

The background of the slide is a photograph of the MD Anderson Cancer Center building in Madrid, Spain. The building is a modern, multi-story white structure with large windows. In the foreground, there is a paved plaza and a brick-paved area. To the left, there is a large wooden sign with the MD Anderson Cancer Center logo. To the right, there is a smaller wooden sign with the number 270. The sky is blue with some clouds.

# 2022-2023

## Annual report



## **Content**

|           |                                                             |
|-----------|-------------------------------------------------------------|
| <b>5</b>  | <b>MD Anderson Cancer Center Foundation Spain</b>           |
| <b>8</b>  | <b>Transparency</b>                                         |
| <b>10</b> | <b>Clinical Research</b>                                    |
| <b>19</b> | <b>Translational Research Projects 2022-2023</b>            |
| <b>26</b> | <b>Biobank</b>                                              |
| <b>30</b> | <b>Dipcan</b>                                               |
| <b>32</b> | <b>Innovation and Advancer in Oncology</b>                  |
| <b>35</b> | <b>Excellence in Training and Continued Education</b>       |
| <b>43</b> | <b>Prevention, Awareness and Quality of Life Activities</b> |
| <b>51</b> | <b>Acknowledgements</b>                                     |
| <b>53</b> | <b>Annexes</b>                                              |

## Letter from the President

The MD Anderson Cancer Center Spain Foundation continues to consolidate its position as a leading institution in cancer research, with a firm commitment to scientific excellence and continuous improvement in the care of cancer patients. During the 2022-2023 period, we have reaffirmed our mission to contribute to the eradication of cancer through research, prevention, and education, promoting projects that have a significant impact on the scientific community and society as a whole.

During these years, we have continued to strengthen our main structures: the Clinical Research Support Unit, the Translational Research Laboratory, and the Biobank. These platforms have enabled the MD Anderson Spain Foundation to participate in a total of 113 highly relevant clinical trials and translational studies that seek to translate laboratory advances into clinical practice. In this regard, we have maintained active collaboration with MD Anderson Cancer Center in Houston, consolidating our leadership in the field of cancer research.

Patient access to innovative clinical trials remains one of our priorities. Despite regulatory challenges that have slowed the launch of new studies in Europe, we have worked to ensure that cancer patients can benefit from cutting-edge experimental treatments. At the same time, we have strengthened our lines of research into breast, gynecological, digestive, and hematological tumors, as well as into the study of patients' quality of life.

Innovation remains a fundamental pillar of our strategy. The creation and launch of the Molecular Tumors Board (MTB) has allowed us to integrate precision oncology into our healthcare practice, facilitating decision-making based on each patient's molecular profile. In addition, we have continued to promote the protection of our research through patents and technology transfer agreements, ensuring that scientific advances quickly reach society. In this regard, the MD Anderson Spain Foundation has promoted the Dipcan study, focused on personalized medicine, which seeks to integrate clinical, anatomopathological, radiomic, and genomic data from 2,000 patients with metastatic tumors to develop an artificial intelligence algorithm.

Training excellence is another of our unwavering commitments. Over the past two years, we have organized numerous international conferences and scientific seminars in collaboration with MD Anderson Houston, promoting the exchange of knowledge among experts from around the world. Examples include the 11th Acute Myeloid Leukemia Update Seminar and the 8th International Congress on Gynecological Oncology. The Teaching Committee has continued to play a key role in organizing weekly clinical sessions, promoting the continuous updating of our professionals.

Finally, I would like to highlight the work done by our team of volunteers, who could be described as the spirit of the foundation. Their dedication and commitment not only make our work possible, but also allow us to strengthen our human and empathetic bond with patients. Thanks to your unconditional support, we can convey our message to those who need it most.

At the MD Anderson Cancer Center Spain Foundation, we continue to look to the future with determination. Every project, every research initiative, and every action we undertake is aimed at improving the lives of cancer patients and advancing our common goal: to eradicate cancer. We are confident that, with the joint efforts of professionals, researchers, collaborators, and donors, we will continue to achieve milestones that make a difference.



**Mr. Juan José Peso-Viñals**

President of MD Anderson Cancer Center Foundation Spain

The background features a large, light gray circle in the center, with several other overlapping circles in white and light gray. A solid red horizontal bar runs across the top edge. Two short red horizontal lines are positioned on the left and right sides of the central circle.

MD Anderson Cancer Center  
**Foundation Spain**

# 1 ● MD Anderson Cancer Center Foundation Spain

*“Our goal is to eradicate cancer through Research, Prevention and Education”*

The MD Anderson Cancer Center Spain Foundation is a non-profit organization created in 2000, whose essential aim and main goal is to contribute to eradicating cancer in the world and especially in Spain, through clinical and translational research, promoting the training of students and specialists, as well as informing the population through prevention campaigns and improving the quality of life of cancer patients. The scientific production of MD Anderson Foundation Spain is currently included in the main prestigious publications. Clinical oncology research is one of the most productive in Spain, being one of the centers with the highest number of active clinical trials. It has also increased project funding through public and private agencies and generated numerous high impact scientific publications. The MD Anderson Foundation Spain is the coordinating and financing body for these scientific and academic activities, promoting and managing translational research projects and clinical trials, organizing congresses and conferences, promoting training programs and encouraging cancer prevention and information campaigns.

Research is the most effective weapon to defeat cancer. In this sense, another important aspect of the activities of the MD Anderson Foundation Spain is the promotion of medical advances, directly improving the healthcare activity at MD Anderson Cancer Center Madrid and other centers, improving the capacity to diagnose and treat patients:



**We promote translational research to gain in-depth knowledge of the molecular mechanisms of cancer.**



**We work to turn these findings into new, improved diagnoses and personalized treatments for each patient.**

Eradicate cancer



Clinical research



Prevention campaigns



# 1 ● MD Anderson Cancer Center Foundation Spain

*MD Anderson Cancer Center Madrid is an associate member of MD Anderson Cancer Network®.*

The network is coordinated by MD Anderson in Houston, with whom MD Anderson Madrid shares their vision and mission. Our Foundation receives academic and healthcare support, including internships, international research projects, prevention programs, quality control programs and so on. This privileged relationship is an excellent additional opportunity for our researchers and is a major responsibility for the foundation. The present Annual Report not only describes the activities and scientific production carried out during the years 2019/2020, but also illustrates the activities aimed at strengthening the project in the coming years.

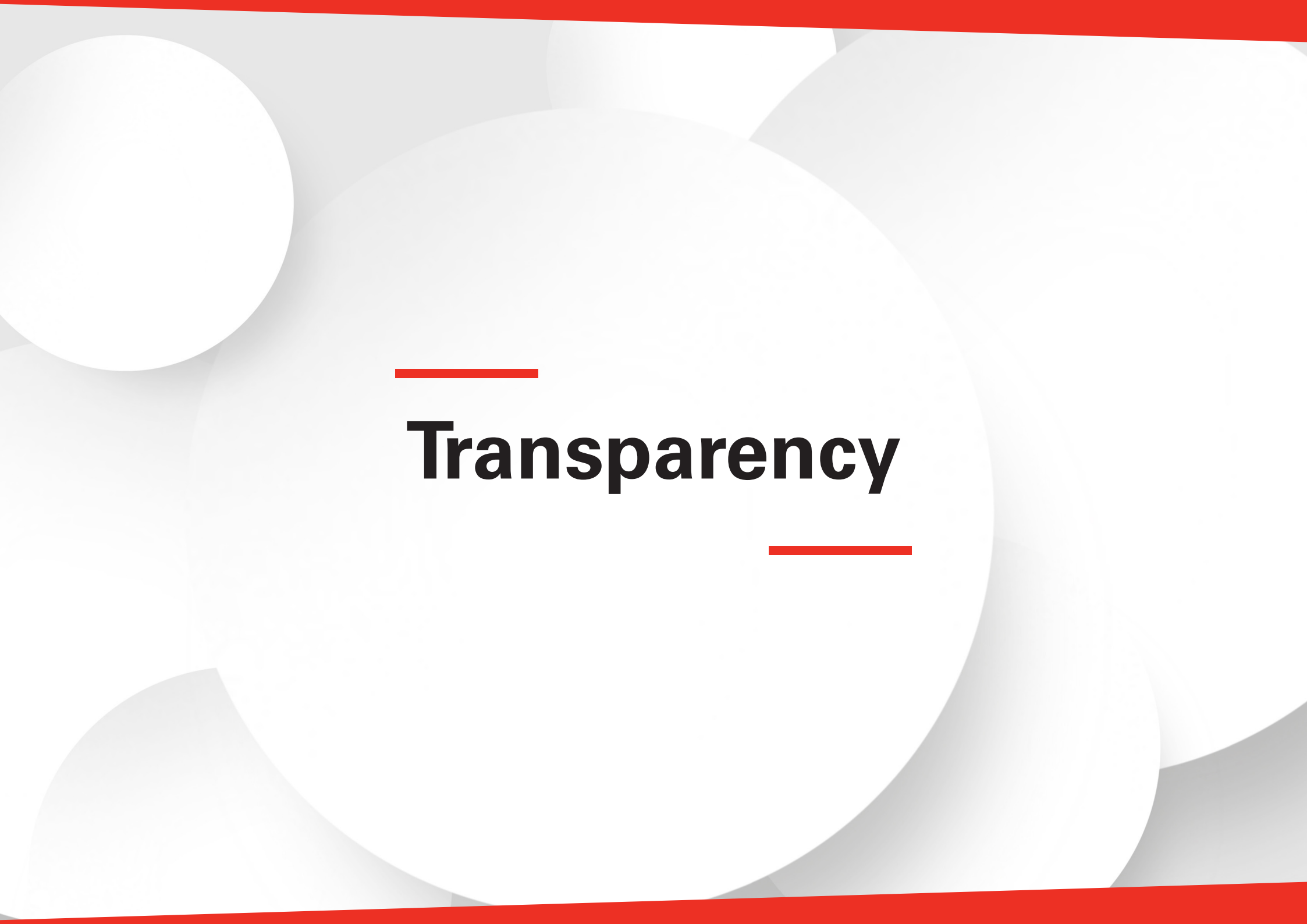


The activities of the MD Anderson Foundation Spain are mainly carried out in the different research services.

These are conceived as central units of the MD Anderson Foundation Spain thanks to the support of other units at MD Anderson Hospital Madrid, which provide their services transversally and are available for all projects proposed by doctors and researchers at the center. The incorporation of administrative personnel allows for agile and efficient management, freeing researchers from bureaucratic burdens and avoiding unnecessary duplication. Likewise, the incorporation of technical support personnel for the different platforms is essential for the development of the projects and the achievement of the foundational goals. During 2022 and 2023, the basic structures of the MD Anderson Foundation Spain have continued to be strengthened and consolidated: the Clinical Research Unit, the Translational Research Laboratory, Biobank, training of excellence, knowledge transfer between experts and awareness, prevention and quality of life activities.

The Scientific Committee is the basic structure for the organization of all activities related to research at MD Anderson Madrid and at the Foundation, as well as for laying out scientific policies, strategic lines and drawing up the annual action plan for MD Anderson Foundation Spain.

Example of the commitment of MD Anderson Foundation Spain and of MD Anderson Madrid hospital to clinical research as a tool for improvement, through the promotion of quality clinical trials, for the search for new opportunities to innovate and for improvement in the quality of healthcare.



# --- **Transparency** ---

## 2 • Transparency

### Coordination and funding:

**MD Anderson  
Cancer Center**  
Fundación • España

• Clinical and translational research programs.

• Excellence in training and continued education.

• Congresses and conferences.

### *Transparency and good practices.*

Since its inception, MD Anderson Cancer Center Foundation Spain has highlighted the importance of working every day on the values of transparency and good practices, trust and credibility to achieve its mission. The legislation to which the MD Anderson Foundation Spain is subject to is, among others: Law 50/2002 on Foundations, Law 49/2002 on the Tax Regime of Non-Profit Entities and Royal Decree 1491/2011 through which approval is granted to the adaptation of regulations to the General Accounting Plan to non-profit entities. Our annual Activity Plan and Annual Accounts are overseen by the Ministry of Culture and Sports Protectorate of Foundations, in addition to fulfilling other duties and obligations in labor and fiscal matters.

Informal discussions at which the donors are updated on the topic of interest and the researchers give an account of their results.

All the activities and projects carried out by MD Anderson Foundation Spain are available on our website, as are the independently audited annual accounts as well as the activity report and action plan:

**<https://fundacionmdanderson.es/transparencia>**



The background features a series of overlapping circles in white and light gray. A solid red border runs along the top and bottom edges of the image. Two short red horizontal lines are positioned on either side of the main title.

# **Clinical Research**

### 3 • Clinical Research

Patient access to high quality clinical trials is an essential pillar of care at MD Anderson Cancer Center Madrid. This approach, shared with MD Anderson in Houston, emphasizes excellent medical care based on research as a key component in providing state-of-the-art care to patients and as a driver of institutional prestige. This important work is carried out through the MD Anderson Foundation Spain.

Since its creation, the MD Anderson Foundation Spain has actively promoted and supported these initiatives, considering support for research as one of its main founding objectives. Its work includes the organization and management of multiple clinical trials and healthcare protocols carried out at MD Anderson Hospital Madrid, complying with the standards of Spanish and European legislation and the specific regulations for clinical trials with drugs.

The Phase I Clinical Trials Unit has been endorsed and supported by MD Anderson Cancer Center in Houston, and regular monthly meetings are held between the two centers. Likewise, through an observership by the head of the Unit at MD Anderson Cancer Center in Houston, the work standards of a Unit that is a world reference have been incorporated.

Our Unit is one of the largest in Spain and Europe. It has a working room for coordinators and data entries, an office for the coordinator, a monitoring room, a John Mendelsohn room for meetings (pre-selection, selection, activation and start of trials), a large waiting room, reception, 3 consultation rooms and a day hospital with 6 seats and 2 beds equipped to administer state-of-the-art treatments. All this has immediate access to drugs and allows a quick transfer to the Emergency Room or ICU if necessary.

We have a multitude of clinical trials (in phases I, II and III) in different areas (Hematology, Gynecology, Urology, Breast, Digestive, Solid Tumors, Lung, Neuroendocrine, Melanoma, Thyroid and Head and Neck). A monthly multidisciplinary meeting is held with all the oncologists belonging to the different areas, as well as the rest of the Clinical Trials Unit team in order to review the available trials and patient access to these studies.



