History and Progress Report NOAA Climate & Global Change Postdoctoral Program

Introduction

The NOAA Climate and Global Change Postdoctoral Program appointed its first class of fellows in 1991. The program was envisioned and sponsored by the NOAA Office of Global Programs, Director, J. Michael Hall. The primary objective of the program remains to help create the next generation of researchers needed for climate studies. During the first year of the program, the steering committee was charged to make appointments to scientists who would study in two particular areas: Climate Modeling and Model Diagnostics and Tropical Ocean Global Atmosphere.

In 1992, with more refined objectives for the program, the steering committee made appointments to those scientists interested in supporting research on mechanisms of climate variations on time scales of seasons to centuries. The overall goal is to provide predictions and assessments of global climate change on seasonal to centennial time scales.

In 2004, Chester J. Koblinsky, was named director of NOAA OGP. OGP current name is Climate Program Office (CPO). Several program managers from CPO have acted as liaison with the UCAR Visiting Scientist Programs in administering the program. Those managers have included Kenneth Mooney, Michael Patterson, Lisa Dilling, and Jim Todd.

<u>1991</u>

Members of the first steering committee for this program included:

John Young (Univ. of Wisconsin, Madison) Chairman Robert Toggweiler (Princeton/GFDL) Steve Esbensen (Oregon State Univ.) Ed Sarachik (Univ. of Washington)

Although appointed, Robbie Toggweiler was unable to serve on the committee. The other three members of the committee met for the first time on 11-12 April 1991 in Madison, Wisconsin to review 57 postdoctoral applications. We received 28 host applications. Eight appointments were made.

The 1991 appointees are as follows:

Class 1

Mark Chandler

Research Topic:: Climate Modeling PhD Institution: Columbia University Host: David Rind, GISS

Xingjian Jiang

Research Topic: Climate Modeling
PhD Institution: University of Illinois
Host: Inez Fung, GISS

Zhengyu Liu

Research Topic: Climate Modeling
PhD Institution: MIT/WHOI
Host: George Philander, Princeton University/GFDL

Victor Magana

Research Topic: TOGA PhD Institution: UCLA Host: Peter Webster, UCLA

Richard Williams

Research Topic: Climate Modeling
PhD Institution: University of East Anglia
Host: Carl Wunsch, MIT

Jiayan Yang

Research Topic: TOGA
PhD Institution: Florida State University
Host: David Neelin, UCLA

<u>**Iun-Ichi Yano**</u>

Research Topic: TOGA
PhD Institution: Kyoto University
Host: Jim McWilliams, NCAR

Chidong Zhang

Research Topic: TOGA
PhD Institution: Pennsylvania State University
Host: Mike Wallace, University of Washington

The steering committee met to review applications on 15-16 June 1992 at UCAR in Boulder.

Members of the 1992 steering committee included:

John Young (Univ. of Wisconsin, Madison) Chairman Otis Brown (Univ. of Miami) Steve Esbensen (Oregon State Univ.) Ed Sarachik (Univ. of Washington)

Otis Brown (Univ. of Miami) was appointed to the committee as Toggweiler's replacement. The Committee reviewed 106 postdoctoral applications. There were 44 host applications, 12 from NOAA laboratories.

In the second year of the program, only six appointments were made.

The 1992 appointees are as follows:

Class 2

Meghan Cronin

Research Topic: TOGA
PhD Institution: University of Rhode Island
Host: PMEL, M. McPhaden

David Keith

Research Topic: Climate Modeling PhD Institution: MIT Host: NCAR, P. Rasch

Wieslaw Maslowski

Research Topic: Climate Modeling PhD Institution: University of Alaska Host: Naval Postgraduate School, A. Semtner

Richard Seager

Research Topic: Climate Modeling PhD Institution: Columbia University Host: Lamont-Doherty, S. Zebiak

Sabrina Speich

Research Topic: Climate Modeling
PhD Institution: Univ. Pierre et Marie Cure
Host: UCLA, M. Ghil

Duane Waliser

Research Topic: Climate Modeling/TOGA
PhD Institution: Scripps Institution of Oceanography
Host: UCLA, R. Mechoso

The Committee met in Miami on 10-11 June and reviewed 110 postdoctoral applications and 46 new host applications. The current host roster totals 86 of which 35 are NOAA labs.

Members of the 1993 steering committee included:

John Young (Univ. of Wisconsin, Madison) Chair Otis Brown (Univ. of Miami) Steve Esbensen (Oregon State Univ.) Ed Sarachik (Univ. of Washington) Richard Gammon (Univ. of Washington)

John Young stepped down as chair and rotated off committee. Steve Esbensen will chair the committee in 1994. Two new members will be appointed to replace Ed Sarachik and John Young.

The 1993 appointees are as follows:

Class 3

Edward Brook

Research Topic: Paleo Ice Core PhD Institution: MIT/WHOI Host: URI, Bender

Steve Frolking

Research Topic: Terrestrial Bio Geochem PhD Institution: Colorado State University Host: Univ. of New Hampshire, Harriss

Stephen Griffies

Research Topic: Data Assimilation PhD Institution: Univ. of Pennsylvania Host: GFDL, K. Bryan

Shi Jiang

Research Topic: Ocean Data Assimilation PhD Institution: UCLA Host: MIT, P. Rizzoli

Brian Mapes

Research Topic: TOGA COARE MCS PhD Institution: University of Washington Host: University of Colorado, P. Webster

Cynthia Nevison

Research Topic: Strato O3 chem PhD Institution: Stanford University Host: NOAA, S. Solomon

Reiner Schnur

Research Topic: GEWEX Downscaling
PhD Institution: Universität Hamburg
Host: University of Washington, Lettenmaier

Martin Visbeck

Research Topic: Ocean Convection PhD Institution: Universität Kiel Host: MIT, Marshall

The Committee met at the University of Washington in Seattle on 12-13 May to review 85 applications and 71 new host applications. There were 18 female applicants.

Members of the 1994 steering committee included:

S.K. Esbensen (Oregon State Univ.), Chair Otis Brown (Univ. of Miami) Richard Gammon (Univ. of Washington) Ed Sarachik (Univ. of Washington)

The 1994 appointees are as follows:

Class 4

Myles Allen

Research Topic: Uncertainties in Climate Prediction
PhD Institution: Oxford University
Host: MIT, R. Lindzen

Richard Dissly

Research Topic: Atmospheric Chemistry
PhD Institution: CalTech
Host: NOAA/ ERL/CMDL, P. Tans

Colin Iones

Research Topic: Deep Convection
PhD Institution: University of East Anglia, UK
Host: Colorado State University, D. Randall

Sonva Legg

Research Topic: Modeling of Deep Convection PhD Institution: Imperial College, UK Host: NCAR/UCLA, J. McWilliams

Michael Moore

Research Topic: Paleo
PhD Institution: University of California, Berkeley
Host: Scripps, C. Charles

Ye Qi

Research Topic: CO2
PhD Institution: SUNY, Syracuse
Host: Scripps, C. Keeling and Cornell University, D. Weinstein

Alan Townsend

Research Topic: CO2
PhD Institution: Stanford University
Host: NCAR, D. Schimel, E. Holland
Cornell University, B. Howarth
Harvard University, F. Bazzaz

Yuxia Zhang

Research Topic: Modeling - Atmospheric Sea Surface Interaction
PhD Institution: Texas A&M
Host: Naval Postgraduate School, A. Semtner

First Summer Institute

The first NOAA Summer Institute was held in Steamboat Springs, CO, from 13 to 17 June. The scientific leader for the workshop was John Young. The Institute had 40 participants. The goals of the Institute were to:

- 1. Develop a sense of community among climate and global change postdoctorates and senior researchers.
- 2. Explore the breadth of climate and global change research problem areas.
- 3. Discuss the future directions of climate science research.
- 4. Discuss the bridge between climate and global change scientific goals and public policy.

