immunology knowledge with long standing experience in preclinical models of lupus (preferably) or other autoimmune diseases. This is related to the 2d research line.

More information about the research group here: Genetics of Complex Inflammatory Diseases

Principal Investigator contact: marta.alarcon@genyo.es

8. Group: Genetics of Complex Inflammatory Diseases.

Principal Investigator of the Group: Concepción Marañón Lizana. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the Junior Postdoctoral candidate will work:
a) IFN-directed drugs as a therapeutic approach for systemic autoimmune diseases

Since plasmacytoid dendritic cells (pDC) are key players in the control of autoimmune responses through the production of high amounts of IFN, we propose a multidisciplinary pDC-based strategy for the discovery of novel strategic approaches for the management of prototypic IFN-mediated diseases, namely psoriasis (PSO), systemic lupus erythematosus (SLE) and Sjögren syndrome (SjS). Our approach integrates computational methods, in vitro screening and in vivo testing, in the search of both new repurposing strategies and the discovery of new active molecules. This project proposes novel and integrative strategies allowing the advance in the development of new therapeutic options of SADs patients.

Profile of the desired candidate for Junior Postdoctoral contract:

- PhD in the area of Biomedicine
- Experience in cellular immunology, cell/animal models or data analysis
- Willing to integrate a dynamic, international and translational team

Research line in which the Specialist Postdoctoral candidate will work:

b) Urine biomarkers for the non-invasive diagnosis of renal disease in systemic autoimmune diseases

Systemic autoimmune Diseases (SADs) constitute a heterogeneous group of complex inflammatory diseases involving the connective tissue with autoimmune origin. In these diseases the inflammation is not restricted to a specific organ, in a way that every single patient can show a unique combination of clinical manifestations, giving to overlapping diagnosis. Among the possible symptoms, nephritis constitutes the

most severe manifestation, which can only be assessed by renal biopsy, which is an invasive procedure. Currently the monitoring of the renal state is carried out using low-specific analytical parameters in the blood and the urine. These markers do not have the power to differentiate between activity and chronicity, given the low clinicopathologic correlation found in this group of diseases. Thus, there is a real need to set up new methods for the diagnosis and stratification of SADs patients in risk to suffer from renal disease. We propose the urine as a non-invasive source of information about the renal inflammatory state in SADs patients. The integration of the data of excreted autoantibodies, the cell composition of the urine sediment and the profile of extracellular microvesicles will give us useful information about the inflammatory state of the kidney. Moreover, we will be able to estimate the role of the deposed immunocomplexes and the infiltrated populations in the induction of a local pathogenic immune response in SADs patients. In addition, we expect that the resulting data will give the tools for a better risk estimation for renal disease, as well as for the monitoring of the responses to the treatments.

Profile of the desired candidate for Specialist Postdoctoral contract:

- Specialization in Medicine, Pharmacy, Biology, Chemistry or Biochemistry. If the certificates have been obtained abroad, they must be recognized or homologated by the competent body.
- PhD in the area of Biomedicine
- Experience in the area of autoimmunity, rheumatology or biomarker discovery
- Willing to integrate a dynamic, international and translational team

More information about the research group here: Genetics of Complex Inflammatory Diseases

Principal Investigator contact: concepcion.maranon@genyo.es

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***CONTRATACIÓN LABORAL DE PERSONAL INVESTIGADOR DOCTOR* 2023** of the *Consejería de Universidad, Investigación e Innovación*:

Application submission: **expected to be launched in January**.

Eligibility requirements:

- Hold a **PhD degree**.
- **No more than five years have elapsed since the date on which the doctorate was obtained.** The date of obtaining the doctorate will be understood as the date of reading and approval of the doctoral thesis.

  In calculating the five-year period, situations related to family reconciliation or care of children, family members or dependents and temporary sick leave will be taken into account.

  In the case of applicants who hold more than one PhD degree, the requirements shall refer to the first of the degrees obtained.

- **A minimum period of at least twelve months of stays or employment** that have involved a singular dedication mainly to research, **in universities or R&D&I centres in countries other than the one in which the doctoral degree was obtained**. Of the aforementioned twelve-month period, at least nine months must be subsequent to the award of the doctoral degree.

  Each individual stay must have a minimum duration of three months, uninterrupted.

  This requirement will be considered fulfilled for persons with disabilities.

- Not having been contracted for a period of more than twelve months under the subsidies granted for the recruitment of doctoral research personnel in previous calls for applications, as determined in the corresponding call resolution.

