



# OPEN MEDICAL INSTITUTE

## SEMINAR REPORT

GLOBAL HEALTH:  
VIRUSES, LIVER AND  
CANCERS OMI MEX  
INSTITUT PASTEUR  
SEMINAR

July 4-6, 2023

Medical Education Beyond Borders



# F A C T S



**14** fellows from  
Mexico, Brazil,  
Canada, and  
Uruguay



**10** didactic  
lectures



**5** faculty members  
from France, Spain,  
and Italy



**3** round table  
sessions

# GROUP PHOTO









**OMI MEX Institut Pasteur Seminar in Global Health:  
Viruses, Liver and Cancers  
Tuesday, July 4 – Thursday, July 6, 2023**

	<b>Tuesday</b> July 4	<b>Wednesday</b> July 5	<b>Thursday</b> July 6
08:00 – 09:00	<b>REGISTRATION &amp; BREAKFAST</b>	<b>REGISTRATION &amp; BREAKFAST</b>	<b>REGISTRATION &amp; BREAKFAST</b>
09:00 – 10:00	<b>Introductions Pre-Seminar Test</b>	<b>Molecular Biology of Hepatitis Viruses Part 1</b> Yu Wei, PhD	<b>Hepatocellular Carcinoma: Clinical Trends Part 1</b> Dominique Franco, MD, PhD
10:00 – 11:00	<b>Viruses, Restriction Factors and Cancer Part 1</b> Jean-Pierre Vartanian, PhD	<b>Molecular Biology of Hepatitis Viruses Part 2</b> Yu Wei, PhD	<b>Hepatocellular Carcinoma: Clinical Trends Part 2</b> Dominique Franco, MD, PhD
11:00 – 11:30	<b>COFFEE BREAK</b>	<b>COFFEE BREAK</b>	<b>COFFEE BREAK</b>
11:30 – 12:30	<b>Viruses, Restriction Factors and Cancer Part 2</b> Jean-Pierre Vartanian, PhD	<b>Benefits and Drawbacks of Immune Responses in Infections and Cancer Part 1</b> Vincenzo Barnaba, MD	<b>Round Table</b> Yu Wei, PhD, Dominique Franco, MD, PhD, Esteban Domingo, BSc, PhD, Jean-Pierre Vartanian, PhD
12:30 – 13:30	<b>Implications of Viral Population Dynamics for Disease Control. Similarities with Cancer Part 1</b> Esteban Domingo, BSc, PhD	<b>Benefits and Drawbacks of Immune Responses in Infections and Cancer Part 2</b> Vincenzo Barnaba, MD	<b>Post-Seminar Test Evaluation &amp; Discussion</b>
13:30 – 14:30	<b>LUNCH</b>	<b>LUNCH</b>	<b>LUNCH CLOSING CEREMONY &amp; AWARDS</b>
14:30 – 15:30	<b>Implications of Viral Population Dynamics for Disease Control. Similarities with Cancer Part 2</b> Esteban Domingo, BSc, PhD	<b>Round Table</b> Yu Wei, PhD Vincenzo Barnaba, MD	
15:30 – 17:00	<b>Round Table</b> Esteban Domingo, BSc, PhD Jean-Pierre Vartanian, PhD	<b>Discussion with Faculty and Fellows</b>	

