PROGRAM AT A GLANCE

October 25

9:00 a.m.–7:00 p.m.	**Registration**	**Grand Peninsula Foyer**
11:00 a.m.–Noon	**Delegate Orientation**	**Cypress A**
1:00 p.m.–2:25 p.m.	**Assembly of Delegates I**	**Grand Peninsula EFG**
2:00 p.m.–9:00 p.m.	**Professional Poster Setup**	**Sequoia B**

2:30 p.m.–3:30 p.m. **Regional Caucuses**

Mid-Atlantic Region (MA)	**Sandpebble C**
North Central Region (NC)	**Sandpebble D**
Northeast Region (NE)	**Cypress A**
Northwest Region (NW)	**Sandpebble A**
Southeast Region (SE)	**Sandpebble B**
Southwest Region (SW)	**Sandpebble E**

3:45 p.m.–4:45 p.m. **Constituency Caucuses**

Area, Industries, State, and Federal Laboratories Constituency (MI)	**Sandpebble D**
Baccalaureate Colleges Constituency (BA)	**Sandpebble A**
Canadian and International Constituency (CI)	**Sandpebble B**
Comprehensive Colleges and Universities Constituency (CM)	**Sandpebble C**
Membership-at-Large Constituency (MAL)	**Sandpebble E**
Research and Doctoral Universities Constituency (RD)	**Cypress A**

5:00 p.m.–6:15 p.m.	**Assembly of Delegates II**	**Grand Peninsula EFG**
6:15 p.m.–7:00 p.m.	**Dinner on Your Own or Purchase Dinner during the Science Café at 7:00 p.m.**	
7:00 p.m.–8:30 p.m.	**Science Café: The Who & Why of Environmental Health**	**Rise Pizzeria**

PLENARY AND GENERAL SESSIONS

October 26

7:00 a.m.–7:00 p.m.	Registration	Grand Peninsula Foyer
8:00 a.m.–8:30 a.m.	Opening Remarks	Grand Peninsula EFG
8:30 a.m.–9:30 a.m.	Observing the Universe, Broadly, Deeply, and Frequently	Grand Peninsula EFG
9:30 a.m.–9:45 a.m.	Break and Transition to Symposia	
11:00 a.m.–11:50 a.m.	Global SPHERE Network	Cypress A
Noon–1:15 p.m.	Walston Chubb Award for Innovation Luncheon and Keynote Lecture	Grand Peninsula D
3:00 p.m.–9:00 p.m.	Student Poster Setup	Grand Peninsula ABC
3:30 p.m.–5:00 p.m.	Professional Poster Session	Sequoia B
5:00 p.m.–6:00 p.m.	Deep Learning and the Grand Engineering Challenges	Grand Peninsula EFG
6:00 p.m.–7:00 p.m.	Dinner on Your Own or Purchase Dinner during the Science Café at 8:30 p.m.	
7:00 p.m.–8:00 p.m.	Think Cosmically, Act Globally, Eat Locally	Regency C
8:30 p.m.–10:00 p.m.	Science Café: "So What Kind of Doctor Are You, Anyway?" My Long Journey from Medicine to Public Policy, with Stops in Lasers and Corn Farming	Rise Pizzeria

SYMPOSIUM ON BIG DATA IN BIOLOGY AND MEDICINE
October 26

9:45 a.m.-10:45 a.m.	Keynote: Making the Most of Petabases of Genomic Data	Sequoia A
11:00 a.m.-11:20 a.m.	Therapies for Hearing Loss: From Bench to Clinic	Sequoia A
11:20 a.m.-11:40 a.m.	Pharmacogenomics of Arsenic Trioxide: GWAS Identifies WWP2, an E3 Ubiquitin Ligase	Sequoia A
11:40 a.m.-Noon	Network Approaches Identify Brain Regions and Gene Hubs Associated with Genetic Predisposition for Methamphetamine Intake	Sequoia A
1:30 p.m.-2:30 p.m.	Keynote: Personal Genomics and Data Science	Sequoia A
2:30 p.m.-3:30 p.m.	Keynote: The Importance of Diversity in Big Genomic Data	Sequoia A

SYMPOSIUM ON BIG DATA IN PHYSICS AND ASTRONOMY
October 26

9:45 a.m.-10:45 a.m.	Keynote: A Universe of Data Challenges	Cypress A
1:30 p.m.-2:30 p.m.	Keynote: From Supercomputers to the IMAX Screen: Cinematic Scientific Visualizations	Cypress A
2:30 p.m.-3:30 p.m.	Keynote: Big Data and Theoretical Astrophysics	Cypress A

SYMPOSIUM ON CLIMATE, ENERGY, AND THE ENVIRONMENT
October 26

9:45 a.m.–10:45 a.m.	Keynote: Strange Weather: Using Machine Learning to Characterize Present and Future Climate Extremes	Cypress C
11:00 a.m.–11:30 a.m.	Global Parameterization of Climate Change Indicators	Cypress C
11:30 a.m.–Noon	Reduction of a Manufacturing Plant's Electricity Demand During Grid Consumption Peaks with an Energy Storage System Managed by Neural Network-Based Big Data-Fed Demand Forecast and a Decision Model	Cypress C
1:30 p.m.–2:30 p.m.	Keynote: The Fourth National Climate Assessment: Translating Data to Inform Decisions	Cypress C
2:30 p.m.–3:30 p.m.	Keynote: How Big (Biological) Data is Changing Our Approach to Environmental Health	Cypress C

