Plenary presentations in International I/II

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:30 - 9:00</td>
<td>Doors Open, Registration &amp; Poster Setup</td>
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<tr>
<td>9:00 – 9:15</td>
<td>Welcome &amp; State of the Cancer Center</td>
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**SESSION I: CURRENT ISSUES**

*Plenary Talks*

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<th>Time</th>
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<tr>
<td>9:15 – 9:35</td>
<td>Small Molecule Development as Probes and Therapeutic Leads</td>
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<td>9:35 – 9:55</td>
<td>Unmet Needs in Cancer Genomics and Personalized Care</td>
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<tr>
<td>9:55 – 10:15</td>
<td>State of the Science: Cancer &amp; Metabolism</td>
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<td>10:15 - 10:35</td>
<td>State of the Science: Genomics &amp; Epidemiology: Melanoma</td>
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10:35 – 11:20 Concurrent Breakout Discussions

- Small Molecule Development as Probes & Therapeutic Leads | Moderator: Gregory Weiss, PhD
  Rapporteur: Rebekah Dyer
- Unmet Needs in Cancer Genomics & Personalized Care | Moderators: Suzanne Sandmeyer, PhD & Edward Nelson, MD
  Rapporteurs: Heather Wright & Jue Hou
- Cancer & Metabolism | Moderators: Aimee Edinger, VMD/PhD & Olga Razorenova, PhD
  Rapporteur: Liza Selwan
- Genomics & Epidemiology with Focus on Melanoma | Moderators: Karen Edwards, PhD & Kristen Kelly, MD
  Rapporteurs: Feng Liu-Smith, PhD & Rachel McFarland

11:20 – 12:05 Report Back | Rapporteurs

12:05 – 1:35 LUNCH in International III & POSTER SESSION in the Promenade

1:35 – 2:20 KEYNOTE

Cancer Research at the Intersection of Biology and Physics | Mitchell Gross, MD, PhD
Associate Professor of Clinical Medicine, Keck School of Medicine of USC; Research Director, USC Norris Westside Cancer Center and the Center for Applied Molecular Medicine

**SESSION II: FEATURED PROGRAMMATIC PRESENTATIONS**

<table>
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<th>Time</th>
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| 2:20 – 2:40| CHEMICAL & STRUCTURAL BIOLOGY
  Synthesis of Natural Products with Anticancer Activity | Sergey Pronin, PhD |
| 2:40 – 3:00| ONCO-IMAGING & BIOTECHNOLOGY
  Spying on Cellular Communication with Novel Imaging Probes | Jennifer Prescher, PhD |
| 3:00 – 3:20| SYSTEMS, PATHWAYS & TARGETS
  Tumor Macroenvironment and the Circadian Metabolic Clock | Selma Masri, PhD |
| 3:20 – 3:40| CANCER PREVENTION, OUTCOMES & SURVIVORSHIP
  Decision stories about Vaccinating for HPV among Latina and Vietnamese young adult women attending Planned Parenthood | Suellen Hopfer, PhD |
| 3:40 – 3:55| COFFEE BREAK                                                             |
| 3:55 – 4:15| NEW MEMBER – BASIC SCIENCE
  Intratumor Heterogeneity in Cancer Progression and Metastasis | Devon Lawson, PhD |
| 4:15 – 4:35| NEW MEMBER – CLINICAL RESEARCH
  Future Directions in Lymphoma Therapy | Lauren Pinter-Brown, MD |
| 4:35 – 4:55| DISEASE-ORIENTED TEAM: GI DOT: TUMOR ON A CHIP
  Validation of a Microfluidics Device to Study Patient-Derived Colon Cancer Cells and Determine Clinical Predictive Value | Stephanie Hachey, Hughes Lab |
| 4:55 – 5:00| Closing Remarks | Richard Van Etten, MD PhD, Director |
| 5:00 – 6:00| RECEPTION in The Loft                                                    |
Breakout Discussions

A. Small Molecule Development as Probes and Therapeutic Leads

Moderator: Gregory Weiss, PhD
Rapporteur: Rebekah Dyer

The goal of CSB’s breakout session is to discuss and identify challenges inherent to moving molecules from the academic lab to the clinic as potential therapeutics or moving them to other labs as potential probes for biological experiments. Academic labs at UCI focus on an entirely different set of challenges, and run into issues when trying to commercialize their molecules. The CSB is organizing a symposium in the Spring to provide expertise in the development of small molecule therapeutics and probes. We will use the roundtable discussion to focus the agenda for the retreat.

B. Unmet Needs in Cancer Genomics and Personalized Care

Moderators: Suzanne Sandmeyer, PhD & Edward Nelson, MD
Rapporteurs: Heather Wright & Jue Hou

Advances in cancer genomics are expected to change oncology from a practice where treatment decisions are made based on conventional histopathologic classification and retrospective population-based drug response data, to one in which a patient's tumor mutations and other molecular abnormalities will be identified and targeted for personalized cancer treatments. In order to accelerate this long term goal, the NCI has established NCI-Molecular Analysis for Therapy Choice (NCI-MATCH), a clinical trial that aims to analyze patients’ tumors to determine whether they contain genetic abnormalities for which a targeted drug exists (i.e., “actionable mutations”) and assigns treatment based on the abnormality. This precision medicine approach will require a more complete understanding of molecular/genomic features for disease classification and identification of promising new targets for therapy. This session will review what is currently known about actionable mutations and identify unmet needs in both basic science and technology development that could accelerate our effort to identify and cure cancers according to their molecular abnormalities.

C. State of the Science: Cancer & Metabolism

Moderators: Aimee Edinger, VMD, PhD & Olga Razorenova, PhD
Rapporteur: Liza Selwan

In the last decade there has been an explosion of research on cancer cell metabolism. In addition to the well-known Warburg effect where cancer cells increase glucose uptake and switch to aerobic glycolysis, research has identified additional nutrient acquisition pathways that are enhanced including macropinocytosis and glutamine uptake. These findings have led to the idea that cancer cells have unique metabolic vulnerabilities that might be targeted therapeutically. Indeed, certain existing chemotherapies are classified as anti-metabolites, including methotrexate and L-asparaginase. There has been some progress in identifying and targeting cancerspecific metabolic pathways, exemplified by inhibitors of mutant IDH enzymes in glioma and AML. However, it has not yet been possible to develop broadly effective strategies for rational targeting of shared metabolic pathways across tumor types. In this session, we will discuss current challenges and opportunities in the field of cancer cell metabolism. Strategies and technical approaches underway in specific UCI laboratories and core facilities will be presented. Ideas for integrating activities in different research labs will be discussed.

D. State of the Science: Genomics & Epidemiology: Melanoma

Moderators: Karen Edwards, PhD & Kristen Kelly, MD
Rapporteurs: Feng Liu-Smith, PhD & Rachel McFarland

Melanoma is a complex condition that is due to genetic, environmental, and behavioral factors and their interactions. It is one of the few cancers where incidence rates are increasing and represents a serious public health problem locally and nationally. Melanoma disproportionately affects residents of Orange County, and although incidence rates are highest in non-Hispanic whites, there are substantial race- and ethnicity-based disparities in outcomes. The goal of the CPOS breakout session will be to discuss ways to increase melanoma research to address this important public health problem. We will discuss existing challenges and barriers to collaborative research and identify action items that address these barriers. We will use the roundtable discussion to identify a set of high priority action items to expand melanoma research at UCI.