

SCIENTIFIC SEMINARS



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IV YOUNG RESEARCHERS MEETING

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13th-14th December, 2021
Barcelona Biomedical Research Park (PRBB)
BARCELONA

13th December, 2021

13:30h – **Registration**

15:00h – **Welcome**

Chair: **Sara Oltra**

- **Anna Bigas Salvans.** *Scientific Director of CIBERONC*
- **Gema Moreno Bueno.** *Training and Mobility Programme Coordinator*

15:30h – **Plenary Lecture (CIBERONC)**

Chair: **Sara Oltra**

- **Núria López Bigas.** *Computational analysis of cancer genomes.*

16:30h – **Round Table "Machine learning in precision medicine"**

Chairs: **María Camacho & Joaquín Olmedo**

- **Núria López Bigas.** *Institute for Research in Biomedicine (IRB, Barcelona)*
- **Victoria Suárez Ulloa.** *Plataforma de Bioinformática e Informática Sanitaria INIBIC-FPNS (A Coruña)*
- **Joaquín Dopazo Blázquez.** *Clinical Bioinformatics Area, Fundación Pública Andaluza Progreso y Salud. Instituto de Biomedicina de Sevilla (IBIS, Sevilla)*

17:00h – **Coffee break**

17:30h – **Mechanisms of Tumor Progression Research Programme**

Chairs: **Rubén Caloto & María Camacho**

- **Lucía Fernández Nevado.** *Centro de Investigación del Cáncer. Universidad de Salamanca. Xosé R. Bustelo group. *Functional characterization of RHOA mutations in cancer: mutants with neomorphic properties in peripheral T-cell lymphomas.**
- **Violeta García Hernández.** *Institut Hospital del Mar d'Investigacions Mèdiques. Anna Bigas group. *An RNA processing transcriptional program under the control of β -catenin imposes chemotherapy resistance and poor prognosis in T-ALL patients.**
- **Bárbara Blanco Fernández.** *Institute for Bioengineering of Catalonia. Elisabeth Engel group. *Development of a bioprinted breast cancer model using tissue derived extracellular matrix.**

13th December, 2021

18:15h – **Gastrointestinal Tumors Research Programme**

Chair: **Rubén Caloto**

- **Blanca García Micó.** INCLIVA Biomedical Research Institute. Universidad de Valencia. Andrés Cervantes group. *Patient-derived organoids from primary tumors as models to study the differences between left- and right- sided colorectal cancer.*
- **Rafael Mena Osuna.** Maimónides Institute of Biomedical Research group of Córdoba. Enrique Aranda group. *The metabolic rewiring induced by impaired denitrosylation contributes to tumor progression and immune escape in colorectal cancer.*

18:45h – **Closing Remarks**

Chair: **Rubén Caloto**

19:00h – **Poster party session**

Poster programme at the end of the present document

14th December, 2021

08:40h – **Welcome**

Chair: **Heribert Playà**

08:45h – **Hematological Tumors Research Programme**

Chair: **Heribert Playà**

- **Ferran Nadeu Prat.** Institut d'Investigacions Biomèdiques August Pi i Sunyer. Elías Campo group. *The genomic and epigenomic footprints of Richter transformation in chronic lymphocytic leukemia.*
- **Guillermo Oliva Ariza.** Centro de Investigación del Cáncer. Universidad de Salamanca. José A. Orfao group. *High frequency of small neoplastic B-cell clones in hospitalized COVID-19 patients: association with severity of infection.*

09:15h – **Plenary Lecture (CIBERBBN)**

Chair: **Juan Francisco Blández**

- **Xavier Trepát Guixer.** *Mechanobiology of intestinal organoids and tumoroids.*

14th December, 2021

10:15h – **Breast Cancer Research Programme**

Chairs: **Sara Oltra & Juan Francisco Blández**

- **Manuel Gámez Chiachio.** Instituto de Investigaciones Biomédicas "Alberto Sols". Universidad Autónoma de Madrid. Gema Moreno group. *Gasdermin B over-expression modulates HER2-targeted therapy resistance through LC3B/Rab7 interaction.*
- **Anna Hernández Prat.** Institut Hospital del Mar d'Investigacions Mèdiques. Joan Albanell group. *mTOR inhibition increases Trastuzumab-emtansine (T-DM1) activity in trastuzumab-resistant HER2-positive breast cancer.*
- **Alba García Fernández.** Instituto Interuniversitario de Reconocimiento Molecular y Desarrollo Tecnológico. Universidad Politécnica de Valencia. Ramón Martínez group. *Targeted approaches for the effective treatment of triple negative breast cancer by combining senescence-inducing chemotherapy with senolytics.*