<u> 1995</u>

The Steering Committee met at the Scripps Institution of Oceanography in La Jolla, CA, on 4 & 5 May to review 78 applications and 65 new host applications.

Members of the 1995 Steering Committee included:

Richard Gammon (Univ. of Washington), Chair Judith Curry (Univ. of Colorado) Stefan Hastenroth (Univ. of Wisconsin-Madison) Richard Somerville (Scripps Institution of Oceanography) Max Suarez (NASA/Goddard Space Flight Center)

The 1995 appointees are as follows:

Class 5

Gidon Eshel

Research Topic: Adjoint Chemistry
PhD Institution: LDEO / Columbia University
Host: Harvard University, B. Farrell

Marilyn Hughes

Research Topic: Snow Cover Variability PhD Institution: Rutgers University Host: Columbia University, G. Kukla

Christopher Landsea

Research Topic: Climate Diagnostic
PhD Institution: Colorado State University
Host: NOAA / AOML, Hurricane Res. Division, L. Shapiro

Marc Lynch-Stieglitz

Research Topic: Hydrology
PhD Institution: Columbia University
Host: Marine Biological Laboratory, J. Hobbie

Scot Martin

Research Topic: Chemistry PhD Institution: Cal-Tech Host: MIT, M. Molina

William Merryfield

Research Topic: Ocean Modeling
PhD Institution: University of Colorado
Host: University of Washington, G. Holloway

Raymond Richardson

Research Topic: TOGA--Air-Sea PhD Institution: University of Michigan Host: University of Rhode Island, L. Rothstein

<u>**Jeffrey Severinghaus**</u>

Topic: Ice Cores

PhD Institution: Columbia University

Host: University of Rhode Island, M. Bender

<u> 1996</u>

The Steering Committee met on May 1 in Boulder to review 67 postdoctoral applications. There were 52 host applications.

Members of the 1996 Steering Committee included:

Richard Gammon (Univ. of Washington), Chair Judith Curry (Univ. of Colorado) Stefan Hastenroath (Univ. of Wisconsin-Madison) Richard Somerville (Scripps Institution of Oceanography) Max Suarez (NASA/Goddard Space Flight Center)

The Second Summer Institute was held during the week of 17-21 June 1996 in Steamboat Springs, CO. A strong sense of community has developed through the Summer Institutes. Fellows arrive from diverse institutions and disciplines, and leave feeling more a part of a climate science network, which will function for years. All the participants developed a greater appreciation of the bridges between their personal research, the evolving global change science, and the role of public policy that will influence their careers.

The 1996 appointees are as follows:

Class 6

Glenn Berntson

Research Topic: Eco System CO2 PhD Institution: Harvard University Host: University of New Hampshire, J. D. Aber

Aiguo Dai

Research Topic: gc attributes
PhD Institution: Columbia University
Host: NCAR, K. Trenberth

Maria Flatau

Research Topic: Intraseasonal
PhD Institution: Colorado State University
Host: Scripps Institution of Oceanography, D. Rogers

Loretta Mickley

Research Topic: Chemistry Tropo. PhD Institution: University of Chicago Host: Harvard University, D. Jacob

Iames Phillips

Research Topic: H2O clusters
PhD Institution: University of Minnesota
Host: University of Colorado, V. Vaida

Gavin Schmidt

Research Topic: thermo-haline PhD Institution: University College London Host: Goddard Institute for Space Studies, D. Rind

Bruno Tremblay

Research Topic: ice granules
PhD Institution: McGill University
Host: Lamont-Doherty Earth Observatory, D. Martinson

Dirk Verschuren

Research Topic: lake paleo
PhD Institution: University of Minnesota
Host: Univ. of Minnesota, Large Lakes Observatory, H.E. Wright

<u> 1997</u>

The Steering Committee met on May 5 and 6 in Boulder to review 88 postdoctoral applications. There were 43 host applications.

Members of the 1997 Steering Committee included:

David Battisti (Univ. of Washington)
Judith Curry (Univ. of Colorado)
William Curry (WHOI)
Stefan Hastenroth (Univ. of Wisconsin-Madison)
Richard Somerville (Scripps Institution of Oceanography), Chairman

The 1997 appointees are as follows:

Class 7

<u>Iess Adkins</u>

Research Topic: Paleo
PhD Institution: MIT
Host: University of Minnesota, L. Edward

Heather Allen

Research Topic: Chemistry
PhD Institution: University of California, Irvine
Host: University of Oregon, G. Richmond

Susan Harder

Research Topic: Bio-geo-chem
PhD Institution: University of Washington
Host: Washington State University, E. Brook

Konrad Hughen

Research Topic: Paleo PhD Institution: University of Colorado Host: Harvard University, D. Schrag

Elise Pendall

Research Topic: Paleo PhD Institution: University of Arizona Host: NOAA/ERL, P. Tans

Peter Sauer

Research Topic: Paleo PhD Institution: University of Colorado Host: WHOI, J. Hayes

Christopher Small

Research Topic: Population
PhD Institution: University of California, San Diego
Host: Rockefeller University, J. Cohen

Adam Sobel

Research Topic: GOALS
PhD Institution: MIT
Host: University of Washington, C. Bretherton

<u>1998</u>

In 1998 there were 56 postdoctoral applications and 48 host applications.

Members of the 1998 Steering Committee included:

David Battisti (Univ. of Washington)
Judith Curry (Univ. of Colorado)
William Curry (WHOI)
Inez Fung, University of Vistoria
Roger Pulwarty, CIRES/CDC
Richard Somerville (Scripps Institution of Oceanography), Chairman

Mike Hall and Claudia Nierenberg met with the committee to discuss how the human dimensions area can best fit within the context of this program.

R. Somerville and J. Curry rotated off the committee. David Battisti will be the next chairman. Two new members will be appointed.

The third Summer Institute was held in Steamboat Springs June 15 through 19. Richard Gammon was the scientific leader of the Institute. The four-day event was again successful in developing a sense of community between senior and junior researchers in the field. The presentations were diverse and covered state-of-theart, cutting-edge research results, which resulted in lively and interesting discussion and debate.

Below are the names of the 1998 appointees. James Randerson declined the fellowship so Ke Chen was appointed from the alternate list. Three of eight appointees were female.

Class 8

Bruce Anderson

Research Topic: regional hydrology
PhD Institution: Scripps Institution of Oceanography
Host: MIT, D. Entekhabi

Claudia Benitez-Nelson

Research Topic: bio/geo/chem.
PhD Institution: WHOI/MIT
Host: University of Hawaii, D. Karl

Ralph Foster

Research Topic: planetary boundary layer PhD Institution: University of Washington Host: PMEL, M. McPhaden and Hayes Center, B. Smull

Franz Geiger

Research Topic: chemistry
PhD Institution: Georgetown University
Host: MIT, M. Molino

Nicholas Gruber

Research Topic: carbon PhD Institution: University of Bern Host: Princeton University, J. Sarmiento

IoAnn Lysne

Research Topic: physical oceanography PhD Institution: Texas A&M University Host: NCAR, C. Deser

Ke Chen

Research Topic: impacts - river basin management PhD Institution: Western Michigan University Host: CIESIN, LDEO, R. Chen

Jane Teranes

Research Topic: paleo-precipiation
PhD Institution: Swiss Federal Institute of Technology
Host: University of Michigan, T.C. Moore, Jr.