Information on host group:

1. **Group:** Proteases and Extracellular Matrix**.**

Principal Investigator of the Group: Juan Carlos Rodríguez-Manzaneque. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the candidate will work: Control of tumor progression and its immune response by remodelling the extracellular matrix.

Summary of research line: Fight against cancer requires a deep knowledge of multiple players withing the complex tumor heterogeneity, including the composition and nature of the dynamic extracellular matrix (ECM). In this scenario, many studies of extracellular proteases as modifiers of the tumor microenvironment have revealed their participation as oncogenic as well as tumor-protective molecules. Given their extracellular nature, the identification of their substrates together with their modulatory tasks promoting or inhibiting immune infiltration will disclose new and underexplored targeting pathways.

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Profile of the desired candidate:

- Expertise in the study and characterization of cell populations, using techniques such as cytometry, western blot, multiplex, and others.
- Expertise in the use and manipulation of tumor mouse models.
- Advanced knowledge and understanding of the complexity of tumor heterogeneity.
- Knowledge of bioinformatic tools to analyze RNAseq and cancer-related big data.

More information about the research group here: Proteases and Extracellular Matrix

Principal Investigator contact: juancarlos.rodriguez@genyo.es

2. **Group:** Retinal Degeneration: from genetics to therapy.

Principal Investigator of the Group: Francisco Javier Díaz Corrales. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

Research line in which the candidate will work:

The retinal degeneration group is focused on developing advanced therapies to treat retinal degenerative diseases and cataracts. The researcher to be hired may join gene therapy or small molecules projects currently financed by the ISCIII or tissue engineering projects funded by the Local Ministry of Health.

Profile of the desired candidate:

- We are looking for a young researcher interested in starting a scientific career in the study of retinal neurodegeneration, lens opacity, and new treatments.

More information about the research group here: Retinal Degeneration: from genetics to therapy

Principal Investigator contact: francisco.diaz@cabimer.es

3. **Group:** Stem Cells and Translational Neurology.

Principal Investigator of the Group: Vivian Capilla Gonzalez. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

Research line in which the candidate will work: Advanced therapies to improve oncological treatments in brain tumor pediatric patients.

Summary of research line: Cranial radiotherapy causes a debilitating cognitive decline in children. The use of cell-based therapies to prevent neurological sequelae of radiotherapy has shown promising results in preclinical models. This opens new avenues to improve quality of life of brain tumor pediatric patients, but also adults. The selected candidate will investigate the neuroprotective effects of MSCs against radiation-related brain damage using cutting-edges technologies, including neuroimaging techniques, multi-omics, iPSC technologies and patient-derived organoids. Importantly, the candidate will collaborate with a multidisciplinary team of biomedical and clinical researchers and will have access to state-of-the-art facilities in CABIMER. In addition, the group is open to innovative or disruptive idea related to regenerative

therapies. This is an amazing opportunity to work in a friendly, dynamic and supportive research environment in a wonderful part of the country.

Profile of the desired candidate:

- Knowledge of the relevant literature in the field of the project
- Previous experience in biomedicine projects
- Cellular and molecular biology skills (e.g., cell culture, microscopy, gen and protein expression techniques)
- Publications in relevant scientific journals
- Stays in renowned research centers
- Statistical ability
- Written and spoken English.

More information about the research group here: Stem Cells and Translational Neurology

Principal Investigator contact: vivian.capilla@cabimer.es

4. Group: Big Data Department - Computational Medicine Platform**.**

Principal Investigator of the Group: Miguel Ángel Armengol de la Hoz. Big Data Department - Computational Medicine Platform - Andalusian Public Foundation Progress and Health – FPS (Seville)

Research line in which the candidate will work:

The candidate will primarily support Research and Innovation (R+I) by applying data science techniques, including basic statistics and advanced analytics such as machine learning or deep learning, to healthcare data (structured, image, and non-structured eHR information). Initially, the focus is on knowledge generation to address clinical unmet needs and facilitate the creation of FAIR data repositories. Following this, the candidate will participate in the development of Clinical Decision Support Systems (CDSS). This involves training and validating decision support tools within multidisciplinary teams, incorporating developers, data engineers, clinicians, managers, and SSPA experts.

Finally the researcher could be involved in the validation of healthcare AI solutions, involving algorithm validation with patient data and employing data science methodologies.

The project ensures a coherent and logical progression from knowledge generation to practical application in clinical decision making. Evaluating the key contribution of extracellular matrix components during tumor progression.

