

COMPETITIVE FUNDING

The CNIO attracts a substantial proportion of its funding from external sources. Most of this funding comes from national and international funding bodies and it is used to finance not only the outstanding R&D activities of the Centre, but also strategic actions in Innovation together with Industry partners, as well as all other relevant activities related to dissemination and scientific outreach, which are aimed to promote public awareness. In 2020, researchers at the CNIO were involved in 142 projects that received extramural funding.

CNIO is actively participating in 56 collaborative projects in total: 14 are international collaborative projects (3 of which are coordinated by the CNIO), and 42 are collaborative projects conducted at the national level (16 of them coordinated by the CNIO). The international collaborative projects are funded by institutions such as the European Commission through the 7th Framework Programme and Horizon 2020, the US National Institutes of Health (NIH), the US Department of Defense (DoD), the International Human Frontier Science Program Organization, the Melanoma Research Alliance, the Paradifference Foundation, the Worldwide Cancer Research, Lustgarten Foundation - Stand-up 2 Cancer Initiative. At the national level, collaborative projects have received important public grants of the Strategic Research Action, managed by the Institute of Health Carlos III (*ISCIII*) and the State Research

Agency, Spanish Ministry of Science and Innovation (*AEI/MCI*), and the R&D Activities Programmes of the Community of Madrid, most of them co-funded by European Structural and Investment Funds (European Regional Development Fund and European Social Fund). Private funders and charities have also recognised the excellence of our scientific projects, such as the Scientific Foundation of the Spanish Association Against Cancer (*Fundación Científica AECC*), the *Ramón Areces* Foundation, *La Marató de TV3* Foundation, or “la Caixa” Banking Foundation.

In addition to these collaborative projects, researchers at the CNIO have attracted funding for projects carried out by individual groups. In 2020, 19 of these projects received international funds, while 67 of them received national funding (mainly from the *AEI/MCI*, the *ISCIII* and private foundations). The international individual projects are funded by the European Commission (8 European Research Council [ERC], grants and 5 Marie Skłodowska-Curie Actions), the Worldwide Cancer Research, the Cancer Research Institute, the Prostate Cancer Foundation, the US DoD, the Prostate Cancer Foundation, the European Foundation for the Study of Diabetes, the American Thyroid Association, and the Melanoma Research Alliance.

INTERNATIONAL GRANTS COLLABORATIVE PROJECTS

EUROPEAN COMMISSION



HORIZON 2020 (2014-2020)

SOCIETAL CHALLENGE 1: HEALTH, DEMOGRAPHIC CHANGE AND WELLBEING

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Benitez, Javier (until July 2020); González-Neira, Anna	BRIDGES: Breast cancer risk after diagnostic gene sequencing (Ref.: 634935)

FET OPEN - NOVEL IDEAS FOR RADICALLY NEW TECHNOLOGIES

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Valiente, Manuel	NanoBRIGHT: BRInGing nano-pHoTonics into the brain (Ref.: 828972)

INTEGRATING AND OPENING RESEARCH INFRASTRUCTURES OF EUROPEAN INTEREST

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Muñoz, Javier	EPIC-XS: European Proteomics Infrastructure Consortium providing Access (Ref.: 823839)

MARIE SKŁODOWSKA-CURIE ACTIONS (MSCA)

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Peinado, Héctor	ITN proEVLifeCycle: The life cycle of extracellular vesicles in prostate cancer: from biogenesis and homing, to functional relevance (Ref.: 860303)
Real, Francisco X.	ITN TranSYS: Translational SYStemics: Personalised Medicine at the Interface of Translational Research and Systems Medicine (Ref.: 860895)

ERANET ERA PERMED (SPANISH GROUPS ARE COFUNDED BY INSTITUTO DE SALUD CARLOS III (ISCIII) AND AECC SCIENTIFIC FOUNDATION (FC AECC))

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Barbacid, Mariano	ERA PerMed: Personalized multimodal therapies for the treatment of lung cancer (ISCIII Ref.: AC20/00114; FC AECC Ref.: PERME20707BARB)

US NATIONAL INSTITUTES OF HEALTH (NIH)



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Muñoz, Inés	Targeting Mdm2-MdmX E3 ligase for treatment of drug-resistant lymphoma (Ref.: R01CA208352)
Tress, Michael	GENCODE 2: Integrated human genome annotation: generation of a reference gene set (Ref.: U41HG007234)

US CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS (CDMRP)/US DEPARTMENT OF DEFENSE



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Olmos, David	Clinical qualification of DNA repair defects as prognostic and predictive biomarker in metastatic prostate cancer using genomics and tissue-based functional assays (Ref.: W81XWH-18-1-0770)

