



INSTITUTE  
FOR RESEARCH  
IN BIOMEDICINE

# Barcelona BioMed Conference Translation control in cancer development and microenvironment interactions 17-19, 2022

**Monday, 17 October**

8.30 Registration

9.00 Welcome by Dr. Francesc Posas (IRB Barcelona, Director)  
and organizers (Dr. Raúl Méndez, Dr. Alexandre David, Dr. Fátima Gebauer,  
Dr. Georg Stoecklin)

**Session 1: Mechanisms of tumoral translational reprogramming**

**Chair: Dr. Raúl Méndez**

9.15 **Targeting translation in both tumor and stroma prevents metastatic progression**  
Dr. Nahum Sonenberg, Goodman Cancer Research Center, McGill University  
(Montreal, Qc, Canada)

9.50 **DAP5/eIF3d directs alternative cap-dependent translation of mRNAs that program breast cancer tissue invasion, metastasis and resistance to anoikis**  
Dr. Robert J. Schneider, NYU School of Medicine (New York, NY, USA)

10.25 **Short talk 1: When the non-coding codes: Mining the Microproteome for New Players in Cancer Cell Plasticity**  
Dr. Maria Abad, VHIO (Barcelona, Spain)

10.40-11.15 *Coffee break and poster session*

- 11.15 **Mechanistic Insights into Translation Re-initiation**  
Dr. Aurelio Teleman, German Cancer Research Center- DKFZ (Heidelberg, Germany)
- 11.50 **Translational buffering and codon bias in cancer**  
Dr. Luc Furic, Peter MacCallum Cancer Centre (Melbourne, Australia)
- 12:25 **Measuring translational control in dynamic systems: the p53 response as a test case**  
Dr. Georg Stoecklin, Medical Faculty Mannheim, Heidelberg University (Mannheim, Germany)
- 13.00 **Short talk 2: RNA binding proteins modulate the splicing programs required for DNA damage detection and repair during B cell development**  
Dr. Manuel D. Diaz-Muñoz, Toulouse institute for infectious and inflammatory diseases (INFINITy), Inserm (Toulouse, France)

13.15-15.00 *Lunch and poster session*

**Session 2: RBPomes in cancer**

**Chair: Dr. Alexandre David**

- 15.00 **Alterations in the RNA binding protein landscape are required for efficient growth of malignant pleural mesothelioma**  
Dr. Anne Willis, MRC Toxicology Unit (Leicester, UK)
- 15.35 **RNA-binding proteins in cancer progression**  
Dr. Fátima Gebauer, CRG (Barcelona, Spain)

16.10-16.40 *Coffee break and poster session*

- 16.40 **Posttranscriptional regulation of the cancer genome & its therapeutic implications**  
Dr. Davide Ruggero, University of California San Francisco (San Francisco, CA, USA)
- 17.15 **Short talk 3: tRNA-dependent translation reprogramming in resistant melanoma**  
Dr. Najla El-Hachem, GIGA Institute (Ulège, Belgium)
- 17.30 **Short talk 4: Differential Initiator Ternary Complex availability drives distinct translational programs**  
Dr. Chiara Giacomelli, CRUK Beatson Institute (Glasgow, UK)

17.45 **Short talk 5: Translatome-based classification reveals metabolic dependencies of a new tumor subtype of pancreatic cancer**  
Dr. Yvan Martineau, Cancer Research Center of Toulouse-Inserm (Toulouse, France)

18.00 *End of session*

## Tuesday, 18 October

Session 3: Translational control in the tumoral niche

Chair: Dr. Fatima Gebauer

9.00 **A Rapid Translational Immune Response Program in CD8 T Lymphocytes**  
Dr. Hans-Guido Wendel, Memorial Sloan Kettering Cancer Center (New York, NY, USA)

9.35 **Eif4a2 is essential in B cells for the germinal centre response and humoral immunity**  
Dr. Martin Turner, Babraham Institute (Cambridge, UK)

10.10 **Short talk 6: Translational landscape of MAPK signaling in high-grade serous ovarian cancers**  
Dr. Virginie Mieulet, Toulouse Institute for Infectious and Inflammatory diseases-Inserm (Toulouse, France)

10.25 **Short talk 7: eIF6 phosphorylation in Serine235 is necessary for cancer cells metabolic reprogramming and tumor growth**  
Dr. Annarita Miluzio, National Institute of Molecular Genetics, INGM (Milan, Italy)

