

# 4th Philosophy of Cancer Biology Workshop

## PROGRAM

**BORDEAUX, 6TH, 7TH & 8TH DECEMBER 2021**

Université de Bordeaux - Campus Victoire

Amphi Sigalas (Building C - 2nd Floor)

3ter Place de la Victoire, 33000 Bordeaux

Tram B stop «Victoire»



PhilInBioMed

université  
de **BORDEAUX**



# Plenary Speakers



**Carlo Maley** is a biologist who specializes in cancer, evolution and computational biology. He works at the intersection of these fields. Carlo Maley is Associate Professor at Arizona State University. Professor Maley and his research team apply evolutionary and ecological theory to three problems in cancer. His team uses genomic data mining, phylogenetics, computational modeling and wet lab techniques to solve these problems. His team focuses on developing better methods to prevent cancer and improve cancer management.



**Andrew Ewald** is Professor and Director of Cell Biology and Co-Leader of the Cancer Invasion and Metastasis Program, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins School of Medicine.

His research interests are cellular and molecular mechanisms of epithelial growth, invasion and metastasis. His team focuses on how clusters of cancer cells disseminate from the tumor, traverse the systemic circulation, and cooperate with resident stromal cells to colonize distant organs.



**Eric Solary**, MD, Full Professor in Haematology at Paris-Saclay University. He is teaching clinical and biological haematology as well as cell biology.

His research has been dedicated initially to leukemic cell resistance to cytotoxic drugs, then to cell death mechanisms and the link between cell death and differentiation in the haematopoietic system. His current research is focused on monocyte differentiation, monocyte role in disease pathogenesis and chronic myeloid malignancies, with a focus on chronic myelomonocytic leukemia.



**Anya Plutynski** is a historian and philosopher of biology and medicine. She is Associate Professor of Philosophy at Washington University. Her most recent book is *Explaining Cancer: Finding Order in Disorder* (2018, OUP). She has also written on the history and philosophy of evolutionary biology and genetics, the role of modeling in science, and scientific explanation.

Her current research is on the history of the cancer genome atlas project (TCGA) and the development of precision oncology. Other research interests include biomedical research ethics, particularly issues surrounding precision oncology, cancer genomics, and risk communication.



**Nicholas McGranahan** is the leader of the Cancer Genome Evolution Research Group, at the University College London Cancer Institute.

His lab focuses on using computational methods to explore the cancer genome and anti-tumour immunity within an evolutionary framework..



**Maria Blasco** is director of the Spanish National Cancer Research Centre (CNIO) and Head of the Telomeres and Telomerase Group (CNIO). She is a molecular biologist whose work focuses on telomeres and telomerase and their role in cancer and aging. She contributed to identify the mammalian telomerase genes and generated the first mice without telomerase. These mice were instrumental to demonstrate that short telomeres are sufficient to induce aging. Her group also demonstrated that it is possible to delay aging and age-related diseases by activating the telomerase enzyme.

# 4th Philosophy of Cancer Biology Workshop

## Day 1 - 6th December 2021

10H15 – 10H45 <i>Welcome breakfast (Hall Leyteire)</i>		
10H45 – 11H	Welcome and introduction to the meeting F. Gross, L. Laplane, M. Lemoine & T. Pradeu	
11H – 12H	Plenary: Carlo Maley <i>Arizona State University, USA</i>	What is cancer? A view across the tree of life
12H – 12H40	Mathieu Giraudeau <i>LIENSs, CNRS &amp; Univ. La Rochelle, FR</i>	Wildlife species as a source of inspiration in our fight against cancer?
12H40 – 14H10 <i>Lunch: Buffet open to all (Hall Leyteire)</i>		
14H10 – 15H10	Plenary: Andrew Ewald <i>Johns Hopkins, USA</i>	Unraveling the logic of cancer through analysis of cellular and molecular dynamics
15H10 – 15H50	Isabelle Sagot <i>CNRS &amp; IBGC, FR</i>	On a definition of cellular quiescence
15H50 – 16H20 <i>Coffee Break (Hall Leyteire)</i>		
16H20 – 17H	Matthieu Duchmann <i>The Puissant Lab, INSERM, FR</i>	Parallel evolution of signaling mutations in Core-binding factor acute myeloid leukemia
17H – 17H40	Lucie Laplane <i>IHPST, CNRS &amp; Univ. Panthéon-Sorbonne, FR</i>	Revisiting the clonal evolution model
17H40 – 18H20	Thomas Pradeu <i>ImmunoConcept, CNRS, Univ. Bordeaux, FR</i>	Reconceptualizing the interactions between the immune system and cancer

