iGIANT Roundtable May 8, 2017 Washington, DC

### AGENDA:

Moderator: Dr. Saralyn Mark Introductions Discussion – Challenges and Solutions Next Steps

### **ATTENDEES:**

### Aerojet Rocketdyne

Kate Maliga, MA – Director Aerojet Rocketdyne provides and propulsion for spacecraft, rocket motors and liquid rocket engines for launch vehicles. It also provides energetics and propulsion for missiles and armaments.

### American Medical Women's Association (AMWA)

Eliza Lo Chin, MD, MPH - Executive Director

Founded in 1915, AMWA is an organization that works to advance women in medicine and improve women's health. AMWA's programs provide leadership, advocacy, education, mentoring and strategic alliances.

#### **Boston Scientific**

Mariana Rodrigues, MBA - National Program Director Close the Gap Boston Scientific transforms lives through innovative medical solutions that improve the health of patients around the world. As a global medical technology leader for more than 35 years, we advance science for life by providing a broad range of high performance solutions that address unmet patient needs and reduce the cost of healthcare.

#### Busek

Garry White, Rear Admiral (Ret), USN - Vice Chairman

Busek is an innovative aerospace corporation specializing in advanced space propulsion solutions and electronics for spaceflight and terrestrial applications. The firm is engaged in applied research, hardware development and specialty manufacturing. Busek is a leading source for electric propulsion thrusters for use on defense, civil, and commercial spacecraft.

#### **Explore Mars**

Chris Carberry – CEO Artemis Westenberg, MA - President Explore Mars, Inc. was created to promote science and technology innovation and education with a use for Mars exploration. Not for profit set to put humans on Mars by 2033.

### First Star, Inc

#### Peter Samuelson – President, CEO

First Star partners with universities and child welfare agencies throughout the country to make a longterm investment in foster youth and change the course of their lives, from abuse and neglect to academic achievement and self-sufficiency.

# **HOSA – Future Health Professionals**

Koeninger, PhD – Executive Director

An association serving students in middle/high schools, community colleges, and colleges/universities who are enrolled in health and biomedical science programs. HOSA serves 225,000 future health professionals in 4,500 chapters in the USA and internationally. The 40th Annual International Conference will be held in Orlando, FL, June 21-24 and attended by nearly 10,000 delegates.

## **IDEAGEN**

Leif Ackerman – CEO Where the world's leading companies, NGO's and public sector organizations convene to innovate and collaborate to address the world's most vexing issues.

## iGIANT

Saralyn Mark, MD – President

*iGIANT* (*impact of Gender/Sex on Innovation and Novel Technologies*) seeks to accelerate the translation of research into gender/sex-specific design elements such as products, programs, policies and protocols.

### Janet's Planet Inc.

Janet Ivey, MS, Ed - President, CEO

Janet's Planet is dedicated to informal space and science education and outreach. Janet's Planet serves the elementary and middle school markets specifically but exists to create and be the launch pad for science literacy. Janet's Planet is a multi-media company producing both broadcast and web content for students.

### Johns Hopkins Applied Physics Laboratory

Margaret Simon, MBA – Strategic Communications Manager APL is the nation's largest University Affiliated Research Center and provides solutions to national security and scientific challenges. APL's Space Exploration Sector built and operates the New Horizons mission to Pluto.

# Johns Hopkins University School of Medicine

Irina Burd, MD, PhD - Director, Integrated Research Center for Fetal Medicine The goals of the Johns Hopkins Integrated Research Center for Fetal Medicine is to advance worldclass discovery in biomedical and health services through innovative translational research, to derive cures for prenatally-diagnosed diseases by cutting across multiple basic science and clinical disciplines, and to recruit and train future prenatal leaders with expertise in fetal medicine to advance clinical care through research and discovery.