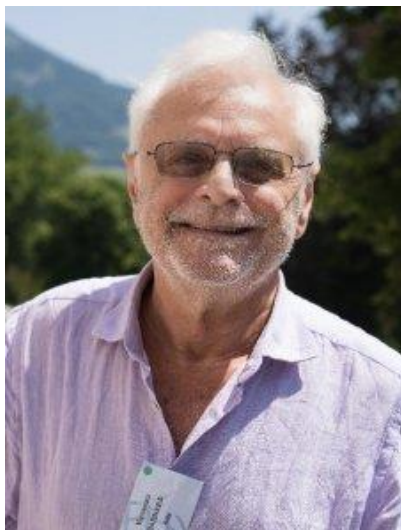


**Jean-Pierre Vartanian, PhD**  
**Course Director**

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**Jean-Pierre Vartanian, PhD** obtained his PhD at the University of Paris. He is the Research Director and Director of the Department of Virology at the Institut Pasteur. He is the co-director of the basic Virology course at the Institut Pasteur. He is involved in teaching in many French and foreign Universities. He recently organized two MOOCs (Massive Open Online Course) entitled “Viruses and Human Cancers” and “Emerging and Re-emerging Viruses”. He is the director of a course of Molecular Cancer Genetics, developed in partnership with Institut Pasteur, Institut Curie and ENS Ulm. He is also actively involved in the organization of courses within the Institut Pasteur Network. He has supervised numerous Master, PhD, and post-doc students. He is head of the Unit Virus and cellular stress in the Department of Virology at the Institut Pasteur. He is focused on identifying restriction factors involved during viral replication and the role of cellular RNA/DNA editing enzymes with antiviral activity against a range of human pathogens. He is a peer reviewer for multiple major journals.



## Vincenzo Barnaba, MD

Honorary Professor  
Istituto Pasteur, Fondazione Cenci Bolognetti, Roma  
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**Vincenzo Barnaba, MD** is Honorary Professor of Internal Medicine of Sapienza Università di Roma and carries out his scientific research mainly at the Institut Pasteur, Fondazione Cenci Bolognetti - Dipartimento di Medicina Interna e Specialità Mediche, Sapienza Università di Roma. Dr. Barnaba has been active as an immunologist for 40 years. The group led by Dr. Barnaba has a long-standing interest in the pathogenesis of immune-mediated diseases, including autoimmune and viral (hepatitis viruses, HIV) diseases, and tumor immunity.

In particular, the group's research fields are the following:

1. Dynamics of CD8 T cell responses against viral and tumor antigens.
2. Mechanisms of cross-presentation of exogenous (pathogen- or tumor-associated) antigens.
3. Mechanisms influencing the differentiation of memory or effector T cells during immunopathology (chronic viral infections, tumors).
4. Mechanisms controlling T cell responses (i.e., by regulatory T cells [Tregs]) in chronic infections, autoimmunity and tumors.
5. Proteomic analysis of tumor cells addressed for identifying novel immunogenic self- or tumor antigens.
6. Proteomic analysis of tumor secretomes addressed for identifying novel immune checkpoints.
7. Studies on the role of viruses in unveiling cryptic self-epitopes.

Dr. Barnaba published on these topics, as author or co-author, about 200 papers in peer-reviewed journals (including Nature, Nature Medicine, J Exp Med, J Clin Invest, J Immunol, Hepatology, J Hepatol, PNAS, etc) and presented about 40 talks as invited speaker at international congresses, conferences, and international summer courses. He organized several international congresses and meetings, such as the Congress "Immunology Today" Kunkel Society Rockefeller University, NY 2007; Istituto Pasteur Cenci B. conference on Liver development and disease, Rome, 2009; Gordon conference on II meeting on antigen cross-presentation, Il Ciocco, I, 2009; the International Congress of Immunology held in Milan in 2013.



## **Esteban Domingo, BSc, PhD**

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**Esteban Domingo, BSc, PhD** received a BSc in Chemistry (1965) and a PhD in Biochemistry (1969) from the University of Barcelona. He did postdoctoral work at the University of California, Irvine, with Dr. Robert C. Warner (1969-1973), and University of Zürich, working on genetics of bacteriophage Qbeta, with Dr. Charles Weissmann (1974-1977). This work permitted the first calculation of a mutation rate for an RNA virus, and the first evidence of quasispecies dynamics in an RNA virus. Then he obtained a position of Scientist at Centro de Biología Molecular Severo Ochoa (CSIC-UAM) in Madrid (1976) and was promoted to Professor of Research (CSIC) in 1989. With his group in Madrid, he documented high mutability and quasispecies dynamics of the important animal pathogen foot-and-mouth disease virus (FMDV). Work with FMDV and other RNA viruses, in particular vesicular stomatitis virus (VSV) in collaboration with John Holland, established multiple biological implications of quasispecies dynamics. In recent years, his research is centered in viral fitness and lethal mutagenesis as a new antiviral strategy, using mainly hepatitis C virus as model system. Esteban Domingo has published 400 research papers and several books and book chapters, with an h index of 82. He has received several awards including the degree of Doctor honoris causa from the Universities of Liège (Belgium) in 1999, and Bern (Switzerland) in 2004. He is a member of EMBO, the European Academy, Vice-President of the Royal Academy of Sciences of Spain (Real Academia de Ciencias Exactas, Físicas y Naturales), and International Member of the National Academy of Sciences of the US.