11:00h – **Coffee break**

11:30h – **Low Prevalence Tumors Research Programme**

Chairs: **Joaquín Olmedo & María Camacho**

- **Laura Lobo Selma.** Instituto de Biomedicina de Sevilla. Universidad de Sevilla. Enrique de Álava group. *Desmoplastic Small Round Cell Tumor on the spotlight.*
- **Ezequiel Monferrer Garzarán.** INCLIVA Biomedical Research Institute. Universidad de Valencia. Rosa Noguera group. *Vitronectin-based polyethylene glycol hydrogels as mimicking tools for neuroblastoma.*
- **Giovanna Revilla Senra.** Institut d'Investigacions Biomèdiques Sant Pau. Rosa Corcoy group. *BRAF V600E Mutation has a role in the LDL-mediated signalling pathways, increasing the aggressiveness in the thyroid tumor cells.*

12:15h – **Round Table "Publishing in high impact journals"**

Chairs: **Cristina Megino & Mario Sánchez**

- **Manuel Valiente Cortés.** Centro Nacional de Investigaciones Oncológicas (CNIO, Madrid)
- **Direna Alonso Curbelo.** Institute for Research in Biomedicine (IRB, Barcelona)
- **Javier Carmona Sanz.** Team Manager in Springer Nature Group

14th December, 2021

12:45h – **Respiratory Tract Tumors Research Programme**

Chairs: **Mario Sánchez & Juan Francisco Blández**

- **Susana Torres Martínez.** Fundación de Investigación Hospital General Universitario de Valencia. Carlos Camps group. *GAL3 as an immunosuppressive regulator in lung cancer stemness. Prognostic and predictive implications in NSCLC.*
- **Eva María Verdugo Sivianes.** Instituto de Biomedicina de Sevilla. Universidad de Sevilla. Amancio Carnero group. *Role of the interaction between the tumor suppressor SPINOPHILIN and the phosphatase PP1 in tumorigenesis.*
- **Ana Delia Ramos Guerra.** Universidad Politécnica de Madrid. Andrés Santos group. *Analysis of the predictive value of monitored routine clinical and molecular variables for stratifying immunotherapy-treated patients with Non-small Cell Lung Cancer.*

13:30h – **Round Table "Dissemination on social networks"**

Chairs: **Heribert Playà & Rubén Caloto**

- **Lucía Almagro Ruz.** Blogger "Diario de una científica"
- **Miriam Rivera Iglesias.** Scientific illustrator at "Biomiics"
- **Noemí Gómez Gómez.** Journalist at "Agencia EFE"

14:00h – **Lunch**

15:00h – **Social Event "The Challenge"**

Chairs: **Juan Francisco Blández & Mario Sánchez**

Kahoot about the oral communications open to everyone coming in person to the event.

15:45h – **Awards**

Chairs: **Heribert Playà & María Camacho**

Prizes at the best predoctoral and postdoctoral communication and the best poster presentation.

16:00h – **Closure**

Chair: **Heribert Playà**

- **Núria Malats Riera.** Training Programme Co-coordinator of CIBERONC
- **Rosa Villa Sanz.** Training Programme Coordinator of CIBERBBN

Face-to-face Poster Programme

CIBER-BBN

BBN01: Delta-Radiomics signature for prediction of survival in advanced NSCLC patients treated with immunotherapy. *Farina, B.*

BBN02: Magnetic Resonance Imaging-based biomarker accurately identifies patients with nonalcoholic steatohepatitis and significant liver fibrosis: a multicenter, international, validation study. *Martí-Aguado, D.*

BBN03: Breast cancer protection after full-term pregnancy and r-hCG administration – Lessons from gene co-expression networks. *Gómez-Pilar, J.*

BBN04: Development and characterization of alginate microgels as 3D environments in Multiple Myeloma disease models. *García-Briega, M.I.*

BBN05: Proliferation and drug resistance of Multiple Myeloma cell lines cultured in a 3D biomimetic microgel. *Clara-Trujillo, S.*

BBN06: Label-free detection of micro-RNA-21 in plasma human samples for lung cancer diagnosis using an advanced nanophotonic biosensor. *Calvo-Lozano, O.*