As of January 1, 2023, the Clinical Trials Information System (CTIS) was introduced to unify the application, evaluation and monitoring process for clinical trials in the European Economic Area and became a mandatory channel for trial approval. Although it sought to improve efficiency and transparency, the system generated significant delays, extending evaluations by more than six months. This reduced the opening of new clinical trials across Europe, and especially in Spain, as some sponsors, discouraged by the slowdown, opted not to open trials in Europe, prioritizing other regions with faster processes. This situation highlighted the need for adjustments to preserve competitiveness in European clinical research.

For this reason, Clinical Trials initiated during the years 2022 and 2023 decreased by 18% compared to the trend of previous years.

## List of Clinical Trials open to recruitment in 2022 and 2023

### 2022

| PHASE        | PATHOLOGY   | TRIAL -Name and Code-      |
|--------------|-------------|----------------------------|
| Phase III    | Lung        | U31402-A-U301              |
| Phase I / II | Solid Tumor | BNT142-01                  |
| Phase III    | Lung        | PM1183-C-008-21 (LAGOON)   |
| Phase I      | Solid Tumor | GCT1056-01                 |
| Phase III    | Hematologic | GS-US-546-5857 (ENHANCE-2) |
| Phase I      | Digestive   | D-FR-60010-015 (SIRACUSA)  |
| Phase III    | Breast      | GS-US-592-6173 (ASCENT-04) |
| Phase III    | Breast      | GS-US-592-6238 (ASCENT-03) |
| Phase I      | Lung        | FURMO-002                  |
| Phase II     | Solid Tumor | GS-US-548-5918             |
| Phase I / II | Hematologic | AB18001                    |
| Phase I      | Hematologic | 2018-689-00US1             |

| PHASE        | PATHOLOGY     | TRIAL -Name and Code-             |
|--------------|---------------|-----------------------------------|
| Phase I      | Hematologic   | 2018-523-00US1                    |
| E.O.         | Solid Tumor   | DIPCAN                            |
| Phase II     | Lung          | BGB-A317-A1217-205 (AdvanTIG-205) |
| Phase II     | Head and neck | GS-US-548-5916                    |
| E.O.         | Breast        | RnaDx -BRV-BC-01(BREVITY)         |
| Phase I      | Hematologic   | GSK 209809 (STING)                |
| Phase III    | Hematologic   | ANT008 (MAGNOLIA)                 |
| Phase III    | Hematologic   | ANT007 (ASTER)                    |
| Phase III    | Melanoma      | HBI-8000-303                      |
| Phase I      | Solid Tumor   | OMTX705-001                       |
| Phase III    | Melanoma      | PH-L19IL2TNF-01/18 (NeoDREAM)     |
| Phase I / II | Gynecological | PR-3000-02-005 213357 (OPAL)      |

### 3 ● Clinical Research

| PHASE        | PATHOLOGY      | TRIAL -Name and Code-     |
|--------------|----------------|---------------------------|
| Phase I / II | Hematologic    | MOR208C115 MINDway        |
| Phase III    | Urology        | D910PC00001 (VOLGA)       |
| Phase II     | Urology        | DISCUS                    |
| E.O.         | Hematologic    | SEOM-TESEO-2017-01        |
| Phase III    | Breast         | GO42784 (IidERA)          |
| Phase IV     | Digestive      | GECOP-MMC                 |
| Phase II     | Melanoma       | IFX-1-P2.8                |
| Phase III    | Urology        | C3441052 (TALAPRO 3)      |
| Phase III    | Urology        | BO42843 (Imvigor)         |
| Phase III    | Neuroendocrine | HS-19-657 (Camurus)       |
| Phase II     | Hematologic    | SGN35-032                 |
| Phase III    | Hematologic    | SY1425-301 (SELECT-MDS-1) |

| PHASE        | PATHOLOGY      | TRIAL -Name and Code-            |
|--------------|----------------|----------------------------------|
| Phase III    | Lung           | J2G-MC-JZJX (LIBRETTO-432)       |
| Phase II     | Lung           | GCT1046-04                       |
| Phase II     | Melanoma       | BNT111-01                        |
| Phase I / II | Hematologic    | KO-MEN-001                       |
| Phase III    | Breast         | DS8201-A-U305 (DESTINY-Breast05) |
| Phase III    | Urology        | IMMU-132-13 (TROPICS-04)         |
| Phase III    | Digestive      | TAS-120-301                      |
| Phase III    | Hematologic    | GCT3013-05                       |
| Phase I      | Hematologic    | CC-90009-AML-001                 |
| Phase II     | Neuroendocrine | MK-6482-015                      |
| Phase II     | Hematologic    | MDA-BTG-2020-01                  |
| Phase III    | Urology        | XL184-315 (COSMIC-315)           |

### 3 ● Clinical Research

| PHASE        | PATHOLOGY     | TRIAL -Name and Code-    |
|--------------|---------------|--------------------------|
| Phase I      | Solid Tumor   | GCT1042-01               |
| E.O.         | Digestive     | EPOBIPD                  |
| Phase III    | Hematologic   | ACE-LY-312 (D8227C00001) |
| Phase III    | Hematologic   | M19-708                  |
| Phase III    | Breast        | BO41843 (Persevera)      |
| Phase I / II | Solid Tumor   | GCT1046-01               |
| Phase I      | Breast        | DS8201-A-U106            |
| Phase IV     | Gynecological | ZeJula (3000-04-001)     |
| Phase I      | Solid Tumor   | R6569-ONC-1933           |
| Phase I / II | Hematologic   | IMGN632-0802             |
| Phase I / II | Solid Tumor   | TRIDENT-1 (TPX-0005-01)  |
| Phase II     | Thyroid       | GETNE-T1812 (DUTHY)      |

| PHASE        | PATHOLOGY   | TRIAL -Name and Code-  |
|--------------|-------------|------------------------|
| Phase I / II | Breast      | SGNLVA-002             |
| Phase III    | Urology     | MK-3475-676            |
| Phase II     | Breast      | MedOPP107 (PHENOMENAL) |
| E.O.         | Breast      | AURORA                 |
| Phase III    | Urology     | CA017-078              |
| Phase II     | Digestive   | 8951-CL-5201           |
| Phase II     | Hematologic | ME-401-003             |
| Phase II     | Hematologic | KRT-232-104            |
| Phase III    | Hematologic | BGB-3111-306           |
| Phase II     | Hematologic | R1979-ONC-1625         |

## 2023

| PHASE        | PATHOLOGY     | TRIAL -Name and Code-                |
|--------------|---------------|--------------------------------------|
| Phase III    | Gynecological | XPORT-EC-042                         |
| Phase I / II | Head and neck | VB-C-03                              |
| Phase I      | Hematologic   | CA-4948-104                          |
| Phase I / II | Lung          | BGBC016                              |
| Phase II     | Hematologic   | NEREIDA (AV-APL-B-002-22)            |
| Phase III    | Breast        | D8531C00002 GEICAM 2022-02 CAMBRIA-1 |
| Phase I      | Solid Tumor   | GCT1047-01                           |
| Phase I      | Solid Tumor   | GS-US-570-6015                       |
| Phase III    | Hematologic   | M20-638                              |
| Phase III    | Hematologic   | M20-621                              |
| Phase I      | Solid Tumor   | XL092-002                            |
| Phase II     | Urology       | IMMU-132-06 (TROPHY-U-01)            |

| PHASE        | PATHOLOGY   | TRIAL -Name and Code-    |
|--------------|-------------|--------------------------|
| Phase I / II | Hematologic | CA-4948-102              |
| Phase I / II | Hematologic | CA-4948-101              |
| Phase I / II | Melanoma    | ANV419-101               |
| E.O.         | Lung        | MS200095-0050 (MOMENT)   |
| E.O.         | Lung        | SHIELD (02-MX-002)       |
| Phase II     | Digestive   | NuTide: 323 (NUCANA)     |
| Phase I      | Lung        | BNT116-01                |
| Phase I / II | Solid Tumor | ART0380C001              |
| Phase II     | Digestive   | CLSBP-101-04 (PAMBELA)   |
| Phase I / II | Solid Tumor | BNT142-01                |
| Phase III    | Lung        | PM1183-C-008-21 (LAGOON) |
| E.O.         | Lung        | GECP 21/05 (REALNADIM)   |

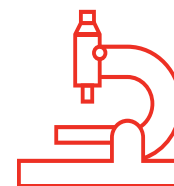
### 3 ● Clinical Research

| PHASE        | PATHOLOGY     | TRIAL -Name and Code-         |
|--------------|---------------|-------------------------------|
| Phase I      | Digestive     | D-FR-60010-015 (SIRACUSA)     |
| Phase III    | Breast        | GS-US-592-6173 (ASCENT-04)    |
| Phase III    | Breast        | GS-US-592-6238 (ASCENT-03)    |
| Phase I      | Lung          | FURMO-002                     |
| E.O.         | Solid Tumor   | DIPCAN                        |
| Phase II     | Head and neck | GS-US-548-5916                |
| E.O.         | Breast        | RnaDx -BRV-BC-01 (BREVITY)    |
| Phase III    | Hematologic   | ANT008 (MAGNOLIA)             |
| Phase III    | Hematologic   | ANT007 (ASTER)                |
| Phase I      | Solid Tumor   | OMTX705-001                   |
| Phase III    | Melanoma      | PH-L19IL2TNF-01/18 (NeoDREAM) |
| Phase I / II | Gynecological | PR-3000-02-005 213357 (OPAL)  |

| PHASE        | PATHOLOGY   | TRIAL -Name and Code-            |
|--------------|-------------|----------------------------------|
| Phase I / II | Hematologic | MOR208C115 MINDway               |
| Phase III    | Urology     | D910PC00001 (VOLGA)              |
| Phase II     | Urology     | DISCUS                           |
| E.O.         | Hematologic | SEOM-TESEO-2017-01               |
| Phase III    | Breast      | GO42784 (IidERA)                 |
| Phase IV     | Digestive   | GECOP-MMC                        |
| Phase II     | Melanoma    | IFX-1-P2.8                       |
| Phase III    | Hematologic | SY-1425-301 (SELECT-MDS-1)       |
| Phase III    | Lung        | J2G-MC-JZJX (LIBRETTO-432)       |
| Phase II     | Lung        | GCT1046-04                       |
| Phase I / II | Hematologic | KO-MEN-001                       |
| Phase III    | Breast      | DS8201-A-U305 (DESTINY-Breast05) |

### 3 • Clinical Research

| PHASE        | PATHOLOGY   | TRIAL -Name and Code-   |
|--------------|-------------|-------------------------|
| Phase I      | Solid Tumor | GCT1042-01              |
| E.O.         | Digestive   | EPOBIPD                 |
| Phase I / II | Solid Tumor | GCT1046-01              |
| Phase I      | Breast      | DS8201-A-U106           |
| Phase I      | Solid Tumor | R6569-ONC-1933          |
| Phase I / II | Hematologic | IMGN632-0802            |
| Phase I / II | Solid Tumor | TRIDENT-1 (TPX-0005-01) |
| Phase III    | Urology     | MK-3475-676             |
| Phase II     | Breast      | MedOPP107 (PHENOMENAL)  |
| Phase II     | Digestive   | 8951-CL-5201            |



The background features a large, light gray circle in the center, with several other overlapping circles in shades of gray and white. A solid red border runs along the top and bottom edges of the image. Two short, horizontal red lines are positioned on either side of the text, one to the left and one to the right.

# Translational Research **Projects**

## 4 • Translational Research Projects

Translational research projects allow the scientific advances achieved to be projected to society and, especially to cancer patients. The development and maintenance of these activities requires obtaining economic resources through public and private, national and international calls for proposals, but also through donations and patronage.

Therefore, an essential activity of the MD Anderson Foundation Spain is to support the financing of the different lines of research by managing the participation of our projects in the different calls for finalist funds.

Despite the cutbacks and difficulties in obtaining funding after the context of the oncology project funding crisis during and after the Covid-19 pandemic, the overall results have been positive. The activity and quality of applications to public agencies such as ISCIII, MICINN, CAM, EU and other private agencies such as the AECC is maintained through filtering and prior approval by the Scientific Committee, so that in 2022-23 applications have been submitted, with a high success rate.

The progress of biomedical knowledge depends essentially on the access of our researchers to new technological advances, the incorporation of internationally renowned researchers and the development of translational research programs of excellence.



## Breast cancer and gynecological cancer program



### Team members

|                                 |                                                     |                                                                                                                        |                                                   |                                                                                   |
|---------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------|
| <b>Head of group</b>            | Dr. Gema Moreno-Bueno                               |                                                                                                                        |                                                   |                                                                                   |
| <b>Postdoctoral researchers</b> | Dr. David Sarrió López (CIBERONC)                   | Dr. Sara Oltra Sanchís (AECC-FMDA)                                                                                     | Dr. Laura Sin Díaz (AECC grant-FMDA)              | Dr. Sara Lázaro Encinas (AECC-FMDA, 2022)                                         |
| <b>Pre-doctoral researchers</b> | Manuel Gámez Chiachio (UAM)                         | Carmen Ramos Nebot (CIBERONC)                                                                                          | Sara Colomo del Pino (UAM)                        |                                                                                   |
| <b>Laboratory technician</b>    | Eva Díaz Martín                                     | Saleta Morales Dolores (UAM)                                                                                           | Cristina González Páramos (UAM)                   |                                                                                   |
| <b>Pathologist</b>              | Dr. Alejandro Rojo Sebastián Dr. Ana Teijo Quintans |                                                                                                                        |                                                   |                                                                                   |
| <b>Collaborators</b>            | Dr. Laura García Estévez                            | Dr. Laura Sánchez, Complejo Hospitalario Universitario de Santiago (CHUS)                                              | Dr. Laura Muínelo (CHUS)                          | Dr. Joaquín Arribas, Instituto Hospital del Mar de Investigaciones Médicas (IMIM) |
|                                 | Dr. Maria de la Fuente (CHUS)                       | Dr. Xavier Matias-Guiu, Institut Català d'Oncologia (ICO), Instituto de Investigación Biomédica de Bellvitge (IDIBELL) | Dr. Ruth Rodriguez, Universidad de Barcelona (UB) | Dr. David N. Llobet (IDIBELL)                                                     |

## **Featured publications 2022**

- C. Casas-Arozamena et al., Improving the Management of Endometrial Cancer Patients through the Use of Liquid Biopsy Analyses: A Case Report. *International Journal of Molecular Sciences* 23, (2022).
- M. Gamez-Chiachio et al., Gasdermin B over-expression modulates HER2-targeted therapy resistance by inducing protective autophagy through Rab7 activation. *Journal of Experimental & Clinical Cancer Research* 41, (2022).
- M. Gamez-Chiachio, D. Sarrio, G. Moreno-Bueno, Novel Therapies and Strategies to Overcome Resistance to Anti-HER2-Targeted Drugs. *Cancers* 14, (2022).
- Z. Garcia-Casado et al., Laboratory Cross-Comparison and Ring Test Trial for Tumor BRCA Testing in a Multicenter Epithelial Ovarian Cancer Series: The BORNEO GEICO 60-0 Study. *Journal of Personalized Medicine* 12, (2022).
- A. Mota et al., Intratumor genetic heterogeneity and clonal evolution to decode endometrial cancer progression. *Oncogene* 41, 1835-1850 (2022).
- D. Sarrio et al., Gasdermin-B Pro-Tumor Function in Novel Knock-in Mouse Models Depends on the in vivo Biological Context. *Frontiers in Cell and Developmental Biology* 10, (2022).
- A. Vazquez-Naharro et al., Loxl3 Promotes Melanoma Progression and Dissemination Influencing Cell Plasticity and Survival. *Cancers* 14, (2022).