### National Aeronautics and Space Administration (NASA)

John Allen, PhD - Program Executive for Crew Health and Safety Kathleen Boggs, PhD - Systems and Technology Demonstration Manager Lindsay Aitchison, MS - EVA System Maturation Team SE&I Lead Jennifer Gustetic - SBIR/STTR Program Executive NASA is a United States government agency that is responsible for science and technology related to air and space. The EVA System Maturation Team is focused on the development of space suit system technologies to enable human space exploration. NASA SBIR/STTR funds ~\$190M annually in research and development at small businesses to address NASA interests. NASA Headquarters Human Exploration and Operations Mission Directorate is responsible for all aspects of human space exploration from spacecraft to astronauts. Crew Health and Safety has the responsibility for assuring that astronauts are healthy before, during, and after human space missions.

## National Aeronautics and Space Administration (NASA) Astrobiology Institute

Penelope Boston, PhD – Director, NASA Astrobiology Institute The NASA Astrobiology Institute is part of the NASA Astrobiology Program. It oversees approximately 12 multi-disciplinary and multi-institutional teams working on 5 year large grants tackling major questions in astrobiology.

# National Aeronautics and Space Administration (NASA) Goddard Space Flight Center

Jacob Bleacher, PhD - Research Geologist

Leads field research campaigns of up to 30-40 people in volcanic terrains for comparison to data collected from other planets, field test technology elements within the developing human space exploration architecture and serve on the astronaut training team for earth and planetary geosciences.

# **National Science Foundation**

Rebecca Keiser, PhD - Head, Office of International Science and Engineering The National Science Foundation (NSF) is an independent federal agency created by Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense..." NSF is vital because we support basic research and people to create knowledge that transforms the future.

# NASAWatch/SpaceRef/Astrobiology.com

Keith Cowing, MA - Editor Online space news services NASAWatch.com, SpaceRef.com, and Astrobiology.com

# Partnerships for Change®

Jacqueline Miller, BS, MA Accelerating social and economic transformation through impactful media and direct action. Sponsored over twenty award winning and provocative documentaries and television series. Successfully completed schools, monasteries, health clinics, research projects and rescue missions in India, Nepal, Burma, Cambodia, Thailand, Malawi, South Africa, Benin, Liberia and Cape Verde.

# **Raw Science TV**

Keri Kukral, BSE - CEO

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.

# **Stem Magazines**

Wayne Carling, MA – CEO / Publisher

STEM Magazine, STEM for Women and STEAM Magazines currently have over 400,000 readers monthly in 47 states and 65 countries. Our vital innovators and participants in our endeavors of the next 25 years are currently in middle school. STEM Magazines are designed to be their inspiration and platform for communications and awareness.

# Other Attendees

Adrianne MacLean – Writer

### **SUMMARY:**

On May 8, 2017, the Washington, DC iGIANT roundtable was convened as part of the 2017 Human to Mars Summit.

### Discussion highlights:

1. In healthcare and medicine, there is growing data that highlight the importance of sex and gender from the standpoint of biology, research inclusion policies, treatment paradigms and precision health care. Sex/Gender differences are seen even at the level of the fetus. Understanding these differences will help us design more targeted interventions. As we consider new frontiers such as space, sex and gender based differences will play an important part in mission success.

2. Examples were discussed regarding equipment, particularly in the military, which have posed significant challenges for women. Policies and protocols may put women at a disadvantage, simply because of the way that they are worded. For example, it may be advantageous to pose the question, "Is society or the environment designed for me and my needs?"

3. Meaningful change requires men and women to feel incentivized--people need to see a win in it for them to change. Creating challenges may be one way to accelerate this, but it is important to pay attention to how these are conducted to fully encourage participation by both men and women.

4. We can raise more awareness about the importance of the iGIANT missions through digital and print media. Tell the stories, especially the positive stories. Impacting change through education, particularly the young generation will be essential.

5. Though diversity and inclusion are not the central mission of iGIANT, they are relevant to increasing our awareness of sex and gender-based aspects in technology and innovation. In astrobiology, there has been a significant increase in the number of women. As a result, they have been driving the discussions about need for gender appropriate equipment. Gender equality is important due to the downstream effect such as improved technology. In addition, it is essential to create a safe place to talk about these issues and to encourage men to understand the value of this approach which will also benefit everyone as well.

Roundtable hosted by Explore Mars with support from AMWA, Raw Science, and iGIANT and a grant from Boston Scientific.