<u> 1999</u>

In 1999 we received 51 postdoctoral applications and 38 host applications.

Members of the 1999 Steering Committee included:

David Battisti, Chairman, University of Washington Bill Curry, Woods Hole Oceanographic Institution Inez Fung, University of California, Berkeley Maryam Golnaraghi, Climate Risk Solutions, MA Ralph Keeling, Scripps Institution of Oceanography

The Steering Committee met April 15 on the UC, Berkeley campus. Twelve applications were chosen for the short list and ranked. We made eight new appointments, two of which were from the alternate list.

The 1999 appointees are as follows:

Class 9

Cecilia Bitz

Research Topic: Sea-ice modeling
PhD Institution: University of Washington
Host: Polar Ice Center, R. Moritz

Heidi Cullen

Research Topic: Impacts
PhD Institution: Columbia University
Host: IRI, Scripps, Nick Graham

Mary Elliot

Research Topic: Paleo
PhD Institution: Universite Paris
Host: Lamont-Doherty Earth Observatory, G. Bond, P. deMenocal, J. Stieglitz

Michael Evans

Research Topic: Corals

PhD Institution: Columbia University

Host: Harvard University, Dan Schrag

Christopher Guay

Research Topic: Carbon Cycle
PhD Institution: Oregon State University
Host: Lawrence Berkeley Lab, J. Bishop

Oliver Pauluis

Research Topic: General Circulation PhD Institution: Princeton University Host: MIT, K. Emanuel

Helen Perks

Research Topic: paleo corals

PhD Institution: Scripps Institution of Oceanography

Host: University of Minnesota, L. Edward

<u>Julia Verville</u>

Research Topic: paleo
PhD Institution: Stanford University
Host: University of Utah, J. Ehleringer

In 2000 we received 80 postdoctoral applications and 73 host applications.

Members of the 2000 Steering Committee included:

Ralph Keeling, Chairman, Scripps Institution of Oceanography Bob Chen, CIESEN, Columbia University Inez Fung, University of California, Berkeley Maryam Golnaraghi, Climate Risk Solutions, MA Dennis Hartmann, University of Washington

The Steering Committee met March 13 and 14 at Scripps Institution of Oceanography. Fifteen applications were chosen for the short list and ranked. We made eight new appointments, one from the alternate list.

The 2000 appointees are as follows:

<u>Class 10</u>

Tami Bond

Research Topic: Aerosols
PhD Institution: University of Washington
Host: NOAA/PMEL, Patricia Quinn

John Chiang

Research Topic: Tropical Ocean Atmospheric Dynamics PhD Institution: Columbia University Host: University of Washington, David Battisti

Roberta Hotinski

Research Topic: Paleo Ocean Modeling
PhD Institution: Pennsylvania State University
Host: GFDL, Robbie Toggweiler

Zackary Johnson

Research Topic: Ocean Chemistry PhD Institution: Duke University Host: MIT, Sallie Chisholm

Eric Maloney

Research Topic: Climate Dynamics
PhD Institution: University of Washington
Host: NCAR/CGD, Jeffrey Kiehl

Elisabeth Moyer

Research Topic: Chemistry
PhD Institution: California Institute of Technology
Host: Harvard, James Anderson

Anthony Prenni

Research Topic: Atmospheric Chemistry
PhD Institution: University of Colorado
Host: Colorado State University, Paul De Mott and Sonia Kredenweis

Iris Stewart

Research Topic: Hydrology
PhD Institution: Stanford University
Host: Scripps Institution of Oceanography, Dan Cayan

During the week of June 11 through 15, the $4^{\rm th}$ Summer Institute was held in Steamboat Springs, CO. There were 42 attendees and David Battisti led a very successful workshop.

In December, at the annual AGU meeting held in San Francisco, the UCAR Visiting Scientist Programs organized a special afternoon session of talks from a select group of past postdoctoral fellows from the program. A reception followed the session, and there were over 100 attendees. The session speakers included Scot Martin, Sonja Legg, Gidon Eshel, Myles Allen, and Niki Gruber. Dan Schrag and David Battisti provided introductory remarks about the fellowship program.

In 2001 we received 59 postdoctoral applications and 51 host applications.

Members of the 2001 Steering Committee included:

Joseph Berry, Carnegie Institution of Washington Ralph Keeling, Chairman, Scripps Institution of Oceanography Bob Chen, CIESEN, Columbia University Maryam Golnaraghi, Climate Risk Solutions, MA Dennis Hartmann, University of Washington Daniel Schrag, Harvard University

The Steering Committee met March 13 and 14 at Harvard University. Seven finalists and four alternates were chosen. Because of budget restraints, we made seven new appointments, one from the alternate list.

The 2001 appointees are as follows:

Class 11

Simone Alin

Research Topic: carbon
PhD Institution: University of Arizona
Host: University of Minnesota Large Lakes Observatory,
Tom Johnson & Jim McManus

Hezi Gildor

Research Topic: air / sea interaction
PhD Institution: Weizmann Institute of Science, Israel
Host: Lamont-Doherty Earth Observatory, Mark Cane

James Girton

Research Topic: physical oceanography
PhD Institution: University of Washington
Host: Woods Hole Oceanographic Institution, Jim Price & Sonya Legg

Colin Polsky

Research Topic: human dimensions
PhD Institution: The Pennsylvania State University
Host: Harvard University, William Clark

Robert Rhew

Research Topic: atmospheric chemistry
PhD Institution: Scripps Institution of Oceanography
Host: University of California, Irvine, Eric Saltzman

Bryan Shuman

Research Topic: paleo / lake sediments
PhD Institution: Brown University
Host: University of Oregon, Patrick Bartlein

<u>**Ioe von Fischer**</u>

Research Topic: ecology / paleo
PhD Institution: Cornell University
Host: Princeton University, Michael Bender

In 2002 we received 45 postdoctoral applications and 54 host applications.

Members of the 2002 Steering Committee included:

Joseph Berry, Carnegie Institution of Washington Mary Anne Carroll, University of Michigan Bob Chen, CIESEN, Columbia University Clara Deser, NCAR CGD Dennis Hartmann, University of Washington Daniel Schrag, Harvard University

The Steering Committee met April 3 and 4 in Santa Fe, New Mexico. Seven finalists and four alternates were chosen. We made seven new appointments, one from the alternate list.

During 2002, J. Michael Hall stepped down from his position as Director of the NOAA Office of Global Programs. Kenneth Mooney is currently Acting Director. Jim Todd attended the meeting with Lisa Dilling. He will be assuming the responsibility, effective immediately, as the NOAA OGP Program Manager for the postdoctoral program.

The Fifth Summer Institute was held in Steamboat Springs June 16 through 20. Richard Somerville was the scientific leader of the Institute. The four-day event was again successful in developing a sense of community between senior and junior researchers in the field. The presentations were diverse and covered state-of-theart, cutting-edge research results, which resulted in lively and interesting discussion and debate.