## **Featured publications 2023**

- M. Alonso-Nocelo et al., Macrophages direct cancer cells through a LOXL2-mediated metastatic cascade in pancreatic ductal adenocarcinoma. *Gut* 72, 345-359 (2023).
- I. Carretero-Barrio et al., Evaluation of ERBB2 mRNA Expression in HER2-Equivocal (2+) Immunohistochemistry Cases. *CANCERS* 15, (2023).
- C. Casas-Arozamena et al., Noninvasive detection of microsatellite instability in patients with endometrial cancer. *International journal of cancer* 152, 2206-2217 (2023).
- S. Colomo et al., Structural and functional insights into GSDMB isoforms complex roles in pathogenesis. *CELL CYCLE* 22, 2346-2359 (2023).
- S. Lores et al., Effectiveness of a novel gene nanotherapy based on putrescine for cancer treatment. *BIOMATERIALS SCIENCE* 11, 4210-4225 (2023).
- G. Mendoza et al., The E1a Adenoviral Gene Upregulates the Yamanaka Factors to Induce Partial Cellular Reprogramming. *CELLS* 12, (2023).
- S. S. Oltra et al., Distinct GSDMB protein isoforms and protease cleavage processes differentially control pyroptotic cell death and mitochondrial damage in cancer cells. *Cell death and differentiation* 30, 1366-1381 (2023).
- I. Tundidor et al., Identification of fatty acid amide hydrolase as a metastasis suppressor in breast cancer. *NATURE COMMUNICATIONS* 14, (2023).

## Hematological neoplasms program

### Team members

**Head of group** Dr. Juan Fernando García García

**Pre-doctoral researchers** Victoria Menéndez García (ISCI-III-FMDA) Sara Fernández Robledo

**Laboratory technician** Eva Díaz Martín

**Pathologist** Dr. Jose Luis Solórzano Rendón Dr. Ana Teijo Quintans

**Hematologists** Dr. Mónica Estévez Dr. Carlos Montalbán Sanz

**Collaborators** Dr. Mónica García-Cosío, Hospital Universitario Ramón y Cajal Dr. Margarita Sánchez Beato, Instituto de Investigación Sanitaria Puerta de Hierro (IDIPHIM) Dr. María Socorro Rodríguez Pinilla, Instituto de Investigación Sanitaria-Fundación Jiménez Díaz (IIS-FJD)

Dr. Giovanna Roncador, Centro Nacional Investigaciones Oncológicas (CNIO) Dr. Fátima Al Shahrour, Centro Nacional Investigaciones Oncológicas (CNIO) Dr. Santiago Montes Moreno, Instituto de Investigación Marqués de Valdecilla (IDIVAL)



## 4 ● Translational Research Projects

### Featured publications 2022

- R. Alaggio et al., The 5th edition of the World Health Organization Classification of Haematolymphoid Tumours: Lymphoid Neoplasms. *Leukemia* 36, 1720-1748 (2022).
- F. Bonfiglio et al., Genetic and phenotypic attributes of splenic marginal zone lymphoma. *Blood* 139, 732-747 (2022).
- C. Fernandez-Rodriguez et al., Worse outcome and distinct mutational pattern in follicular lymphoma with anti-HBc positivity. *Blood Advances* 6, 82-86 (2022).
- V. Menendez, J. L. Solorzano, S. Fernandez, C. Montalban, J. F. Garcia, The Hodgkin Lymphoma Immune Microenvironment: Turning Bad News into Good. *Cancers* 14, (2022).
- L. Reguera Berenguer et al., Leukemoid reaction with 18 F-FDG PET/CT in ovarian carcinoma. *Revista Espanola De Medicina Nuclear E Imagen Molecular* 41, 115-117 (2022).
- M. Rodriguez et al., An integrated prognostic model for diffuse large B-cell lymphoma treated with immunochemotherapy. *EJHaem* 3, 722-733 (2022).
- G. Roncador et al., CD229 (Ly9) a Novel Biomarker for B-Cell Malignancies and Multiple Myeloma. *Cancers* 14, (2022).

### Featured publications 2023

- R. Alonso-Alonso et al., NanoString analysis of mycosis fungoides reveals individual molecular identity. *The British journal of dermatology* 188, 812-814 (2023).
- B. Calsina et al., Genomic and immune landscape Of metastatic pheochromocytoma and paraganglioma. *NATURE COMMUNICATIONS* 14, (2023).
- S. Fernandez et al., BET inhibitors induce NF-kappaB and E2F downregulation in Hodgkin and Reed-Sternberg cells. *Experimental cell research* 430, 113718 (2023).
- S. Fernandez et al., JAK/STAT blockade reverses the malignant phenotype of Hodgkin and Reed-Sternberg cells. *Blood advances* 7, 4135-4147 (2023).
- J. Rodríguez-Sevilla et al., Evaluation of 4 prognostic indices in follicular lymphoma treated in first line with immunochemotherapy. *BLOOD ADVANCES* 7, 1606-1614 (2023).



## Digestive Cancer and Peritoneal Carcinomatosis Program

### Team members

|                                               |                                                                                                                                          |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Head of group</b>                          | Dr. Santiago González Moreno                                                                                                             |
| <b>Collaborating surgeons and oncologists</b> | Dr. Óscar Alonso Casado<br>Dr. Gloria Ortega Pérez<br>Dr. Irene López Rojo<br>Dr. José Ignacio Martín Valadés<br>Dr. Sara Encinas García |
| <b>Pathologist</b>                            | Dr. Ana Teijo Quintans                                                                                                                   |
| <b>Radiologist</b>                            | Dr. Raquel Saiz Martinez                                                                                                                 |
| <b>Collaborators</b>                          | Dr. Gemma Domínguez, Instituto de Investigación Hospital Universitario La Paz (IdiPAZ)                                                   |

### Featured publications 2022

- F. Gronau et al., HIPEC in Peritoneal Metastasis of Gastric Origin: A Systematic Review of Regimens and Techniques. JOURNAL OF CLINICAL MEDICINE 11, (2022).
- T. Kim et al., TRIB1 regulates tumor growth via controlling tumor-associated macrophage phenotypes and is associated with breast cancer survival and treatment response. THERANOSTICS 12, 3584-3600 (2022).
- F. Pereira et al., GECOP-MMC: phase IV randomized clinical trial to evaluate the efficacy of hyperthermic intraperitoneal chemotherapy (HIPEC) with mytomicin-C after complete surgical cytoreduction in patients with colon cancer peritoneal metastases. BMC CANCER 22, (2022).
- J. M. Badia et al., What have we learned from the surveys of the AEC, AECOP and the Observatory of Infection in Surgery? Compliance with postoperative infection prevention measures and comparison with the AEC recommendations. Cirugia Espanola 100, 392-403 (2022).

### Featured publications 2023

- Arjona-Sánchez et al., Efficacy and Safety of Intraoperative Hyperthermic Intraperitoneal Chemotherapy for Locally Advanced Colon Cancer A Phase 3 Randomized Clinical Trial. JAMA SURGERY 158, 683-691 (2023).

### Obesity and Breast Cancer Program

#### Team members

**Head of group** Dr. Laura García Estévez

---

**Pre-doctoral researchers** Silvia González Martínez (Fundación Contigo)

---

**Laboratory technician** Eva Díaz Martín

---

**Oncology specialists** Dr. M<sup>a</sup> Isabel Calvo Plaza

---

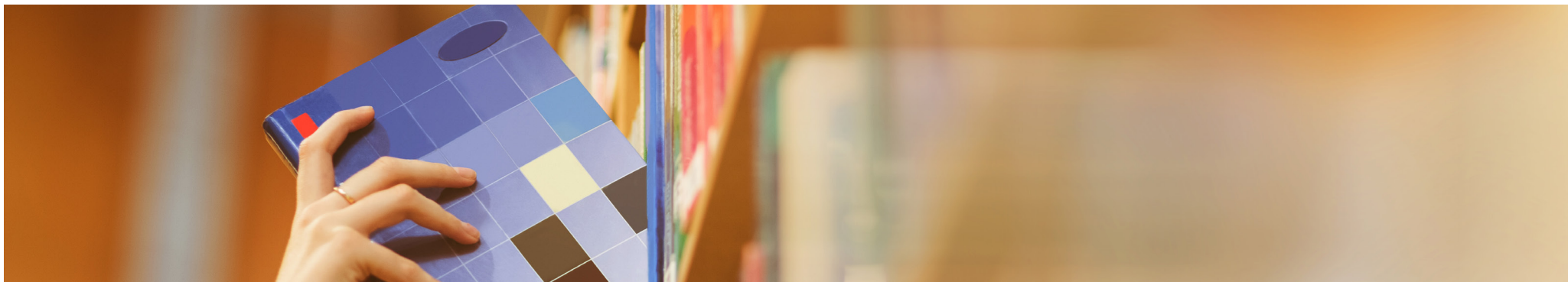
**Collaborator** Dr. Gema Moreno-Bueno

#### Featured publications 2022

- J. Cortés et al., Trastuzumab Deruxtecan versus Trastuzumab Emtansine for Breast Cancer. NEW ENGLAND JOURNAL OF MEDICINE 386, 1143-1154 (2022).
- E. Mayer et al., Treatment Exposure and Discontinuation in the PALbociclib CoLLaborative Adjuvant Study of Palbociclib With Adjuvant Endocrine Therapy for Hormone Receptor-Positive/Human Epidermal Growth Factor Receptor 2-Negative Early Breast Cancer (PALLAS/AFT-05/ABCSG-42/BIG-14-03). JOURNAL OF CLINICAL ONCOLOGY 40, 449-+ (2022).

#### Featured publications 2023

- C. J. Geyer et al., Overall survival in the OlympiA phase III trial of adjuvant olaparib in patients with germline pathogenic variants in BRCA1/2 and high-risk, early breast cancer. ANNALS OF ONCOLOGY 33, 1250-1268 (2022).



The background features several overlapping circles in white and light gray. A solid red bar runs horizontally across the top and bottom of the image. Two short red horizontal lines are positioned on either side of the word 'Biobank'.

**Biobank**

## 5 ● Biobank

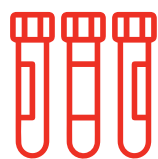
*The MD Anderson Foundation Biobank Spain is a Biobank adhered to the National Biobank Platform and registered in the National Biobank Registry of the Carlos III Health Institute with code B0000745.*

**Its aim is to be a support and promotion unit for biomedical research based on the storage of human biological samples and documentary treatment, under criteria of maximum excellence and in accordance with current legislation.**

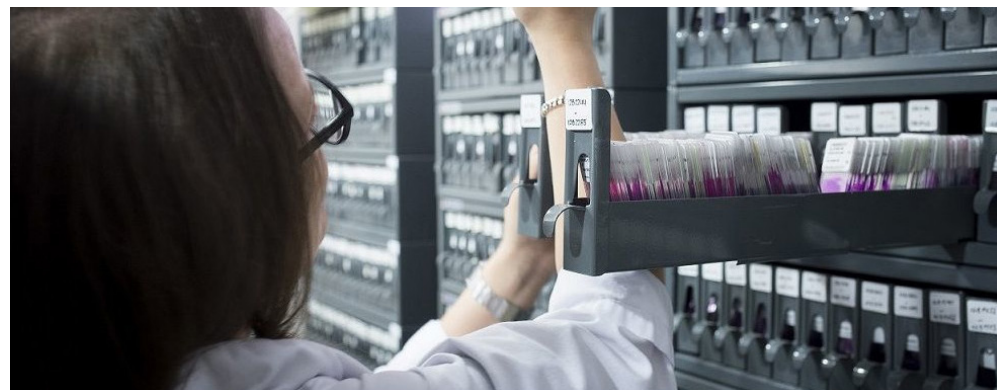
On a regular basis, samples of frozen, fixed and fresh tumor tissue, blood derivatives, surgical fluids and other biological samples, as well as the corresponding complementary information, are collected in the Biobank.

Currently our Biobank has 5 active collections, for which it collects biological samples and associated clinical data in a protocolized manner. These cases obtained and stored under the highest quality criteria, and according to specific collection, treatment and maintenance protocols, are used to promote and favor the development of different research projects that establish prospective collections of samples and associated clinical data.

Five of these collections are registered in the National Biobank Registry of the ISCIII: C.0001744 (Lymphoma samples); C.0001749 (Breast cancer samples); C.0005406, C.0005407 (Colorectal carcinoma samples); C.0005408 (Pancreatic carcinoma samples).



Biobank also has more than 2,000 stored samples available as part of its usual routine and with the aim of making transfers to future research projects or studies.



**The MD Anderson Foundation Biobank Spain also carries out the transfer, treatment and custody of EEC tissue. To date, 895 samples have been transferred for more than 100 clinical trials.**

MD Anderson  
Foundation  
Biobank Spain

transfer,  
treatment and  
custody

**895**

assignments for  
more than 100  
clinical trials

## 5 ● Biobank

Regarding the projects in which it participates, on the one hand, it contributes directly to improving the efficiency and use of the resources the NHS allocates to research.

In the last 5 years, more than 80% of our participation in projects has been aimed at translational research groups that carry out their research work in the NHS: accredited IIS, cooperative cancer research groups, research centers or universities.

On the other hand, the MD Anderson Foundation Biobank Spain responds to scientific collaborations with private projects. For example, the collaborative project entitled Lung Cancer Moon Shot. Biospecimen Banking and Biomarker Validation for Lung Cancer Early Detection in Cohort Receiving Low Dose Helical Computed Tomography Screening, promoted by MD Anderson in Houston. For this project, so far, more than 8000 aliquots from 400 individuals have been processed from the Biobank.