BBN07: Navitoclax-based therapies improve cardiac function after doxorubicin-induced senescence in mice. *Lérida-Viso, A.*

BBN08: Parallel G-quadruplex Structures Increase Cellular Uptake and Cytotoxicity of 5-Fluoro-2'-deoxyuridine Oligomers in 5-Fluorouracil Resistant Cells. *Clua, A.*

BBN09: Multivalent Self-Assembled PEG-SN38 Nanosystems for Advanced Colorectal Cancer Therapy. *Berardi, G.*

BBN10: Targeting Glutathione with catalytic nanoparticles to promote cancer cell death. *Bonet-Aletá, J.*

BBN11: Noble metal-based nanomaterials with multi-enzymatic mimicking response in tumor relevant conditions. *García-Peiro, J.I.*

Breast Cancer Research Programme

BC01: GSDMB protein isoforms are differently cleaved by proteases and promote distinct effects on pyroptotic cell death and mitochondrial damage. *Sin, L.*

BC02: Effect of therapy-induced senescence on the efficacy of ADCs. *Duro-Sánchez, S.*

BC03: Acquired cancer cell resistance to T cell bispecific antibodies and CAR T targeting HER2 through JAK2 down-modulation. *Martínez-Sabadell, A.*

BC04: p95HER2-CAR Ts as a safe immunotherapeutic strategy against HER2 positive breast tumours. *Román-Alonso, M.*

BC05: Antigen presentation machinery regulation shapes immunoediting of cancer stem cells during immune-checkpoint blockade resistance. *Pérez-Núñez, I.*

BC06: Neuregulin confers resistance to fulvestrant in breast cancer by activation of several signaling pathways. *Almaráz-Postigo, S.*

BC07: Mechanisms of resistance to T-DM1 and other anti-HER2 therapies and novel therapeutic strategies. *Gandullo-Sánchez, L.*

BC08: Understanding the role of Loxl3 in mouse melanomagenesis. *Vázquez-Naharro, A.*

Face-to-face Poster Programme

BC09: Dual HER2 blockade and CDK4/6 inhibition modulate tumor-intrinsic immune response markers in HER2-positive breast cancer. *Qin, M.*

BC10: The key role of senescent cells in breast cancer progression. *Lalinde, M.*

BC11: The target antigen determines the mechanism of acquired resistance to T cell based therapies. *Arenas, E.J.*

BC12: Cellular localization and function of TGF- α in kidney cancer. *Romero-Pérez, I.*

BC13: Biomarking sensitivity to MEK5/ERK5. *Matilla-Almazán, S.*

Gastrointestinal Tumors Research Programme

GT01: Variant prioritization in liquid biopsy whole exome sequencing analysis to identify new actionable targets in patients with relapsing colon cancer. *Martín-Arana, J.*

GT02: Characterization of the tumor-infiltrating immune repertoire in Muscle Invasive Bladder Cancer. *Benítez, R.*

GT03: Patient-derived gastric tumor organoids: towards a precision medicine for gastric cancer patients. *Cabeza-Segura, M.*

GT04: Association between IgE, asthma and allergy, and pancreatic cancer risk. *He, J.*

GT05: GSK-3 inhibition as an immunotherapeutic approach in colorectal cancer. *Mantrana, A.*

GT06: Comparison of droplet digital PCR and amplicon-based sequencing in the detection of minimal residual disease in localized colon cancer. *Tébar-Martínez, R.*

GT07: A high-throughput screening identifies the combination of MK-1775 and Doxorubicin as a new therapeutic approach for MPNST. *Creus-Bachiller, E.*

GT08: Wnt pathway components in the predisposition to serrated polyposis. *Quintana, I.*

GT09: Targeting epigenetic modifications in colon cancer: CDX2 regulation as a mechanism to modulate cancer aggressiveness. *Gimeno-Valiente, F. & Duréndez-Sáez, E.*

GT10: Oral and fecal microbiome into the prediction of Pancreatic Cancer Risk. *Jurado, F.*

GT11: Variant and gene prioritization strategy to identify new hereditary colorectal cancer genes by NGS. *Terradas, M.*

GT12: Identifications of carcinogenesis and tumor progression processes in pancreatic adenocarcinoma using high-throughput proteomics. *Trilla-Fuertes, L.*

Low Prevalence Tumors Research Programme

LPT01: New therapeutic approaches for Metformin in cancer. *Ruiz-Mitjana, A.*

LPT02: Identification of protein biomarkers in FFPE primary tissues to predict recurrence in endometrial cancer. *Lopez-Gil, C.*

