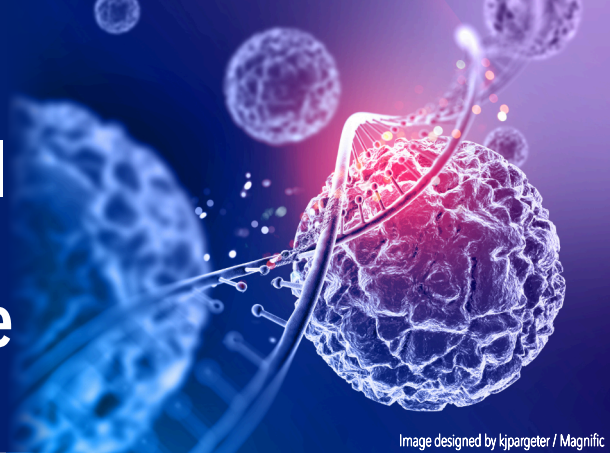
WEBINAR

Mutational versus non-mutational mechanisms of radiation-induced carcinogenesis and their relevance to low-dose radiation



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OVERVIEW

Understanding how ionizing radiation induces cancer remains a central challenge in radiobiology, particularly in the low-dose range where uncertainties are greatest. While the classical paradigm emphasizes DNA damage and mutation as primary drivers of carcinogenesis, increasing evidence points to the role of non-mutational mechanisms, including: bystander effects, epigenetic alterations, inflammation, as well as changes in the tumor microenvironment and intercellular communication.

This webinar aims to provide a critical and up-to-date overview of both frameworks, highlighting their strengths, limitations, and relevance for low-dose exposure. Through two complementary expert talks followed by a moderated discussion, the session will explore emerging concepts and unresolved questions in the field.

DATE & TIME

26th October 2026

14:30 CET

(90-minute session)

PLATFORM

Microsoft Teams

TARGET AUDIENCE

PhD students, postdoctoral researchers, and early-career scientists in radiobiology, radiation physics, medical physics, and related disciplines.

FORMAT

- Two invited talks (25 minutes each)
- Moderated discussion (20 minutes)
- Live Q&A with participants (15 minutes)

WHY ATTEND?

- Gain a clear overview of competing paradigms in radiation carcinogenesis
- Engage with leading experts in an interactive discussion
- Identify key open questions and research opportunities in the field

INVITED SPEAKERS

Dr. Dmitry Klokov

Head, Laboratory of Experimental Radiobiology and Toxicology French Authority for Nuclear Safety and Radiation Protection (ASNR)

Radiation carcinogenesis: new insights or closing long-standing gaps?

Dr. Christophe Badie

Head, Radiation Effects Department, UK Health Security Agency (UKHSA)

New insights in radiation leukemogenesis.

REGISTRATION REQUIRED

Registration link

Deadline october 21st

ORGANIZER

IFC CNR (J. Campolo and MG. Andreassi)

with the collaboration of

CORNET Consortium Group

CNR - IFC

PIANOFORTE EUROPEAN PARTNERSHIP FOR RADIATION PROTECTION RESEARCH

CORNET

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The webinar link will be emailed before the event

CONTACT

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