THE PARADIFFERENCE FOUNDATION



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Al-Shahrour, Fátima Robledo, Mercedes (Coordinator)	Integration of multi-omics profiling and immune contexture in metastatic PPGL patients

WORLDWIDE CANCER RESEARCH (WCR; FORMERLY AICR)



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Valiente, Manuel (Coordinator)	SI00A9-dependent radiation resistance in brain metastasis (Ref.: 19-0177)

INTERNATIONAL HUMAN FRONTIER SCIENCE PROGRAM ORGANIZATION (HFSP)



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Llorca, Óscar (Coordinator)	Photochemical trap and high-resolution imaging of transient chromatin complexes from living cells (Ref.: RGP0031/2017)

LUSTGARTEN FOUNDATION & STAND-UP2CANCER



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Malats, Núria	Pancreatic Cancer Collective - Computational Approaches To Identifying High-Risk Pancreatic Cancer Populations: High Risk Cohorts Through Molecular and Genetic Data (Ref.: SU2C #6179)

FUNDACIÓN RAMÓN ARECES/CNIO/ WEIZMANN INSTITUTE OF SCIENCE



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Soengas, Maria S. (Coordinator)	Heterogeneity in melanoma metastasis and resistance to immune checkpoint blockade

INTERNATIONAL GRANTS INDIVIDUAL PROJECTS

EUROPEAN COMMISSION



7TH FRAMEWORK PROGRAMME (2007-2013)

EUROPEAN RESEARCH COUNCIL (ERC)

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Fernández-Capetillo, Óscar	ERC Consolidator Grant RSHEALTH: Investigating the causes and consequences of replication stress in mammalian health (Ref.: 617840)

HORIZON 2020 (2014-2020)

EUROPEAN RESEARCH COUNCIL (ERC)

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Barbacid, Mariano	ERC Advanced Grant THERACAN: Novel therapeutic strategies to treat pancreatic and lung cancer (Ref.: 695566)
Blasco, Maria	ERC Advanced Grant SHELTERINS: Targeting Shelterin Proteins in Cancer (Ref.: 882385)
Cortés, Felipe	ERC Consolidator Grant TOPOmics: Global dynamics of topoisomerase-induced DNA breaks (Ref.: 647359)
Efeyan, Alejo	ERC Starting Grant NutrientSensingVivo: The Physiology of Nutrient Sensing by mTOR (Ref.: 638891)
González, Eva	ERC Consolidator Grant PLEIO-RANK: Pleiotropic treatment of cancer: RANK inhibitors targeting cancer stem cells and immunity (Ref.: 682935)
Soengas, María S.	ERC Advanced Grant METALERT-STOP: Imaging, characterizing and targeting metastatic niches in melanoma (Ref.: 884699)
Valiente, Manuel	ERC Consolidator Grant ALTER-Brain: Metastasis-associated altered molecular patterns in the brain (Ref.: 864759)

MARIE SKŁODOWSKA-CURIE ACTIONS, INDIVIDUAL FELLOWSHIPS (MSCA-IF)

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Soengas, María S. Frago, Susana	METMEL: Long range-acting drivers of premetastatic niches in melanoma (Ref.: 753442)
Real, Francisco X. Zagorac, Slađana	PDASwITCh: Super-enhancer modules controlling plasticity and response to therapy in pancreatic cancer (Ref.: 895943)
Efeyan, Alejo Fernández-Capetillo, Óscar Zauri, Melania	METLINK: Identification of links between cancer cell growth and metabolism genes (Ref.: 794177)

MELANOMA RESEARCH ALLIANCE (MRA)



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Valiente, Manuel	Blocking melanoma brain metastasis by targeting the environment (REF.: 498103)

PROSTATE CANCER FOUNDATION



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Castro, Elena	Prospective study of lethal prostate cancer clinical and genomic evolution in DNA repair deficient tumours

WORLDWIDE CANCER RESEARCH (WCR); FORMERLY AICR)



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Malumbres, Marcos	Exploring the use of CDK4/6 inhibitors in combination with classical chemotherapy (Ref.: 20-0155)

US CONGRESSIONALLY DIRECTED MEDICAL RESEARCH PROGRAMS (CDMRP)/US DEPARTMENT OF DEFENSE



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Peinado, Héctor	Role of exosomes and Endoglin in Neurofibromatosis Progression (Ref.: W81XWH-16-1-0131)

CANCER RESEARCH INSTITUTE



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Valiente, Manuel	Brain-specific strategies to improve responses to immunotherapy (Ref.: 54545)