The 2002 appointees are as follows:

Class 12

Becky Alexander

Research Topic: paleo/chemistry/modeling
PhD Institution: University of California, San Diego
Host: Harvard University, Daniel Jacob

Athanasios Koutavas

Research Topic: ocean cores/cold tongue/ENSO
PhD Institution: Columbia University (Lamont-Doherty Earth Observatory)
Host: Massachusetts Institute of Technology, Julian Sachs

Zhiming Kuang

Research Topic: atmospheric water vapor PhD Institution: California Institute of Technology Host: University of Washington, Christopher Bretherton

Markus Pahlow

Research Topic: lidar techniques/boundary layer
PhD Institution: Johns Hopkins University
Host: NOAA Environment Technology Laboratory, Graham Feingold

Gian-Kasper Plattner

Topic: carbon cycle modeling/coastal *PhD Institution:* University of Bern *Host:* University of California, Los Angeles, Nicolas Gruber

Stephanie Shaw

Research Topic: methyl halide budgets

PhD Institution: Massachusetts Institute of Technology

Host: University of California, Berkeley, Allen Goldstein

<u>Ieffrey Yin</u>

Research Topic: climate dynamics
PhD Institution: University of Washington
Host: NOAA Climate Diagnostics Center, Prahsant Sardeshmukh

In 2003 we received 63 postdoctoral applications and 66 host applications.

Members of the 2003 Steering Committee included:

Joseph Berry, Carnegie Institution of Washington Mary Anne Carroll, University of Michigan Clara Deser, NCAR CGD Kerry Emanuel, MIT Roger Pulwarty, NOAA/CDC Daniel Schrag, Harvard University (Chair)

The Steering Committee met March 14 and 15 in Santa Fe, New Mexico. Seven finalists and four alternates were chosen. We had a 100% acceptance rate for the positions; therefore, no alternates were given fellowships.

Jim Todd, NOAA OGP Program Manager, also attended.

Clara Deser was appointed Chair for 2004. For the first time in the history of this program, there was passionate discussion on changing the way applications will be reviewed in the future. However, no definite changes were agreed upon. A few of the committee members felt that the applications each member had to review are too numerous to give a thorough read and thus fair evaluation. It was suggested that the applications be divided by research area so that each member of the committee reviews only a portion of the total number of applications. It was suggested that there be a conference call to begin the review process, and it was also suggested that applications be reviewed by at least two members of the committee. Panel members may like the applications on CD's instead of paper copies.

Also discussed was a celebration of the 100th postdoctoral fellow that would follow or precede the 6th Annual Summer Institute. This combined event will be held in the Washington, DC, area in spring 2004.

The 2003 appointees are as follows:

Class 13

Shari Fox-Gearheard

Research Topic: human dimensions
PhD Institution: University of Colorado
Host: Harvard University, James McCarthy and
Clark University, Colin Polsky

Baylor Fox-Kemper

Research Topic: physical oceanography
PhD Institution: Massachusetts Institute of Technology
Host: Princeton University, Geoffrey Vallis

Julia Klein

Research Topic: ecology
PhD Institution: University of California, Berkeley
Host: Colorado State University, Dennis Ojima

Anna Michalak

Research Topic: bio-geo-chem/atmospheric chem.

PhD Institution: Stanford University

Host: NOAA Climate Monitoring & Diagnostics Laboratory, Pieter Tans

<u>Ieffrey Shaman</u>

Research Topic: climate/public health PhD Institution: Columbia University Host: Harvard University, Andrew Spielman

Heather Throop

Research Topic: ecology
PhD Institution: State University of New York at Stony Brook
Host: University of Arizona, Steven Archer

Eric Wilcox

Research Topic: atmos. dynamics & physics
PhD Institution: Scripps Institution of Oceanography
Host: NOAA Geophysical Fluid Dynamics Laboratory, Leo Donner

In 2004 we received 58 fellowship applications and 54 host applications.

Members of the 2004 Steering Committee included:

Clara Deser, NCAR, CGD (Co-Chair)
Mary Anne Carroll, University of Michigan (Co-Chair)
Kerry Emanuel, MIT
Roger Pulwarty, NOAA CDC
Susan Trumbore, UC Irvine
Peter deMenocal, LDEO

Jim Todd, Program Sponsor NOAA OGP Ken Mooney, Program Sponsor NOAA OGP

We met in Boulder at the Hotel Boulderado on 17-18 March 2004. A revised application review process was implemented this year whereby the committee chairperson assigns applications as primary or secondary for the purpose of leading detailed discussions on each applicant. The applications are assigned based on committee member expertise.

Seven finalists and four alternates were chosen. One appointment was awarded to our first alternate.

We held the 6th Summer Institute July 19-22 2004 in Steamboat Springs. Dan Schrag and David Battisti were the Institute co-leaders.

The 2004 appointees are as follows:

Class 14

Peter Huybers

Research Topic: paleo-oceanographic circulation
PhD Institution: Massachusetts Institute of Technology
Host: Wood Hole Oceanographic Institute, Bill Curry

Alicia Karspeck

Research Topic: ENSO adjoint
PhD Institution: Lamont Doherty Earth Observatory, Columbia University
Host: University of Washington, David Battisti

<u>Iohn Lin</u>

Research Topic: biomass burning, Amazon PhD Institution: Harvard University Host: Colorado State University, Roger Pielke Sr.

David Lorenz

Research Topic: annular modes
PhD Institution: University of Washington
Host: University of Wisconsin, Eric DeWeaver

Irina Marinov

Research Topic: biogeochem of Southern Ocean
PhD Institution: Princeton University
Host: Massachusetts Institute of Technology, Michael Follows

Dylan Millet

Research Topic: atmospheric (aerosols) composition PhD Institution: University of California, Berkeley Host: Harvard University, Daniel Jacob

Martin Wilmking

Research Topic: land use, Alaska
PhD Institution: University of Alaska
Hosts: Lamont Doherty Earth Observatory, Roseanne D. Arrigo & United States
Geological Survey, Jennifer Harden

In 2005 there were 77 fellowship applications and 81 host applications.

Members of the 2005 Steering Committee included:

Kerry Emanuel, MIT (Chair) Amy Clement, RSMAS Univ of Miami Peter deMenocal, LDEO Nicholas Gruber, UCLA Adam Sobel, Columbia Univ. Susan Trumbore, UC Irvine

The meeting took place in Miami, FL.

This year marks the first time that alumni from this program have served on the steering committee (Niki Gruber and Adam Sobel).

A two-day symposium to honor and celebrate the 100th fellowship appointment will be held April 20 and 21 in Washington DC. A Capitol Hill reception is planned for April 20.

We increased the number of appointments to nine.

The 2005 appointees are as follows:

Class 15

Steven Allison

Research Topic: carbon cycle
PhD Institution: Stanford University, Biological Sciences
Host: University of California, Irvine, K. Treseder

Kristina Dahl

Research Topic: hydrocycle – corals

PhD Institution: MIT/Woods Hole Oceanographic Institute, Oceanography

Host: Scripps Institution of Oceanography, Chris Charles

Dargan Frierson

Research Topic: Hadley circulation

PhD Institution: Princeton University, Applied Mathematics

Host: University of Chicago, R.T. Pierrehumbert

Colette Heald

Research Topic: aerosols

PhD Institution: Harvard University, Atmospheric Chemistry

Host: University of California, Berkeley, Inez Fung

Lorraine Lisiecki

Research Topic: paleoclimate

PhD Institution: Brown University, Geological Sciences

Host: Boston University, Maureen Raymo

Sharon Stammerjohn

Research Topic: ocean warming – regional climate

PhD Institution: Columbia University, LDEO, Physical Oceanography & Climate

Host: NASA, Goddard Institute for Space Studies, David Rind

Jun Wang

Research Topic: aerosols (radiative effects)

PhD Institution: University of Alabama, Hunstville, Atmospheric Science

Host: Harvard University, Scot Martin

Matthew Schmidt

Research Topic: paleo hydrology
PhD Institution: University of California, Davis, Geology
Host: Georgia Institute of Technology, Jean Lynch-Stieglitz

Robert Bailis

Research Topic: Human Dimensions

PhD Institution: University of California, Berkeley, Energy & Resources

Hosts: Yale's School of Forestry and Environmental Sciences,

Michael Dove and Lisa Curran

In 2006 there were 118 fellowship applications and 118 host applications.