**19H00** Wine & Cheese (open to all)  
Aux Quatre coins du vin  
8 rue de la Devise, 33000 Bordeaux  
15 minutes walk from the conference place

If you plan to attend this friendly event, please let us know by the 30th of November, so we can make the reservation accordingly ([corinne.luijten@u-bordeaux.fr](mailto:corinne.luijten@u-bordeaux.fr)).

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## Day 2 - 7th December 2021

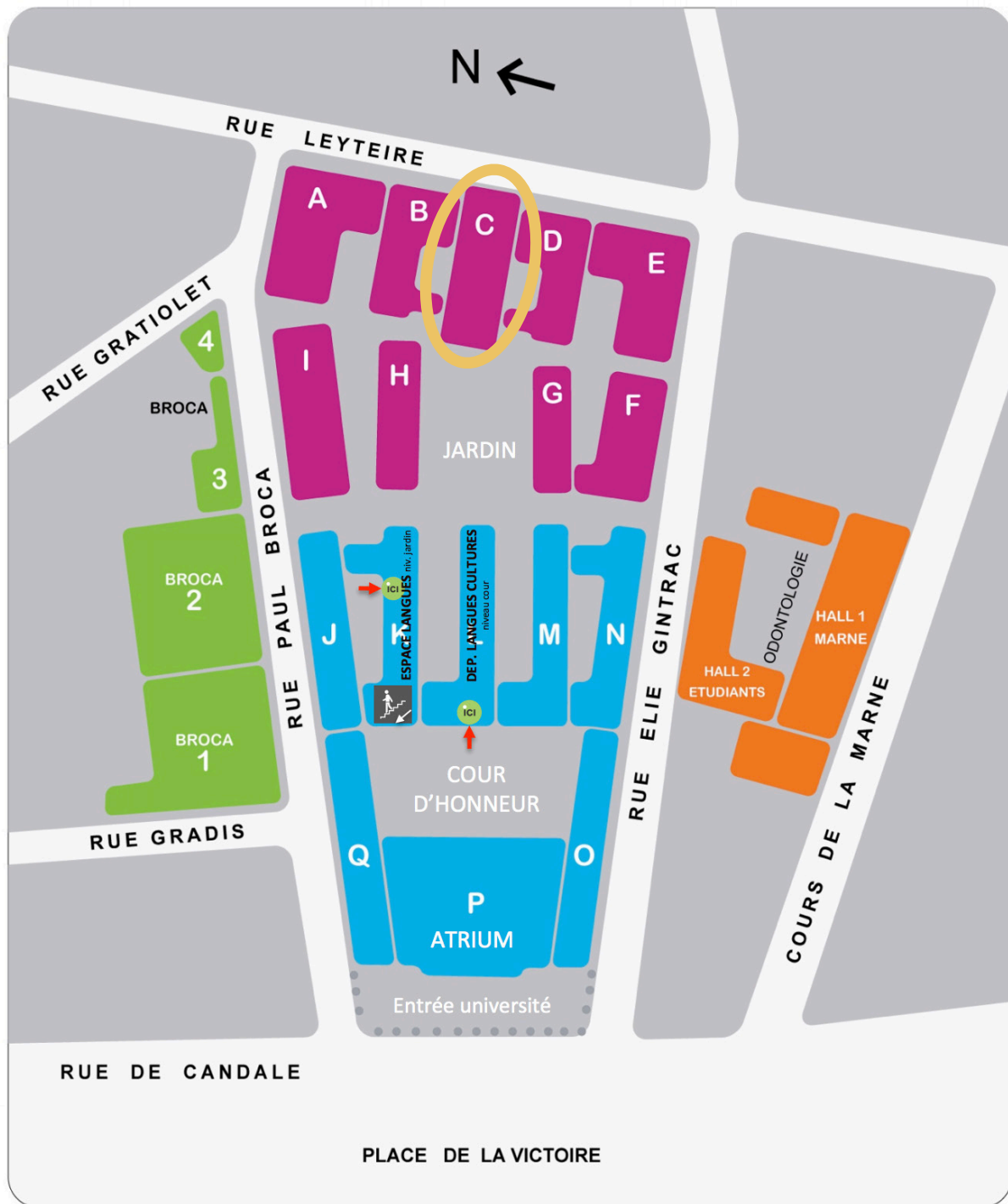
9H30 – 10H10	<b>Jean Feunteun</b> <i>Gustave Roussy, Univ. Paris-Saclay, FR</i>	Tumor cell malignancy: a complex trait built through recip-rocal interactions between tumor cells and tissue-body system
10H10 – 11H10	<b>Plenary: Eric Solary</b> <i>Gustave Roussy, Villejuif, FR</i>	What is the roadmap of early tumor development?
11H10 – 11H40	<i>Coffee Break (Hall Leyteire)</i>	
11H40 – 12H20	<b>Benjamin Chin-Yee</b> <i>Western University, Canada</i>	Minimal Residual Disease: Premises Before Promises
12H20 – 14H	<i>Lunch: Buffet open to all (Hall Leyteire)</i>	
14H – 14H40	<b>Jonathan Sholl</b> <i>ImmunoConcept, CNRS, Univ. Bordeaux, FR</i>	Learning from the intersection of cancer metabolism and nutrient regulation
14H40 – 15H20	<b>Rodrigue Rossignol</b> <i>INSERM &amp; Univ. Bordeaux, FR</i>	Mitochondria in cancer: a malignant symbiosis?
15H20 – 15H50	<i>Coffee Break (Hall Leyteire)</i>	
15H50 – 16H50	<b>Plenary: Anya Plutynski</b> <i>Washington University, USA</i>	Whither Philosophy of Cancer? Four Open Questions [via Zoom]
16H50 – 17H30	<b>Fridolin Gross</b> <i>ImmunoConcept, CNRS, Univ. Bordeaux, FR</i>	Cancer and Complexity
17H30 – 18H10	<b>Bernhard Strauss</b> <i>Univ. Cambridge, UK</i>	“Rethinking Cancer” – when are we done? How conceptual progress in explaining cancer might inform research practice and novel treatment approaches