BEUG FOUNDATION FOR METASTASIS RESEARCH



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Valiente, Manuel	Altered brain vessels as a novel target in brain metastasis

EUROPEAN FOUNDATION FOR THE STUDY OF DIABETES/ JUVENILE DIABETES RESEARCH FOUNDATION/LILLY



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Djouder, Nabil	Elucidating mechanisms of epigenetic changes in type 1 diabetes and treatment with DNA demethylating drugs

AMERICAN THYROID ASSOCIATION (ATA), COFUNDED BY BITE ME CANCER (BMC)



PRINCIPAL INVESTIGATOR	PROJECT TITLE
Montero, Cristina	Discovering novel molecular nodes involved in MTC development and evolution (Ref.: GRANT2020-0000000150)

NATIONAL GRANTS COLLABORATIVE PROJECTS

INSTITUTE OF HEALTH CARLOS III / INSTITUTO DE SALUD CARLOS III (ISCIII) STRATEGIC HEALTH ACTION / ACCIÓN ESTRATÉGICA EN SALUD (AES)



SUB-PROGRAMME OF GRANTS FOR RESEARCH SUPPORT PLATFORMS IN HEALTH SCIENCES AND TECHNOLOGY / SUBPROGRAMA DE AYUDAS PARA PLATAFORMAS DE APOYO A LA INVESTIGACIÓN EN CIENCIAS Y TECNOLOGÍAS DE LA SALUD¹

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Al-Shahrour, Fátima	Plataforma de Bioinformática. Instituto Nacional de Bioinformática (Group Ref.: PT17/0009/0011)
Artiga, M ^a Jesús; Ortega, Eva	Plataforma de Biobancos (Group Ref.: PT17/0015/0004)
Benítez, Javier (until July 2020); González-Neira, Anna	Plataforma de proteómica, genotipado y líneas celulares. Plataforma de recursos biomoleculares, PRB ³ (Group Ref.: PT17/0019/0020)
Muñoz, Javier	Plataforma de proteómica, genotipado y líneas celulares. Plataforma de recursos biomoleculares, PRB ³ (Group Ref.: PT17/0019/0005)

RESEARCH PROJECTS IN HEALTH / PROYECTOS DE INVESTIGACIÓN EN SALUD²

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Artiga, M ^a Jesús (Coordinator)	OPTIMARK project: Optimization of tissue samples for the development and validation of disease biomarkers (Ref.: PI16/00946)
García-Pérez, María José (Coordinator)	Global Instability and Mutation Burden genetic signatures in Clear Cell and Endometrioid Ovarian Carcinomas: Immunogenicity and prognostic and predictive relevance (Ref.: PI19/01730)
González-Neira, Anna (Coordinator)	Role of the mitochondrial genes in cardiotoxicity: identification of predictive biomarkers (Ref.: PI18/01242)
Malats, Núria (Coordinator)	Building and validation of risk prediction models for pancreas cancer. The application of a multi-omics approach (Ref.: PI15/01573)
Malats, Núria (Coordinator)	Study of the environmental and genetic risk profiles and clinical behaviour of the basal-like phenotype of pancreatic cancer. Comparison with bladder, breast and endometrial cancers (Ref.: PI18/01347)
Olmeda, David (Coordinator)	Visualization and molecular characterization of new biomarkers of resistance to immunotherapy (Ref.: PI18/01057)
Osorio, Ana (Coordinator)	Optimising massive sequencing strategies for the identification and clinical translation of new susceptibility genes implicated in familial breast cancer (Ref.: PI19/00640)

1, 2 This Programme is cofunded by the European Regional Development Fund (ERDF)



TECHNOLOGICAL DEVELOPMENT PROJECTS / PROYECTOS DE DESARROLLO TECNOLÓGICO³

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Blasco, Maria (Coordinator)	Translational Studies for the Development of Telomerase Gene Therapies as Treatments for Myocardial Infarction and Pulmonary Fibrosis (Ref.: DTS17/00152)

SARS-COV-2 AND COVID-19 RELATED ILLNESS RESEARCH PROJECTS⁴

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Cortés-Ledesma, Felipe (Coordinator)	SARS-COV-2 diagnosis by phi29 polymerase amplification (Ref.: COV20/01036)

NATIONAL PLAN FOR SCIENTIFIC AND TECHNICAL RESEARCH AND INNOVATION (2013-2016 AND 2017-2020)**EXCELLENCE NETWORKS / REDES DE EXCELENCIA**

