

International University Course:

“THE LONG JOURNEY INTO *BRCA1/2* GENES GOES ON: THE EMERGING LANDSCAPE OF *BRCA*-RELATED TUMORS”

Directors: Prof. Dr. Viviana Bazan, Prof. Dr. Jhony A. De La Cruz-Vargas, Prof. Dr. Antonio Russo.

Organizing scientific board

Prof. Antonio Russo (University of Palermo, Italy);

Prof. Dr. Daniele Fanale (University of Palermo, Italy);

Prof. Juan Lucio Iovanna (INSERM U1068, Aix-Marseille Université and Institut Paoli-Calmettes, Marseille, France);

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Dr. Valeria Amodeo (Institute Of Cancer Research, London, UK).

Faculty

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RATIONALE

The critical role of *BRCA1* and *BRCA2* genes was discovered for the first time in 1994 and 1995 in families with a high prevalence of breast and ovarian cancers. Pathogenic variants detected in these genes remain, to date, the primary inherited cause of breast and ovarian tumors, with an 85% lifetime risk for breast and a 20–40% risk for ovarian cancer. However, the research in the past two decades has brought great progress and change in the field of breast and ovarian cancer, screening, prevention, and treatment. The diffusion of high-throughput next-generation sequencing technologies has provided a deep insight into the molecular biology of these tumors and many other genes and proteins within the homologous recombination pathway have been evaluated. The development of poly(ADP-ribose) polymerase inhibitors (PARPi) has been a major advance in the treatment of ovarian tumors and several clinical and translational trials are ongoing to validate prognostic and predictive utility of germline and/or somatic pathogenic variants in *BRCA1/2* or other genes associated with HRD as biomarkers in breast and ovarian cancer. More recent evidence has shown the presence of pathogenic variants in *BRCA1/2* and other cancer susceptibility genes also in pancreatic and prostate cancer. This discovery increases the risk and contributes to the prevalence of these cancers not just in high-risk families but in the general population as well.

That is how the long journey into BRCA genes goes on, and the emerging landscape of genetic testing and management of BRCA-mediated tumor phenotypes (and beyond) continues to evolve.

Program Overview

This international congress is designed to educate researchers, scientists, students and health care providers in cancer genetics by presenting cutting-edge data from renowned researchers and clinicians. This congress will provide new information on progress in cancer screening and prevention, as well as ongoing work in targeted therapy for *BRCA1/2* and other pathogenic variant carriers through a series of presentations and discussions about topic.

Program objectives

At the completion of this congress, attendees should be able to:

- Discuss about recent progress on the genetic epidemiology of *BRCA1/2* and other homologous recombination deficiency (HRD) genes.
- Describe current issues associated with carrying a *BRCA1/2* pathogenic variant.
- Review new approaches to screening and prevention of hereditary breast, ovarian, pancreatic and prostate cancer.
- Discuss on new advances in treatment for pathogenic variant carriers in *BRCA1/2* and other known cancer susceptibility genes.

Program

9:00-9:15am Registration

9:15-9:30am Welcome

Session I: Hereditary breast and ovarian cancers

Moderators: [Prof. Dr. Viviana Bazan](#) and [Prof. Dr. Jhony A. De La Cruz-Vargas](#)

9:30-9:50am *BRCA* genetic testing and Oncogenetic Counselling

[PhD, MB. Daniele Fanale \(UP\)](#)

9:50-10:10am Management and treatment of *BRCA*-mutated Breast Cancer

[PhD. Henry Gomez Moreno \(AUNA-URP\)](#)

10:10-10:30am HRD-related genomic instability in Ovarian Cancer

[PhD. Antonio Russo \(UP\)](#) - MD, [Ugo Randazzo \(UP\)](#)

10:30-10:40am Discussion

Session II: Hereditary pancreatic and prostate cancers

Moderators: Prof. [Juan Lucio Iovanna](#), Prof. [Stefano Caruso](#) and Dr. [Aly Gallo](#)

10:40-11:00am The role of *BRCA* testing in Pancreatic Cancer

[PhD. Lidia Rita Corsini \(UP\)](#)

11:00-11:20am The role of *BRCA* testing in Prostate Cancer

[Dr. Monica Calderon \(INEN-URP\)](#)

11:20-11:30am Discussion

Session III: Impact of Pathogenic Variants in other genes beyond *BRCA*

Moderators: [PhD. Stella Chenet](#), PhD, MB. [Daniele Fanale](#) and PhD, [Valeria Amodeo \(London, UK\)](#)

11:30-11:50am The prevention of hereditary cancers beyond *BRCA*

[Prof. Dr. Viviana Bazan \(UP\)](#)

12:00am Closure

INTERNATIONAL UNIVERSITY COURSE: **“The Long Journey into *BRCA1/2* Genes Goes On: The Emerging Landscape of *BRCA*-related Tumors”**

ORGANIZATION: **UNIVERSITY OF PALERMO-RICARDO PALMA UNIVERSITY**

MODALITY: VIRTUAL BY ZOOM.

DATE: May 24th, 2023

Duration: 3 hours. 9:00 a.m. to 12:00 a.m. Lima time

OFFICIAL LANGUAGE: SPANISH, ITALIAN, ENGLISH.

ATTENDANCE CERTIFICATES: TWO ACADEMIC CREDITS.

AUDIENCE: DOCTORS, BIOLOGISTS, GENETICISTS, ONCOLOGISTS, PATHOLOGISTS, MASTOLOGISTS, PSYCHOLOGISTS, NURSES, STUDENTS.

COLABORACIÓN ESPECIAL:

- INSTITUTO DE INVESTIGACIONES EN CIENCIAS BIOMEDICAS-URP.
- CATEDRA DE MEDICINA DEL ESTILO DE VIDA
- ARCPER.