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## Day 3 - 8th December 2021

9H30 - 10H30	<b>Plenary: Nicholas McGranahan</b> <i>Univ. College London, UK</i>	Exploring Cancer Evolution and Immune Escape [via Zoom]
10H30 - 11H	<i>Coffee Break (Hall Leyteire)</i>	
11H - 11H40	<b>Nicholas Binney</b> <i>Univ. of Exeter, UK</i>	Liquid Biopsy, Multi-Cancer Diagnosis and the Evaluation of Medical Tests
11H40 - 12H20	<b>Bertrand Daignan-Fornier</b> <i>IBGC, CNRS &amp; Univ. Bordeaux, FR</i>	Cancer and multicellularity: general ideas and an experimental approach
12H30 - 14H	<i>Lunch: Buffet open to all (Hall Leyteire)</i>	
14H - 15H	<b>Plenary: Maria Blasco</b> <i>Centro Nacional de Investigaciones Oncológicas, Madrid, Spain</i>	Telomerase, cancer, aging [via Zoom]
15H - 15H40	<b>Simon Okholm</b> <i>ImmunoConcept, CNRS, Univ. Bordeaux, FR</i>	Rapamycin: an anti-aging treatment or cancer suppression?
15H40 - 16H20	<b>Maël Lemoine</b> <i>ImmunoConcept, CNRS, Univ. Bordeaux, FR</i>	What does it mean to say that 'aging causes cancer'?
16H20 - 16H35	Conclusions <b>F. Gross, L. Laplane, M. Lemoine &amp; T. Pradeu</b>	

# Map



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