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Fernández-Capetillo, Óscar (Coordinator)	Research Network UBIRed: Ubiquitin like proteins in signalling, proliferation and cancer (Ref.: SAF2017-90900-REDT)
Malumbres, Marcos (Coordinador)	Research Network iDIFFER: Balancing proliferation and differentiation: mechanisms and relevance in human disease (Ref.: RED2018-102723-T)

CHALLENGES-COLLABORATION PROJECTS / PROYECTOS RETOS-COLABORACIÓN⁵

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Barbacid, Mariano	New approaches for treatment of lung cancer. (Ref.: RTC-2017-6576-1)
Martínez-Torrecuadrada, Jorge L.; Muñoz, Inés	ATTACK: Cancer immunotherapy with bispecific antibodies that engage T-lymphocytes (Ref.: RTC-2017-5944-1)
Real, Francisco X.	IMMOPDL2: Preclinical development of antibodies against the immunomodulator PD-L2 for the treatment of diseases caused by cellular damage. Validation of the strategy in residual tumors and fibrosis (Ref.: RTC-2017-6123-1)

**STATE RESEARCH AGENCY.
MINISTRY OF SCIENCE AND
INNOVATION / AGENCIA
ESTATAL DE INVESTIGACIÓN.
MINISTERIO DE CIENCIA E
INNOVACIÓN**

**COMMUNITY OF MADRID /
COMUNIDAD AUTÓNOMA DE
MADRID⁶**

Comunidad de Madrid

R&D ACTIVITIES PROGRAMME IN BIOMEDICINE:

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Al-Shahrour, Fátima; Roncador, Giovanna	<i>Programa LINFOMAS-CM: Linfomas agresivos, análisis clínico y genómico integrado para una medicina de precisión</i> (Ref.: B2017/BMD-3778)
Blasco, Maria	<i>Programa RyPSE-CM: RNA y proteínas de unión a RNA. Implicaciones en salud y enfermedad</i> (Ref.: B2017/BMD-3770)
Djouder, Nabil	<i>Programa TomoXliver-CM: Estudio de la disfunción del hepatocito desde un abordaje multidisciplinar</i> (Ref.: B2017/BMD3817)
Malumbres Marcos (Coordinator); Barbacid, Mariano	<i>Programa iLUNG-CM: Terapias personalizadas y nanotecnología en cáncer de pulmón</i> (Ref.: B2017/BMD-3884)
Mulero, Francisca	<i>Programa RENIM-CM: Red Madrileña de Nanomedicina en Imagen Molecular</i> (Ref.: B2017/BMD-3867)
Quintela, Miguel Ángel	<i>Programa IMMUNOTHERCAN-CM: Inmunidad tumoral e inmunoterapia del cáncer</i> (Ref.: B2017/BMD-3733)
Robledo, Mercedes	<i>Programa TIRONET2-CM: Fisiopatología Tiroidea. Mecanismos implicados en cáncer, autoinmunidad y acción de las hormonas tiroideas</i> (Ref.: B2017/BMD-3724)
Soengas, María S.	<i>Programa NANODENDMEDII-CM: Nanosistemas dendríticos como agentes y vectores terapéuticos en distintas aplicaciones biomédicas (II)</i> (Ref.: B2017/BMD-3703)

R&D ACTIVITIES PROGRAMME IN TECHNOLOGIES:

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Llorca, Óscar	<i>Programa Tec4BioCM: Tecnologías Aplicadas al Estudio de Nanomáquinas Biológicas</i> (Ref.: P2018/NMT4443)

SYNERGY PROJECTS:

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Llorca, Óscar	<i>Programa NanoBioCancer-CM: Nanobiotecnología Estructural y Molecular de Procesos de Reparación de ADN relacionados con Cáncer</i> (Ref.: Y2018/BIO4747)

3, 4, 5 This Programme is cofunded by the European Regional Development Fund (ERDF)



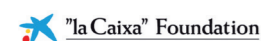
6 These Programmes are co-funded by the European Regional Development Fund (ERDF) and the European Social Fund (ESF).