On the other hand, the processing of samples from PostCovid vaccinated healthy donors is being carried out entirely from the Biobank. So far, 612 samples corresponding to 129 patients have been collected and processed.

The integral management and use of historical archives has also been consolidated, in order to ensure the quality of the samples and associated data made available to researchers. The last integrated collection is an archive of 2400 cases made up of bone marrow extensions. This physical archive is already organized according to the highest preservation quality criteria and is computerized under standard protocols.

80%  
participation in  
SNS projects

Scientific  
collaborations  
with private  
sector projects

PostCovid  
vaccinated  
612 samples  
129 patients

Another of the fundamental activities of the MD Anderson Foundation Biobank Spain is document processing, which is carried out in a protocolized way and has two defined areas:



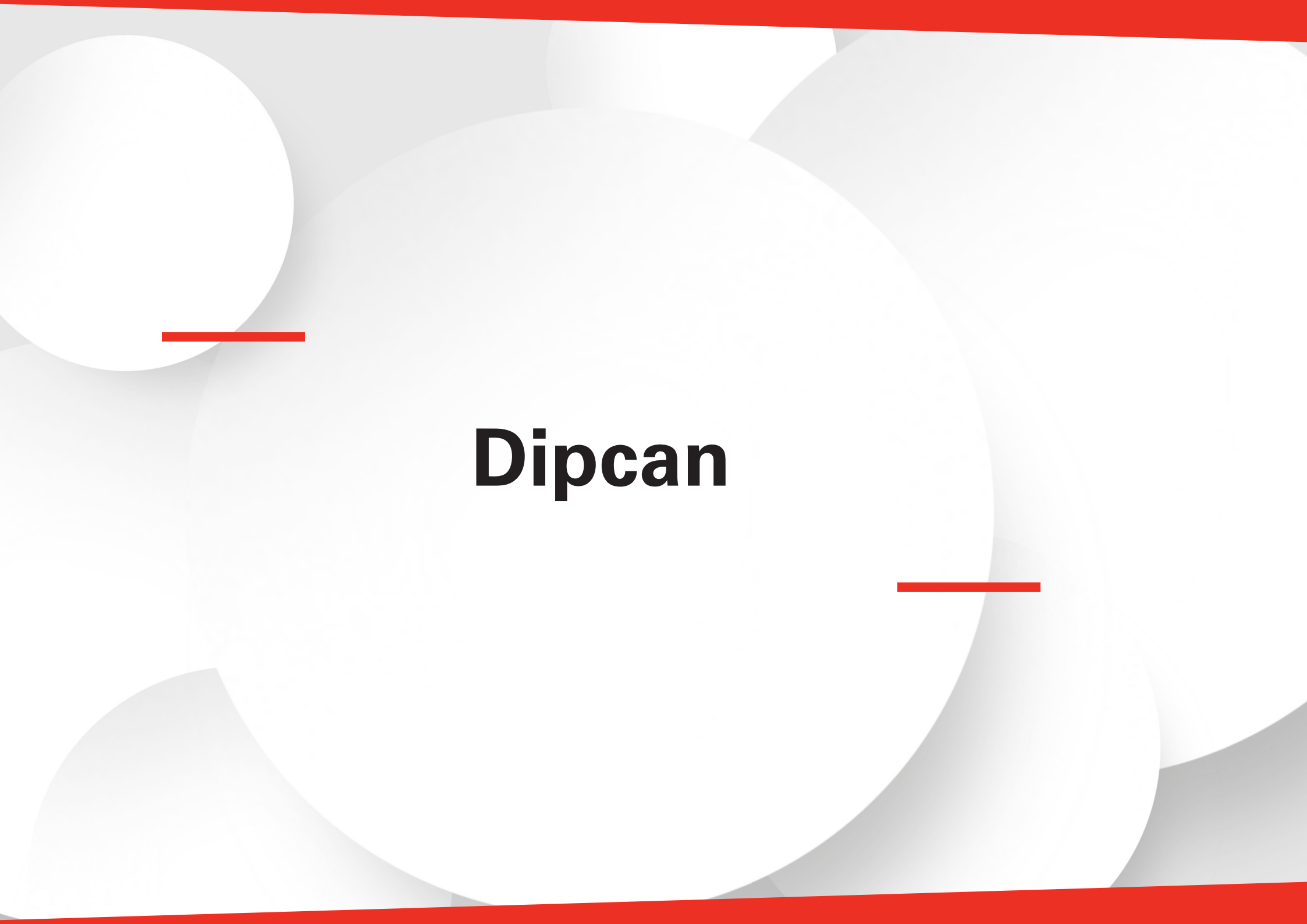
**The first is centered on the collection and treatment of donors' clinical data**, both for research projects or specific studies that require specific collection according to the requirements of the researchers themselves, and to complement the information on samples collected routinely and that will be used for projects and assignments that are carried out retrospectively, adding significant value to these samples.

**And the second, which focuses on document processing to support project management**, which requires both procedures with the different CEICs and relations with the National Biobank Network and the ISCII, as well as the processing of the Informed Consents of the donors and all the complementary documentation generated during a research project.

In addition, the Biobank is implementing the Hematological Disease Registry, whose first design phase has already been consolidated and will complement the forthcoming MD Anderson Hospital Tumor Registry.

## Projects the Biobank Has Worked On During 2022 and 2023

| Pathology                               | Project Title                                                                                                                                        | Project Code         |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| GLIOMAS                                 | Validation of the epigenetic biomarker MGMT in liquid biopsy as a non-invasive test for diagnosis and monitoring of patients with high-grade gliomas | 20/00029DTS          |
| BREAST / PANCREATIC CANCER              | Development of a dynamic platform for rapid detection of actionable molecular alterations from liquid and solid biopsies in oncology patients        | RTC2019-006918-1     |
| EWING SARCOMA                           | Identification of a gene signature associated with Ewing Sarcoma aggressiveness for diagnostic and therapeutic purposes                              | MD22-011             |
| BREAST / OVARIAN / ENDOMETRIAL CANCER   | Molecular characterization of the cytotoxic activity of Gasdermin B and its potential application                                                    | PID2019-104644RB-I00 |
| BREAST CANCER                           | Gasdermin B overexpression modulates resistance to HER2-targeted therapy by inducing protective autophagy through Rab7 activation                    | AECC2019             |
| HODGKIN LYMPHOMA                        | Precision medicine in Hodgkin lymphoma: description of functional phenotypes in the tumor microenvironment                                           | ISCI PI22/00556      |
| BREAST / LUNG / GASTROINTESTINAL CANCER | Identification and characterization of new therapeutic targets against solid tumors (CITRE)                                                          | ISCI 2020-ST-01      |
| METASTATIC CANCER                       | Study of digitalization and comprehensive management of personalized medicine: study in cancer (DIPCAN)                                              | MD22-005             |
| LEIOMYOSARCOMA                          | Evaluation of Fibroblast Activation Protein (FAP) expression in leiomyosarcoma                                                                       | MD22-009             |
| EWING SARCOMA                           | Development of an RNA-based therapy for Ewing Sarcoma                                                                                                | MD22-012             |
| HODGKIN LYMPHOMA                        | Clonal hematopoiesis in Bone Marrow of Hodgkin Lymphoma                                                                                              | MD23-006             |

The background features several overlapping circles in white and light gray. A solid red horizontal bar runs across the top and bottom edges of the image. Two short, thick red horizontal lines are positioned on the left and right sides, aligned with the center of the word 'Dipcan'.

**Dipcan**

### Dipcan

Within the Biobank, the Dipcan study deserves special mention.

**Dipcan is a study that promotes personalized medicine by integrating clinical, genomic, anatomopathological and radiomic data, for which it plans to recruit 2,000 patients with non-hematological metastatic tumors. The project began its development in 2022 and is scheduled to end in 2024.**

During this period, various diagnostic tests will be performed, including blood tests, MRI scans, anatomopathological studies, and molecular and tumor expression analyses. The results will be integrated to design an innovative algorithm.

The study is observational, so it does not contemplate treatments to improve the survival or quality of life of the patients, and is limited to diagnostic tests.

This project, of which MD Anderson Foundation Spain is the promoter, is financed by the European Union through the Ministry of Economic Affairs and Digital Transformation.

Before the Ministry, it is coordinated by Eurofins Megalab and has the participation of leading entities in Spain, such as the MD Anderson International Foundation Spain (promoter of the project), Pangaea, Quibim, Genomcore, Atrys and Artelnics.





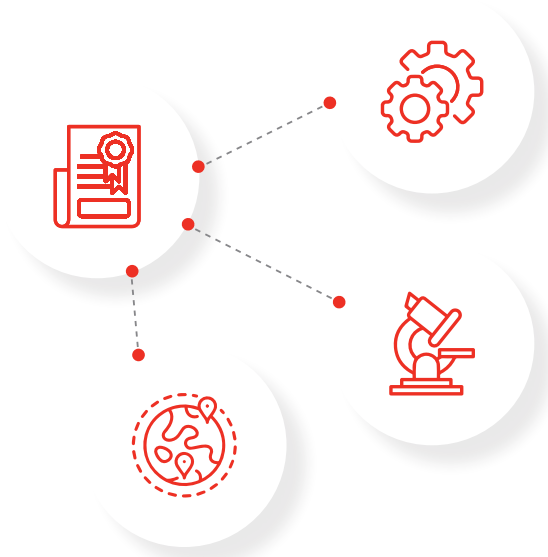
# **Innovation and Advancer** in Oncology

## Innovation

A fundamental aim of our center is to achieve constant progress in healthcare procedures, integrating advances in research, development and innovation (R&D&I) into daily clinical practice. This includes fostering a culture of continuous improvement in our processes and maintaining MD Anderson Madrid as a global leader among cancer centers.

In the field of translational research, one of the main objectives is to promote technological innovation, evidenced by the generation of patents. This approach seeks to protect inventions and support their future industrial development, including patents, utility models, protocols and software applications. The creation of patents ensures that research results can benefit society quickly.

During 2022 and 2023, patents have been held in co-ownership with prestigious Spanish research centers and hospitals. In addition, technology transfer agreements have been established with Merck Millipore and BioRad for the commercialization of monoclonal antibodies.



## Molecular Diagnostic Unit, Precision Medicine

This platform, initially developed by the Foundation, currently collaborates and continues to support the development of research projects carried out by the MD Anderson Foundation Spain.

The Molecular Diagnostics Unit at MD Anderson Cancer Center Madrid offers molecular analysis techniques and services complementary to cancer diagnosis, especially highly complex services, including high throughput sequencing techniques (NGS) and multigene analysis to allow detailed and individualized study of each patient. Its main functions are the identification of diagnostic and predictive biomarkers of therapeutic response, by means of procedures included in national and international clinical guidelines.

**This Unit has established itself as a reference point in the hospital for the identification of molecular markers on which clinical decisions related to therapy selection and patient monitoring are based. The department is UNE-EN ISO 9001:2008 and UNE-EN ISO 14001:2008 certified, and also participates in the quality control program of the Spanish Society of Pathological Anatomy (SEAP) and undergoes periodic quality audits by our parent center in Houston.**

It is important to highlight the recent creation and launch of the Molecular Tumor Committee (MTB). Our center is a pioneer in Spain in the implementation of this clinical structure, whose main objective is clinical guidance based on the patient-specific molecular profile, thus effectively implementing "Precision Oncology" in our care routine. The MTB multidisciplinary team is made up of specialists in medical oncology, hematology, pathology, molecular biology, bioinformatics and genetics, among others. Diagnostic and therapeutic recommendations are based on personalized diagnoses and an extensive bioinformatic and bibliographical review on a case-by-case basis. In parallel, the available technological platforms (Ion Torrent PGM and S5) have been enhanced. Within the first year of MTB implementation, more than 100 patients have been analyzed and a complete molecular and mutational profile study carried out, backed by a personalized report in each case including

## 7 • Innovation and Advancer in Oncology

individualized diagnostic recommendations. As a result, more than 30% of these patients were referred to specific Clinical Trials. In a coordinated manner, the creation of the new Phase I Clinical Trials Unit will, in the coming years, allow us to offer patients the most innovative drugs in development based on this molecular selection.



### THE UNIT HAS TWO MAIN ACTIVITIES



**Genomic unit and personalized molecular diagnosis.**



**Genetic counseling in cases of familial and hereditary cancer.**

### CHARACTERISTICS AND FUNCTIONS

- Implementation and optimization of routine molecular analysis techniques and services, which are necessary and complementary to cancer diagnosis.
- Coordination with translational research projects to ensure the necessary dynamism and the immediate transfer of advances in biomedical research to clinical practice.
- Provision and optimization of high-complexity services, especially high-throughput sequencing techniques and multigenic analysis, enabling detailed and individualized study of each patient.
- Quality control (internal and external) and maintenance of standards.



---

# **Excellence in Training** and Continued Education

---

## 8 ● Excellence in Training and Continued Education

**One of the founding aims of the MD Anderson Foundation Spain is to promote training for specialists, professionals and patients.** That is why, every year, training projects are set up in collaboration with other entities of renowned prestige, with the aim of attracting, promoting and retaining scientific talent in Spain.

### COURSES AND CONGRESSES

MD Anderson Foundation Spain aims to be a reference in Spain in the organization of congresses of the highest international and multidisciplinary level.



**Medical congresses of the highest scientific level.**



**Updating of the latest scientific and professional advances.**

Our excellent relationship with MD Anderson Houston allows us to bring together internationally renowned specialists in these events. During the years 2022 and 2023, several international congresses and scientific conferences have been organized in close collaboration with MD Anderson Houston, covering various specialized areas in oncology.



### Congresses and specialized continuing education courses 2022

#### International Congresses

- X Acute Myeloid Leukemia Refresher Seminar
  - Dr. Adolfo de la Fuente, Hematology
- VIII International Congress on Gynecologic Oncology
  - Dr. Javier de Santiago
  - Dr. Raúl Márquez

#### National Congresses

- II Conference on the Management of Immuno-Mediated Events
- I Conference on Precision Medicine in Lymphomas
- Connected by Hematology

### 5 Refresher Courses for Foreign Experts

## 8 ● Excellence in Training and Continued Education

### Congresses and specialized continuing education courses 2023

#### International Congresses

- XI Acute Myeloid Leukemia Refresher Course  
Dr. Adolfo de la Fuente, Hematology

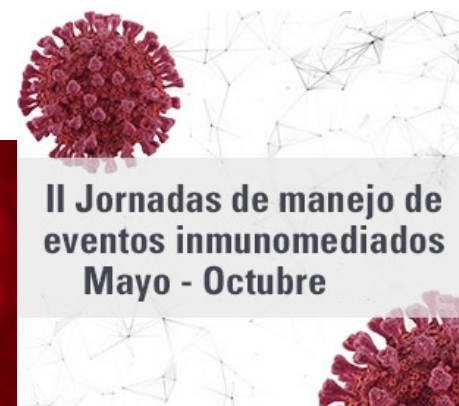
#### National Congresses

- II Conference on the Management of Immuno-Mediated Events
- I Conference on Precision Medicine in Lymphomas
- Connected by Hematology

#### 7 Refresher Courses for Foreign Experts

### The Center's General Clinic Sessions

Over these two years, 20 clinical sessions have been held, in which teachers and researchers from other centers taken part on 4 occasions: Gustaf Roussy (Paris), MD Anderson Cancer Center Houston, Hospital La Paz Biomedical Research Institute.



