Twenty-Third Heidelberger Symposium on Cancer Research

September 23-28, 2019

Stintino, Sardinia Italy

https://med.nyu.edu/register/heidelbersymposium/

Monday, September 23, 2019

7:00 pm  Arrival and Dinner

Tuesday, September 24, 2019

7:30 am  Registration and Breakfast

Maria A. Zoroddu and Orazio Cantoni, Chairs

8:30 am  Welcome remarks
          Max Costa and Maria Zoroddu

8:40 am  Introduction to the First Charles Heidelberger Memorial Symposium on Cancer Research
          Eli Huberman

8:50 am  Introduction to the Career of Dr. Charles Heidelberger and to Continuing Charles Heidelberger Memorial Symposia on Cancer Research
          Joseph Landolph

Molecular Mechanisms of Carcinogenesis

Curtis Harris and Donna Zhang, Chairs

9:00 am  Curtis Harris, NCI
          Cancer and Aging

9:30 am  Donna Zhang, University of Arizona
          The Intricacies of NRF2 Regulation in Cancer

10:00 am Wei Dai, New York University School of Medicine
          Ras sumoylation in Cell Signaling and Transformation

10:30 am Lyudmila Gulyaeva, Novosibirsk State University
          Smoking in Epigenetic Mechanisms of Lung Cancer: Role of AhR

11:00 am Coffee Break

11:30 am Tom Hei, Columbia University
          Radiation Carcinogenesis: From TGFBI to the Non-Targeted Effects

12:00 am Gloria Calaf, Universidad de Tarapaca/Columbia University
          Role of organophosphorous pesticides and acetylcholine in breast carcinogenesis

12:30 pm Yong Li, Cleveland Clinic, Lerner Research Institute
          From the Most Dangerous Dioxin to the Most Profitable Weed Killer: Environmental Risk of Multiple Myeloma

1:00 pm Marco Giorgio, European Institute of Oncology
          On the mitochondrial oncogene-induced senescence
1:30 pm Bhagavatula Moorthy, Baylor College of Medicine  
Mechanistic role of cytochrome P4501 enzymes in pulmonary carcinogenesis mediated by PAHs

2:00 pm Lunch

Nickel Carcinogenesis  
Max Costa and Joseph Landolph, Chairs
3:00 pm Chuanshu Huang, New York University School of Medicine  
Epigenetic Factors, DNMT3 and LncRNA MEG3, Contributes to Nickel Lung Carcinogenesis
3:30 pm Suresh Cuddapah, New York University School of Medicine  
Epigenetic Activation of Epithelial-Mesenchymal Transition by Nickel Exposure
4:00 pm Joseph Landolph, University of Southern California  
Genomic Sequencing Reveals Mutations, Gene Amplifications, and Deletions in Insoluble Ni+2 Transformed C3H/10T1/2 Cell Lines
4:30 pm Samuel Buxton, NiPERA  
Cancer mode of action for nickel in the EU regulatory context
5:00 pm Michael Maroney, University of Massachusetts at Amherst  
HypA and the Nickelation of Urease in Helicobacter pylori
5:30 pm Hong Sun, New York University School of Medicine  
SATB2 and Nickel Carcinogenesis
6:00 pm Koren Mann, McGill University  
Potential tumorigenic mechanisms of tungsten

6:30 pm Dinner

Wednesday, September 25, 2019

8:00 am Breakfast

Arsenic Carcinogenesis  
Ke Jian Jim Liu and Chunyuan Jin, Chairs
9:00 am Ke Jian Jim Liu, University of New Mexico  
DNA repair, mutation signature, and arsenic exposure: a whole genome sequencing approach
9:30 am Orazio Cantoni, University of Urbino  
Direct and indirect effects of arsenite CA^{2+} homeostasis and mitochondrial ROS formation: implications for the genotoxic response mediated by the metalloid

10:00 am Chunyuan Jin, New York University School of Medicine  
Environmental exposure and chromatin assembly
10:30 am Max Costa, New York University School of Medicine  
A New Mechanism for As Carcinogenesis

11:00 am Coffee Break
11:30 am Marcello Bonini, Medical College of Wisconsin  
Arsenic promotes basal subtypes of Breast Cancer
12:00 pm Zhishan Wang, University of Kentucky  
The synergistic lung tumorigenic effect of arsenic and BaP co-exposure
12:30 pm Yvonne Fondue-Mittendorf, University of Kentucky  
Epigenomic reprogramming in iAs-mediated carcinogenesis

1:00 pm Lunch
2:00 pm Excursion to Alghero
Thursday, September 26, 2019
8:00 am Breakfast

Chromate Carcinogenesis
Alvaro Puga and Xianglin Shi, Chairs
9:00 am Bing-Hua Jiang, University of Iowa
MicroRNAs and epigenetic regulation in metal-induced angiogenesis and carcinogenesis
9:30 am Xianglin Shi, University of Kentucky
Mechanism of Cr(VI) carcinogenesis and its prevention
10:00 am Alvaro Puga, University of Cincinnati
Chromium exposure disrupts chromatin architecture
10:30 am Chengfeng Yang, University of Kentucky
Epigenetic mechanism of Cr(VI)-induced cell malignant transformation and tumorigenesis
11:00 am Coffee Break