LPT03: Non-Invasive Determination of Microsatellite Instability using liquid biopsies from patients with Endometrial Cancer. *Casas-Arozamena, C.*

LPT04: Genomic validation of endometrial cancer PDX models as a preclinical tool. *Villafranca-Magdalena, B.*

LPT05: Plasma circulating free DNA and circulating tumor cells as prognostic biomarkers for survival in patients with small cell lung cancer. *Mondelo-Macía, P.*

LPT06: Study of ARID1A context-dependent function in endometrial cancer. *Megino-Luque, C.*

LPT07: Dissecting the role of R-loops in Ewing sarcoma chemosensitivity. *Olmedo-Pelayo, J.*

LPT08: Overcoming paradoxical kinase priming by a novel Type II MNK1 inhibitor. *Cano, M.*

Face-to-face Poster Programme

Hematological Tumors Research Programme

TH01: A machine learning model based on tumor and immune biomarkers to predict undetectable MRD and survival in transplant-eligible multiple myeloma. *Guerrero, C.*

TH02: Minimally invasive profiling of tumor and immune cells to stratify risk in smoldering multiple myeloma (SMM): the iMMunocell study. *Termini, R.*

TH03: Landscape and clinical significance of long non-coding RNAs involved in multiple myeloma expressed fusion transcripts. *Amundarain, A.*

TH04: Validation of NKp80 as a universal marker for the identification of normal and tumor NK cells. *Morán-Plata, F.J.*

TH05: Systems biology approaches for the identification of metabolic vulnerabilities in Multiple Myeloma. *Valcárcel, L.V.*

TH06: Multi-omics characterization of Chronic Lymphocytic Leukemia. *Landeira-Viñuela, A.*

TH07: Testicular diffuse large B-cell lymphoma: clinico-biological characterization, treatment response and survival. *López, C.*

TH08: Generation of Patient-Derived Mantle Cell Lymphoma spheroids as a novel preclinical tool for immunotherapy testing. *Araujo-Ayala, F.*

TH09: Circulating tumor cells (CTC) are the most relevant diagnostic biomarker in transplant-eligible multiple myeloma (MM). *Garcés, J.J.*

TH10: Integrated Multidimensional Flow Cytometry (MFC) and Next-Generation Sequencing (NGS) to Reconstruct Evolutionary Patterns from Dysplasia to Acute Myeloid Leukemia (AML). *Simoës, C.*

TH11: Synergistic effect of novel DAC inhibitors with chemotherapy drugs in Acute Myeloid Leukemia. *Gimenez-Camino, N.*

TH12: DDIT3, a potential dyserythropoiesis driver in myelodysplastic syndromes. *Berastegui, N.*

Mechanisms of Tumor Progression Research Programme

MTP01: RAS2 activating mutants promote ovarian tumor formation. *Claváin, L.*

MTP02: Characterization of the alternative splicing dynamics in T-Cell Acute Lymphoblastic Leukemia (T-ALL) and its clinical impact. *Guillén, Y.*

MTP03: VAV2 as a regulator of ribosome biogenesis in squamous lineages. *Fernández-Parejo, N.*

MTP04: IκBα is involved in pluripotency exit, mesodermal fate acquisition and in vitro hematopoiesis. *Galán-Palma, L.*

MTP05: Fetal conversion of p53 wildtype colorectal cancer cells imposes higher metastatic activity and poor prognosis. *Solé, L.*

MTP06: Uncovering the drivers of metastatic prostate cancer. *Ercilla, A.*

Respiratory Tract Tumors Research Programme

RTT01: Predictive value of immune parameters for the response to induction chemotherapy in head and neck squamous cell carcinoma. *Sánchez-Canteli, M.*

Face-to-face Poster Programme

RTT02: Emerging role of Lectin-like transcript 1 (LLT1) expression as an independent poor prognostic factor in HPV-Negative Oropharyngeal Squamous Cell Carcinoma. *Sánchez-Canteli, M.*

RTT03: Study of soluble markers as predictive and prognostic biomarkers to immunotherapy with pembrolizumab in advanced non-small cell lung cancer. *Torres-Martínez, S.*

RTT04: The relevance of PAPP A, a new partner of the tumor suppressor SPN. *Espinosa-Sánchez, A.*

RTT05: Biomarkers profile related to stemness and therapy resistance in head and neck squamous cell carcinoma tumors. *Sánchez-Díaz, L.*