## 8 ● Excellence in Training and Continued Education

### RESEARCH FELLOWSHIP PROGRAM

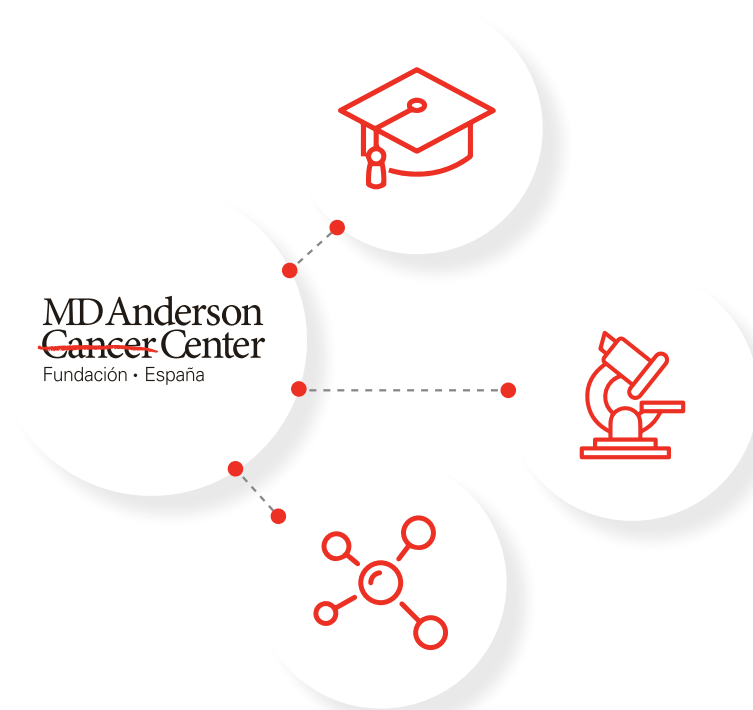
The MD Anderson Cancer Center Spain Foundation, in its commitment to the training and development of future leaders in clinical and translational oncology, has continued to offer its Excellence Training Program during the years 2022-2023. This program has included several modalities to support research and professional training.

#### Promotion of Postdoctoral Research

Postdoctoral research has also been promoted through contracts for specialists in molecular and cellular biology, encouraging their participation in leading projects and promoting the creation of new lines of research.

The program has made it possible to attract and retain highly qualified young talent, consolidating the excellence of the team of professionals at MD Anderson Cancer Center Madrid. The beneficiaries of the program have an environment that fosters innovation, collaboration and impact on improving the diagnosis and treatment of cancer.

This report reflects the continuous effort of MD Anderson Foundation Spain to lead change and advance knowledge and treatment of cancer, strengthening a committed scientific community of excellence.



#### Doctoral Thesis Development Grants

The program has promoted the advancement of young researchers through grants aimed at the development of doctoral theses in areas related to translational oncology. The beneficiaries have been able to access resources that facilitate both the experimental development of their projects and their integration into academic and scientific environments of excellence.

#### Grants for Translational Oncology Research Projects

Grants have been awarded for original translational research projects, prioritizing high impact areas such as immunotherapy, new diagnostic technologies and the identification of new therapeutic targets. These initiatives have sought to generate knowledge applicable to the treatment and diagnosis of cancer, with an innovative and multidisciplinary approach.

## 8 • Excellence in Training and Continued Education

### THE TEACHING COMMISSION

The Teaching Commission of MD Anderson Madrid has continued with the objectives established in Royal Decree 183/2008 and those proposed in the mission statement of the institution. Said Royal Decree establishes that the president and his teaching committee must be registered with the Ministry of Health of the Autonomous Region of Madrid. The appointment of the President of the Teaching Commission (see Annexes), designated by the center's medical management, is responsible for the center's specialized training as well as continued education and teaching.

### UNDERGRADUATE AND POSTGRADUATE TRAINING

Educational cooperation agreements are maintained with the most prestigious national universities and other internationally recognized entities:

- **Autonomous University of Madrid**
- **Francisco de Vitoria University**
- **San Pablo CEU University**
- **Barcelona University**
- **Lerida University**
- **Navarra University**
- **Complutense University of Madrid**
- **University of Melbourne, Australia**
- **San Francisco Marroquin University, Guatemala**



Universidad de Navarra



MD Anderson Foundation Spain participates in programs for:

- **Specialized Training**
- **Undergraduate Training**
- **Professional Training and Continued Education**

## 8 • Excellence in Training and Continued Education

### **Participation in accrediting institutions**

The training and research agreement is maintained as an annex to the agreement between the Nutrition Units at the La Paz University Hospital and MD Anderson Madrid, which allows the training of doctoral students.

Training and Research Agreement annexed to the agreement with the Autonomous University of Madrid (UAM), the Faculty of Biochemistry and the Albert Sols Biomedical Research Institute and MD Anderson Madrid Nutrition Unit.

### **AECC Summer Internship Student Agreement**

Thanks to the agreement between MD Anderson Foundation Spain and the Spanish Cancer Association (AECC), we take part in the training of university students in the field of health sciences through summer internships in our translational research laboratory, allowing students to get closer to the reality of biomedical research and complete their training in various areas of oncology.

### **Signing of New Teaching Agreements**

- **University of Madrid, Faculty of Medicine, Nutrition and Pharmacy**
- **University of Irvine, California, USA School of Medicine**
- **University of Sydney, Australia, Medicine and Nutrition**
- **University of Coimbra, Portugal**



## 8 ● Excellence in Training and Continued Education

### CONFERENCES AND CONGRESSES FOR PATIENTS

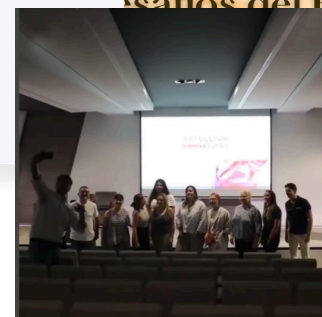
From the Foundation, we seek to serve patients with a comprehensive perspective, without neglecting any of their needs. Our efforts are focused on promoting healthy habits and prevention as keys to better health.

The objective of these meetings is to improve the quality of life of cancer patients and their families, in addition to informing the general public. A space is created to share experiences, acquire knowledge and bring professionals together. We also seek to alleviate emotions such as uncertainty or insecurity and resolve doubts about the disease and its treatments, providing resources and support.

Among our outstanding initiatives are:



**Actíivate 360° Congress:** Control your fatigue, organized together with Fisioespaña Wellness. Fatigue, one of the most common symptoms among cancer patients, was the central theme. During the congress, theoretical and practical training was offered to help attendees to control and combat this symptom, improving their quality of life and their response to treatments.



**II ASARGA 2023 Conference,** held at the MD Anderson Cancer Center Madrid Foundation Auditorium. The Foundation committed to this mission collaborated with ASARGA for the organization of this event and to advance the common objectives of both entities.

## 8 ● Excellence in Training and Continued Education

### Coffee Colloquium

Training, awareness and prevention are fundamental aspects for our health and quality of life. That is why we at MD Anderson Cancer Center Spain Foundation have set up a new project within the area of Excellence Training, the Café Colloquiums.

This space was created with the aim of creating a place to share experiences, acquire knowledge and have closer contact with healthcare professionals. A multidisciplinary project that aims to address different areas of cancer from the approach and medical innovation, as well as from the field of psychology, emotions, complementary treatments, change of habits, etc.



**During the years 2022 and 2023 a total of 11 Coffee Colloquiums have been held on different topics:**

- Coffee Colloquium: **The importance of information and self-care.**
- Coffee Colloquium: **Learn more about colon cancer.**
- Coffee Colloquium: **Head and neck cancer.**
- Coffee Colloquium: **Ovarian Cancer.**
- Coffee Colloquium: **Skin Cancer.**
- Coffee Colloquium: **Lymphomas and therapeutic innovation.**
- Coffee Colloquium: **Lung cancer.**
- Coffee Colloquium: **Genetic and hereditary cancer.**
- Coffee Colloquium: **Food, mental health and energy.**
- Coffee Colloquium: **Gynecologic cancer.**
- Coffee Colloquium: **Skin cancer.**



Prevention, Awareness  
and Quality of Life  
**Activities**

## 9 • Prevention, Awareness and Quality of Life Activities

Between 2022 and 2023, MD Anderson Cancer Center Spain Foundation has continued to focus on promoting cancer prevention and improving the quality of life of both patients and their families, adapting to current limitations.

Our digital platform Investiga por la Vida has been key to consolidating a space for interaction that fosters collaboration and the exchange of knowledge, creating participatory and educational online environments.

### Prevention Campaigns

After the interruption of prevention campaigns due to the situation caused by the COVID-19 pandemic, MD Anderson Foundation has managed to resume information, prevention and awareness initiatives, taking advantage of the commemoration of European and world days dedicated to the different types of cancer.

During 2022 and 2023, **14 prevention campaigns** have been carried out.

#### 2022

September

- **World Lymphoma Day.**
- **World Chronic Myeloid Leukemia Day.**
- **World Cancer Research Day.**

November

- **Movember**

#### 2023

January

- **From your purpose a life**

February

- **World Cancer Day**

March

- **World Day Against Colon Cancer**

April

- **Your weight, your health**

May

- **World Ovarian Cancer Day**

June

- **European Skin Cancer Prevention Day.**

October

- **International Breast Cancer Day**

November

- **Movember**
- **World Lung Cancer Day**

December

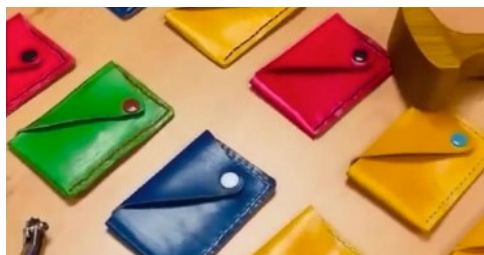
- **International Volunteer Day**

## 9 ● Prevention, Awareness and Quality of Life Activities

### Workshops

In collaboration with **Diversión Solidaria**, we organize workshops designed to offer support and moments of relaxation to cancer patients and their families. These workshops are carried out by committed volunteer staff, who contribute their time and dedication to improve the emotional well-being of the attendees.

The activities take place within the hospital's facilities and are designed to be accessible and welcoming. Most importantly, they are completely free of charge and are open to all cancer patients and their families, regardless of the referral hospital.



**Workshops 2022**

February

- **Zentagle workshop**

April

- **Initiation to hilorama workshop**

September

- **Workshop on soaps**

October

- **Wreaths with Crassulas**

November

- **Leather purses workshop**

December

- **Christmas bookbinding workshop**

**Workshops 2023**

January

- **Paint your umbrella**

February

- **Stamps and stamping**

March

- **Book folding workshop. Book sculpture**

April

- **Flowers and pendants with recycled plastic**

May

- **Coasters with LEDs workshop**

June

- **Leather belt**

September

- **Enameled jewelry**

October

- **Wool collar workshop**

November

- **Folding vase workshop**

December

- **Copper pipe candle holder workshop**

## 9 ● Prevention, Awareness and Quality of Life Activities

### Other Conferences and Meetings

From the Foundation, we organize various conferences and meetings aimed at cancer patients and their families, to provide information, support and a space to share experiences. These activities address key issues related to the disease, treatments and overall wellbeing, always promoting quality of life and close contact with professionals and other people in similar situations.

Among these initiatives, the cycle of meetings “**Inspirarnos Vida**” (Inspire Life) stands out, a space created to share testimonies, experiences and reflections that invite us to look at our circumstances from a more positive and hopeful perspective.

**inspirarnos vida**  
SEMANA DEL 7 AL 10 FEBRERO 19:00 - 20:00 H  
ASISTENCIA 100% GRATUITA

ENCUENTROS CON...

**Padre Ángel**  
7 DE FEBRERO

**Antonio Garrigues Walker**  
8 DE FEBRERO

**Cipri Quintas**  
9 DE FEBRERO

**Juan Manzanera**  
10 DE FEBRERO

CONVERSAN CON **JUANJO FRAILE**  
SOBRE LA GRATITUD Y LA VIDA

A través de este programa, la Fundación MD Anderson Cancer Center España y Fundestic acercan testimonios, experiencias y reflexiones para ayudarte a vivir tu vida y todo lo que te sucede de manera más positiva.

Aprende a superar situaciones inesperadas, a gestionar mejor la ansiedad, la incertidumbre o el miedo, porque la VIDA es un regalo que debemos disfrutar.

Queremos que formes parte de este movimiento que Inspira Vida, desde tu situación actual, porque no estás solo.

Tú formas parte de esta iniciativa. Contamos contigo.