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**Dominique Franco, MD, PhD** is a liver surgeon and Emeritus Professor of Surgery. He graduated from Université Paris-Saclay and spent two years at Harvard University with Professor Antony Monaco to work on the antilymphocyte serum. He was on the team which launched liver transplantation in France in 1974 and dedicated his surgical career to liver surgery and particularly to the surgical resection of hepatocellular carcinoma. Among his achievements were the development of single liver segmental resections, that of laparoscopic liver surgery and of bloodless liver resections, and ambulatory surgery for limited resections of the liver. His research work was dedicated first to the pathophysiology of virus induced hepatocellular carcinoma and then to cell therapy and liver bio-fabrication using stem cells. For the eight last years, he has been Education Advisor at the Institut Pasteur in charge of online education with the creation of 22 MOOCs of the formation of life sciences students to the creation of start-ups and of the direction of a MD-PhD program.



## **Yu Wei, PhD**

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**Yu Wei, PhD** is a virologist at Institut Pasteur, Paris. Dr. Wei grew up in Beijing, China and attended Peking Union Medical College in Beijing. She studied hepatitis B virus (HBV)-associated hepatocarcinogenesis with Drs. Marie-Annick Buendia and Pierre Tiollais at Institut Pasteur, Paris and earned a PhD in virology from University Paris Diderot in France. Dr. Wei completed her postdoc training on hepatitis B virus life cycle with Dr. Don Ganem in the Department of Microbiology and Immunology at University of California in San Francisco, USA. Then, Dr. Wei worked on the mechanisms of liver carcinogenesis at Institut Pasteur in Paris. Dr. Wei's research interests include hepatitis B virus life cycle, host-virus interaction, HBV insertional activation of host genes in hepatocarcinogenesis, immune response to HBV infection, dysregulation of cell signalling pathways in liver disease.



## **Becky Aguilar-Álvarez de Sáenz**

**Executive Director | AMSA**

- Bachelors degree in economics, Instituto Tecnológico Autónomo de México (ITAM)
- Banking and financial career for 15 years
- Member of the Board Civic Committee, Ford Motor Company Mexico
- Treasurer of the Board of Trustees UNETE (Unión de Empresarios por la Tecnología en la Educación)
- Member of the International Women's Forum
- Member of the Mexican Council for International Affairs
- AMSA's Executive Director since 2010



## **Gerardo Legorreta Creel**

**Chairman | AMSA**

- Chairman of the Board of Trustees, Alianza Médica para la Salud, A. C. (AMSA)
- Studied at the London Business School and Instituto Tecnológico Autónomo de México (ITAM)
- CEO of UBS (Union Bank of Switzerland)
- Member of the Board of Directors of Bepensa, SA de CV
- Founder and Managing Director of LG & A