Members of the 2006 Steering Committee included:

Amy Clement, RSMAS Univ of Miami Peter deMenocal, LDEO (co-chair) Maria Carmen Lemos Adam Sobel, Columbia Univ. Susan Trumbore, UC Irvine (co-chair) Ray Pierrehumbert, Univ. of Chicago Nicholas Gruber, UCLA

The meeting took place in New York City, and Peter arranged for us to have our meeting in a beautiful room at the Museum of Natural History.

We increased the number of appointments to ten. Annually funding totals \$1.7 million and includes partial funding each year for the biennial Summer Institute.

The 2006 appointees are as follows:

Class 16

Julie Deshayes

Research Topic: Physical oceanography
PhD Institution: LOCEAN, France, Physical Oceanography
Hosts: Woods Hole Oceanographic Institution, Irvine, F. Straneo and M. Spall

Sarah Feakins

Research Topic: Paleo
PhD Institution:, Columbia University (LDEO), Geology
Host: California Institute of Technology, Alex Sessions

Angela Knapp

Research Topic: Biogeochem
PhD Institution:, Princeton University, Geosciences
Host: University of Southern California, Douglas Capone and Lowell Stott

Nir Krakauer

Research Topic: Biogeochem

PhD Institution: California Institute of Technology, Biogeochemistry

Host: University of Southern California, Berkeley, Inez Fung

David Lund

Research Topic: Paleo

PhD Institution: Massachusetts Institute of Technology/Woods Hole Oceanographic Institution, Marine Geology Host: California Institute of Technology, Jess Adkins

Yuko Okumura

Research Topic: Ocean-atmosphere interaction PhD Institution: University of Hawaii, Meteorology Host: National Center for Atmospheric Research, Clara Deser

Timothy Shanahan

Research Topic: Paleo

PhD Institution: University of Arizona, Geosciences *Hosts:* Woods Hole Oceanographic Institution, Konrad Hughen

Ken Takahashi

Research Topic: Dynamics
PhD Institution: University of Washington, Atmospheric Sciences
Host: GFDL, Isaac Held

Marijn van der Velde

Research Topic: Hydrometeorology
PhD Institution: Universite catholique de Louvain, Belgium, Hydrology
Hosts: Columbia University, U. Lall and M. Cane

Colin West

Research Topic: Human Dimensions
PhD Institution: PhD, University of Arizona, Anthropology
Host: University of Alaska, Matt Berman

In 2007, we received 78 fellowship applications. Ten new appointments were made with an annual budget of \$1.7 million.

Members of the 2007 Steering Committee included:

Amy Clement (CO-Chair), RSMAS University of Miami Adam Sobel, Columbia University Beth Holland, NCAR Daniel Jacob, Harvard Maria Carmen Lemos, University of Michigan Jerry McManus, Woods Hole Oceanographic Institution Ray Pierrehumbert, University of Chicago

The 2007 appointees are as follows:

Class 17

Larissa Back

Research Topic: Deep convection
PhD Institution: University of Washington, Atmospheric Sciences
Host: Massachusetts Institute of Technology, Kerry Emanuel

Timothy Bertram

Research Topic: Aerosols – cloud interaction
PhD Institution: University of California, Chemistry
Hosts: University of Washington, Tom Ackerman and Joel Thornton

Gang Chen

Research Topic: Climate dynamics – jet streams
PhD Institution: Princeton University, Atmospheric & Oceanic Sciences
Host: Massachusetts Institute of Technology, Alan Plumb

Benjamin Cook

Research Topic: Dust
PhD Institution: University of Virginia, Environmental Science
Hosts: Lamont-Doherty Earth Observatory, Richard Seager and
Goddard Institute for Space Studies, Ron Miller

Delphine Farmer

Research Topic: Atmospheric chemistry—aerosols
PhD Institution: University of California, Berkeley, Chemistry
Host: University of Colorado at Boulder
Appointment: 2007-2009

Nicole Lovenduski

Research Topic: CO2 biogeochem
PhD Institution: UCLA, Atmospheric & Oceanic Science
Host: Colorado State University, Takamitsu Ito

Martin Medina-Elizalde

Research Topic: Paleoclimate (stalaginites)

PhD Institution: University of California, Santa Barbara, Marine Science

Host: University of Massachusetts, Stephen Burns

Hyodae Seo

Research Topic: Ocean/atmosphere interactions
PhD Institution: Scripps Institution of Oceanography, Climate
Host: University of Hawaii

Rachel Stanley-Brown

Research Topic: Carbon cycle
PhD Institution: Massachusetts Institute of Technology, Woods Hole
Oceanographic Institution, Chemical Oceanography
Host: Princeton University, Michael Bender

Tana Wood

Research Topic: Soil biogeochem
PhD Institution: University of Virginia, Environmental Sciences
Host: University of California, Berkeley, Whendee Silver

In 2008, we had 89 fellowship applications. Ten new appointments were made with an annual budget of \$1.7 million.

The 2008 Summer Institute was led by program alumni, Gavin Schmidt. Members of the 2008 Steering Committee included:

Cecilia Bitz, University of Washington Wei-Jun Cai, University of Georgia Beth Holland, NCAR Daniel Jacob, Harvard Jerry McManus, LDEO, Columbia Ray Pierrehumbert, University of Chicago

The 2008 appointees are as follows:

Class 18

Louisa Bradtmiller

Research Topic: Marine Paleo Empirical
PhD Institution: Columbia University, Geochemistry
Host: Woods Hole Oceanographic Institution, Laura Robinson

Mariah Carbone

Research Topic: Terrestrial ecosystems/CO2

PhD Institution: University of California, Irvine, Earth System Science

Host: University of California, Santa Barbara, Chris Still

William D'Andrea

Research Topic: Paleo FW Empirical PhD Institution: Brown University, Geological Sciences Host: University of Massachusetts, Ray Bradley

Ian Eisenman

Research Topic: Ice/Sea Ice
PhD Institution: Harvard University, Earth & Planetary Sciences
Host: University of Washington, David Battisti

Miriam Freedman

Research Topic: Atmospheric composition
PhD Institution: University of Chicago, Physical Chemistry
Host: University of Colorado, Margaret Tolbert

Yi Huang

Research Topic: Spectral OLR and Climate Change
PhD Institution: Princeton University, Atmospheric & Oceanic Sciences
Host: Harvard University, James Anderson

Vasilii Petrenko

Research Topic: Ice Core Chemistry
PhD Institution: Scripps Institution of Oceanography, Geosciences
Host: University of Colorado, INSTAAR, James White

Yohai Kaspi

Research Topic: Atmospheric Jets - Storm Track
PhD Institution: Massachusetts Institute of Technology, Physical Oceanography
Host: California Institute of Technology, Tapio Schneider

Ryan Sriver

Research Topic: Tropical Cyclones
PhD Institution: Purdue University, Earth & Atmospheric Sciences
Host: Pennsylvania State University, Michael Mann

Samuel Stechmann

Research Topic: Clouds and Convection
PhD Institution: New York University, Applied Mathematics
Host: UCLA, B. Stevens & D. Neelin

Rebecca Terry

Research Topic: Paleo Ecology
PhD Institution: University of Chicago, Paleobiology
Host: Stanford University, Elizabeth Hadly

In 2009, we had 86 fellowship applications. Ten new appointments were made with an annual budget of \$2.2 million.

