San Francisco iGIANT Roundtable – February 5, 2016 Health and Technology

Venue: Reed Smith, LLP Co-Hosts:

Reed Smith Building American Medical Women's Association

101 2nd Street, San Francisco, CA Taku Group

The San Francisco iGIANT Roundtable brought together a diverse group of stakeholders in the health, technology, and communication industries with expertise in medicine, computer science, technology, media, and research.

Participating Organizations and Representatives

American Medical Women's Association (Co-Host)

The American Medical Women's Association is an organization which functions at the local, national, and international level to advance women in medicine and improve women's health. We achieve this by providing and developing leadership, advocacy, education, expertise and mentoring and through building strategic alliances.

Eliza Lo Chin, MD, MPH

Executive Director

Laurel Waters, MD, MCAP, FASCP

President, AMWA Branch 30

Avalanche Biotechnologies

Avalanche is a gene therapy company committed to discovering and developing novel medicines that can offer life-changing therapeutic benefit to patients dealing with chronic or debilitating disease.

Alia Rashid, MD Medical Director

Cisco Services

Cisco is the worldwide leader in IT and helps businesses connect the unconnected. They have developed technology solutions for the healthcare vertical that address virtual patient care, collaboration and security needs.

Janet Cardinell, MBA Director

Comcast

Comcast Corporation is a global media and technology company with two primary businesses, Comcast Cable and NBCUniversal. Comcast Cable is the nation's largest video, high-speed Internet and phone provider to residential customers under the XFINITY brand and also provides these services to businesses. NBCUniversal operates 30 news, entertainment and sports cable networks, the NBC and Telemundo broadcast networks, television production operations, television station groups, Universal Pictures and Universal Parks and Resorts.

Lorena Hernandez, BA Director, Community Investment

Hewlett Packard Enterprise

Hewlett Packard Enterprise helps customers use technology to slash the time it takes to turn ideas into value. In turn, they transform industries, markets and lives. Some of our customers run traditional IT environments. Most are transitioning to a secure, cloud-enabled, mobile-friendly infrastructure. Many rely on a combination of both. Wherever they are in that journey, we provide the technology and solutions to help them succeed.

Wendy Wheeler, BS Section Manager - Software R&D

Highland Hospital

Highland Hospital is the largest campus of Alameda Health System. With 236 inpatient beds, Highland houses a regional trauma center, conducts medical and clinical teaching, and delivers primary, specialty, and multi-specialty care. Within the Highland campus are numerous Centers of Excellence – Maternity Services, Gastroenterology, Surgery, Orthopedics, Geriatrics/Senior Care, and Trauma – which have outstanding reputations for providing quality care. The Centers are nationally known for their exceptional staff, state-of-the-art technology, premier teaching programs, and participation in late-breaking research.

Monique Smith Emergency Medicine Resident

National Council of Asian Pacific Islander Physicians

NCAPIP is a national health policy organization of physician leaders working to improve the health and well-being of Asian American, Native Hawaiian, and Pacific Islander patients and their families.

Suhaila Khan, MD, PhD Director of Research

Presque & STLG

Presque is a patented nursing product designed to provide supplemental milk to nursing infants while naturally creating a bonding experience that will last forever.

Soody Tronson, JD, MS Counsel/Founder

Raw Science TV

Raw Science is an online network focused on science and technology that will change the world in the near future. With on-demand streaming media, original series, and editorially curated content offered by leading experts in all areas of science and technology, Raw Science offers stunning insights on how cutting-edge advances can furnish solutions for the greatest issues confronting our society.

Keri Kukral, BS Chief Executive Officer

SPARK Translational Research Program – Stanford Medicine

The SPARK Program is a partnership between Stanford University and volunteers from the local biotechnology, pharmaceutical, and health care investment industries. SPARK's mission is three-fold: first, to help academic investigators overcome the obstacles intrinsic to moving research discoveries from bench to bedside; second, to educate faculty, postdoctoral fellows, and graduate students regarding the translational research process so that development of promising new discoveries becomes second nature at our institution; third, to promote efficient, cost-effective, and innovative approaches to discovery and development.

Nancy A. Federspiel, PhD Associate Director

Taku Group (Co-Host)

Taku Group develops business and technology strategy and provides interim executive management to clients around the world. We particularly thrive where IT intersects the medical and clean tech/energy fields, for example in the creation and implementation of IoT strategy.

Karin Hollerbach, PhD

Founder, Chief Executive Officer

UC Davis Health System

UC Davis Health System is improving lives and transforming health care by providing excellent patient care, conducting groundbreaking research, fostering innovative, interprofessional education, and creating dynamic, productive partnerships with the community.

Lisa Brown, MD, MAS

Assistant Professor of Thoracic Surgery

West Big Data Innovation Hub

The West Big Data Innovation Hub (WBDIH) is a consortium launched by the National Science Foundation to address societal challenges with Big Data innovation. WBDIH is led by UC Berkeley, UC San Diego, and the University of Washington, and includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Meredith M. Lee, PhD Executive Director

(not present but information shared)

EXXclaim Capital

EXXclaim Capital is the first venture capital fund to recognize the large and rapidly growing opportunity in women's health and to create a fund to capitalize on this insight. Although women have emerged as the largest users and purchasers of medical products and services, traditional venture investment in solutions catering to the health and wellness needs of women has lagged. EXXclaim is taking advantage of this pent up market need by investing in early stage companies that pursue capital efficient strategies to develop products and services for women across a wide spectrum of healthcare subsectors such as medical devices, diagnostics, digital health, elder and pediatric care, wellness, cosmetics, aesthetic medicine and consumer health.

