University of Bologna
School of Pharmacy
Biotechnology Degree Program

Istituto Oncologico Romagnolo

All information at www.ior-forli.it/convegno2/index.php

Bertinoro June 1st – 4th

Program

June 1st

10:00-15:30 **Arrival and check-in**

15:30-16:00 **Opening Ceremony**

Maurizio Marangolo, Chief Oncology & Hematology Department- Ravenna City Hospital
Giovanni Bissoni Assessore Sanità Regione Emilia-Romagna
Dino Amadori, Scientific Director, Istituto Studio e Ricerca Tumori in Romagna IRST
Giorgio Cantelli-Forti, Dean, School of Pharmacy, Bologna University
Lanfranco Masotti, Chairman, Biotecnology Degree Program, Bologna University

16:00-16:45 **Opening Lecture**

James C. Wang

16:45-18:15 **DNA topology and the regulation of DNA transcription.**
Chairperson Yves Pommier

Andrew Travers
DNA supercoiling: the forgotten global transcriptional regulator?

David Levens
Reverse Engineering the human *c-myc* Promoter: the role of torsional stress in realtime regulation.

Giorgio Camilloni
In vivo studies of DNA topoisomerase I. Involvement in transcription and recombination.

20:00 **Dinner**

June 2nd

8:00-9:00 **Breakfast**

9:00-10:30 **DNA structural constraints and DNA repair.**
Chairperson Andrew Travers

Ian D Hickson
Role of topoisomerase III in resolution of recombination intermediates.

Marco Foiani
Physiological and pathological transitions of replication-related sister chromatid junctions.

Fritz Thoma
Nucleosome dynamics in DNA repair.

10:30-11:00 **Coffee Break**

11:00-13:00 **From bench to bed site: translation to the clinic.**
Chairperson Dino Amadori

Wainer Zoli
Combined taxane or gemcitabine containing sequences in preclinical models

Gabriella Zupi
Oligonucleotides in experimental models

Burkhard Jasen
Nucleic acid therapeutics in oncology. Translational research, clinical trials and regulatory issues.

Daniele Calistri
Urine telomerase in the early diagnosis of bladder cancer

Maurizio Marangolo
Alimta and Radiotherapy in human pancreatic cancer cell lines

13:00-15:00 **Lunch**

15:00-15:30 **Two selected abstracts**

15:30-17:00 D**NA topology and chromatin/chromosome dynamics.**
Chairperson Marco Foiani

William C Earnshaw
Genetic analysis of chromosome segregation in vertebrate cells.

Valerio Orlando
Polycomb Response Epigenetic DNA elements organize the 3-D structure of homeotic gene clusters in *Drosophila*.

Christian Mielke
Disposition of human DNA Topoisomerases in living cells.

17:00-17:30 **Coffe Break**

17:30-19:00 **DNA topoisomerases as targets of exogenous agents.**
Chairperson Ian D Hickson

Yves Pommier
Topoisomerase I inhibitors trapping protein-DNA interfaces: One of Nature's paradigms for drug discovery.

Fritz Boege
Role of DNA Topoisomerases in environment-driven cell ageing.

Giovanni Capranico
Cellular response to camptothecin in transcribing chromatin.

20:00 **Dinner**

June 3rd

8:00-9:00 **Breakfast**

9:00-10:30 **Structural aspects of DNA-protein interactions.**
Chairperson James C. Wang

Robert Kaptein
How Gene Regulatory Proteins Interact with DNA: The Lac Repressor System.

Georgi Muskhlishvili
Coordination of a transcription program by chromatin proteins and DNA supercoiling.

Dale B. Wigley
Structure and Mechanism of RecBCD.

10:30-11:00 **Coffee Break**

11:00-12:30 **Molecular mechanisms of DNA topoisomerase poisons.**
Chairperson Giuseppe Giaccone

Mary-Ann Bjornsti
Deciphering the cytotoxic mechanism of DNA topoisomerase I poisons in yeast.

Birgitta Knudsen
Mechanistic aspects of human topoisomerase I and its interaction to camptothecin.

Alessandro Desideri
Characterization of single topoisomerase I mutations modulating the genome stability and the reactivity toward antitumor drugs.