Online Poster Programme

CIBER-BBN

O-BBN01: Detection of metabolic interactions in tumor cells by Surface-Enhanced Raman Scattering. *Valera, P.S.*

O-BBN02: Enhancing Magnetic Hyperthermia Nanoparticle Heating Efficiency with Non-sinusoidal Alternating Magnetic Field Waveforms. *ZEINOUN, M.*

Breast Cancer Research Programme

O-BC01: Cancer associated fibroblast interaction with tumour cells in CTC clusters affects their metastatic capacity in a Zebrafish model. *Hurtado-Blanco, P.*

O-BC02: CTCs gene expression predicts CDKi response in luminal metastatic breast cancer patients. *González-Conde, M.*

Gastrointestinal Tumors Research Programme

O-GT01: Radiomics models for the prediction of overall survival in locally advanced head and neck squamous cell carcinoma. *Bruixola, G.*

O-GT02: Plasma whole exome sequencing for molecular characterization of advanced pancreatic tumors: beyond KRAS. *Huerta, M.*

O-GT03: SNAI1 expressing fibroblasts as predictive biomarkers for oxaliplatin. *Galindo-Pumariño, C.*

O-GT04: HLA Genetic Variability Shapes Pancreatic Cancer Risk and Prognosis. *Langtry, A.*

O-GT05: The Combination of Neutrophil-Lymphocyte Ratio and Platelet-Lymphocyte Ratio with Liquid Biopsy Biomarkers Improves Prognosis Prediction in Metastatic Pancreatic Cancer. *Toledano-Fonseca, M.*

O-GT06: Temporal metabolomics patterns of breast cancer patients treated with neoadjuvant therapy. *Zapater-Moros, A.*

O-GT07: Differences between inherited and acquired polymerase proofreading deficiencies in cancer. *Mur, P.*

Online Poster Programme

Low Prevalence Tumors Research Programme

O-LPT01: A therapeutically actionable pro-tumoral axis of cytokines involving interleukin-8, TNF α and IL-1 β . *Olivera, I.*

Hematological Tumors Research Programme

O-TH01: No changes in the senescence and activation expression markers in blood circulating monocytes from systemic mastocytosis patients. *Pérez-Pons, A.*

O-TH02: Combined Treatment of Graft versus Host Disease using donor Regulatory T cells and ruxolitinib. *Rodríguez-Gil, A.*

Mechanisms of Tumor Progression Research Programme

O-MTP01: Disruption of SOS1 and SOS2 triggers alterations in adipose tissue. *Olarte, A.*

O-MTP02: Unravelling IQGAP1 and IQGAP2 Scaffold Proteins Role on Melanoma Invasive and Metastatic Capacities. *García-Gómez, R.*

O-MTP03: CD44v6 as a potential target for newly engineered antibody-based immunotherapy. *Lodewijk, I.*

O-MTP04: Development of aged skin/SCCs versus epidermal hyperplasia/BCCs in mice overexpressing IKK α in the nucleus or cytoplasm of keratinocytes, respectively. *García-García, V.*

Respiratory Tract Tumors Research Programme

O-RTT01: Next Generation Sequencing and liquid biopsy applicability in Non-Small Cell Lung Cancer patients. *Moreno-Manuel, A.*

O-RTT02: Prognostic relevance of Notch pathway activation in head and neck squamous cell carcinoma. *Prieto-Fernández, L.*

O-RTT03: Role of SOX2 in the development and progression of head and neck squamous cell carcinomas. *Granda-Díaz, R.*

O-RTT04: Role of MASTL Kinase in the response to radio- and chemotherapy in head and neck squamous cell carcinomas. *Pozo-Agundo, E.*

O-RTT05: LAG3 and HVEM combination as predictive biomarker to second-line immunotherapy treatment in advanced Non-Small Cell Lung Cancer (NSCLC) patients. *Gallach-García, S.*

O-RTT06: A living biobank of patient-derived organoids to model head and neck squamous cell carcinomas. *Álvarez-González, M.*

O-RTT07: A prognostic and predictive 6-gene-signature for non-metastatic non-small cell lung cancer. *Peinado-Serrano, J.*

O-RTT08: The different role of HIF1 α and HIF2 α in paragangliomas and pheochromocytomas. *Celada, L.*

The organising committee



Mario Sánchez Canteli, PhD student
María Camacho Encina, PhD
Rubén Fernández Caloto, PhD
Auba Gayà Bover, PhD student
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For more information



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