AUDITORIO FUNDACIÓN MD ANDERSON CANCER CENTER ESPAÑA  
C/ ARTURO SORIA, 270. MADRID

MD Anderson  
Cancer Center  
Fundación • España

INSCRIPCIÓN

<https://investigaporla vida.es/inspirarnosvida/>



**inspirarnos vida**  
29 Y 30 DE MAYO 18:30 H  
ASISTENCIA 100% GRATUITA

**Mago More**  
29 MAYO

**Sandra Ibarra**  
30 MAYO

AUDITORIO FUNDACIÓN MD ANDERSON CANCER CENTER ESPAÑA  
C/ ARTURO SORIA, 270. MADRID

MD Anderson  
Cancer Center  
Fundación • España

INSCRIPCIÓN

<https://investigaporla vida.es/inspirarnosvida/>

## inspirarnos vida

### Inspirarnos Vida 2022

- Inspirarnos Vida (Cipri Quintas)
- Inspirarnos Vida (Juan Manzanera)
- Inspirarnos Vida (Antonio Garrigues)
- Inspirarnos Vida (Padre Ángel)
- Inspirarnos Vida (Luis Álvarez)
- Inspirarnos Vida (Teresa Viejo)
- Inspirarnos Vida (Irene Villa)
- Inspirarnos Vida (Dani de la Cámara)

### Inspirarnos Vida 2023

- Inspirarnos Vida (Vicente del Bosque)
- Inspirarnos Vida (Juan Luis Cano)
- Inspirarnos Vida (Mago More)
- Inspirarnos Vida (Juan Ramón Lucas y Sandra Ibarra)

## 9 ● Prevention, Awareness and Quality of Life Activities

### 2022 Conferences (chronological order)

- XL Weekly, Lung Cancer Meeting
- Mujerhoy Cancer Care
- XIII Journey through Breast Cancer
- III Conference on Prevention and Early Diagnosis in Men's Health

### 2023 Conference (chronological order)

- Mujer Hoy Cancer Care Meeting: Detection and care of female cancer
- III ABC Health Forum. Colon Cancer. Prevention and Treatment
- Book Presentation: The transparent organ. The intelligence of the Immune System
- Women Today Cancer Care (October)
- XIV Day. Journey through breast cancer
- El Economista Event. Men's Health
- I Congress of "The Lost Taste"



## 9 • Prevention, Awareness and Quality of Life Activities

### Investigate for Life: Our Digital Community

During 2022 and 2023, the Foundation has maintained its commitment to promoting cancer prevention and supporting the quality of life of patients and their families, adapting to the constraints of the current context. This has been achieved through the strengthening of our digital community, “Investiga por la Vida”, which began its activity in March 2021. This space has established itself as a meeting point that fosters collaboration and knowledge sharing, offering interactive and outreach-oriented online platforms.



Investiga  
por la vida.es

Sin  
a miedo  
vivir

### Sin Miedo a Vivir

In 2023, MD Anderson Foundation Spain launched Sin Miedo a Vivir, an innovative and transformational movement designed to update the social perception of cancer and its impact on the lives of patients and their families. This project responds to the need to contextualize cancer from a realistic perspective of acceptance and overcoming, highlighting the value of the experience that this disease imprints on patients.

### Objectives of the Movement

Since its inception, Sin Miedo a Vivir has set out to:

- Break the taboos associated with cancer and normalize this reality as part of life, without resignation, but with acceptance.
- To show patients as examples of resilience and overcoming, capable of inspiring society with their life stories.
- To promote a positive and hopeful message that encourages patients and their families to find strength in difficult moments.

## 9 ● Prevention, Awareness and Quality of Life Activities

### ACTIONS AND ACHIEVEMENTS

In its first year, the movement has generated a significant impact:



#### Launch of a digital community

An online space that brings together testimonials, informative resources and motivational content for patients, families and professionals, promoting emotional and physical well-being.



#### Production of an audiovisual campaign

In collaboration with HAVAS, a piece was created starring real patients, who shared their experiences of overcoming and strength as an example for society.



#### Media and social impact

More than **250 media impacts.**

Reach of **42 million people.**

**190 microinfluencers** committed to the movement.

**3,500 people directly impacted** through digital campaigns.

#### Sin Miedo a Vivir's Message

Sin Miedo a Vivir carries a clear message: although a cancer diagnosis transforms life, it should not limit the will to live it. Inspired by the vital and proactive attitude of patients, the movement conveys that accepting life in all its facets - even in adversity - is key to finding strength and happiness.





# **Acknowledgements**

## 10 • Acknowledgements



EAU THERMALE  
**Avène**



**LAMASMONA**



**LIERAC**  
PARIS

*casla*

Ella es...



love★biarritz

*mediterránea*

n a i v e

SCALPERS

**VIPS**



**Katia.**



**BBVA**



~~NO NAME~~ BAR

**pronto**



UNO<sub>de50</sub>



The background features several overlapping circles in white and light gray. A solid red horizontal bar runs across the top of the image. Two short red horizontal lines are positioned on either side of the word 'Annexes', one to the left and one to the right.

# **Annexes**

## I. SCIENTIFIC PUBLICATIONS 2022

### SUMMARY

- **Publications in national and international journals: 56**
- **Cumulative impact factor: 656,917**

### Pathological Anatomy and Translational Research Laboratory

- R. Alaggio et al., The 5th edition of the World Health Organization Classification of Haematolymphoid Tumours: Lymphoid Neoplasms. LEUKEMIA 36, 1720-1748 (2022).
- D. Aldave, A. Teijo, C. Abril, L. Cerezo, Squamous cell carcinoma arising in a tailgut cyst: role of radiotherapy. BMJ CASE REPORTS 15, (2022).
- L. Berenguer et al., Leukemoid reaction with 18 F-FDG PET/CT in ovarian carcinoma. REVISTA ESPANOLA DE MEDICINA NUCLEAR E IMAGEN MOLECULAR 41, 115-117 (2022).
- F. Bonfiglio et al., Genetic and phenotypic attributes of splenic marginal zone lymphoma. BLOOD 139, 732-747 (2022).
- C. Casas-Arozamena et al., Improving the Management of Endometrial Cancer Patients through the Use of Liquid Biopsy Analyses: A Case Report. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES 23, (2022).
- J. Cortés et al., Trastuzumab Deruxtecan versus Trastuzumab Emtansine for Breast Cancer. NEW ENGLAND JOURNAL OF MEDICINE 386, 1143-1154 (2022).

- C. Fernández-Rodríguez et al., Worse outcome and distinct mutational pattern in follicular lymphoma with anti-HBc positivity. BLOOD ADVANCES 6, 82-86 (2022).
- M. Gámez-Chiachio et al., Gasdermin B over-expression modulates HER2-targeted therapy resistance by inducing protective autophagy through Rab7 activation. JOURNAL OF EXPERIMENTAL & CLINICAL CANCER RESEARCH 41, (2022).
- M. Gámez-Chiachio, D. Sarrió, G. Moreno-Bueno, Novel Therapies and Strategies to Overcome Resistance to Anti-HER2-Targeted Drugs. CANCERS 14, (2022).
- Z. Garcia-Casado et al., Laboratory Cross-Comparison and Ring Test Trial for Tumor BRCA Testing in a Multicenter Epithelial Ovarian Cancer Series: The BORNEO GEICO 60-0 Study. JOURNAL OF PERSONALIZED MEDICINE 12, (2022).
- F. Gronau et al., HIPEC in Peritoneal Metastasis of Gastric Origin: A Systematic Review of Regimens and Techniques. JOURNAL OF CLINICAL MEDICINE 11, (2022).
- T. Kim et al., TRIB1 regulates tumor growth via controlling tumor-associated macrophage phenotypes and is associated with breast cancer survival and treatment response. THERANOSTICS 12, 3584-3600 (2022).
- E. Mayer et al., Treatment Exposure and Discontinuation in the PALbociclib CoLLaborative Adjuvant Study of Palbociclib With Adjuvant Endocrine Therapy for Hormone Receptor-Positive/Human Epidermal Growth Factor Receptor 2-Negative Early Breast Cancer (PALLAS/AFT-05/ABCSG-42/BIG-14-03). JOURNAL OF CLINICAL ONCOLOGY 40, 449-+ (2022).
- V. Menendez, J. L. Solorzano, S. Fernandez, C. Montalban, J. F. Garcia, The Hodgkin Lymphoma Immune Microenvironment: Turning Bad News into Good. Cancers 14, (2022).

- A. Mota et al., Intratumor genetic heterogeneity and clonal evolution to decode endometrial cancer progression. *ONCOGENE* 41, 1835-1850 (2022).
- F. Pereira et al., GECOP-MMC: phase IV randomized clinical trial to evaluate the efficacy of hyperthermic intraperitoneal chemotherapy (HIPEC) with mytomicin-C after complete surgical cytoreduction in patients with colon cancer peritoneal metastases. *BMC CANCER* 22, (2022).
- E. Redin et al., YES1 Is a Druggable Oncogenic Target in SCLC. *JOURNAL OF THORACIC ONCOLOGY* 17, 1387-1403 (2022).
- M. Rodriguez et al., An integrated prognostic model for diffuse large B-cell lymphoma treated with immunochemotherapy. *EJHaem* 3, 722-733 (2022).
- G. Roncador et al., CD229 (Ly9) a Novel Biomarker for B-Cell Malignancies and Multiple Myeloma. *CANCERS* 14, (2022).
- D. Sarrio et al., Gasdermin-B Pro-Tumor Function in Novel Knock-in Mouse Models Depends on the in vivo Biological Context. *FRONTIERS IN CELL AND DEVELOPMENTAL BIOLOGY* 10, (2022).
- A. Vazquez-Naharro et al., Loxl3 Promotes Melanoma Progression and Dissemination Influencing Cell Plasticity and Survival. *CANCERS* 14, (2022).

## Hematology

- E. Bérard et al., A scoring system for AML patients aged 70 years or older, eligible for intensive chemotherapy: a study based on a large European data set using the DATAML, SAL, and PETHEMA registries. *BLOOD CANCER JOURNAL* 12, (2022).
- E. Giné et al., Ibrutinib in Combination With Rituximab for Indolent Clinical Forms of Mantle Cell Lymphoma (IMCL-2015): A Multicenter Open-Label, Single-Arm, Phase II Trial. *JOURNAL OF CLINICAL ONCOLOGY* 40, 1196-+ (2022).

- L. Gros et al., Incidence and management of patients with methotrexate delayed elimination in the clinical practice: A Delphi study. *JOURNAL OF ONCOLOGY PHARMACY PRACTICE* 29, 794-801 (2023).
- J. Labrador et al., Azacitidine vs. Decitabine in Unfit Newly Diagnosed Acute Myeloid Leukemia Patients: Results from the PETHEMA Registry. *CANCERS* 14, (2022).
- A. Orgueira et al., Evaluation of the Stellae-123 prognostic gene expression signature in acute myeloid leukemia. *FRONTIERS IN ONCOLOGY* 12, (2022).
- R. Termini et al., Circulating Tumor and Immune Cells for Minimally Invasive Risk Stratification of Smoldering Multiple Myeloma. *CLINICAL CANCER RESEARCH* 28, 4771-4781 (2022).

## Medical oncology

- T. Alonso-Gordoa, R. Manneh, E. Grande, J. Molina-Cerrillo, High-Dose Somatostatin Analogs for the Treatment of Neuroendocrine Neoplasms: where are we Now? *CURRENT TREATMENT OPTIONS IN ONCOLOGY* 23, 1001-1013 (2022).
- J. Bellmunt et al., Recent therapeutic advances in urothelial carcinoma: A paradigm shift in disease management. *CRITICAL REVIEWS IN ONCOLOGY HEMATOLOGY* 174, (2022).
- J. Capdevila et al., Position Statement on the Diagnosis, Treatment, and Response Evaluation to Systemic Therapies of Advanced Neuroendocrine Tumors, With a Special Focus on Radioligand Therapy. *ONCOLOGIST* 27, E328-E339 (2022).
- L. Chiva, R. Marquez, T. Castellanos, Breast metastases from a serous ovarian carcinoma. *INTERNATIONAL JOURNAL OF GYNECOLOGICAL CANCER* 32, 1086-1086 (2022).

- C. Dromain et al., ENETS consensus guidelines for synoptic reporting of radiology studies. *JOURNAL OF NEUROENDOCRINOLOGY* 34, (2022).
- A. González-Martín et al., Maintenance olaparib plus bevacizumab in patients with newly diagnosed advanced high-grade ovarian cancer: Main analysis of second progression-free survival in the phase III PAOLA-1/ENGOT-ov25 trial. *EUROPEAN JOURNAL OF CANCER* 174, 221-231 (2022).
- E. Grande et al., Results from the INMUNOSUN-SOGUG trial: a prospective phase II study of sunitinib as a second-line therapy in patients with metastatic renal cell carcinoma after immune checkpoint-based combination therapy. *ESMO OPEN* 7, (2022).
- P. Harter et al., Efficacy of maintenance olaparib plus bevacizumab according to clinical risk in patients with newly diagnosed, advanced ovarian cancer in the phase III PAOLA-1/ENGOT-ov25 trial. *GYNECOLOGIC ONCOLOGY* 164, 254-264 (2022).
- P. Jimenez-Fonseca et al., External Validity of Somatostatin Analogs Trials in Advanced Neuroendocrine Neoplasms: The GETNE-TRASGU Study. *NEUROENDOCRINOLOGY* 112, 88-100 (2022).
- W. Li et al., A Novel PiRNA Enhances CA19-9 Sensitivity for Pancreatic Cancer Identification by Liquid Biopsy. *JOURNAL OF CLINICAL MEDICINE* 11, (2022).
- F. S. M. Monteiro et al., A Systematic Review and Meta-Analysis of the Role of Immune Checkpoint Inhibitors (ICI) as Adjuvant Treatment for Localized High-Risk Muscle-Invasive Urothelial Carcinoma (MIUC). *Clinical genitourinary cancer* 20, 391-398 (2022).
- J. Pardo et al., Prognostic Impact of CD36 Immunohistochemical Expression in Patients with Muscle-Invasive Bladder Cancer Treated with Cystectomy and Adjuvant Chemotherapy. *JOURNAL OF CLINICAL MEDICINE* 11, (2022).
- T. Powles et al., Pembrolizumab versus placebo as post-nephrectomy adjuvant therapy for clear cell renal cell carcinoma (KEYNOTE-564): 30-month follow-up analysis of a multicentre, randomised, double-blind, placebo-controlled, phase 3 trial. *LANCET ONCOLOGY* 23, 1133-1144 (2022).
- J. Pozas et al., Novel therapeutic approaches in GEP-NETs based on genetic and epigenetic alterations. *BIOCHIMICA ET BIOPHYSICA ACTA-REVIEWS ON CANCER* 1877, (2022).
- D. Rivera et al., Single-nucleotide polymorphism associations with efficacy and toxicity in metastatic castration-resistant prostate cancer treated with cabazitaxel. *PHARMACOGENOMICS* 23, 627-638 (2022).
- A. Rizzo et al., Adjuvant PD-1 and PD-L1 Inhibitors and Relapse-Free Survival in Cancer Patients: The MOUSEION-04 Study. *CANCERS* 14, (2022).
- M. San Román-Gil et al., Resistance to RET targeted therapy in Thyroid Cancer: Molecular basis and overcoming strategies. *CANCER TREATMENT REVIEWS* 105, (2022).
- M. Santoni et al., Cabozantinib in Patients with Advanced Renal Cell Carcinoma Primary Refractory to First-line Immunocombinations or Tyrosine Kinase Inhibitors. *European urology focus* 8, 1696-1702 (2022).
- M. Santoni et al., Nivolumab VERSUS Cabozantinib as Second-Line Therapy in Patients With Advanced Renal Cell Carcinoma: A Real-World Comparison. *CLINICAL GENITOURINARY CANCER* 20, 285-295 (2022).
- M. Santoni, J. Molina-Cerrillo, F. Massari, R. Montironi, E. Grande, Re: Effect of Immunotherapy Time-of-day Infusion on Overall Survival Among Patients with Advanced Melanoma in the USA (MEMOIR): A Propensity Score-matched Analysis of a Single-centre, Longitudinal Study. *EUROPEAN UROLOGY* 81, 623-624 (2022).
- M. Santoni et al., Concomitant Use of Statins, Metformin, or Proton Pump Inhibitors in Patients with Advanced Renal Cell Carcinoma Treated with First-Line Combination Therapies. *TARGETED ONCOLOGY* 17, 571-581 (2022).