# FELLOWS



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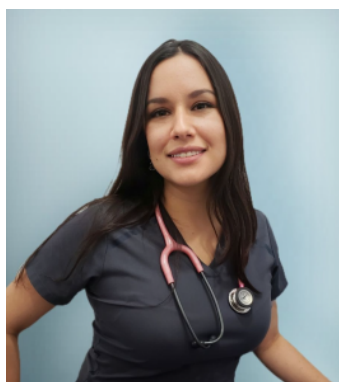
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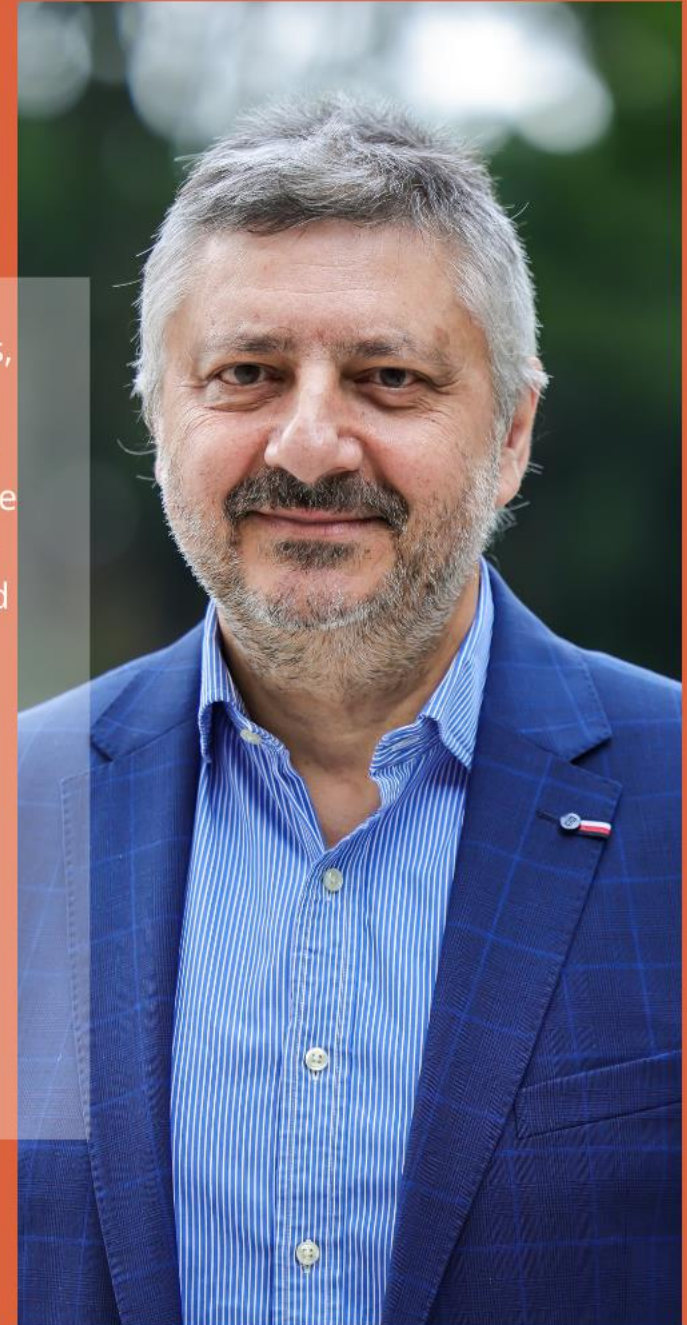
# OMI VOICES

## Faculty Feedback

"The OMI MEX Global Health: Viruses, Liver and Cancers seminar hosted young doctors who work in hospitals in Mexico as well as students from the Institut Pasteur network. The level of the fellows was very high, and we had fruitful and interesting discussions together. The course was a real success, and we are all very grateful to have been involved. Many thanks to the OMI and AMSA for their excellent and unfailing organization of the seminar."

**Jean-Pierre Vartanian, PhD**

*Global Health*



# OMI VOICES



**“ A comprehensive discussion on hepatocellular carcinoma, including its current clinical trends, aligned closely with my personal research interests. I found the topic deeply enriching, offering fresh perspectives and novel concepts to consider in my future endeavors.**

Terence Ndonyi Bukong, PhD  
OMI MEX fellow from Canada



**“ Dr. Dominique Franco showed us advances for the detection of liver carcinoma and the complexity of transplants. It was a magnificent lecture that united research and clinical practice for the benefit of the patient.**

Vanessa De Paula, PhD  
OMI MEX fellow from Brazil



**“ Dr. Yu Wei gave an excellent lecture about the molecular biology of hepatitis viruses, which will be useful for my medical practice, especially HBV infection and vertical transmission.**

Cecilia Ramirez Angulo, MD  
OMI MEX fellow from Mexico



# CONTACT



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