**MADRI+D FOUNDATION
/ FUNDACIÓN PARA EL
CONOCIMIENTO MADRI+D**


PRINCIPAL INVESTIGATOR	PROJECT TITLE
Dean's Office for Academic Affairs Soengas, María S.	European Researchers' Night 2020, organized by Madri+d Foundation and founded by EU-H2020 Programme. Marie Skłodowska-Curie actions GA 953820

**SCIENTIFIC FOUNDATION OF
THE SPANISH ASSOCIATION
AGAINST CANCER /
FUNDACIÓN CIENTÍFICA DE
LA ASOCIACIÓN ESPAÑOLA
CONTRA EL CÁNCER (AECC)**


PRINCIPAL INVESTIGATOR	PROJECT TITLE
Barbacid, Mariano (Coordinator)	A multifaceted approach to target pancreatic cancer (Ref.: GC16173694BARB)
Fernández, Lucía; Martínez, Joaquín	A Phase I Trial of Memory T Cells Expressing an ANTI-NKG2D Chimeric Antigen Receptor in Children, Adolescents and Young Adults with Advanced Sarcoma (Ref.: GCAEC19019PERE)
Real, Francisco X. (Coordinator); Malats, Núria	Invasive bladder cancer: towards precision medicine (Ref.: GCB14142293REAL)
Soengas, María S. (Coordinator); Gómez, Gonzalo Peinado, Héctor	Distinct routes of metastatic dissemination in different melanoma subtypes. Implications in the validation of new tumor biomarkers and therapeutic targets (Ref.: GCB15152978SOEN)
Valiente, Manuel	Study of the molecular mechanisms involved in primary (glioblastoma) and secondary (metastasis) brain tumors to identify novel therapeutic targets and anti-cancer agents, biomarkers to select treatments and novel non-invasive methods for molecular diagnosis (Ref.: GCTRA16015SEOA)

**"LA CAIXA" BANKING
FOUNDATION / FUNDACIÓN
BANCARIA "LA CAIXA"**

HEALTH RESEARCH PROJECTS:

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Llorca, Óscar	Amino acid transporter structure to target glutamate transmission in neuro diseases (Ref.: HR20-00081)
Peinado, Héctor	Defining The Role of Exosome-Secreted Micropeptides in Pancreatic Cancer (Ref.: HR18-00256)
Soengas, María S.	Exploiting post-transcriptional regulation to uncover novel vulnerabilities of metastatic cells (Ref.: HR17-00232)

CAIXAIMPULSE COVID-19:

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Cortés-Ledesma, Felipe (Coordinator)	Simple and rapid SARS-CoV-2 diagnostic test by phi29 polymerase amplification (Ref.: CF01-00005)

**ASOCIACIÓN ESPAÑOLA DE
INVESTIGACIÓN SOBRE EL
CÁNCER (ASEICA)**


PRINCIPAL INVESTIGATOR	PROJECT TITLE
Peinado, Hector	<i>Análisis de la secreción de neoantígenos en exosomas tumorales de pacientes con cáncer microcítico de pulmón metastásico obtenidos de sangre periférica</i>

**BBVA FOUNDATION /
FUNDACIÓN BBVA
COVID-19 SCIENTIFIC
RESEARCH TEAMS**


PRINCIPAL INVESTIGATOR	PROJECT TITLE
Muñoz, Inés	Synthetic immunology to engineer pan-coronavirus immunity (Ref.: Biomed-COVID-19_0155)

**LA MARATÓ DE TV3
FOUNDATION / FUNDACIÓ
LA MARATÓ DE TV3**


PRINCIPAL INVESTIGATOR	PROJECT TITLE
González-Suárez, Eva	Identification of mechanisms of response to CDK4/6 inhibition in hormone receptor-positive breast cancer (Ref.: 43/C/2019)
Valiente, Manuel	Organ-specific biomarkers and therapies to improve the management of brain metastasis (Ref.: 141/C/2019)

NATIONAL GRANTS INDIVIDUAL PROJECTS

**INSTITUTE OF HEALTH
CARLOS III / INSTITUTO DE
SALUD CARLOS III (ISCIII)
STRATEGIC HEALTH ACTION
/ ACCIÓN ESTRATÉGICA EN
SALUD (AES)**
RESEARCH PROJECTS IN HEALTH⁷

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Benítez, Javier (until July 2020); Urioste, Miguel	Massive sequencing contributes to decipher the genetic bases of families with rare tumors (Ref.: PI16/00440)
Cascón, Alberto	Molecular, OMIC and functional characterisation of mutations in the gene DLST in patients with pheochromocytoma/paraganglioma (Ref.: PI18/00454)
Guerra-González, Carmen	The stroma as a therapeutic target of pancreatic cancer (Ref.: PI19/00514)
Olmos, David	Identification of lethal subtypes of prostate cancer by integration of transcriptomic, genomic and clinical data (Ref.: PI19/01380)
Ortega, Ana	Targeting dysregulated nutrient-sensing pathway in follicular lymphoma (Ref.: PI18/00816)
Quintela, Miguel Ángel	Longitudinal, single-cell analysis of immunomodulator/ antiangiogenic therapies in advanced breast cancer: a refined tool for precision medicine (Ref.: PI19/00454)
Robledo, Mercedes	Progression related mechanisms in endocrine and neuroendocrine tumours (Ref.: PI17/01796)
Rodríguez, Sandra	Study of the role of epigenetic modifications in the development of Ewing sarcoma: High-throughput screening of epigenetic genes using CRISPR libraries in human (11; 22) + t cells (Ref.: PI17/02303)