Members of the 2009Steering Committee included:

Roni Avissar, University of Miami, RSMAS
Cecilia Bitz, University of Washington
Wei-Jun Cai, University of Georgia
Lisa Goddard, International Research Institution (IRI)
Daniel Jacob, Harvard
Patricia Matrai, Bigelow Laboratory for Ocean Science
Jerry McManus, LDEO, Columbia University
Tapio Schneider, California Institute of Technology

The 2093 appointees are as follows:

<u>Class 19</u>

Katye Altieri

Research Topic: Organic Aerosols
PhD Institution: Rutgers University, Oceanography
Host: Princeton University, Daniel Sigman and
Brown University, Meredith Hastings

Brent Goehring

Research Topic: Glaciers
PhD Institution: Columbia University, Geological Sciences
Host: Penn State University, Richard Alley

Nadav Kashtan

Research Topic: Microbial Oceanography
PhD Institution: Weizmann Institute of Science
Host: Massachusetts Institute of Technology, Sallie Chisholm &
Mick Follows

Brice Loose

Research Topic: Ice-gas exchange PhD Institution: Columbia, Earth & Environmental Sciences Host: Woods Hole Oceanographic Institution, William Jenkins

David McGee

Research Topic: Paleohydrology
PhD Institution: Columbia University, Earth Sciences
Host: University of Minnesota, Larry Edwards

Rebecca Neumann

Research Topic: Soil Carbon
PhD Institution: Massachusetts Institute of Technology, Hydrology
Host: Harvard University, Michele Holbrook

Kerri Pratt

Research Topic: Atmospheric Chemistry
PhD Institution: University of California, San Diego, Chemistry and Biochemistry
Host: Purdue University, Paul Shepson

Casey Saenger

Research Topic: Paleocorals
PhD Institution: Woods Hole Oceanographic Institution,
Marine Geology & Geophysics
Host: Yale University, Zhengrong Wang

Russ Tolloch

Research Topic: Physical Oceanography
PhD Institution: New York University, Atmosphere-Ocean Science
and Mathematics
Host: Massachusetts Institute of Technology, John Marshall

<u>Lei Zhou</u>

Research Topic: Atmospheric Dynamics
PhD Institution: University of Maryland, Atmospheric & Oceanic Sciences
Host: Columbia University, Adam Sobel

In 2010, we had 117 fellowships applications. Ten new appointments were made with an annual budget of \$2.7 million.

The 2010 Summer Institute was led by program alumni, Heidi Cullen and Martin Visbeck

Members of the 2010 Steering Committee included:

Roni Avissar, RSMAS, Univ. of Miami Cecilia Bitz, University of Washington Wei-Jun Cai, University of Georgia Lisa Goddard, International Research Institute (IRI) Daniel Jacob, Harvard Patricia Matrai, Bigelow Laboratory for Ocean Science Jerry McManus, LDEO, Columbia University Tapio Schneider, Cal Tech

The 2010 appointees are as follows:

Class 20

Anthony Amend

Research Topic: Terrestrial biology
PhD Institution: University of Hawaii at Manoa, Botany
Host: University of California, Irvine, Jennifer Martiny

Michael Griffiths

Research Topic: Paleo monsoon/atmosphere
PhD Institution: University of Newcastle, Australia, Paleoclimatology
Host: University of California, Irvine, Kathleen Johnson

Naomi Marcil Levine

Research Topic: Terrestrial biogeochemistry
PhD Institution: Woods Hole Oceanographic Institution
Host: Harvard University, Paul Moorcroft

Ning Lin

Research Topic: Hurricane surge risk
PhD Institution: Princeton University, Civil & Environmental Engineering
Host: Massachusetts Institute of Technology, Kerry Emanuel

Haojia (Abby) Ren

Research Topic: Paleo oceanic nutrient
PhD Institution: Princeton University, Ocean & Environmental Science
Host: Lamont Doherty Earth Observatory, Columbia University, Robert Anderson

Julie Richey

Research Topic: Paleo precipitation
PhD Institution: University of South Florida, Marine Science
Host: University of Washington, Julian Sachs

Brian Rose

Research Topic: Atmospheric dynamics/arctic
PhD Institution: Massachusetts Institute of Technology,
Atmospheres/Oceans/Climate
Host: University of Washington, David Battisti

<u>Ieremy Shakun</u>

Research Topic: Paleo climate/ice sheet
PhD Institution: Oregon State University, Geology
Host: Boston University, Maureen Raymo

Jessica Tierney

Research Topic: Paleo tropical climate
PhD Institution: Brown University, Geology
Host: Lamont Doherty Earth Observatory, Columbia University, Peter deMenocal

Glenn Wolfe

Research Topic: Atmospheric chemistry
PhD Institution: University of Washington, Chemistry
Host: University of Wisconsin-Madison, Frank Keutsch

In 2011, we had 109 fellowship applications. Ten new appointments were made with an annual budget of \$2.367 million.

Celebration marking the 20^{th} anniversary of the program was held in Washington DC on 14-15 April 2011 at the NOAA Science Center. Senator Mark Udall's office sponsored a Hill reception for the event.

Members of the 2011 Steering Committee included:

Jess Adkins, Cal Tech
Roni Avissar, RSMAS, Univ of Miami
Mick Follows, MIT
Sarah Gille, Scripps Institution of Oceanography
Lisa Goddard, IRI
Konrad Hughen, WHOI
Richard Seager, LDEO
Tapio Schneider, Cal Tech

The 2011 appointees are as follows:

Class 21

Emma Aronson

Research Topic: Microbiology
PhD Institution: University of Pennsylvania, Biology, Ecology & Evolution
Host: University of California, Irvine, Prof. Steven Allison

Kate Dennis

Research Topic: Paleo
PhD Institution: Harvard University, Earth and Planetary Sciences
Host: Princeton University, Prof. Michael Bender

Aaron Donohoe

Research Topic: Climate dynamics
PhD Institution: University of Washington, Atmospheric Sciences
Host: Massachusettes Institute of Technology, Prof. John C. Marshall

Emily Fischer

Research Topic: Aerosols
PhD Institution: University of Washington, Atmospheric Sciences
Host: Harvard University, Dr. Daniel Jacob

Gretchen Keppel-Aleks

Research Topic: Carbon cycle
PhD Institution: Caltech, Environmental Science and Engineering
Host: University of California, Irvine, Dr. James T. Randerson

Victoria Lee

Research Topic: Paleo

PhD Institution: University of California, Berkeley, Earth & Planetary Science Host: Lamont-Doherty Earth Observatory, Dr. Jerry McManus

Katherine Mackey

Research Topic: Bio-chem

PhD Institution: Stanford University, Civil and Environmental Engineering Host: Woods Hole Oceanographic Institution, Dr. Mak Saito

Michael Pritchard

Research Topic: Climate dynamics
PhD Institution: University of California, San Deigo, Earth Sciences
Host: University of Washington, Dr. Christopher Bretherton

<u>James Rae</u>

Research Topic: Paleo

PhD Institution: University of Bristol, Earth Sciences Host: California Institute of Technology, Geological & Planetary Sciences Dept.

Jennifer Talbot

Research Topic: Biology

PhD Institution: Univ. of California, Irvine, Ecology and Evolutionary Biology Host: University of Minnesota, Kabir Peay (The Peay Lab moved to Stanford in the second year of the fellowship)

In 2012, there were fellowship applications. Ten new appointments (Class 21) were made. The annual budget for 2012 was \$2.319 million.