Approaches to Cancer Therapy I
Karl-Heinrich Link and Robert Ladner, Chairs
11:30 am Serenella Medici, Universita di Sassari
Metal Nanoparticles in the Treatment of Cancer
12:00 pm Andrea Rasola, Universita di Padova
A TRAP on the road to tumor growth. The mitochondrial chaperone TRAP1 as a potential target for anti-neoplastic strategies.
12:30 pm Karl-Heinrich Link, Asklepios Paulinen Cancer Center
Pancreatic cancer surgery/multimodal therapy: Is pancreatic cancer curable?
1:00 pm Robert Ladner, Queens University Medical School
Targeting Thymidylate Metabolism In Cancer Therapeutics: New Opportunities Hidden in Plain Sight
1:30 pm Lunch
2:30 pm Konstantin Salnikow, National Cancer Institute
Iron and cancer
3:00 pm Zhibin Wang, Johns Hopkins Bloomberg School of Public Health
Epigenetic insights of sodium arsenite exposure in development and cancer
3:30 pm Free Time
6:00 pm Sardinian Dinner and Cena
Sociale Performance (Sardinian folk dance, tenors performance, classical singing with soprano)

Friday, September 27, 2019
8:00 am Breakfast

Biomarkers and Carcinogenesis
Julia Kzhyschkowska and Sergei Kovalenko, Chairs
<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 am</td>
<td>Julia Kzhyszkowska, University of Heidelberg</td>
<td>Macrophages as biomarkers and therapeutic targets in cancer</td>
</tr>
<tr>
<td>9:30 am</td>
<td>Sergei Kovalenko, Novosibirsk State University</td>
<td>Liquid biopsy in lung cancer monitoring</td>
</tr>
<tr>
<td>10:00 am</td>
<td>Bernardo Lemos, Harvard T.H. Chan School of Public Health</td>
<td>Environmental epigenetics and new mechanistic markers of chemical exposure</td>
</tr>
<tr>
<td>10:30 am</td>
<td><strong>Coffee Break</strong></td>
<td></td>
</tr>
<tr>
<td>11:00 am</td>
<td>Luigi Casella, Universita di Pavia</td>
<td>Dopamine toxicity and neurodegeneration</td>
</tr>
<tr>
<td>11:30 am</td>
<td>Massimiliano Peana, Universita di Sassari</td>
<td>The dark side of metal Nps: focus on cancerogenic effects</td>
</tr>
<tr>
<td>12:00 pm</td>
<td>Chendil Damodaran, University of Louisville School of Medicine</td>
<td>Challenges in Treating Patients With Prostate Cancer</td>
</tr>
<tr>
<td>12:30 pm</td>
<td>Christopher States, University of Louisville School of Medicine</td>
<td>MicroRNA Dysregulation and Chromosome Instability in Arsenic Carcinogenesis</td>
</tr>
<tr>
<td>1:00 pm</td>
<td><strong>Lunch</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Approaches to Cancer Therapy II</strong></td>
<td></td>
</tr>
<tr>
<td>2:00 pm</td>
<td>Eliezer Huberman and Wei Li, Chairs</td>
<td></td>
</tr>
<tr>
<td>2:00 pm</td>
<td>David Ann, City of Hope</td>
<td>Arginine starvation kills tumor cells through aspartate exhaustion and mitochondrial dysfunction</td>
</tr>
<tr>
<td>2:30 pm</td>
<td>Eli Chapman, University of Arizona</td>
<td>Targeting NRF2 to treat cancer</td>
</tr>
<tr>
<td>3:00 pm</td>
<td>Eliezer Huberman, University of Illinois, Novadrug LLC</td>
<td>Drugs to Control Hazardous Viruses Including Some Involved in Human Malignancies</td>
</tr>
<tr>
<td>3:30 pm</td>
<td>Wei Li, Keck School of Medicine of USC</td>
<td>Tumor-secreted Hsp90 is a safer and more effective target for therapeutics</td>
</tr>
<tr>
<td>4:00 pm</td>
<td><strong>Coffee Break</strong></td>
<td></td>
</tr>
<tr>
<td>4:30 pm</td>
<td>Giovanni Natile, University of Bari &quot;Aldo Moro&quot;</td>
<td>Interference Between Copper Transport Systems and Platinum Drugs</td>
</tr>
<tr>
<td>5:00 pm</td>
<td>Joyce Ellen Ohm, Roswell Park Cancer Institute</td>
<td>Genetic and Environmental Reprogramming of the Sarcoma Epigenome</td>
</tr>
<tr>
<td>5:30 pm</td>
<td>Fei Chen, Wayne State University</td>
<td>Mdig is a demethylase for the inhibitory histone trimethylation markers</td>
</tr>
<tr>
<td>6:00 pm</td>
<td>Joseph Landolph</td>
<td>Summary of Major Findings of the Twenty Third Heidelberger Symposium on Cancer Research</td>
</tr>
<tr>
<td>6:30 pm</td>
<td><strong>Dinner</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Saturday, September 28, 2019**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am</td>
<td>Breakfast and Departure</td>
</tr>
</tbody>
</table>
Organizing Committee – Italy
Serenella Medici, PhD (sere@uniss.it)
Massimiliano Peana, PhD (peana@uniss.it)