TECHNOLOGICAL DEVELOPMENT PROJECTS / PROYECTOS DE DESARROLLO TECNOLÓGICO⁸

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Rodríguez, Sandra	CRISPR-mediated targeting of amplified oncogenes for Neuroblastoma-directed therapy (Ref.: DTS19/00111)

SARS-COV-2 AND COVID-19 RELATED ILLNESS RESEARCH PROJECTS⁹

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Ortega, Sagrario	Modelos pre-clínicos en ratón para el estudio de Covid19 y ensayo de estrategias terapéuticas (Ref.: COV20/00532)

**STATE RESEARCH AGENCY.
MINISTRY OF SCIENCE AND
INNOVATION / AGENCIA
ESTATAL DE INVESTIGACIÓN.
MINISTERIO DE CIENCIA E
INNOVACIÓN**


NATIONAL PLAN FOR SCIENTIFIC AND TECHNICAL RESEARCH AND INNOVATION

CENTRES OF EXCELLENCE "SEVERO OCHOA" AND UNITS "RAMIRO DE MAEZTU" SUB-PROGRAMME/ SUBPROGRAMA DE APOYO A CENTROS DE EXCELENCIA "SEVERO OCHOA" Y UNIDADES "RAMIRO DE MAEZTU"

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Blasco, Maria	Center of Excellence "Severo Ochoa" (Ref.: CEX2019-000891-S)

R&D EXCELLENCE PROJECTS / PROYECTOS DE I+D EXCELENCIA¹⁰

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Fernández-Leiro, Rafael	Macromolecular complexes in the mitochondrial DNA replication and repair pathways: structural and molecular mechanisms by cryo-EM (Ref.: BFU2017-87316-P)
Llorca, Óscar	Structural and molecular mechanisms regulating the PIKK family of kinases, including DNA- PKcs, SMG1 and mTOR (Ref.: SAF2017-82632-P)

CHALLENGES-RESEARCH PROJECTS / PROYECTOS RETOS-INVESTIGACIÓN¹¹

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Al-Shahrour, Fátima	CANTHERHET: Computational targeting of cancer heterogeneity: in silico drug prescription for tumor clonal populations (Ref.: RTI2018-097596-B-I00)
Barbacid, Mariano	RAFTING: c-RAF, a key mediator of K-RAS driven cancers: Therapeutic approaches (Ref.: RTI2018-094664-B-I00)
Blasco, Maria	TELOHEALTH: Telomeres and Disease (Ref.: SAF2017-82623-R)
Djouder, Nabil	HEPATO CAR: Studying the Role and Function of MCRS1 in Hepatocellular Carcinoma Development (Ref.: RTI2018-094834-B-I00)
Efeyan, Alejo	PhysioTOR: The physiological control of the nutrient-mTOR axis and its deregulation in cancer and aging (Ref.: PID2019-104012RB-I00)
Fernández-Capetillo, Óscar	RESCATE: Mechanisms of resistance to anticancer therapies (Ref.: RTI2018-102204-B-I00)
Losada, Ana	COHESIN2: Molecular mechanisms of variant cohesin function (Ref.: BFU2016-79841-R)
Losada, Ana	COHESIN3D: Cohesin functions in development, differentiation and disease (Ref.: PID2019-106499RB-I00)
Macintyre, Geoffrey J.	TTCIN: Therapeutic targeting of chromosomal instability in cancer (Ref.: PID2019-111356RA-I00)
Malumbres, Marcos	NewCDKtarget: Validation of a New Subfamily of Cyclin-dependent Kinases as Cancer Targets (Ref.: RTI2018-095582-B-I00)
Méndez, Juan	REPLICON2: Control of eukaryotic DNA replication (Ref.: BFU2016-80402-R)
Méndez, Juan	REP&TOL: Mechanisms of DNA replication and damage tolerance (Ref.: PID2019-106707RB-I00)
Muñoz, Javier	EPI-MASS: Epigenetic modifiers in pluripotency: a proteomic analysis of non-histone protein methylation (Ref.: SAF2016-74962-R)
Ortega, Sagrario	ESSENCE: Extrinsic control of the skin stem cell niche in homeostasis and cancer (Ref.: BFU2015-71376-R)

