



**Frontiers of Predictive Oncology and Computing  
Biological Applications of Advanced Strategic Computing (BAASiC) Meeting**

**July 12-14, 2016**

**Crowell & Moring LLP  
1001 Pennsylvania Avenue, NW, Washington, DC 20004  
[www.crowell.com](http://www.crowell.com)**

**Day One – Tuesday, July 12, 2016**

8:00 AM **Arrival and check-in** at the Lobby Security Desk to receive Crowell Badge  
**Registration & receipt of meeting badge; continental breakfast** Floor 10

---

9:15 AM **Welcome & Introductory Remarks** Floor 10

**James Brinker**

*Director, Extreme Scale Computing, Intel Corporation*

**Jodi Daniel, J.D., M.P.H**

*Partner (Digital Health/Health IT) at Crowell & Moring*

**Warren Kibbe, PhD**

*Acting Deputy Director, National Cancer Institute,  
Director, Center for Biomedical Informatics and Information Technology (CBIT),  
National Cancer Institute (NCI)*

**Dimitri Kusnezov, PhD**

*Chief Scientist & Senior Advisor to the Secretary,  
National Nuclear Security Administration, Department of Energy (DOE)*

---

9:30 AM **Keynote – NCI’s Patient-Derived Model Repository: A Vehicle for Drug Discovery**

**Dr. James Doroshov**

*Director, Division of Cancer Treatment and Diagnosis (DCTD),  
National Cancer Institute (NCI), National Institutes of Health (NIH)*

---

10:30 AM **Break – networking**

---

11:00 AM **Panel Session: Convergence of Computing, Precision Medicine, and Predictive Oncology**

**Moderator: Walt Gall, PhD**

*Head of Healthcare & Life Sciences, Saffron Technology, Intel New Devices Group*

# FRONTIERS OF PREDICTIVE ONCOLOGY & COMPUTING

JULY 12-14, 2016 • WASHINGTON, D.C.



## **Darrell R. Abernethy, MD, PhD, FACP**

*Associate Director for Drug Safety, Office of Clinical Pharmacology, Food and Drug Administration*

## **Manny Aparicio, PhD**

*Chief Scientist, Saffron Technology Group, Intel Corporation*

## **Anastasia Christianson, PhD**

*Senior Vice President, Leidos Biomedical Research Directorate Head, Data Science and Information Technology, Frederick National Lab for Cancer Research*

## **Michael W. Kattan, PhD**

*Chair, Department of Quantitative Health Science, Lerner Research Institute, Cleveland Clinic*

## **Howard L. McLeod, PharmD**

*Chief Scientific Advisor and Director, Gentris, LLC, Medical Director of the DeBartolo Family Personalized Medicine Institute at the Moffitt Cancer Center*

---

12:15 PM

***Lunch***

Floor 10

---

1:30 PM

## **Plenary Session: Research Priorities in Predictive Oncology**

### **Moderator: Jessica Boten, MPH**

*Scientific Program Analyst, National Cancer Institute, Surveillance Research Program*

### ***Leveraging tumor-specific regulatory models to elucidate and target key tumor dependencies on an individual patient basis***

#### **Andrea Califano, PhD**

*Professor of Chemical Biology and Systems Biology, Biomedical Informatics and the Institute for Cancer Genetics, Chair of Systems Biology, Columbia University*

### ***Predictive oncology and oncogenic signaling***

#### **Frank McCormick, PhD, FRS**

*RAS National Initiative, Scientific Advisor, Frederick National Lab for Cancer Research (FNLCR), Leidos Biomedical Research, Inc.*

### ***Challenges to delivering on the promise of personalized medicine***

#### **Gordon B. Mills, MD, PhD**

*Department Chair, Department of Systems Biology, Division of Basic Science Research, The University of Texas MD Anderson Cancer Center, Houston, TX*

---

3:00 PM

***Break – networking***

---



3:30 PM

**Panel Session: Challenges and Opportunities for Multi-Stakeholder Engagement in Predictive Oncology**

**Moderator: Jason Paragas, PhD**

*Director, Innovation, Lawrence Livermore National Laboratory*

**Jerry S.H. Lee, PhD**

*Deputy Director, Center for Strategic Scientific Initiatives, National Cancer Institute (NCI)  
Deputy Director for Cancer Research and Technology, Cancer Moonshot Task Force*

**David Heimbrook, PhD**

*Laboratory Director, Frederick National Laboratory Cancer Research (FNLCR)  
President, Leidos Biomedical Research, Inc.*

