

# 7<sup>TH</sup> ANNUAL MEETING & SYMPOSIUM

SEPTEMBER 18, 2014 | MUSEUM OF FLIGHT, SEATTLE, WA

NEW MEMBERS

New members inducted into the Washington State Academy on September 18, 2014

## *Members inducted as 2014 electees*

### **Section 1 – Physical and Mathematical Sciences**

|                   |   |
|-------------------|---|
| Donald R. Baer    | Laboratory Fellow, Pacific Northwest National Laboratory  |
| Bradley R. Colman | Principal Program Manager, Microsoft                      |
| Alvin L. Kwiram   | Emeritus Professor of Chemistry, University of Washington |

### **Section 2 – Engineering and Technology**

|                    |  |
|--------------------|--|
| Alain Bonneville   | Laboratory Fellow, Pacific Northwest National Laboratory   |
| Chen-Ching Liu     | Boeing Distinguished Professor of Electrical Engineering, Washington State University                  |
| Jud W. Virden, Jr. | Associate Laboratory Director, Energy & Environment Directorate, Pacific Northwest National Laboratory |

### **Section 3 – Biological Sciences**

|                   |   |
|-------------------|---|
| Adrienne Fairhall | Associate Professor, Physiology and Biophysics, University of Washington                              |
| Andre Eric Punt   | Director, School of Aquatic and Fishery Sciences, University of Washington                            |
| Robin Waples      | Senior Scientist, Northwest Fisheries Science Center; National Oceanic and Atmospheric Administration |

### **Section 4 – Medicine and Health Sciences**

|                    |  |
|--------------------|--|
| George Demiris     | Professor, Biobehavioral Nursing & Health Systems, University of Washington  |
| Frederick M. Rieke | Professor, Department of Physiology and Biophysics, University of Washington |

### **Section 5 – Anthropology, Economics, Social and Political Sciences**

|                 |  |
|-----------------|--|
| Ann Bostrom     | Weyerhaeuser Endowed Professor of Environmental Policy, University of Washington |
| John Mark Ellis | Professor of Geography, University of Washington                                 |

## *Members inducted as 2014 members of National Academies*

|                        |  |
|------------------------|--|
| Janice L. Abkowitz     | Clemant A. Finch Professor of Medicine, Head, Division of Hematology, Adjunct Professor of Genome Sciences, University of Washington School of Medicine; IOM   |
| Frederick R. Appelbaum | Executive Director, Seattle Cancer Care Alliance; Clinical Research Division, Director, Fred Hutchinson Cancer Research Center; Professor, Medical Oncology Division, University of Washington School of Medicine; IOM |
| Gary S. Kaplan         | Chairman and CEO, Virginia Mason Health System; IOM  |
| Bruce Mark Psaty       | Professor, Departments of Medicine, Epidemiology and Health Services; Investigator, University of Washington, Group Health Research Institute, Cardiovascular Health Research Unit; IOM                                |
| Eric D'Asaro           | Senior Principal Oceanographer, Professor, Oceanography, University of Washington; NAS   |

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NEW MEMBER CITATIONS

## Section 1 – Physical and Mathematical Sciences

**Donald R. Baer**      **Laboratory Fellow, Pacific Northwest National Laboratory**

**Citation:** For research and capability development that significantly advances molecular-level understanding of environmentally important interfacial processes relevant to nanoparticle reactivity, mineral dissolution, and stress corrosion cracking.

**Bradley R. Colman**      **Principal Program Manager, Microsoft**

**Citation:** For scientific leadership within the National Weather Service and in the American Meteorological Society.

**Eric D'Asaro**      **Senior Principal Oceanographer, Professor, Oceanography, University of Washington; NAS**

**Citation:** For pioneering instrumental, observational, and analytical progress in understanding upper ocean processes, quantifying turbulent fluxes and inertial wave generation and propagation. His unique Lagrangian measurements have been key in testing, and sometimes overturning, theories such as the critical depth hypothesis for the initiation of the Spring phytoplankton bloom.

**Alvin L. Kwiram**      **Emeritus Professor of Chemistry, University of Washington, Emeritus Vice Provost for Research, University of Washington**

**Citation:** For pioneering development of advanced magnetic resonance technology and supporting theory, for critical scientific and technological leadership at university, state, and federal levels, and for STEM workforce development.

## Section 2 – Engineering and Technology

**Alain Bonneville**      **Laboratory Fellow, Pacific Northwest National Laboratory**

**Citation:** For scientific accomplishments in geological storage of carbon dioxide, marine heat flow, geodynamics of the Pacific Ocean, and intraplate volcanism.

**Chen-Ching Liu**      **Boeing Distinguished Professor of EE and Director of Energy System Innovation Center, Washington State University**

**Citation:** For the development of restoration procedures from widespread electricity outages after natural disasters, and countermeasures against physical and cyber security threats to the electric grid.