Anula Jayasuriya, MD, PhD, MBA

Managing Director and Founder, EXXclaim Capital

Optio

Optio puts patients back in control of their prescription medications. We offer a virtual pharmacist partner, super-powered by proven clinical algorithms and personalized data, to optimize their medication regimens for effectiveness, affordability, and convenience.

Rebecca Coelius, MD Co-Founder

Roundtable Administrators:

Krista Wakefield, MA Director of Marketing & Strategic Alliances American Medical Women's Association Umber Ahmed, BA & Kristine Lalic, BS Pre-medical Division Leaders American Medical Women's Association

Overview of iGIANT (Impact of Gender/Sex on Innovation And Novel Technologies)

Purpose: To accelerate the translation of research into sex/gender-specific design elements which include policies, products, protocols or programs.

Goal: To improve work performance and the safety and quality of life for men and women. Background: This initiative was developed by the White House Office of Science and Technology Policy and is now being implemented in the public and private sectors. The American Medical Women's Association (AMWA) and Taku Group are among many partners helping to set up roundtables around the country. More than 14 to date are now being planned nationally. This is the third roundtable assembled by AMWA. The first was a roundtable among orthopedic surgeon leaders and the second was a roundtable in Miami, FL. Conclusions from those roundtables are forthcoming. The hope is that these roundtables will branch out into many different sectors (science, technology, retail, transportation) and that attendees will be continue to set up additional roundtables to reach into their own networks and communities.

Information about the iGIANT program as well as updates from previous roundtables is available at Stanford University's Gendered Innovations website: genderedinnovations.stanford.edu/igiant. A symposium will be held in 2016 at Stanford University, inviting all roundtable attendees to gather together and stimulate cross-pollination of ideas.

Key Findings of the San Francisco iGIANT Roundtable

- There are many areas in health and technology where considerations of gender in innovation can lead to better outcomes. This is seen in medical treatment and diagnosis strategies as well as new healthcare and technological devices. A better understanding of these differences can lead to better health outcomes and improved functionality of new technology.
- The case for gender considerations in innovation can be challenging because of increased costs, gaps in knowledge, and lack of interest among leaders. Strategies to overcome this may require research, data analysis, media, and engagement with end users.
- Ultimate drivers for innovation may be economic factors or the need for policy and legislation.
- It's important to tap into existing networks as well as to create more interdisciplinary networks that can provide expertise, mentoring, and resources.
- Lack of female leadership: Increasing awareness of gender in innovation underscores the need for representation of both genders in both product design and company leadership.

Discussion Points on Gender in Innovation:

Various areas where innovation in gender is needed to improve function:

Example: Wearables – Google Glasses don't fit women as well men

Example: Surgical equipment often not suited for female hands, particularly with

minimally invasive procedures (laparascopy, thorascopy, robotic surgery, other scopes) Example: Gender differences in medicine and health and the need for a better understanding of

Example: Gender differences in medicine and health and the need for a better understanding of the impact of gender on pathophysiology, disease management, and treatment.

The Challenge: Cost, lack of interest by manufacturers, knowledge gaps

Strategies:

1. Sometimes, it's necessary to reframe the issue, so that it's not just about gender. What are other issues that make a more compelling reason to improve innovation in a particular area?

- 2. What is the data? Is there data from research, electronic medical records, wearables, etc. that can inform future innovation from a gender perspective? How can research and data mining help address gaps in knowledge? This is "data science for social good."
- 3. Engage the leadership.
- 4. Highlight best practices to promote visibility of this issue.
- 5. Encourage more women to participate both in the design of new technology and in decision-making capacities. This will ensure input from both genders at key stages of development. Women need to be involved in the decision-making process, which highlights the need for more women in leadership positions and in STEM related fields. The lack of female leadership needs to be addressed.
- 6. Convene some of the technology companies with end-users to address specific user issues. Designers should seek input from both genders.
- 7. Understand the economic impact. What is the business case for gender specific innovation? One of the ways to drive change in innovation is the economic argument.
- 8. Find better ways to "tell the story." This may be with the help of media training internally or with consultants (anthropologists, actors) externally. It is important to know the audience in order to raise awareness or convey information to potential funders. Media connections and the ability to capture the story will be important in creating data science narratives.
- 9. Can legislation or policy changes help enact change?
- 10. Engage researchers and non-profits in this space. Reach across disciplines this is an interdisciplinary issue.
- 11. Network through roundtables, meetings, and other forums. Be a resource and mentor.

Possible Next Steps:

- 1. Create a top 10 list of areas where gender specific innovation is needed. Interface with end users and provide ideas to innovators. Help make a business case for it.
- 2. Promote more networking. Create listserves and aggregate different networks. Set up a communication portal for roundtable participants both locally and nationally. Share networks and be a resource for each other.
- 3. Tap into interdisciplinary networks that have already been set up, like SPARK (see above) and CHIPS. CHIPS (Cross-disciplinary Healthcare Innovation Partnerships) is an interdisciplinary group that connects medicine, law, business, engineering at a grassroots level at Stanford and aims to spur the growth of new technologies and ideas in healthcare.
- 4. What is the collective story that we can use to message this? What are common threads that can come out of this roundtable? How can we capture data science narratives and share it with the media? How can we use collaborative social media platforms?