

SJD Pediatric Cancer Center Barcelona

CHARITY REPORT 2023

Donation-funded healthcare and pediatric cancer research programmes



Childhood cancer

Pediatric cancer, more commonly known as childhood cancer, affects children, teenagers and young adults. As opposed to adult cancer, which is linked to aging, pediatric cancer is related to human development. Pediatric cancer is a **random** disease, that **cannot be prevented**.

In Spain, around **1,200 new cases are diagnosed** every year with approximately one case of pediatric cancer for every **200 adult cases**. This rate classes it as a rare disease.

In developed countries, **8 in every 10 patients overcome the disease**, but **there is still no curative treatment for many children.**

In addition, **two in three survivors suffer side effects** to some degree as a result of the treatment they receive.

Pediatric cancer research

Childhood cancer cannot be prevented. **Research is the only way** to increase our knowledge of the disease and find new treatments so that, one day, we can offer a cure **to all patients, with minimal side effects.**

Unfortunately, pediatric cancer is not as heavily researched as adult cancer due to its low incidence rate – it is not as beneficial, economically-speaking.

Pediatric cancer research is primarily funded by charitable donations and financial support. In fact, **70% of the pediatric cancer laboratory budget** at the SJD Pediatric Cancer Center Barcelona **comes from private donations** from families and patient associations, foundations, businesses and other entities.





PCCB Pediatric Cancer Laboratory

The pediatric cancer research laboratory at the SJD Barcelona Children's Hospital was founded in 2003. It has over 20 years of experience conducting translational research and has more than 50 staff members, including researchers and lab technicians.

For its **20th anniversary**, in 2023, the **new Research and Molecular Diagnostics facilities** were opened in the SJD Pediatric Cancer Center Barcelona

The laboratory's primary asset is a **pediatric tumour biobank**, which is of immeasurable value and significance to research and investigation.

The **Molecular Diagnostics Laboratory** has developed **cutting-edge molecular and genomic techniques**, offering:

- Precision diagnosis.
- Improved prediction of tumour aggressiveness.
- More efficient monitoring of treatment response, a clear perk of precision medicine. Each patient receives the least aggressive form of treatment that is most appropriate for their personal prognosis and tumour characteristics.

The **research laboratory** consists of five consolidated groups, which:

- Study the origins and developmental mechanisms of pediatric cancers.
- Look for new therapeutic options for the most aggressive cancers.
- Have developed in vivo models of various types of pediatric tumours that are essential when testing new drugs or administration routes.
- Have launched **clinical trials** for **advanced therapies** (dendritic cell vaccines, CAR-T immunotherapy, on-colytic viruses, etc.).
- Collaborate with leading international research groups, both in Europe and on a global scale.





Pediatric Tumour Bank



Molecular diagnostics and precision medicine

Main research projects

Scientific Director PCCB: Dr Jaume Mora

Research laboratory

Sarcomas and neuroblastomas (Dr Jaume Mora)

Discovering the origin of Ewing's sarcoma and rhabdomyosarcoma.

- Epigenetics of Ewing's sarcoma and rhabdomyosarcoma.
- First pre-clinical model of Ewing's sarcoma in fruit flies for drug screening (collaboration between IRSJD & IRBB).
- Osteosarcoma metastasis mechanism (collaboration between IRSJD & IRBB).
- Neuroblastoma metastasis mechanism.
- Anti-GD2 immunotherapy for neuroblastomas.

Innovative therapies for pediatric cancer

(Dr Angel Montero Carcaboso)

Goal: develop stronger, safer treatments through pharmaceutical innovation.

- · Studying the solid tumour immune microenvironment.
- Drug treatment of diffuse glioma-type brain tumours.
- New drug transport and liberation systems in the central nervous system.
- Improved effectiveness of CAR-T immunotherapy in Ewing's sarcoma.
- Therapies combined with oncolytic viruses (retinoblastoma, CNS, osteosarcoma, etc.).
- In-vivo models of pediatric cancers using biopsies from patients.

The epigenetics of pediatric cancer (Dr Alexandra Avgustinova)

Deciphering the origins of pediatric cancer (collaboration between IRSJD & IRBB). First focus on malignant rhabdoid tumours and Ewing's sarcoma.

- Characterisation of rhabdoid tumour heterogenicity.
- 3D gastruloid models of the initial stages of tumour formation.
- Identifying biomarkers and potential therapeutic targets.

Translational genomics (Dr Cinzia Lavarino)

Goal: study pediatric solid tumours using multiomic platforms.

- Develop epigenetic classification systems for pediatric cancer (medulloblastoma, etc.).
- Mechanisms of resistance to anti-GD2 immunotherapy in neuroblastomas.
- Multiomic and drug screening studies to reveal the molecular chemical resistance mechanism of neuroblastomas.

Leukemia and lymphoma (Dr Mireia Camós)

Research and clinical trials on high-risk lymphoblastic leukemia, acute myeloid leukemia, lymphomas (Hodgkin, non-Hodgkin, Burkitt, etc.).

- Innovative genomic studies to improve diagnosis, prognosis and personalised treatment.
- Cell therapy: CAR-T 19 immunotherapy, transplant.
- Treatment toxicity prevention.
- · Improve techniques for monitoring minimal residual disease.
- Leading the incorporation of Spain into an international protocol for first line treatment of acute lymphoblastic leukemia.
- Harmonisation of diagnosis and monitoring of acute leukemia between Europe and Latin America.