**Joel Saltz, MD, PhD**

*Cherith Professor and Founding Chair, Department of Biomedical Informatics, Vice President for Clinical Informatics, Stony Brook Medicine, Associate Director, Stony Brook University Cancer Center*

**Craig D. Shriver, MD, FACS, COL**

*Colonel, Medical Corps, United States Army, Director, John P. Murtha Cancer Center, Walter Reed NMMC, Professor of Surgery, Uniformed Services University of Health Sciences (USUHS)*

**Frederick Streitz, PhD**

*Chief Computational Scientist, Physical and Life Sciences Directorate, Director, High Performance Computing Innovation Center (HPCIC), Lawrence Livermore National Laboratory*

---

4:30 PM

**Plenary Session: Computing Advances Enabling Predictive Oncology**

**Moderator: Amy Gryshuk, PhD**

*Biosciences Program Development Liaison, Lawrence Livermore National Laboratory*

***Next-Generation Computing for Predictive Oncology***

**Jim Brase**

*Deputy Associate Director, Computation, Lawrence Livermore National Laboratory*

***All in One Day Precision Medicine by 2020***

**Ketan Paranjape, MBA**

*General Manager Life Sciences, Intel Corporation*

---

5:30 PM

**Closing**

**James Brinker**

*Director, Extreme Scale Computing, Intel Corporation*

# FRONTIERS OF PREDICTIVE ONCOLOGY & COMPUTING

JULY 12-14, 2016 • WASHINGTON, D.C.



## **Warren Kibbe, PhD**

*Acting Deputy Director, National Cancer Institute,  
Director, Center for Biomedical Informatics and Information Technology (CBIT),  
National Cancer Institute (NCI)*

## **Dimitri Kusnezov, PhD**

*Chief Scientist & Senior Advisor to the Secretary,  
National Nuclear Security Administration, Department of Energy (DOE)*

---

5:45 PM     ***Adjourn***

---

**Evening on own – dinner on own**

## **Day Two – Wednesday, July 13, 2016**

8:00 AM     **Arrival and check-in** at the Lobby Security Desk to receive Crowell Badge  
**Registration & receipt of meeting badge; continental breakfast**     Floor 9

---

9:15 AM     **Welcome & Recap**     Floor 9

### **James Brinker**

*Director, Extreme Scale Computing, Intel Corporation*

### **Jason Paragas, PhD**

*Director, Innovation, Lawrence Livermore National Laboratory*

---

9:30 AM     **Keynote – HPC Technology Drivers to Address Future Oncology Needs**

### **Mark Seager, PhD**

*Intel Fellow, Chief Technology Officer for the High Performance Computing (HPC) Ecosystem, Intel Corporation*

---

10:30 AM     ***Break – networking***

---

11:00 AM     **Panel Session: DOE-NCI Pilots – Extreme Computing at Scale**

# FRONTIERS OF PREDICTIVE ONCOLOGY & COMPUTING

JULY 12-14, 2016 • WASHINGTON, D.C.



## Moderators:

### Amy Gryshuk, PhD

*Biosciences Program Development Liaison, Lawrence Livermore National Laboratory*

### Eric Stahlberg, PhD

*Director, High Performance Computing (HPC) Strategic Initiative, Frederick National Laboratory for Cancer Research (FNLCR), Leidos Biomedical Research Inc.*

## Pilot 1

### Francis J. Alexander, PhD

*Division Leader (Acting)  
Computer, Computational, and  
Statistical Sciences Division  
Los Alamos National Laboratory*

### Yvonne Evrard, PhD

*Operations Manager, NCI  
Patient-Derived Models Repository  
Frederick National Laboratory for Cancer Research  
Leidos Biomedical Research, Inc.*

## Pilot 2

### Frederick Streitz, PhD

*Chief Computational Scientist, Physical  
and Life Sciences Directorate,  
Director, High Performance Computing  
Innovation Center (HPCIC),  
Lawrence Livermore National Laboratory*

### Dwight Nissley, PhD

*Director, Cancer Research Technology Program  
Frederick National Lab for Cancer Research /  
Leidos Biomedical Research, Inc.*

## Pilot 3

### Georgia Tourassi, PhD

*Director, Health Data Sciences Institute  
Oak Ridge National Laboratory*

### Lynne Penberthy, MD, MPH

*Associate Director, Surveillance Research Program,  
Division of Cancer Control and Population Sciences,  
National Cancer Institute*