- M. Santoni et al., Statins and renal cell carcinoma: Antitumor activity and influence on cancer risk and survival. CRITICAL REVIEWS IN ONCOLOGY HEMATOLOGY 176, (2022).
- J. Torres-Jiménez, J. Esteban-Villarrubia, R. Ferreiro-Monteagudo, Precision Medicine in Metastatic Colorectal Cancer: Targeting ERBB2 (HER-2) Oncogene. CANCERS 14, (2022).
- A. Yubero et al., Rucaparib in recurrent ovarian cancer: real-world experience from the rucaparib early access programme in Spain - A GEICO study. BMC CANCER 22, (2022).

## **Surgical oncology**

- J. Badia et al., What have we learned from the surveys of the AEC, AECP and the Observatory of Infection in Surgery? Compliance with postoperative infection prevention measures and comparison with the AEC recommendations. CIRUGIA ESPANOLA 100, 392-403 (2022).
- G. Blanco-Fernández et al., Pancreatic metastases from renal cell carcinoma. Postoperative outcome after surgical treatment in a Spanish multicenter study (PANMEKID). EJSO 48, 133-141 (2022).
- M. Daca-Alvarez et al., Familial component of early-onset colorectal cancer: opportunity for prevention. BRITISH JOURNAL OF SURGERY 109, 1319-1325 (2022).
- F. Gronau et al., HIPEC in Peritoneal Metastasis of Gastric Origin: A Systematic Review of Regimens and Techniques. JOURNAL OF CLINICAL MEDICINE 11, (2022).

- T. Kim et al., TRIB1 regulates tumor growth via controlling tumor-associated macrophage phenotypes and is associated with breast cancer survival and treatment response. THERANOSTICS 12, 3584-3600 (2022).
- F. Pereira et al., GECOP-MMC: phase IV randomized clinical trial to evaluate the efficacy of hyperthermic intraperitoneal chemotherapy (HIPEC) with mitomycin-C after complete surgical cytoreduction in patients with colon cancer peritoneal metastases. BMC CANCER 22, (2022).

## **Anesthesia and Resuscitation**

- G. Geersing et al., Ruling out pulmonary embolism across different healthcare settings: A systematic review and individual patient data meta-analysis. PLOS MEDICINE 19, (2022).

## **Orthopedic oncology surgery and oncological traumatology**

- E. J. Ortiz-Cruz et al., Oligometastases in oncological orthopedic surgery. Our experience. Revista espanola de cirugia ortopedica y traumatologia 66, 389-396 (2022).

## II. PROJECTS

Active projects during 2022:

| Project Title                                                                                                                                             | Funding Entity                                                    | Principal Investigator                     | Start and End Year |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------|--------------------|
| Targeting Gasdermin-B overexpression as a new therapeutic approach in Her2+ cancers. PROYE19036MORE                                                       | Spanish Association Against Cancer Scientific Foundation (FCAECC) | Dr. Gema Moreno Bueno                      | 2019-2023          |
| Molecular characterization of Gasdermin B cytotoxic activity and its potential application for the treatment of cancer (GB-citoTOX). PID2019-104644RB-I00 | -                                                                 | Dr. Gema Moreno Bueno                      | 2020-2023          |
| Study of circulating tumor cells in breast cancer                                                                                                         | FMDA                                                              | Dr. Gema Moreno Bueno                      | 2019               |
| Clinical benefit of genomic medicine in cancer patients                                                                                                   | FMDA                                                              | Dr. Gema Moreno-Bueno y Dr. Juan F. García | 2017               |
| Personalized Clinical Management of Cancer Using Liquid Biopsy, Genomics and Artificial Intelligence                                                      | Roche Farma, S.A.                                                 | Dr. Gema Moreno-Bueno y Dr. Juan F. García | 2021-2022          |

| Project Title                                                                                                                                                                 | Funding Entity                            | Principal Investigator                                                                  | Start and End Year |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------|--------------------|
| Precision Medicine in Hodgkin Lymphoma: Integration of Recurrent Genomic Alterations and Immune Biomarker Analysis with Predictive-Prognostic Value. PI19/00083               | ISCIII                                    | Dr. Juan F. García                                                                      | 2020-2022          |
| Tools for Precision Medicine in Hematologic Tumors                                                                                                                            | FMDA                                      | Dr. Juan F. García                                                                      | 2019               |
| Retrospective study to evaluate the predictive role of leptin receptor (Ob-R) in early breast cancer patients receiving neoadjuvant systemic treatment. MDA-LEP-2020-01       | ACS Foundation                            | Dr. Laura García Estévez (IP)/<br>Dr. Gema Moreno Bueno<br>(Investigadora colaboradora) | 2020- 2023         |
| Circulating adiponectin in overweight and obese premenopausal women with and without breast cancer. An observational transversal study in Spanish population. MDA-ADI-2020-01 | Contigo Foundation Against Women's Cancer | Dr. Laura García Estévez                                                                | 2022               |
| COOLEST Project (Breast and Colon Cancer): Database                                                                                                                           | FMDA                                      | Dr. Laura García Estévez                                                                | 2019               |

| Project Title                                                                                                                                                                                                                                         | Funding Entity                                 | Principal Investigator           | Start and End Year |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|----------------------------------|--------------------|
| Obesity and Breast Cancer Project & Women's Stories                                                                                                                                                                                                   | ACS Foundation & Clínica Menorca Foundation    | Dr. Laura García Estévez         | 2019               |
| An observational study evaluating the association between Body Mass Index (BMI) in T-cells and its association with leptin receptor (Ob-R) and pathological response in early breast cancer receiving neoadjuvant systemic treatment. MDA-BMI-2021-02 | Roche Farma, S.A.                              | Dr. Laura García Estévez         | 2021-2022          |
| MASAI Project. Genomic research to understand health disparities in Maasai women, particularly their low incidence of breast cancer                                                                                                                   | Fundación Contigo contra el Cáncer de la Mujer | Dr. Laura García Estévez         | 2022               |
| Midostaurin in FLT3 mutated Acute Myeloid Leukemia and Systemic Mastocytosis. A Multicenter Retrospective Study. MDA-AML-2018-06                                                                                                                      | -                                              | Dr. Adolfo de la Fuente Burguera | 2022-2024          |

| Project Title                                                                                                                                                                                          | Funding Entity | Principal Investigator                                                                                           | Start and End Year |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------|--------------------|
| Obinutuzumab plus chemotherapy in follicular lymphoma. A multicenter retrospective study. MDA-11-LNH-2021                                                                                              | -              | Dr. Adolfo de la Fuente Burguera                                                                                 | 2022-2024          |
| EndoPerC: Comprehensive and non-invasive biomarkers to guide personalized treatment in advanced endometrial cancer. PI21/00990                                                                         | ISCIII         | Dr. Laura Muinelo Romay (IP, Santiago de Compostela Health Research Institute) / Dr. Raúl Márquez (Collaborator) | 2022-2024          |
| Observational study of ctDNA as a prognostic factor in patients with resectable stage IIIA non-small cell lung cancer treated with neoadjuvant therapy in a real-world setting. REAL NADIM. GECP 21/05 | -              | Dr. Fabio Franco Pérez                                                                                           | 2022-2024          |
| Quality of life – Psycho-oncology                                                                                                                                                                      | FMDA           | Dña. Patricia Pradera                                                                                            | 2022               |
| The lost taste                                                                                                                                                                                         | FMDA           | Dña. Patricia Pradera                                                                                            | 2022               |

**Participation in research networks during 2022:**

| Project Title                                                                                                                                                                        | Funding Entity                                                             | Principal Investigator                                                                                                              | MD Anderson Researchers   | Start and End Year |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------|
| Personalized Clinical Management of Endometrial Cancer using Liquid Biopsy, Genomics and Artificial Intelligence (ECLAI). ERAPERMED2021-076 ECLAI / PERME212426MORE (Group CIBERONC) | ISCIII / Spanish Association Against Cancer Scientific Foundation (FCAECC) | Dr. Gema Moreno-Bueno (Coordinator & Principal Investigator of Spanish Group. Involved countries Norway, Estonia, Poland and Spain) | Dr. Gema Moreno Bueno     | 2022-2024          |
| Targeting the most aggressive type of endometrial carcinoma. Clinical Coordinated Groups AECC-2018. GCTRA18014MATI                                                                   | Spanish Association Against Cancer Scientific Foundation (FCAECC)          | Dr. Xavier Matias-Guiu (Coordinator, IDIBELL) / Dr. Gema Moreno Bueno (PI, IVFMDA subgroup)                                         | Dr. Gema Moreno Bueno     | 2018-2024          |
| CIBER-ONC Consortium. Breast Cancer Area. CB16/12/00295                                                                                                                              | ISCIII                                                                     | Dr. Gema Moreno Bueno                                                                                                               | Dr. Gema Moreno Bueno     | 2017               |
| CIBERONC Consortium. Cancer Thematic Area. Research Group CB16/12/00291                                                                                                              | ISCIII                                                                     | Dr. Miguel Ángel Piris Pinilla (PI) / Dr. Juan F. García García (Affiliated Researcher)                                             | Dr. Juan F. García García | 2017-2022          |
| LINFOMAS-CM Network. Aggressive lymphomas, integrated clinical and genomic analysis for Precision Medicine. Biomedicine Call 2017. B2017/BMD-3778                                    | Community of Madrid (CAM)                                                  | Dr. Miguel Ángel Piris Pinilla (Coordinator) / Dr. Juan F. García García (PI, FMDA group)                                           | Dr. Juan F. García García | 2018-2022          |

**Personnel hired through competitive calls in 2022:**

| Contract Type/<br>Project Title                                                                                                                                                                                         | Funding Entity                                                       | Hired Researcher / Project<br>Director or Supervisor                                      | Start and End Year |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------|
| Postdoctoral Contract 2020.<br>POSTD20028OLTR. Project Title: Searching<br>new molecular subgroups in high-risk<br>endometrial cancer to improve its clinical<br>management.                                            | Spanish Association Against Cancer<br>Scientific Foundation (FCAECC) | Dr. Sara Oltra Sanchís / Project<br>Director: Dr. Gema Moreno Bueno                       | 2020-2025          |
| Predocctoral Contract for Health Research<br>Training. FI20/00184. Doctoral Thesis Project<br>Title: Spatial transcriptomics and immune<br>topography of therapeutic response drivers<br>in classical Hodgkin lymphoma. | ISCIII                                                               | Ms. Victoria Menéndez García /<br>Doctoral Thesis Project Director:<br>Dr. Juan F. García | 2021-2024          |

**III. Other Research Projects**

|                        | Students / Project Title                                                                                                                                               | Supervisor                      | University                                                    |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------|
| <b>Master's Theses</b> | Bárbara Pérez Torres<br>Prognostic and predictive role of Gasdermin B in cancer.                                                                                       | Dr. Gema Moreno Bueno           | Autonomous University of Madrid                               |
|                        | Samuel Romero<br>Prognostic role of lymphocyte subpopulations in peripheral blood in newly diagnosed Hodgkin lymphoma patients. Master's degree in lymphoid neoplasms. | Dr. Juan Fernando García García | University of Santiago de Compostela – University of Valencia |
|                        | Inés Bordonaba Bel<br>Diet modulation in digestive oncology patients to improve immunotherapy response through gut microbiota.                                         | Dr. Pedro José Robledo Saenz    | European University of Madrid                                 |
|                        | Carmen González Resines<br>Nutritional status assessment in oncology patients starting a clinical trial.                                                               | Dr. Pedro José Robledo Saenz    | European University of Madrid                                 |

## III. SCIENTIFIC PUBLICATIONS 2023

### SUMMARY

- **Publications in national and international journals: 46**
- **Cumulative impact factor: 342,769**

### Pathological Anatomy and Translational Research Laboratory

- R. Alonso-Alonso et al., NanoString analysis of mycosis fungoides reveals individual molecular identity. *The British journal of dermatology* 188, 812-814 (2023).
- M. Alonso-Nocelo et al., Macrophages direct cancer cells through a LOXL2-mediated metastatic cascade in pancreatic ductal adenocarcinoma. *Gut* 72, 345-359 (2023).
- A. Arjona-Sánchez et al., Efficacy and Safety of Intraoperative Hyperthermic Intraperitoneal Chemotherapy for Locally Advanced Colon Cancer A Phase 3 Randomized Clinical Trial. *JAMA SURGERY* 158, 683-691 (2023).
- B. Calsina et al., Genomic and immune landscape Of metastatic pheochromocytoma and paraganglioma. *NATURE COMMUNICATIONS* 14, (2023).
- I. Carretero-Barrio et al., Evaluation of ERBB2 mRNA Expression in HER2-Equivocal (2+) Immunohistochemistry Cases. *CANCERS* 15, (2023).
- C. Casas-Arozamena et al., Noninvasive detection of microsatellite instability in patients with endometrial cancer. *International journal of cancer* 152, 2206-2217 (2023).