Profile of the desired candidate:

Minimum Requirements:

- Bachelor's degree in Computer Science, Telecommunications Engineering, Mathematics, Statistics, Data Science, Bioinformatics, Physics, Psychology, or demonstrable experience in Data Science.
- At least one scientific publication or accessible code repository related to data exploration and analysis, ML model training and validation, data engineering, and ETL.
- Demonstrable experience in either Python or R.
- Demonstrable experience in SQL

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Desirable Requirements:

- Possession of a Ph.D. degree in areas related to ETL Platforms around data, data science, or Machine Learning.
- Previous experience in solving problems in the healthcare field to understand clinical issues.
- Development of dashboards using agile open-source technologies.
- Strong written and verbal communication skills in both English and Spanish.

More information about the research group here: Big Data Department

Principal Investigator contact: mangel.armengol@juntadeandalucia.es

5. Group: Pancreatic Islet Development & Regeneration.

Principal Investigator of the Group: Benoit R. Gauthier. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

Research line in which the candidate will work: Opening of a new research line using artificial intelligence to model type 1 diabetes and identify new druggable pathways.

Profile of the desired candidate:

- PhD in Biochemistry, Biology, Life Sciences, Health and Biotechnology
- Experience in physiology
- Motivated to work.

More information about the research group here: Pancreatic Islet Development & Regeneration

Principal Investigator contact: benoit.gauthier@cabimer.es

6. Group: Genomic Editing applied to Advanced Therapies.

Principal Investigator of the Group: Karim Benabdellah. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the candidate will work:
The main research line where the candidate will be involved are:

1. Improvement of the outcome of CAR-T cell therapy in AML, by the design and the validation of a combinatorial approach involving the use of "Off-the-shelf" CAR-T lymphocyte.
2. The development of an allogeneic exosome-based system that allows the selective recognition of AML cells and the blockade of humoral immunosuppression

Profile of the desired candidate:

- Previous experience in Gene editing
- Authored papers in the field (Articles Q1 as First or last authors).
- Previous skill with mice handling is essential.
- Previous experience in FACS procedure and analysis is indispensable

More information about the research group here: Genomic Editing applied to Advanced Therapies

Principal Investigator contact: karim.benabdel@genyo.es

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7. **Group:** Genetics of Complex Inflammatory Diseases.

Principal Investigator of the Group: Concepción Marañón Lizana. Pfizer - University of Granada - Junta de Andalucía Centre for Genomics and Oncological Research (GENYO).

Research line in which the candidate will work: Early and sensitive detection of organ involvement and treatment responses in lupus patients using non-invasive biomarkers.

Our aim to identify minimally invasive biomarkers of renal involvement and non-response to therapy in SLE using body fluid (urine and blood), using cutting-edge technologies related with flow cytometry: blood mass cytometry, urinary inflammatory mediators, extracellular vesicle analysis and urinary microbiome.

Profile of the desired candidate:

- PhD in the area of Biomedicine
- Experience in the area of autoimmunity, rheumatology or biomarker discovery
- Willing to integrate a dynamic, international and translational team

More information about the research group here: Genetics of Complex Inflammatory Diseases

Principal Investigator contact: concepcion.maranon@genyo.es

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R3 – Established Researcher (Posdoctoral senior stage)

***RAMÓN Y CAJAL* GRANTS 2023** of the *Agencia Estatal de Investigación*:

Application submission: from 11st January to **1st February 2024 at 2:00 PM.**

Eligibility requirements:

- Hold a **PhD degree.**
  - For general access candidates, the date of obtaining the doctoral degree must be between 1 January 2013 and 31 December 2021.

    The date for the lower limit of 1 January 2013 may be extended if between the date of obtaining the doctoral degree and the closing date for the submission of applications, any of the situations indicated in the call that have affected the research activity occur.

  - For candidates who, within the general round, apply for talent attraction support, they must have had an uninterrupted professional link in their postdoctoral stage with foreign research organisations since at least 1 January 2021 and up to the start date of the application deadline.

    In the case of persons who have been associated with more than one foreign research organisation, periods of non-association are allowed, with a maximum cumulative total of 90 days or 3 consecutive months.

