

II Workshop of CIBERONC Experimental Models Work Module:

“Emerging experimental models and technologies in cancer research”.

22-23 September 2022 - UNAV - Pamplona

Thursday 22th September

09.15h: Welcome

09:30 – 11:05 – New techniques and technologies I: *This session will be focused on state-of-the-art techniques. We aim to integrate research developments and resources within CIBERONC related to advanced technologies useful for experimental model characterization (single cell RNAseq, CyTOF, radiomics, advanced imaging techniques)*

09:30 - 10:10 - Invited Speaker: **Julien Colombelli**: “*Lightsheet Cancer Imaging: label free at mesoscale and high-throughput in multiwell plates*”

10:10 - 10:25 - Short Talk from abstracts

10:25 - 11:05 - Invited Speaker: **Carolina de la Pinta**: “*Radiomics in oncology: present and future*”

11:05 – 11:30 – Coffee Break

11:30 – 13:30 – New techniques and technologies II: *This is a bioengineering session dedicated to cutting-edge technologies for the next-generation organoids and ex vivo systems. We aim to integrate research developments and resources within CIBERONC related to novel or improved approaches for a better tumor modeling (novel matrixes, organ-on-chip, models recapitulating tumor microenvironment, 3D Bioprinting)*

11:30 - 12:10 - Invited Speaker: **Matthias Lütolf** (online): *TBD*

12:10 - 12:25 - Short talk from abstracts

12:25 - 12:40 - Short talk from abstracts

12:40 - 13:20 - Invited Speaker: **Kristina Haase**: “*Mimicking the tumor microenvironment in vitro – a vascularized approach*”

13:20 – 14:30 – Lunch

14:30 – 16:05 – Immuno-oncology models I - *This session is focused on key issues in optimizing in vivo and in vitro models for cancer immunotherapy research. We aim to integrate research developments and resources within CIBERONC related to immunocompetent and humanized models used in cancer immunology and immunotherapy research. (Humanized PDX, tumor-T cell co-cultures, experimental models for immunotherapy testing, CART cells).*

14:30 - 15:10 - Invited Speaker: **Anthony Rongvaux** (online): *“Humanized mouse models for immuno-oncology studies”*

15:10 - 15:25 - Short talk from abstracts

15:25 - 16:05 - Invited Speaker: **Luis Alvarez Vallina**: *“Immunotherapy of epithelial cancers with reprogramed tumor infiltrating T lymphocytes secreting bispecific T cell-engagers”*

16:05 – 16:30 – Coffee Break

16:30–17:40 – Inmuno-oncology models II - *This session is focused on key issues in optimizing in vivo and in vitro models for cancer immunotherapy research. We aim to integrate research developments and resources within CIBERONC related to immunocompetent and humanized models used in cancer immunology and immunotherapy research. (Humanized PDX, tumor-T cell co-cultures, experimental models for immunotherapies testing, CART cells).*

16:30-17:10 - Invited Speaker: **Pablo Umaña** (online): TBD

17:10-17:25 - Short talk from abstracts

17:25-17:40 - Short talk from abstracts

20:30h – Networking and Dinner

Friday 23rd September

9.00h – 11:30 – Targeted therapies: *This session is focused on key issues to optimize models for cancer targeted-therapies research, approaches to improve the predictive value of genetically modified mouse models (GEMMS) and patient-derived mouse models (PDX), and advances in in vitro 3D cancer modeling (patient-derived organoids; PDO). We aim to integrate research developments and resources within CIBERONC related to GEMMs, PDX and PDO models used in targeted therapy research for precision oncology.*

9:00 - 9:40 - Invited Speaker: **Cristina Mayor Ruiz** (PROTACS): *“Rational strategies to discover molecular glue degraders at scale”*

9:40 - 9:55 - **Irene Ferrer**: *“Non-small cell lung cancer patient-derived xenograft models as a preclinical tool for precision medicine”*

9:55 - 10:35 - Invited Speaker: **Marcos Malumbres**: *“Patient-derived models for metastatic breast cancer”*

10:35 - 10:50 - Short talk from abstract

10:50 - 11:30 - Invited Speaker: **Dieter Saur**: *TBD*

11:30 – 12:00 – Coffee Break

12:00 – 14:00 – Non-murine animal models of cancer - *Our current knowledge of cancer biology is widely based on the information obtained from animal research. Animal species commonly used in biomedicine range from the tiny Drosophila up to mammals and primates. However, it is estimated that 95% of all laboratory animals are mice and rats, which have important advantages but also some limitations. In this section we will focus on other animal models that could replace or complement murine models. Studies covering either basic cancer research (genetics and molecular mechanisms of cancer, tumor progression and metastasis) or translational investigation (drug discovery and preclinical validation of anti-cancer therapies) are welcome.*

12:00 - 12:40 - Invited Speaker: **Laura Elena Sanchez** (Zebrafish, USC): *TBD*

12:40 - 12:55 - Short talk from abstracts

12:55 - 13:35 - Invited speaker: **Cayetano González** (Drosophila): *“Ewing Sarcoma on the fly”*

13:35 - 14:15 - Invited speaker: **Julián Cerón** (C elegans): *“Modeling cancer mutations in C. elegans: from diagnosis to drug screens”*

14:15 - 14:30 - Short talk from abstracts

14:30 – 15:30 – Lunch