- S. Colomo et al., Structural and functional insights into GSDMB isoforms complex roles in pathogenesis. *CELL CYCLE* 22, 2346-2359 (2023).
- S. Fernandez et al., BET inhibitors induce NF-kappaB and E2F downregulation in Hodgkin and Reed-Sternberg cells. *Experimental cell research* 430, 113718 (2023).
- S. Fernandez et al., JAK/STAT blockade reverses the malignant phenotype of Hodgkin and Reed-Sternberg cells. *Blood advances* 7, 4135-4147 (2023).
- C. J. Geyer et al., Overall survival in the OlympiA phase III trial of adjuvant olaparib in patients with germline pathogenic variants in BRCA1 2 and high-risk, early breast cancer. *ANNALS OF ONCOLOGY* 33, 1250-1268 (2022).
- S. Lores et al., Effectiveness of a novel gene nanotherapy based on putrescine for cancer treatment. *BIOMATERIALS SCIENCE* 11, 4210-4225 (2023).
- G. Mendoza et al., The E1a Adenoviral Gene Upregulates the Yamanaka Factors to Induce Partial Cellular Reprogramming. *CELLS* 12, (2023).
- S. S. Oltra et al., Distinct GSDMB protein isoforms and protease cleavage processes differentially control pyroptotic cell death and mitochondrial damage in cancer cells. *Cell death and differentiation* 30, 1366-1381 (2023).
- J. Rodríguez-Sevilla et al., Evaluation of 4 prognostic indices in follicular lymphoma treated in first line with immunochemotherapy. *BLOOD ADVANCES* 7, 1606-1614 (2023).
- B. Sun et al., Impact of Region-of-Interest Size on Immune Profiling Using Multiplex Immunofluorescence Tyramide Signal Amplification for Paraffin-Embedded Tumor Tissues. *PATHOBIOLOGY* 90, 1-12 (2023).
- I. Tundidor et al., Identification of fatty acid amide hydrolase as a metastasis suppressor in breast cancer. *NATURE COMMUNICATIONS* 14, (2023).

## **Medical Oncology**

- A. Alegre et al., Real-World Outcomes of Belantamab Mafodotin for Relapsed/Refractory Multiple Myeloma (RRMM): Preliminary Results of a Spanish Expanded Access Program (EAP). *ONCOLOGY AND THERAPY* 11, 83-96 (2023).
- L. Gros et al., Incidence and management of patients with methotrexate delayed elimination in the clinical practice: A Delphi study. *JOURNAL OF ONCOLOGY PHARMACY PRACTICE* 29, 794-801 (2023).
- J. Martínez-López et al., COVID-19 Severity and Survival over Time in Patients with Hematologic Malignancies: A Population-Based Registry Study. *CANCERS* 15, (2023).
- M. Mateos et al., Phase I study of plitidepsin in combination with bortezomib and dexamethasone in patients with relapsed/refractory multiple myeloma. *CANCER MEDICINE* 12, 3999-4009 (2023).

## **Medical Oncology**

- J. Capdevila et al., Streptozotocin, 1982-2022: Forty Years from the FDA's Approval to Treat Pancreatic Neuroendocrine Tumors. *NEUROENDOCRINOLOGY* 112, 1155-1167 (2022).
- N. Conci et al., How Do Molecular Classifications Affect the Neoadjuvant Treatment of Muscle-Invasive Urothelial Carcinoma? *MOLECULAR DIAGNOSIS & THERAPY* 28, 37-51 (2024).
- R. Elisei et al., Current perspectives on the management of patients with advanced RET-driven thyroid cancer in Europe. *FRONTIERS IN ONCOLOGY* 13, (2023).
- M. Fernandez-Perez et al., A correlative biomarker study and integrative prognostic model in chemotherapy-naïve metastatic castration-resistant prostate cancer treated with enzalutamide. *PROSTATE* 83, 376-384 (2023).

- O. Fiala et al., Use of concomitant proton pump inhibitors, statins or metformin in patients treated with pembrolizumab for metastatic urothelial carcinoma: data from the ARON-2 retrospective study. *Cancer immunology, immunotherapy* : CII 72, 3665-3682 (2023).
- J. Garcia-Donas et al., Open-label phase II clinical trial of ketoconazole as CYP17 inhibitor in metastatic or advanced non-resectable granulosa cell ovarian tumors: the GREKO (GRanulosa Et KetOconazole) trial, GETHI 2011-03. *CLINICAL & TRANSLATIONAL ONCOLOGY* 25, 2090-2098 (2023).
- M. Gonzalez-Cao et al., SARS-CoV-2 infection in patients with melanoma: results of the Spanish Melanoma Group registry. *CLINICAL & TRANSLATIONAL ONCOLOGY* 25, 768-775 (2023).
- E. Grande et al., Expert design thinking workshops to analyze users' perceived applicability of NUTRI-ONCOCARE algorithm to prevent and treat malnutrition in cancer patients under routine clinical practice conditions in Spain: the ALLIANCE study. *Supportive care in cancer : official journal of the Multinational Association of Supportive Care in Cancer* 31, 548 (2023).
- P. Grivas et al., Avelumab first-line maintenance treatment for advanced urothelial carcinoma: review of evidence to guide clinical practice. *ESMO open* 8, 102050 (2023).
- J. Hernando et al., Sex differences on multikinase inhibitors toxicity in patients with advanced gastroenteropancreatic neuroendocrine tumours. *EUROPEAN JOURNAL OF CANCER* 188, 39-48 (2023).
- J. Molina-Cerrillo et al., Epigenetics in advanced renal cell carcinoma: Potential new targets. *CRITICAL REVIEWS IN ONCOLOGY HEMATOLOGY* 180, (2022).
- F. S. M. Monteiro et al., The role of immune checkpoint inhibitors (ICI) as adjuvant treatment in renal cell carcinoma (RCC): A systematic review and meta-analysis. *Clinical genitourinary cancer* 21, 324-333 (2023).
- C. Porta et al., Geographical differences in the management of metastatic de novo renal cell carcinoma in the era of immune-combinations. *Minerva urology and nephrology* 75, 460-470 (2023).

- M. Santoni et al., Clinico-Pathological Features Influencing the Prognostic Role of Body Mass Index in Patients With Advanced Renal Cell Carcinoma Treated by Immuno-Oncology Combinations (ARON-1). *Clinical genitourinary cancer* 21, e309 (2023).
- M. Santoni et al., Global Real-World Outcomes of Patients Receiving Immuno-Oncology Combinations for Advanced Renal Cell Carcinoma: The ARON-1 Study. *TARGETED ONCOLOGY* 18, 559-570 (2023).
- M. Santoni et al., Role of Clock Genes and Circadian Rhythm in Renal Cell Carcinoma: Recent Evidence and Therapeutic Consequences. *CANCERS* 15, (2023).
- M. Santoni et al., Real-world effectiveness of pembrolizumab as first-line therapy for cisplatin-ineligible patients with advanced urothelial carcinoma: the ARON-2 study. *CANCER IMMUNOLOGY IMMUNOTHERAPY* 72, 2961-2970 (2023).
- M. Santoni et al., Complete remissions following immunotherapy or immuno-oncology combinations in cancer patients: the MOUSEION-03 meta-analysis. *CANCER IMMUNOLOGY IMMUNOTHERAPY* 72, 1365-1379 (2023).
- H. Sorbye et al., European Neuroendocrine Tumor Society (ENETS) 2023 guidance paper for digestive neuroendocrine carcinoma. *JOURNAL OF NEUROENDOCRINOLOGY* 35, (2023).
- F. Franco et al., Sarcomatoid Lung Carcinoma and Immunotherapy: Report Of 3 Cases and Review of the Literature. *Annals of Clinical and Medical Case Reports* 12 (3), 1-6 (2023).
- F. Franco et al., Brief Report of the use of Atezolizumab Plus Chemotherapy in Patients with Advanced Small-Cell Lung Cancer: A Real-World Data. *Annals of Clinical and Medical Case Reports* 12 (3), 1-5 (2023).

## **Surgical Oncology**

- A. Arjona-Sánchez et al., Efficacy and Safety of Intraoperative Hyperthermic Intraperitoneal Chemotherapy for Locally Advanced Colon Cancer A Phase 3 Randomized Clinical Trial. *JAMA SURGERY* 158, 683-691 (2023).
- I. Manzanedo et al., Treatment of Peritoneal Surface Malignancies by Cytoreductive Surgery (CRS) and Hyperthermic Intraperitoneal Chemotherapy (HIPEC) in Spain: Results of the National Registry of the Spanish Group of Peritoneal Oncologic Surgery (REGECOP). *JOURNAL OF CLINICAL MEDICINE* 12, (2023).
- A. Martel-Martel et al., Telomere Length as a New Risk Marker of Early-Onset Colorectal Cancer. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES* 24, (2023).

## **Radiation oncology**

- B. Ocana-Tienda et al., Growth exponents reflect evolutionary processes and treatment response in brain metastases. *NPJ SYSTEMS BIOLOGY AND APPLICATIONS* 9, (2023).
- B. Ocaña-Tienda et al., Growth dynamics of brain metastases differentiate radiation necrosis from recurrence. *NEURO-ONCOLOGY ADVANCES* 5, (2023).
- B. Ocaña-Tienda et al., A comprehensive dataset of annotated brain metastasis MR images with clinical and radiomic data. *SCIENTIFIC DATA* 10, (2023).

IV. PROJECTS

Active Projects during 2023:

| Project Title                                                                                                                       | Funding Entity                       | Principal Investigator                                                   | Start and End Year |
|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------------------------|--------------------|
| Validation and valorization of a new gene therapy, nanoGBtox, for the treatment of cancer. PDC2022-133252-I00                       | Spanish State Research Agency (AEI)  | Dr. Gema Moreno Bueno                                                    | 2023- 2024         |
| Precision medicine in Hodgkin lymphoma: description of functional phenotypes of the tumor microenvironment. PI22/00556              | Carlos III Health Institute (ISCIII) | Dr. Juan F. García                                                       | 2023- 2025         |
| RELIABLE AND MULTI-CENTRIC ARTIFICIAL INTELLIGENCE FOR THE MEDICAL IMAGING OF THE FUTURE IN SPAIN (FUTURE-ES). PID2021-126724OB-I00 | AEI                                  | Dr. Silvia Pérez Rodrigo (collaborator)                                  | 2023- 2025         |
| Myelodysplastic syndrome (MDS), MDS/ AML, and Acute Myeloid Leukemia (AML) with TP53 Mutation. Retrospective Study. 14-LMA-2022     | -                                    | Dr. Adolfo de la Fuente Burguera                                         | 2023- 2025         |
| Spanish Melanoma Registry. Spanish Academy of Dermatology and Venereology. FAE-MEL-2022-01                                          | -                                    | Dr. Álvaro Iglesias Puzas and Dr. Marta Andreu Barasoain (collaborators) | 2023- 2024         |

**Participation in Research Networks during 2023:**

| Project Title                                                                                                                     | Funding Entity | Principal Investigator                                       | MD Anderson Researchers | Start and End Year |
|-----------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------|-------------------------|--------------------|
| Exploring the feasibility of predictive and pharmacodynamic biomarkers of immunotherapy in solid tumors (Immune4ALL). PMP22/00054 | ISCIII         | Dr. Gema Moreno Bueno (Co-PI WP1, PI WP6, CIBER subproject)  | Dr. Gema Moreno Bueno   | 2023- 2025         |
| New immunotherapy strategies for the treatment of ovarian cancer (IMCOV). PMPTA22/00076                                           | ISCIII         | Dr. Gema Moreno-Bueno (collaborator and PI CIBER subproject) | Dr. Gema Moreno Bueno   | 2023- 2025         |

**Staff hired through competitive calls in 2023:**

| Contract Type / Project Title                        | Funding Entity           | Hired Researcher / Project Director or Supervisor | Start and End Year |
|------------------------------------------------------|--------------------------|---------------------------------------------------|--------------------|
| Predoctoral Researcher CM-0. PIPF-2022/ SAL-GL-25710 | Community of Madrid (CM) | Ignacio Marina Bueno (UAM)/ Dr. Gema Moreno Bueno | 2023- 2026         |

**III. Other Research Projects in 2023:**

|                        | Student / Project Title                                                                                                                                                                                                   | Supervisor                                                                      | University                      |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------|
| <b>Doctoral Theses</b> | Gámez Chiachio, Manuel / Gasdermin B: mediator of inflammatory response and therapeutic in breast and digestive cancer.                                                                                                   | Dr. Gema Moreno Bueno                                                           | Autonomous University of Madrid |
|                        | Silvia García Garro / Cost-effectiveness and direct impact analysis of clinical research in the clinical practice of metastatic renal cell cancer and neuroendocrine tumors in a Spanish large public university hospital | Dr. Enrique Grande Pulido                                                       | University of Alcalá            |
|                        | Victoria Menéndez / Spatial transcriptomics and immune topography of therapeutic response drivers in classical Hodgkin lymphoma. (International mention)                                                                  | Dr. Juan Fernando García García (Director) / Dr. Gema Moreno Bueno (Supervisor) | Autonomous University of Madrid |
| <b>Master's Theses</b> | Marta Miguélez Sánchez / Study of Clonal Hematopoiesis of Indeterminate Potential in patients diagnosed with Hodgkin lymphoma.                                                                                            | Dr. Juan Fernando García García                                                 | Francisco de Vitoria University |
|                        | Blanca Riesco Montes / Dose-dense cisplatin-gemcitabine neoadjuvant chemotherapy regimen in muscle-invasive urothelial carcinoma                                                                                          | Dr. Enrique Grande                                                              | Autonomous University of Madrid |

|                        | Student / Project Title                                                                                                                                                                                                                  | Supervisor         | University                      |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------|
| <b>Master's Theses</b> | Irene de la Parra Sánchez / Results of treatment with apalutamide in elderly patients with metastatic hormone-sensitive prostate cancer.                                                                                                 | Dr. Enrique Grande | Autonomous University of Madrid |
|                        | Víctor Sacristán Santos / Renal cancer adjuvant review                                                                                                                                                                                   | Dr. Enrique Grande | Autonomous University of Madrid |
|                        | Beatriz Gil Aro/Role of new antiandrogens in older patients                                                                                                                                                                              | Dr. Enrique Grande | Autonomous University of Madrid |
|                        | María Soriano Segura / Cancer-associated fatigue, subpopulation of patients with prostate cancer                                                                                                                                         | Dr. Enrique Grande | Autonomous University of Madrid |
|                        | Inmaculada Aparicio Salgado / Review of the histological and molecular classification of muscle-invasive bladder cancer. Prognostic and therapeutic implications. Possible validation by immunohistochemistry. Correlation between both. | Dr. Enrique Grande | Autonomous University of Madrid |
|                        | Eluska Iruarizaga / Atezolizumab in platinum-treated metastatic urothelial carcinoma: a retrospective analysis over 5 years in a tertiary center.                                                                                        | Dr. Enrique Grande | Autonomous University of Madrid |
|                        | Irune Huerta Tejada / Influence of satisfaction with the MD Anderson Cancer Center Madrid hospital diet on the length of hospital stay in cancer patients.                                                                               | Dr. Pedro Robledo  | Autonomous University of Madrid |

A photograph of the MD Anderson Cancer Center building in Madrid, Spain. The building is a modern, multi-story white structure with large windows. In the foreground, there is a paved area and some greenery. A large, semi-transparent text overlay is centered on the image.

# 2022-2023 Annual report