The 10th Summer Institute for the NOAA Climate and Global Change Postdoctoral Fellowship Program was held in Steamboat Springs, July 8-12, 2012. The scientific leaders for the Institute were David Battisti, University of Washington, and Daniel Schrag, Harvard University. They are long-time supporters of the NOAA C&GC Program. There were 36 attendees (22 current postdoctoral fellows of the C&GC and PACE Programs, 7 alumni of the program, 7 senior scientists, sponsor and organizers).

The Annual Past and Present Fellow Networking Luncheon was held on December 4, 2012, at the American Geophysical Union Meeting, San Francisco, California. Sixty-five (65) past and present fellows attended.

The 2012 Steering Committee Meeting was held at Caltech in Pasadena, California, on March 19 & 20.

Members of the 2012 Steering Committee included:

Jess Adkins, Caltech
Michael (Mick) Follows, Massachusetts Institute of Technology
Lisa Goddard, International Research Institute (IRI)
Konrad Hughen, Woods Hole Oceanographic Institute
Elisabeth Moyer, University of Chicago
Richard Seager, Lamont-Doherty Earth Observatory

The 2012 appointees are as follows:

Class 22

Elizabeth Barnes-Keys

Research Topic: Strat-tropwave break
PhD Institution: University of Washington, Biology, Atmospheric Science
Host: Lamont-Doherty Earth Observatory, Prof. Lorenzo Polvani

Eleanor Browne

Research Topic: Aerosols

PhD Institution: University of California, Berkeley, Dept. of Chemistry

Host: Massachusetts Institute of Technology, Prof. Jesse Kroll

Christo Buizert

Research Topic: Global methane & fern modeling

PhD Institution: University of Copenhagen, Center for Ice and Climate Host: Oregon State University, Prof. Edward Brook

Abhishek Chatterjee

Research Topic: Carbon data assimilation
PhD Institution: University of Michigan, Civil & Environmental Engineering
Host: NCAR iMAGE, Dr. Jeffrey Anderson

Hilary Close

Research Topic: Ocean biogeochem
PhD Institution: Harvard University, Earth and Planetary Sciences
Host: University of Hawai'i at Manoa, Irvine, Dr. Brian Popp

Tra Dinh

Research Topic: Stratosphere cirrus
PhD Institution: University of Washington, Atmospheric Science
Host: Princeton University, Drs. Isaac Held & Stephan Fueglistaler

Kuan Huang

Research Topic: Arctic CO₂
PhD Institution: Princeton University, Chemical Oceanography
Host: Duke University, Dr. Nicholas Cassar

Ben Lee

Research Topic: Secondary organic aerosols
PhD Institution: Harvard University, Engineering & Applied Sciences
Host: University of Washington, Dr. Joel Thornton

Emmanuel Vincent

Research Topic: Tropical cyclones
PhD Institution: Universite Pierre et marie Currie
Host: Massachusetts Institute of Technology, Prof. Kerry Emanuel

Katherine Weinert

Research Topic: Paleo proxy-ENSO
PhD Institution: University of South Carolina, Marine Sciences
Host: Georgia Institute of Technology, Dr. Jean Lynch-Stieglitz

In 2013, there were 125 fellowship applications. Eight new appointments (Class 23) were made. The number of appointments was reduced from 10 to 8 because of overall Federal budget cuts. The annual budget for 2013 is estimated at \$2.1 million.

The 2013 Steering Committee Meeting was held in New York History at the American Museum of Natural History, on March 27 & 28.

Members of the 2013 Steering Committee included:

Jess Adkins, Caltech
Michael (Mick) Follows, Massachusetts Institute of Technology
Sarah Gille, Scripps Institution of Oceanography
Konrad Hughen, Woods Hole Oceanographic Institute
Benjamin Kirtman, RSMAS, University of Miami
Elisabeth Moyer, University of Chicago
Richard Seager, Lamont-Doherty Earth Observatory

The 2013 appointees are as follows:

Class 23

Katherine Allen

Research Topic: Paleo
PhD Institution: Columbia University, Paleoceanography
Host: Rutgers University, Prof. Elisabeth Sikes

William Anderegg

Research Topic: Ecology
PhD Institution: Stanford University, Ecology, Evolution & Population Biology
Host: Princeton University, Prof. Stephen Pacala

Nathan Arnold

Research Topic: Madden-Julian Oscillation
PhD Institution: Harvard University, Earth & Planetary Sciences
Host: Colorado State University, Prof. David Randall

Richard Daniel Griffin

Research Topic: Paleo PhD Institution: University of Arizona, Geography

Host: Woods Hole Oceanographic Institution, Dr. Kevin Anchukaitis

Malte Jansen

Research Topic: Dynamics
PhD Institution: Massachusetts Institute of Technology, Climate
Physics and Chemistry
Host: Geophysics Fluid Dynamics Laboratory, Dr. Isaac Held

Seeta Sistla

Research Topic: Ecology/Soils Reforestation
PhD Institution: University of California, Santa Barbara, Ecology, Evolution &
Marine Biology
Host: University of California, Irvine, Dr. Steven Allison

Darcy Taniguchi

Research Topic: Marine Biology
PhD Institution: Scripps Institution of Oceanography, Oceanography
Host: Massachusetts Institute of Technology, Dr. Mick Follows

Lukas Valin

Research Topic: Atmospheric Chemistry
PhD Institution: University of California, Berkeley, Atmospheric Chemistry
Host: Lamont-Doherty Earth Observatory, Dr. Arlene Fiore

2014 estimated at \$2.121 (\$100K SI, \$2 million 10 postdocs)

In 2014, there were 148 fellowship applications. Eight new appointments (Class 24) were made. The annual budget for 2014 is estimated at \$1.99 million.

The 11th Summer Institute for the NOAA Climate and Global Change Postdoctoral Fellowship Program was held in Steamboat Springs, July 13-18, 2014. The scientific leader for the Institute was Asst. Prof. Michael (Mick) Fellows, Massachusetts Institute of Technology. There were 35 attendees (19 current postdoctoral fellows of the C&GC and PACE Programs, 7 alumni of the program, 9 senior scientists, sponsors and organizers).

The Annual Past and Present Fellow Networking Luncheon was held on December 16, 2014, at the American Geophysical Union Meeting, San Francisco, California. Sixty-four (64) past and present fellows attended.

The 2014 Steering Committee Meeting was held in Pasadena, CA at the California Institute of Technology on March 10-11, 2014.

