Pathways to Cures: Translational Science Research Day

THINK TANK
Meeting Unmet Clinical Needs
&
Quick Pitch Competition

This Think Tank provides an opportunity for interaction among community leaders, scientists, patients, health care professionals, and others who rarely have the opportunity to brainstorm. The deliverable product of this Think Tank is the identification of specific areas that have negative impact on health but for which gaps in knowledge exist.

**Objective:** To identify technological gaps in that could enhance the day-to-day effectiveness of clinical care

**Moderator:** Steve Cramer, MD

Dr. Steven C. Cramer is a Professor of Neurology, Anatomy & Neurobiology, and Physical Medicine & Rehabilitation at the UC Irvine. He is also the Clinical Director of the Sue & Bill Gross Stem Cell Research Center and Associate Director of the ICTS, and co-PI of the NIH StrokeNet. His research focuses on neural repair after central nervous system injury in humans, with an emphasis on stroke and recovery of movement. Treatments examined include robotic, stem cell, brain stimulation, biologic, drug, and telehealth methods. A major emphasis is on translating new drugs and devices to reduce disability after stroke, and on individualizing therapy for each person’s needs.

**Panelists:**

**Randal C. Schulhauser; Business Development & Market Insights Leader, Medtronic**

Randal received his B.Sc. for Electrical Engineering and B.A for Physiology from Queen’s University in Kingston, Ontario Canada. Randal was hired by Medtronic of Canada Ltd. as a Product Engineer assigned to work on the first Medtronic human implantable defibrillator. In August 2002 Randal accepted a new position at the Medtronic Tempe Campus where he continues to work as the Campus Leader for Business Development and Market Insights. Randal is a holder of fourteen patents with another twelve applications filed at the US Patent Office. He has also published multiple articles in peer-reviewed literature.

**Redonna Chandler, Deputy Director, Division of Clinical Innovation, NIH**

Dr. Chandler earned her PhD in psychology from the University of Kentucky and is a licensed psychologist. As a clinician, she has treated those struggling with addiction, serious mental health issues and infertility. She has been at NIH since 2002, serving in positions of increasing responsibility and leadership at the National Institute on Drug Abuse. Prior to joining NCATS, she served as the acting deputy director for the Division of Epidemiology, Services and Prevention Research and as the chief of the Services Research Branch at the National Institute on Drug Abuse.

**JD Harriman, Partner, Arent Fox**

JD Harriman is a partner in Arent Fox’s Los Angeles office where he is a member of the firm’s Intellectual Property group. His practice focuses on post-grant patent proceedings, patent prosecution, strategic counseling, due diligence investigations, pre-suit investigations, intellectual property litigation, and intellectual property counseling on behalf of the holders of large patent portfolios, as well as emerging growth companies. He has lectured on Intellectual Property matters on four continents.
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Teams of UCI entrepreneurs of students, researchers, and faculty will pitch innovative medical ventures. Each team will compete for funding towards their research. Live voting by the audience will select the winner.

<table>
<thead>
<tr>
<th>Team Name</th>
<th>Description</th>
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<tr>
<td>EpiCloudDx</td>
<td>EpiCloudDx is a start-up in the medical diagnostics space. Our company's PlasmoTech is a malaria diagnostic device that will diagnose the disease faster, cheaper and more reliably - and help save millions of lives and livelihoods, across the world. We are currently at the prototype development stage, after which we will graduate to analytical validation, clinical studies, regulatory approval and pilot market study, in that chronological order. Anand Rao (<a href="mailto:aksrao@uci.edu">aksrao@uci.edu</a>)</td>
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<tr>
<td>NanoShield Biotix</td>
<td>NanoShield Biotix aims to apply an antimicrobial nanostructured coating to surfaces of products where infection control is critical, such as medical devices. Our nanostructures lead to the rupture of bacteria and yeast cells. We fabricate nanostructured coatings using nanoimprint lithography, a low-cost fabrication technique widely used in the electronics and semiconductor industry. Our patent pending nanoimprint lithography protocol allows us to transfer a thin nanostructured coating to flat or curved surfaces. This technology can be adapted to many applications in healthcare. It is particularly well-suited for contact lens and ophthalmologic implants. Andrew Schmerl (<a href="mailto:andrewschmerl@gmail.com">andrewschmerl@gmail.com</a>)</td>
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<td>Purist</td>
<td>Purist or ‘Pure Isotope Technology” has developed an innovative technology to produce radioactive ingredients used to treat and diagnose life threatening diseases such as cancer. Currently the U.S. is heavily reliant on unreliable foreign nuclear reactors for radioisotope supplies. Purist has developed a technique that can utilize existing U.S. nuclear reactor infrastructure to locally produce and distribute radioisotopes for medical applications. Purist's goal is to ensure no medical procedure is put on hold or switched to less effective techniques due to radioisotope shortage. Leila Safavi (<a href="mailto:lsafavit@uci.edu">lsafavit@uci.edu</a>)</td>
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<tr>
<td>Syntr Health Technologies</td>
<td>Syntr Health Technologies harnesses the potential of stem cells to reduce the burden of diabetic foot ulcers and prevent amputations. Our revolutionary microfluidic system, SyntrfugeTM, accurately applies the shear stress required to enrich stem cells found in fat tissue for a point-of-care therapeutic that can be directly injected into the patient to save limbs and ultimately, save lives. Ahmed Zobi (<a href="mailto:azobi@uci.edu">azobi@uci.edu</a>)</td>
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<tr>
<td>Venom Aid</td>
<td>Venom Aid provides an effective and inexpensive anti-venom therapeutic that can be applied in the prehospital setting and reduce complications associated with snake bites within the United States and eventually world-wide. Jeffrey O’Brien (<a href="mailto:jaobrien@uci.edu">jaobrien@uci.edu</a>)</td>
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