**Jud W. Virden, Jr.**      **Associate Laboratory Director, Energy & Environment Directorate, Pacific Northwest National Laboratory**

**Citation:** For exceptional contributions, outstanding organizational direction and national and international leadership to solve clean energy challenges in multiple domains through science-based innovation, strong partnerships that move technology to market.

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## Section 3 – Biological Sciences

**Adrienne Louise Fairhall** Associate Professor with tenure, Physiology and Biophysics Department, University of Washington, and Adjunct Associate Professor, Physics Department, University of Washington

**Citation:** For widely catalyzing a transition from conventional methods to quantitative and theoretic approaches in the neurobiology community through published work, teachings, and close collaborations with experimental labs.

**André Eric Punt** Professor, School of Aquatics and Fishery Sciences, University of Washington  
Director, School of Aquatic and Fishery Sciences, University of Washington

**Citation:** For internationally recognized contributions to ecosystem based management, particularly for fish stocks and marine mammals, for formal management procedures, and for application of Bayesian statistics to population dynamics.

**Robin Waples** Senior Scientist, Northwest Fisheries Science Center, NOAA, Seattle

**Citation:** For internationally recognized theoretical and applied contributions to conservation genetics of natural populations, and especially for his leadership role in application of the US Endangered Species Act to Pacific salmon.

## Section 4 – Medicine and Health Sciences

**Janice L. Abkowitz** Clemant A. Finch Professor of Medicine, Head, Division of Hematology, Adjunct Professor of Genome Sciences, University of Washington School of Medicine; IOM

**Citation:** Dr. Abkowitz is a prominent clinician, scientist, and leader in academic hematology. Her major scientific contributions include describing hematopoietic stem cell replication rate and fate decisions in vivo; demonstrating how heme trafficking regulates red cell differentiation and systemic iron homeostasis; and defining the cellular and molecular mechanisms of erythroid marrow failure. As President of the American Society of Hematology, she initiated a novel bridge grant for hematology researchers and is a steadfast supporter of physician-scientists as a critical component of the science workforce.

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**Frederick R. Appelbaum**      **Executive Director, Seattle Cancer Care Alliance; Clinical Research Division, Director, Fred Hutchinson Cancer Research Center; Professor, Medical Oncology Division, University of Washington School of Medicine; IOM**

**Citation:** Dr. Appelbaum is an international authority on the biology and treatment of hematologic malignancies. He was the first to show the curative potential of autologous marrow transplantation, a therapy now used in over 30,000 patients annually, and helped develop gemtuzumab ozogamicin, the first antibody-drug conjugate approved by the FDA.

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**George Demiris**      **Professor, Biobehavioral Nursing & Health Systems, School of Nursing and Biomedical & Health Informatics, School of Medicine, University of Washington  
Director, Clinical Informatics and Patient-Centered Technologies Graduate Program**

**Citation:** For research and education contributions in medical informatics and nursing, and for interdisciplinary and cross-institutional efforts to test the effectiveness of technology to improve the health of Washington state residents.

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**Gary S. Kaplan**      **Chairman and CEO, Virginia Mason Health System; IOM**

**Citation:** Dr. Kaplan's leadership at Virginia Mason has been recognized by the Harvard Business School as a standard-setting approach to improving cost and quality; he is widely recognized as one of the most influential physician executives in health care. He has developed and led national "market-place collaboratives" with key employers to reduce health costs and dramatically improve both employee productivity and corporate competitiveness.

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**Bruce Mark Psaty**      **Professor, Departments of Medicine, Epidemiology and Health Services; Investigator, University of Washington, Group Health Research Institute, Cardiovascular Health Research Unit; IOM**

**Citation:** Dr. Psaty is among the world's leading and most respected pharmaco-epidemiologists, and a major advocate for scientifically based drug safety and FDA policy. His many publications include important practice changing contributions on the effects of various drugs on cardiovascular outcomes, the potential of using drug-gene interactions to improve outcomes, and the discovery of genetic variants associated with many cardiovascular and aging phenotypes.

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**Fredrick Martin Rieke**      **Professor, Department of Physiology and Biophysics, School of Medicine, University of Washington**

**Citation:** For contributions to visual information processing in the retinal circuit, from rhodopsin isomerization and optimization of synaptic transfer to rapid adaptation during changes of intensity and contrast.

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## Section 5 – Anthropology, Economics, Social and Political Sciences

**Ann Bostrom**

**Weyerhaeuser Endowed Professor of Environmental Policy, Evans School of Public Affairs, University of Washington**

**Citation:** For outstanding research on how people understand and make decisions about risks, which has been influential in informing responses to environmental harms, climate change, nanotechnology, and other risks.

**John Mark Ellis**

**Professor of Geography, Director of the Center for Studies in Demography & Ecology, and Director of the Northwest Census Research Data Center, University of Washington**

**Citation:** For internationally recognized research contributions to the changes in immigrant settlement geography and the dynamics of change in race and ethnic geographies in U.S. cities.