12:30-13:00 **Poster viewing**

13:00-15:00 **Lunch**

15:00-15:30 **Two selected abstracts**

15:30-17:00 **Structural aspects of diverse DNA topoisomerase family members.**
Chairperson Giovanni Capranico

Michel Duguet
A Universal Type IA Topoisomerase Fold.

Piero Benedetti
"A hand on a rope". Structural studies of human DNA topoisomerase I.

Daniele Gadelle
The DNA topoisomerase IIB family: mechanism of action and inhibitors.

17:00 **Closing remarks**

20:00 **Dinner**

INVITED SPEAKERS and CHAIRPERSONS

Dino Amadori
Oncology Department – Forlì City Hospital, Forlì – Italy

Piero Benedetti
Department of Biology, Padova University, Padova, Italy.

Mary-Ann Bjornsti
Department of Molecular Pharmacology, St. Jude Children's Research Hospital, Memphis, TN, USA.

Fritz Boege
Institut für Klinische Chemie und Laboratoriumsdiagnostik, Universitätsklinikum Düsseldorf, Düsseldorf, Germany

Daniele Calistri
Preclinical Laboratory, Oncology Department, Forlì General Hospital, Forlì, Italy

Giorgio Camilloni
Department of Genetics and Molecular Biology, "La Sapienza" University of Rome, Rome, Italy.

Giovanni Capranico
Department of Biochemistry, University of Bologna School of Pharmacy, Bologna, Italy.

Alessandro Desideri
Department of Biology, Tor Vergata University, Rome, Italy.

Michel Duguet
Laboratoire d'Enzymologie des Acides Nucléiques, Institut de Génétique et Microbiologie, UMR 8621 CNRS, Université de Paris Sud, Orsay, France.

William C Earnshaw
Wellcome Trust Centre for Cell Biology, Institute for Cell and Molecular Biology, University of Edinburgh, Edinburgh, UK

Marco Foiani
F.I.R.C. Institute of Molecular Oncology, Milan, Italy

Danielle Gadelle
Institut de Génétique et Microbiologie, CNRS, UMR 8621, Université Paris-Sud, France.

Giuseppe Giaccone
Free University Hospital, Amsterdam, The Netherlands.

Ian D Hickson
Cancer Research UK Laboratories, Weatherall Institute of Molecular Medicine, University of Oxford, John Radcliffe Hospital, Oxford, UK

Burkhard Jansen
Novelix Pharmaceuticals Inc. Pasadina, CA, USA

Robert Kaptein
Bijovoet Center for Biomolecular Research, Utrecht University, Utrecht, The Netherlands.

Birgitta R. Knudsen
Department of Molecular and Structural Biology, University of Aarhus, Aarhus, DK.

David Levens
Laboratory of Pathology, Center for Cancer Research, NCI, NIH, Bethesda, MD, USA.

Maurizio Marangolo
Oncology & Hematology Department, Ravenna City Hospital, Ravenna, Italy

Christian Mielke
Institut für Klinische Chemie und Laboratoriumsdiagnostik, Universitätsklinikum Düsseldorf, Düsseldorf, Germany.

Georgi Muskhlishvili
School of Engineering and Science, International University Bremen, Bremen, Germany

Yves Pommier
Laboratory of Molecular Pharmacology, NCI, NIH, Bethesda, MD, USA

Valerio Orlando
Dulbecco Telethon Institute, Institute of Genetics & Biophysics CNR, Naples, Italy.

Fritz Thoma
Institut fur Zellbiologie, ETH-Honggerberg, Zurich, Switzerland.

Andrew A. Travers
MRC Laboratory of Molecular Biology, Hills Road, Cambridge, UK

James C. Wang
Harvard University, Cambridge, MA, USA

Dale B. Wigley
Molecular Enzymology Laboratory, London Research Institute, Clare Hall Laboratories, Hertfordshire, UK.

Wainer Zoli
Preclinical Laboratory, Oncology Department, Forlì General Hospital, Forlì- Italy

Gabriella Zupi
Experimental Preclinical Laboratory, Regina Elena Cancer Institute , Rome Italy