Members of the 2014 Steering Committee included:

Jess Adkins, Caltech
Sarah Gille, Scripps Institution of Oceanography
Konrad Hughen, Woods Hole Oceanographic Institute
Benjamin Kirtman, RSMAS, University of Miami
David McGee, Massachusetts Institute of Technology
Elisabeth Moyer, University of Chicago

The 2014 appointees are as follows:

Class 24

Timothy Cronin

Research Topic: Atmospheric Dynamics
PhD Institution: Massachusetts Institute of Technology, Climate
Physics and Chemistry
Host: Harvard University, Dr. Eli Tziperman

Graham Dow

Research Topic: Ecology/Acidification
PhD Institution: Stanford University, Cell and Molecular Biology
Host: Harvard University, Dr. Andrew Richardson

Alison Gray

Research Topic: Ocean Biogeochemistry

PhD Institution: University of Washington, Physical Oceanography Host: Princeton University, Dr. Jorge Sarmiento

Feng He

Research Topic: Paleo
PhD Institution: University of Wisconsin-Madison, Atmospheric and Oceanic
Sciences
Host: Oregon State University, Dr. Peter Clark

Sandra Holden

Research Topic: Ecology
PhD Institution: University of California, Irvine, Ecology and Evolutionary
Biology
Host: University of California, Irvine, Dr. Michael Goulden and Claudia Czimczik

Salvatore Pascale

Research Topic: Monsoons/Climate Dynamics
PhD Institution: University of Reading, Meteorology
Host: California Institute of Technology, Dr. Simona Bordoni

Scott Steinschneider

Research Topic: Precipitation/Hydroclimate extremes
PhD Institution: University of Massachusetts, Amherst, Civil Engineering
Host: International Research Institute, Dr. Upmanu Lall

Daniel Stolper

Research Topic: Oxygen Cyle
PhD Institution: California Institute of Technology, Geobiology
Host: Princeton University, Dr. Francois Morel and Prof. Michael Bender

In 2015, there were 132 fellowship applications. Eight new appointments (Class 25) were made. The annual budget for 2015 is estimated at \$1.75 million.

The Annual Past and Present Fellow Networking Luncheon was held on December 14, 2015, at the American Geophysical Union Meeting, San Francisco, California. Fifty (50) past and present fellows attended.

The 2015 Steering Committee Meeting was held in Miami Florida at the University of Miami/RSMAS, on March 19-20, 2015.

Members of the 2015 Steering Committee included:

David Battisti, University of Washington Benjamin Kirtman, RSMAS, University of Miami David McGee, Massachusetts Institute of Technology Dylan Millet, University of Minnesota Elisabeth Moyer, University of Chicago Joellen Russell, University of Arizona

The 2015 appointees are as follows:

Class 25

Alyssa Atwood

Research Topic: Paleoclimate
PhD Institution: University of Washington, Oceanography
Host: University of California, Berkeley, Dr. John Chiang and Georgia Institute of
Technology, Prof. Kim Cobb

Colin Averill

Research Topic: Ecology/Fungus
PhD Institution: University of Texas at Austin, Ecology, Evolution & Behavior
Program
Host: Boston University, Dr. Jennifer Talbot

Navid Constantinou

Research Topic: Ocean Dynamics
PhD Institution: National and Kapodistrain University of Athans, Physics
Host: Scripps Institution of Oceanography, Dr. William Young

Sebastian Eastham

Research Topic: Atmospheric dynamics/Model development
PhD Institution: Massachusetts Institute of Technology, Aeronautics and
Astonautics

Host: Harvard University, Dr. Daniel Jacob

Xue Feng

Research Topic: Ecosystems/Drought
PhD Institution: Duke University, Civil and Environmental Engineering
Host: University of California, Berkeley, Dr. Sally Thompson

Laura Fierce

Research Topic: Atmospheric Chemistry
PhD Institution: University of Illinois at Urbana-Champaign, Environmental
Engineering
Host: Brookhaven Laboratory, Dr. Robert McGraw

Alexander Robel

Research Topic: Glaciology
PhD Institution: Harvard University, Earth and Ocean Sciences
Host: University of Chicago, Dr. Douglas MacAyeal

Nathan Steiger

Research Topic: Atmospheric Chemistry
PhD Institution: University of Washington, Atmospheric Sciences
Host: Lamont-Doherty Earth Observatory, Dr. Jason Smerdon

In 2016, there were 125 fellowship applications. Eight new appointments (Class 26) were made. The annual budget for 2016 is estimated at \$2.078 million.

The 12th Summer Institute for the NOAA Climate and Global Change Postdoctoral Fellowship Program was held in Steamboat Springs, July 24-29, 2016. The scientific leader for the Institute was Prof. Tami Bond, University of Illinois at Urbana-Champaign. There were 32 attendees (15 current postdoctoral fellows of the C&GC and PACE Programs, 8 alumni of the program, 9 senior scientists, sponsors and organizers).

The Annual Past and Present Fellow Networking Luncheon was held on December 13, 2016, at the American Geophysical Union Meeting, San Francisco, California. Sixty (60) past and present fellows attended.

The 2016 Steering Committee Meeting was held in New York, NY at the Excelsior Hotel, on March 3-4, 2016.

Members of the 2016 Steering Committee included:

David Battisti, University of Washington Benjamin Kirtman, RSMAS, University of Miami David McGee, Massachusetts Institute of Technology Dylan Millet, University of Minnesota Joellen Russell, University of Arizona Jennifer Talbot, Boston University

The 2016 appointees are as follows:

Class 26

Rebecca Jackson

Research Topic: Ocean Dynamics, Glaciers
PhD Institution: Massachusetts Institute of Technology, Physical Oceanography
Host: Oregon State University, Dr. Jonathan Nash

Sarah Larson

Research Topic: Ecology
PhD Institution: University of Miami, Meteorology and Physical Oceanography
Host: University of Wisconsin, Dr. Daniel Vimont

Emily Newsom

Research Topic: Ocean Dynamics
PhD Institution: University of Washington, Earth & Space Sciences
Host: NCAR/CGD, Dr. Frank Bryan and California Institute of Technology, Dr.
Andrew Thompson

Adam Pellegrini

Research Topic: Fire Ecology
PhD Institution: Princeton University, Ecology and Evolutionary Biology
Host: Stanford University, Dr. Robert Jackson

Scott Powell

Research Topic: Climate Dynamics, Cloudes and MJO
PhD Institution: University of Washington, Atmospheric Science
Host: Colorado State University, Dr. Eric Maloney

Malte Stuecker

Research Topic: Climate Dynamics, Ice Sheet
PhD Institution: University of Hawaii, Manoa, Meteorology
Host: University of Washington, Dr. Cecilia Bitz

Gregory Wagner

Research Topic: Ocean Dynamics, GFD
PhD Institution: University of California, San Diego, Mechanical and Aerospace
Engineering
Host: Massachusetts Institute of Technology, Dr. Raffaele Ferrari

Oliver Watt-Meyer

Research Topic: Climate Dynamics, Clouds PhD Institution: University of Toronto, Physics Host: University of Washington, Dargan Frierson

In 2017, there were 138 fellowship applications. Four new appointments (Class 27) were made. The annual budget for 2017 is estimated at \$2.249 million.

The 2017 Steering Committee Meeting was held in Boston, MA at the Massachusetts Institute for Technology, on March 9-10, 2017.

Members of the 2017 Steering Committee included:

David Battisti, University of Washington David McGee, Massachusetts Institute of Technology Dylan Millet, University of Minnesota Joellen Russell, University of Arizona Olga Sergienko, Princeton University Jennifer Talbot, Boston University

The 2017 appointees are as follows:

Class 26

Leander Anderegg

Research Topic: Biology, plant response carbon cycle PhD Institution: University of Washington, Biology Host: University of California, Berkeley, Dr. Todd Dawson

Kelvin Bates

Research Topic: Atmospheric Chemistry, global oxidant budgets PhD Institution: California Institute of Technology, Chemistry Host: Harvard University, Dr. Daniel Jacob

Rei Chemke

Research Topic: Climate, Atmospheric dynamics, sea surface temperatures on tropical expansion

PhD Institution: Weizmann Institute of Science, Atmospheric Dynamics Host: Columbia University, Dr. Lorenzo M. Polvani

Christopher Horvat

Research Topic: Ice, applied mathematics, ice flows and ocean flows PhD Institution: Harvard University, Applied Mathematics Host: Brown University, Dr. Baylor Fox-Kemper