RESEARCH ETHICS
October 26

9:45 a.m.–10:45 a.m.	Keynote: Big Data Challenges from Total-Body Positron Tomography to Explore Addiction, Schizophrenia, and Other Diseases	Harbour A
11:00 p.m.–11:30 p.m.	Ethical Debate on Standards For Authorship	Harbour A
11:30 a.m.–Noon	Tele-Cybernetics: Socio-Politico-Ethical Background for Governing Big Data	Harbour A

SCIENCE COMMUNICATIONS
October 26

1:30 p.m.–1:50 p.m.	**Increasing Data Literacy and Building Science Communication Skills - The Biodiversity Literacy in Undergraduate Education (BLUE) Data Initiative**	**Regency A**
1:50 p.m.–2:10 p.m.	**Challenges of Sharing Data in Long-Distance Collaborations**	**Regency A**
2:15 p.m.–3:30 p.m.	**Seeking Science: A Roundtable with California Legislative Staff**	**Sandpebble DE**
7:00 p.m.–9:00 p.m.	**Science Communication Workshop, Part I**	**Regency A**

PLENARY AND GENERAL SESSIONS
October 27

7:00 a.m.–7:00 p.m.	**Registration**	**Grand Peninsula Foyer**
7:00 a.m.–8:00 a.m.	**Student Poster Setup**	**Grand Peninsula ABC**
8:00 a.m.–8:30 a.m.	**Concurrent Orientations for the Student Research Conference**	
8:00 p.m.–8:30 a.m.	**Presenting Student Orientation**	**Grand Peninsula EFG**
8:00 p.m.–8:30 a.m.	**Judge Orientation**	**Sequoia A**
8:30 a.m.–9:00 a.m.	**Continental Breakfast**	**Grand Peninsula D**
9:00 a.m.–Noon	**Student Research Poster Presentations**	**Grand Peninsula ABC**
Noon–1:15 p.m.	**Young Investigator Award Luncheon and Keynote**	**Grand Peninsula D**
2:00 p.m.–4:00 p.m.	**SAS Viya Data Mining and Machine Learning Demonstration**	**Sandpebble AB**

PLENARY AND GENERAL SESSIONS
October 27

3:30 p.m.–5:30 p.m.	Exhibits and Networking	Grand Peninsula Foyer
4:15 p.m.–5:15 p.m.	Sigma Xi Chapter Program Showcase	Harbour A
5:30 p.m.–6:00 p.m.	John P. McGovern Science and Society Award Lecture	Grand Peninsula EFG
6:00 p.m.–6:30 p.m.	Break and Exhibitor Booth Teardown	
6:30 p.m.–7:00 p.m.	Reception	Atrium
7:00 p.m.–9:00 p.m.	Sigma Xi Banquet	Grand Peninsula D
9:00 p.m.–9:30 p.m.	Student Score Pickup	Grand Peninsula Foyer
9:30 p.m.–10:30 p.m.	Science Comedy Show	Pavilion Tent

SYMPOSIUM ON BIG DATA IN BIOLOGY AND MEDICINE
October 27

1:30 p.m.–1:50 p.m.	The 1000 Genomes Project: Challenges and Opportunities	Sequoia A
1:50 p.m.–2:10 p.m.	Ultrasonic Vocabulary Defined by Social Behavior of Mice	Sequoia A
2:10 p.m.–2:30 p.m.	Big Data Analytics for Rare Variations and Psychiatric Disorders	Sequoia A

RESEARCH ETHICS
October 27

1:30 p.m.–2:30 p.m.	Keynote: Big Data Ethics: From Writing Code to Coding Rights in an Era of Intelligent Machines	Harbour A
2:45 p.m.–4:00 p.m.	Ethical Issues and Challenges in Research	Harbour A

PROFESSIONAL DEVELOPMENT
October 27

1:30 p.m.–2:50 p.m.	Sigma Xi Chapters and Interdisciplinary Professional Development: How Can We Build on Our Strengths?	Cypress A
3:00 p.m.–4:15 p.m.	How to Survive and Thrive in a Research Career	Cypress A
4:15 p.m.–5:15 p.m.	Grant Writing Workshop	Cypress C

SCIENCE COMMUNICATIONS
October 27

1:30 p.m.–3:00 p.m.	Connecting with Your Audience: Tools for Effective Science Communication	Regency A
3:15 p.m.–4:45 p.m.	Science Communication Workshop Part II	Regency A

PLENARY AND GENERAL SESSIONS
October 28

8:30 a.m.–10:30 a.m.	Sigma Xi Town Hall	Grand Peninsula EF
10:30 a.m.	Conference Ends	