Molecular diagnostics laboratory

Molecular Oncology (Dr Cinzia Lavarino)

Goal: Provide support to the Oncology Department (*) by conducting targeted molecular analyses of every tumour, so as to personalise treatment for each patient based on the genetic characteristics of their tumour.

- Molecular diagnostics (DNA methylation screening, next-gen sequencing (NGS), liquid biopsy in plasma, serum and cerebrospinal fluid, etc.).
- Classification and prognosis prediction.
- Therapeutic targets for personalised medicine (precision oncology).
- Molecular monitoring of the disease progress.
- (*) at the PCCB, at other Spanish facilities and abroad.













Healthcare programmes Healthcare Director PCCB: Dr Andrés Morales

Expanded healthcare programmes

Thanks to the support of private donations, we have been able to expand our healthcare teams in the following departments:

- Physiotherapy and rehabilitation
- Nutrition
- Genetic counselling
- Palliative care unit
- Neuropsychology
- Psychology
- Speech Therapy
- Social Work

UOPI: Integrative Pediatric Oncology Unit

The UOPI was launched in 2019, headed by Dr Esther Martinez García and financed by donations. It aims to respond to the physical and emotional needs of children and teenagers with cancer, both during and after their treatment.

It is a pioneering project in Spain, and the only one of its kind in Europe. The UOPI offers **complementary treatments** (acupuncture, essential oils, nutrition, massage, etc.), for a more patient-centred **holistic approach** backed by **scientific rigour and medical criteria**, that is integrated into the patient's conventional therapeutic plan.

Humanisation Programmes

Clowns, music therapy, dog-assisted activities, art therapy and the involvement of Child Life specialists are all of vital importance at minimising the impact of both the disease and hospitalisation on our patients. They are all donation-funded.

Resources for vulnerable families

Thanks to the donations we receive, we can offer social support to vulnerable families whose children are admitted to our facility. Plus, with the PCCB Charity Fund, we treat patients from developing countries who cannot get the treatment they need in their home country.

SEGUIM: Long-term Care and Monitoring Unit

Long-term monitoring of cancer patients in remission is fundamental, as effects from their treatment can have a lasting impact on their health, wellbeing and quality of life.

SEGUIM's goal is to be there for patients during their transition from active treatment to longterm monitoring, offering **emotional support**, **social education and medical follow-up to prevent and control chronic complications**, and to aid **good psychosocial adaptation** during the process.

The SEGUIM team is made up of doctors, nurses, psychologists, social workers and other specialists who work in close collaboration to offer ongoing care that improves quality of life.

Key economic data 2023

Record of donations



Donations to research

Donation Expenses paid with donations source € 2,330,242 € 2,569,435 14% 14% Private and **Staffing** events 4% Fungible Schools 37% Services 16% Family Equipment 18% Associations Conferences Companies Indirect 19% Other entities Expenses 14% 29% 2024 Budget 2024 Budget Source of finance Per expense 13% Staffing 1% Private 30% Fungible donations 10% Services 46% Competitive Equipment grants Conferences 70% Indirect 30% Expenses

Donations to healthcare programmes

Purpose of donations € 962,476

lealthcare Staff

- Social support (including Charity Fund)
- Humanisation Programmes



HELP US KEEP MAKING PROGRESS!



Donate to research projects



Donate to healthcare programmes

Remember that **any donation you make has significant beneficial tax implications**, both in terms of Income Tax and Corporate Tax, reaching up to 100% in some cases* - natural persons living in Catalonia who donate to research projects.

Scan the QR code for more information:



General tax deductions



* Information on special deductions for research

There are many other ways of helping us research pediatric cancer and promote several of the **healthcare projects** that we carry out at the SJD PCCB.

Whether you are a company or a private individual, a school, sports club, or any other entity, we encourage you to learn about all of the ways you can get involved by scanning this QR code:

There are many ways to get involved





Still haven't decided? Here are another two options:





Get involved in the Hot Chocolate Party www.chocolatadasolidaria.org Create your own custom campaign on our online fundraising platform and turn your party or sporting event into a charity event for pediatric cancer.

If you have any questions, get in touch: Fundraising Department (Obra Social Infancia)

(Ground Floor of the PCCB) (+34) 93 600 63 30 - atenciondonante@sjd.es www.sjdhospitalbarcelona.org/en/get-involved



SJD Pediatric Cancer Center Barcelona, a center by all, for all.

The SJD Pediatric Cancer Center Barcelona (PCCB) is the first monographic pediatric care facility in Spain, and the second-largest in Europe. It is exclusively dedicated to the treatment and investigation of pediatric cancer.

Based on a multidisciplinary, highly specialised, comprehensive care model, this centre is designed for children and teenagers with cancer and their families, with its welcoming facilities spanning 14,000 m² over five floors. It can attend to up to 400 new patients each year.

At the SJD PCCB, doctors, nurses and researchers work together to:



The SJD PCCB opened its doors in June 2022 thanks to the generosity of civil society-foundations, businesses and private individuals who donated the 37 million Euros needed to build the facility and kit it out.

Founding donors:



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FUNDACIÓ

Roman

Famílies ciacio de nacie



37 Rooms

rooms

Transplant

21 Outpatient department

Cubicles in the Day Hospital

11

Nuclear

medicine

26

Research laboratories

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Games rooms



140

Anita

and family areas