---

12:15 PM **Pick up lunches and walk to breakout locations (Use the first hour for networking and lunch)**

---

1:30 PM **Breakout Sessions – Open Discussions**

|           | Session Name  | Room Location                                | Session Co-Leads                                      |
|-----------|---|--|---|
| Session I | Computing for <b>basic biological predictive oncology</b> research – <i>Modeling of complex systems</i> (ex. RAS pilot, etc.) | Floor 9 – Left side of large conference room | Shannon Hughes<br>Dwight Nissley<br>Frederick Streitz |

---

# FRONTIERS OF PREDICTIVE ONCOLOGY & COMPUTING

JULY 12-14, 2016 • WASHINGTON, D.C.



|             |  |   |   |
|-------------|--|---|---|
| Session II  | Computing for <b>pre-clinical predictive oncology</b> – <i>Artificial Intelligence and Machine Learning</i> (ex. PDX pilot, etc.)  | Floor 9 – Separate room                       | Francis Alexander<br>Yvonne Evrard<br>Sean Hanlon<br>Susan Holbeck  |
| Session III | Bringing frontiers of <b>computing to clinical oncology</b> – <i>Imaging, observation, surveillance, population health, etc.</i> ; (ex. SEER pilot, etc.)  | Floor 9 – Right side of large conference room | Paul Fearn<br>Lynne Penberthy<br>George Redmond<br>Georgia Tourassi |
| 4:00 PM     | <b><i>Reconvene in main conference room – networking</i></b>   |   | Floor 9   |
| 4:30 PM     | <b>Closing</b><br><br><b>James Brinker</b><br><i>Director, Extreme Scale Computing, Intel Corporation</i><br><br><b>Amy Gryshuk, PhD</b><br><i>Biosciences Program Development Liaison, Lawrence Livermore National Laboratory</i><br><br><b>Eric Stahlberg, PhD</b><br><i>Director, High Performance Computing (HPC) Strategic Initiative, Frederick National Laboratory for Cancer Research (FNLCR), Leidos Biomedical Research Inc.</i> |   | Floor 9   |
| 4:45 PM     | <b><i>Adjourn</i></b>  |   |   |

**Evening on own – dinner on own**

## Day Three – Thursday, July 14, 2016

|         |  |          |
|---------|--|----------|
| 8:00 AM | <b>Arrival and check-in</b> at the Lobby Security Desk to receive Crowell Badge<br><b>Registration &amp; receipt of meeting badge; continental breakfast</b> | Floor 10 |
| 9:15 AM | <b>Welcome &amp; Introductory Remarks</b><br><br><b>James Brinker</b><br><i>Director, Extreme Scale Computing, Intel Corporation</i>                         | Floor 10 |



# FRONTIERS OF PREDICTIVE ONCOLOGY & COMPUTING

JULY 12-14, 2016 • WASHINGTON, D.C.



## **Warren Kibbe, PhD**

*Acting Deputy Director, National Cancer Institute,  
Center for Biomedical Informatics and Information Technology (CBIT),  
National Cancer Institute (NCI)*

## **Dimitri Kusnezov, PhD**

*Chief Scientist & Senior Advisor to the Secretary,  
National Nuclear Security Administration, Department of Energy (DOE)*

---

### 9:30 AM **Facilitated Discussion on Breakouts: Predictive Oncology and New Opportunities**

#### **Moderators:**

#### **Rick Cnossen**

*Global Solutions Director, Intel Health & Life Science  
Intel Corporation*

#### **Eric Stahlberg, PhD**

*Director, High Performance Computing (HPC) Strategic Initiative, Frederick National  
Laboratory for Cancer Research (FNLRC), Leidos Biomedical Research Inc.*

---

### 11:00 AM **Break – networking**

---

### 11:30 AM **The Vice President's Cancer Initiative: In Brief**

#### **Dinah Singer, PhD**

*Acting Deputy Director, National Cancer Institute, Director, Division of Cancer Biology, National  
Cancer Institute (NCI)*

---

### 12:15 PM **Closing**

#### **James Brinker**

*Director, Extreme Scale Computing, Intel Corporation*

#### **Warren Kibbe, PhD**

*Acting Deputy Director, National Cancer Institute,  
Director, Center for Biomedical Informatics and Information Technology (CBIT),  
National Cancer Institute (NCI)*

#### **Dimitri Kusnezov, PhD**

*Chief Scientist & Senior Advisor to the Secretary,  
National Nuclear Security Administration, Department of Energy (DOE)*

---

### 12:30 PM **Adjourn**