7, 8, 9 This Programme is cofunded by the European Regional Development Fund (ERDF)



10, 11 This Programme is cofunded by the European Regional Development Fund (ERDF)



CHALLENGES-RESEARCH PROJECTS / PROYECTOS RETOS-INVESTIGACIÓN¹²

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Park, Solip	CancerFitness: Systematic analysis of the cancer fitness landscape for cancer genes across cancer types (Ref.: PID2019-109571RA-I00)
Peinado, Héctor	EXO-NGFR: Analyzing the relevance exosome-derived NGFR during pre-metastatic niche formation (Ref.: SAF2017-82924-R)
Plaza, Iván	ESFORET: Structure-function studies of oncogenic RET kinase fusions in human cancers: from mechanism of action to targeted therapy (Ref.: BFU2017-86710-R)
Real, Francisco X.	TF-PDAC Transcription factors in pancreatic cancer: from biology to therapy (Ref.: RTI2018-101071-B-I00)
Rodríguez, Cristina	PREDICT: Identification of genetic markers and physiopathologic factors predictive of the peripheral neuropathy of paclitaxel and of other oncologic drugs: massive sequencing of candidate genes (Ref.: SAF2015-64850-R)
Rodríguez, Cristina	RCC-MARKER: Improving the clinical management of advanced renal cell carcinoma through genomic technologies (Ref.: RTI2018-095039-B-I00)
Soengas, María S.	MEL-STOP Whole-body imaging of melanoma metastasis as a platform for gene discovery and pharmacological testing (Ref.: SAF2017-89533-R)
Squatrito, Massimo	GLIO-TRK: TRKking down oncogenic genetic rearrangements in gliomas (Ref.: RTI2018-102035-B-I00)
Valiente, Manuel	Stat3 ReACTIVE: Biology of Stat3+ reactive astrocytes in brain metastasis (Ref.: SAF2017-89643-R)

EXPLORA PROJECTS / PROYECTOS EXPLORA

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Malumbres, Marcos	Improving naive pluripotency and the generation of insulin-producing cells with a single microRNA (Ref.: SAF2017-92729-EXP)
Rodríguez, Sandra	Delivery of functional CRISPR component by pseudotyped virus-like particles (Ref.: BIO2017-91272-EXP)

RESEARCH EUROPE / EUROPA INVESTIGACIÓN

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Peinado, Héctor	LiquidEVs: Use of liquid biopsy of extracellular vesicles and cfDNA in plasma and lymphatic fluid as a novel diagnostic and prognostic test in melanoma patients (Ref.: EIN2019-103379)

SCIENTIFIC INFRASTRUCTURES / INFRAESTRUCTURAS CIENTÍFICO-TECNOLÓGICAS¹³

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Megías, Diego	Grant for acquiring scientific equipment: high resolution microscope based on Stimulated Emission Depletion (STED) (Ref.: EQC2019-006679-P)

SCIENTIFIC FOUNDATION OF THE SPANISH ASSOCIATION AGAINST CANCER / FUNDACIÓN CIENTÍFICA DE LA ASOCIACIÓN ESPAÑOLA CONTRA EL CÁNCER (AECC)**GRANTS FOR RESEARCH PROJECTS IN CHILDHOOD CANCER:**

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Blasco, María	Targeting telomeres in neuroblastoma (Ref.: CICPF18004BLAS)

GRANTS FOR EMERGING GROUPS (AECC LAB):

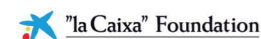
PRINCIPAL INVESTIGATOR	PROJECT TITLE
Efeyan, Alejo	Nutrient signaling in the pathogenesis and treatment of B cell Lymphoma (Ref.: LABAE16001EFEY)
Peinado, Héctor	Defining the mutational landscape in plasma and lymphatic fluid-derived exosomes in melanoma patients (Ref.: LABAE19027PEIN)
Rodríguez, Sandra	Programmable detection and inhibition of fusion oncogenes using CRISPR/Cas13 (Ref.: LABAE20049RODR)
Squatrito, Massimo	Novel therapeutic approaches for therapy-resistant malignant brain tumors (Ref.: LABAE16015SQUA)
Valiente, Manuel	New treatments for brain metastasis based on the study of their biology (Ref.: LABAE19002VALI)

GRANTS FOR RESEARCH PROJECTS IN CANCER:

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Losada, Ana	Identification of a gene signature associated with aggressive Ewing Sarcoma for diagnostic and therapeutic purposes (Ref.: PROYE20046LOSA)
Fernández-Capetillo, Óscar	Targeting the histone methyltransferase SETD8 in cancer: from biomarker identification to drug development and mechanisms of resistance (Ref.: PROYE20101FERN)
Olmos, David	Genomic epidemiology and clinical implications of DNA-repair genes and other oncogenic drivers in metastatic hormone-sensitive prostate cancer (Ref.: PROYE19054OLMO)

"IDEAS SEMILLA" GRANTS (SEED FUNDING):

PRINCIPAL INVESTIGATOR	PROJECT TITLE
González-Suárez, Eva	RANK, instead of RANKL, as a new therapeutic target in Triple Negative Breast Cancer (Ref.: IDEAS19093GONZ)
Rodríguez, Cristina	Bypassing Nonsense Mediated mRNA Decay to enhance immunotherapy response in cancer (Ref.: IDEAS20138RODR)

"LA CAIXA" BANKING FOUNDATION / FUNDACIÓN BANCARIA "LA CAIXA"

HEALTH RESEARCH PROGRAMME

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Blasco, Maria	Targeting Telomeres in Cancer (Ref.: HR18-00023)
Soengas, Maria S.	Immunomodulatory drivers in melanoma progression and therapy response (Ref.: HR20-00465)

CAIXA/IMPULSE PROGRAMME

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Blasco, Maria	TRF1 inhibitors as a first-in-class therapy for glioblastoma and lung cancer (Ref.: CI18-00016)
Rodríguez, Sandra	Gene therapy for human cancers driven by fusion genes (Ref.: CI18-00017)
Malumbres, Marcos; Salazar, María (until July 2020)	miRNA-based strategy to expand cell therapy potential for treating diabetes (Ref.: CI19-00001)

CRIS FOUNDATION AGAINST CANCER / FUNDACIÓN CRIS CONTRA EL CÁNCER

EXCELLENCE GRANTS

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Olmos, David	Addressing the biological and clinical role of RB1 loss and DNA repair defects in lethal prostate cancer (Re.: EXCELLENCE 19-26)

SPANISH ASSOCIATION OF PANCREATOLOGY / ASOCIACIÓN ESPAÑOLA DE PANCREATOLOGÍA

CARMEN DELGADO/MIGUEL PÉREZ-MATEO GRANTS

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Guerra, Carmen	<i>Desarrollo de estrategias terapéuticas dirigidas contra el estroma del cáncer de páncreas</i>
Malats, Núria	<i>Marcadores microbianos para el diagnóstico del adenocarcinoma ductal de páncreas</i>

FERO FOUNDATION / FUNDACIÓN FERRO


PRINCIPAL INVESTIGATOR	PROJECT TITLE
Efeyan, Alejo	Exploiting signaling dependencies and metabolic vulnerabilities of B cell lymphoma

FUNDACIÓN PROYECTO NEUROFIBROMATOSIS


PRINCIPAL INVESTIGATOR	PROJECT TITLE
Peinado, Héctor	<i>Combinación de terapias antiangiogénicas e inhibidores de MEK en neurofibromatosis</i>

BBVA FOUNDATION / FUNDACIÓN BBVA

LEONARDO GRANTS

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Olmeda, David	<i>Nuevas estrategias para el tratamiento preventivo de la enfermedad metastásica en Melanoma (Ref.: IN18_BBM_TRA_0293)</i>

SCIENTIFIC RESEARCH TEAMS

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Mulero, Francisca	TherAbnostic: Radioimmunotheragnostics for metastatic lung cancer with pretargeted clickable Ab fragments (Ref.: PR[19]_BIO_IMG_0096)

RAMÓN ARECES FOUNDATION / FUNDACIÓN RAMÓN ARECES


PRINCIPAL INVESTIGATOR	PROJECT TITLE
Peinado, Héctor	Developing a targeted therapy to promote melanoma immune-recognition and suppress metastasis
Valiente, Manuel	Reactive astrocytes as a therapeutic target in brain metastasis

"L'ORÉAL-UNESCO FOR WOMEN IN SCIENCE" PROGRAMME


PRINCIPAL INVESTIGATOR	PROJECT TITLE
Ortega, Ana	<i>Estudio de la implicación de ruta de señalización de mTORC1 en la patología del Linfoma Folicular y autoinmunidad</i>

SPANISH ASSOCIATION OF GASTROENTEROLOGY / ASOCIACIÓN ESPAÑOLA DE GASTROENTEROLOGÍA

TAMARITE — AESPANC — ACANPAN GRANT

PRINCIPAL INVESTIGATOR	PROJECT TITLE
Molina, Esther	<i>Radiomics en cáncer de páncreas para una medicina estratificada y de precisión: un estudio piloto</i>