- Not being a beneficiary of a grant from previous calls for proposals under the *Ramón y Cajal* action.
- Not be a beneficiary of *Ayudas Juan de la Cierva-Formación* or *Ayudas Juan de la Cierva- Incorporación*, except for those who have received them for at least one year.
- Not submitting more than one application to this call for proposals.
- After the award, the selected person must have spent at least twenty-four months, either continuously or discontinuously, in R&D Centres other than the one with which the incorporation agreement is signed. The twenty-four month period will be counted from the date on which the PhD degree is obtained until the last day of the deadline for submitting the incorporation agreements.

More information

Information on host group:

1. **Group:** Retinal Degeneration: from genetics to therapy**.**

Principal Investigator of the Group: Francisco Javier Díaz Corrales. CABIMER (Andalusian Centre of Molecular Biology and Regenerative Medicine).

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Research line in which the candidate will work:

The retinal degeneration group is focused on developing advanced therapies to treat retinal degenerative diseases and cataracts. The researcher to be hired may join gene therapy or small molecules projects currently financed by the ISCIII or tissue engineering projects funded by the Local Ministry of Health.

Profile of the desired candidate:

- We are looking for a senior researcher motivated to start a future career as an independent researcher. The researcher will carry out their research line and will collaborate with the laboratory projects.

More information about the research group here: Retinal Degeneration: from genetics to therapy

Principal Investigator contact: francisco.diaz@cabimer.es

2. **Group:** Big Data Department - Computational Medicine Platform.

Principal Investigator of the Group: Miguel Ángel Armengol de la Hoz. Big Data Department - Computational Medicine Platform - Andalusian Public Foundation Progress and Health – FPS (Seville)

Research line in which the candidate will work:

The candidate will primarily support Research and Innovation (R+I) by applying data science techniques, including basic statistics and advanced analytics such as machine learning or deep learning, to healthcare data (structured, image, and non-structured eHR information). Initially, the focus is on knowledge generation to address clinical unmet needs and facilitate the creation of FAIR data repositories. Following this, the candidate will participate in the development of Clinical Decision Support Systems (CDSS). This involves training and validating decision support tools within multidisciplinary teams, incorporating developers, data engineers, clinicians, managers, and SSPA experts.

Finally the researcher could be involved in the validation of healthcare AI solutions, involving algorithm validation with patient data and employing data science methodologies.

The project ensures a coherent and logical progression from knowledge generation to practical application in clinical decision making. Evaluating the key contribution of extracellular matrix components during tumor progression.

Profile of the desired candidate:

Minimum Requirements:

- Bachelor's degree in Computer Science, Telecommunications Engineering, Mathematics, Statistics, Data Science, Bioinformatics, Physics, Psychology, or demonstrable experience in Data Science.
- At least one scientific publication or accessible code repository related to data exploration and analysis, ML model training and validation, data engineering, and ETL.
- Demonstrable experience in either Python or R.
- Demonstrable experience in SQL.
- C1 Certificate in English.

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Desirable Requirements:

- Possession of a Ph.D. degree in areas related to ETL Platforms around data, data science, or Machine Learning.
- Work experience in Data Science, statistics, or new technologies.
- Previous experience in solving problems in the healthcare field to understand clinical issues.
- Demonstrable experience in JS or django.
- Experience developing ML-based decision support systems.
- Experience deploying ML-based systems into production.
- Development of dashboards using agile open-source technologies

More information about the research group here: Big Data Department

Principal Investigator contact: mangel.armengol@juntadeandalucia.es

3. **Group:** Andalusian Network for the design and translation of Advanced Therapies (RAdytTA).

Principal Investigator of the Group: Rafael Campos Cuerva. Cell Production and Reprogramming Unit - Andalusian Network for the design and translation of Advanced Therapies (RAdytTA) - Andalusian Public Foundation Progress and Health – FPS (Seville).

Research line in which the candidate will work: Development of Advanced Therapy Medicinal Products (ATMP) and/or alternative methods for preclinical studies.

Summary of research line: We welcome any line of research related to ATMP development (cell, gene and tissue-engineering therapy). The group is also focusing in alternative methods for safety and efficacy preclinical studies such as human organoids.

Profile of the desired candidate:

- Cell culture (iPSC, NSC, PBMNCs, MSC, etc)
- Molecular biology (DNA/RNA and protein extraction, PCR, western blot, electrophoresis, etc.)
- Gene expression analysis (RNA-seq, etc.).
- Flow cytometry
- Immunohistochemistry
- Organoids generation
- Animal experimentation
- Experimental design

More information about the research group here: Andalusian Network for the design and translation of Advanced Therapies

Principal Investigator contact: rafael.campos@juntadeandalucia.es