

**CONTRACT Ref: 71/2021**

**Requirements to participate in the call:**

-Have Spanish nationality or work permit, or some other nationality that allows access to public sector employment. If you do not have it and this person is selected, the contract will not be formalized until the corresponding documentation is in order. In the event that this procedure is not finally completed within two months of the grant the selected person cannot be hired; leaving, in this case, the square deserted or referred to the next person in the event that priority order has been given in the Resolution.

- Be 16 years old and not exceed, where applicable, the maximum age of forced retirement or the other age that you may establish by law.

-The Foundation and/ or the Tribunal, for reasons of interest to the entity, may at any time withdraw the resolution or cancellation of this Call, without any justification.

**Research Project Title: ADVANCING LIQUID BIOPSIES FOR MONITORING AND PERSONALIZED TREATMENT OF CHILDREN WITH NEUROBLASTOMA**

The embryonal tumor, neuroblastoma, accounts for 11% of all cancer-related deaths in children. Its heterogeneous tumor biology creates clinical variability spanning spontaneous regression to rapid metastasizing progression. Long-term survival of high-risk disease remains poor, with <40% overall survival after first-line treatment and <10% after relapse, despite considerable international efforts to improve treatment over the last decades. Liquid biopsies have the power to revolutionize clinical care for children with high-risk neuroblastoma by reflecting precise disease status at any time during treatment and care. Blood and bone marrow samples are a less invasive source of biomarkers for patient monitoring and therapeutic decision-making. The LIQUIDHOPE consortium combines internationally recognized experts in neuroblastoma pan-omics and computational discovery with leading pediatric oncologists to advance this emerging clinical paradigm change. LIQUIDHOPE aims to accelerate transfer of liquid biopsy approaches into the clinic within 3 parallel research arms designed to overcome current hurdles in (1) therapy response assessment, (2) minimal residual disease (MRD) monitoring and (3) actionable target identification, and define the best marker/analysis method or combination thereof for patient monitoring as its secondary aim. LIQUIDHOPE will apply targeted metabolomics; cfDNA whole-exome sequencing; cfDNA transcriptional start site and methylation profiling; unbiased total RNA profiling to monitor long noncoding and circular RNA disease markers; droplet digital PCR of DNA/RNA disease markers; automated multiple marker imaging and sophisticated bioinformatics. LIQUIDHOPE can identify and validate predictive markers for treatment response, MRD, relapse and treatment choice in blood/bone marrow surrogates to advance unique liquid biopsy-based innovations for patient monitoring and personalized treatment of children battling neuroblastoma.

**Service/Unit/Accredited Group: CLINICAL AND TRANSLATIONAL CANCER RESEARCH**

**Candidate requirements:** *(All requirements are necessary to apply):*

Doctorate degree - Experimental and Health Science

**Merits to value:** *(0-5 points)*

- Experience in genetics and in human cancers. (0.2 points per year up to 1 point)
- Experience in cancer epigenetics. (0,2 points per year up to 1 point)
- Experience in cell culture and immunohistochemical characterization of tumors. (0,2 points per year up to 1 point)
- Cancer related research. (1 point)
- Experience in R Biostatistics. (1 point)

**Curriculum vitae and Academic Track-Record** *(0-2 points)*

- Academic record. (B 0,1 points and A 0.2 points)
- Scientific papers. (0,2 points per paper as main author, up to 1.8 points)

**Other Merits:** *(Complementary Training)* *(0-1 point)*

- Postdoctoral stays in scientific institutions. (0,3 points per year, up to 0.9 points)
- Functional Diversity equal to or greater than 33%. (0.1 points)

**Interview** *(from 0 to 2 points)*

If applicable (an interview will be held if the difference between the first candidate and the second is equal to or less than two points)

**Training/Roles to develop:**

Blood-derived plasma cfDNA purification from neuroblastoma patients. cfDNA high-throughput epigenetics analyses and validation on FFPE tumors. ddPCR. Compilation of clinical variables and biostatistical analysis.

**Contract/Fellowship characteristics:**

- Full time
- Amount: 2.388,08€ gross/month
- Length: 11 months renewable according to economic availability or duration of the Project.
- Exclusive devotion.

**Deadline for application submission:** 03/06/2021

**Required documents On-Line [www.iislafe.es](http://www.iislafe.es)**

- Updated Curriculum Vitae.
- Academic record with average grade.
- Documents accrediting the required Academic Degree.
- Documentation that justifies all the merits outlined.

The accreditation of work experience must necessarily be done through Labor Life issued by the Social Security Treasury, accompanied by work contracts or a document admissible in law, which reliably certifies the profession and the work category. The Social Security contribution group of the work life report must be in accordance with the work category expressed in the work contract or equivalent document, in case of discrepancy, the one reflected in work life will be taken into account. Any labor certificate, payroll or contract will not be considered if it is not accompanied by working life.

*\* The documentation submitted for this open competition will be on deposit of IIS La Fe.*