10.40-11.10 *Coffee break and poster session*

11.10 **Translation programs in cancer-associated cells associate with cancer initiation and progression**  
Dr. Ola Larsson, Karolinska Institutet (Stockholm, Sweden)

11.45 **T cell effector function by RNA binding proteins in health and disease**  
Dr. Monika Wolkers, Sanquin Research (Amsterdam, The Netherlands)

12.20 **Antitumor T cell function requires CPEB4-mediated adaptation to chronic endoplasmic reticulum stress**  
Dr. Raúl Méndez, IRB Barcelona/ICREA (Barcelona, Spain)

12.55 **Short talk 8: Loss of CPEB4 in breast cancer cells enhances lung metastasis by IL-23/IL-17 axis up-regulation and neutrophil expansion**  
Dr. Alba Millanes-Romero, IRB Barcelona (Barcelona, Spain)

13.10-15.00 *Lunch and poster session*

#### Session 4: Ribosomes in cancer

Chair: Dr. Georg Stoecklin

- 15.00 **Linking nucleolar function to stem cell activity in colorectal cancer**  
Dr. Eduard Batlle, IRB Barcelona/ICREA (Barcelona, Spain)
- 15.35 **A specialized translation program in quiescent leukemic cells, promotes tumor survival**  
Dr. Shobha Vasudevan, Shobha Vasudevan, Massachusetts General Hospital (Boston, MA, USA)
- 16.10 **Short talk 9: Glucose deprivation and impaired N-glycosylation activate the Integrated Stress Response that leads to LIF secretion and tumor angiogenesis**  
Dr. Cristina Muñoz-Pinedo, IDIBELL (Hospitalet de Llobregat, Barcelona, Spain)
- 16.25-17.00 *Coffee break and poster session*
- 17.00 **The hidden face of 5-Fluorouracil: alteration of ribosome functions favors cancer cell drug-tolerance**  
Dr. Jean Jaques Diaz, Cancer Research Center of Lyon (Lyon, France)
- 17:35 **How ribosomal protein mutations translate disease**  
Dr. Kim De Keersmaecker, KU Leuven (Leuven, Belgium)
- 18.10 **Short talk 10: eIF4A2-dependent translation shapes tumour microenvironment and regulates lung and liver tumorigenesis**  
Dr. Luis Pardo-Fernández, CRUK Beatson Institute (Glasgow, UK)
- 18.25 *End of session*
- 20.30 *Speakers dinner (Restaurant Can Pineda) (Sant Joan de Malta, 55)*

### Wednesday, 19 October

#### Session 5: Translational control of metabolism in cancer as therapeutic targets

Chair: Dr. Anne Willis

- 9.00 **Translational Control of Metabolism: A Self-Amplifying Loop Necessary for Lipid Synthesis and Malignancy**  
Dr. Stefano Biffo, INGM "Romeo ed Enrica Invernizzi", University of Milano (Milano, Italy)
- 9.35 **mRNA translation and the resistance to anti-cancer targeted therapies**  
Dr. Stéphan Vagner, Institut Curie (Paris, France)

10.10 **Short talk 11: Long non-coding RNA Neat1 and paraspeckle components are translational regulators in hypoxia**  
Dr. Anne-Catherine Prats, Inserm- Université de Toulouse (Toulouse, France)

10.25-11.00 *Coffee break and poster session*

11.00 **A story of serendipity: The aminoglycoside streptomycin triggers ferroptotic cell death of tumor initiating cells**  
Dr. Alexandre David, Institut de Génomique Fonctionnelle (Montpellier, France)

11.35 **Sloppiness in mRNA translation in cancer**  
Dr. Reuven Agami, The Netherlands Cancer Institute (Amsterdam, The Netherlands)

12.10 **Short talk 12: Oncogenic MYC sustains LARP1 levels to stimulate RP mRNAs expression and translation**  
Dr. Flavia Iannizzotto, IDIBELL (Barcelona, Spain)

12.25 **Short talk 13: Ribosome impairment regulates intestinal stem cell identity via ZAKa activation**  
Dr. Joana Silva, The Netherlands Cancer Institute (The Netherlands, Amsterdam)

12.40 **Short talk 14: Human dyskerin binds to cytoplasmic H/ ACA-box-containing transcripts affecting nuclear hormone receptor dependence**  
Dr. Federico Zacchini, University of Bologna (Bologna, Italy)

13.00 *Concluding remarks and end of conference*