



U.S. Department of Energy's
Office of Science

Office of Science's Global Change Education Program (GCEP)

Palomar Hotel
Washington, D.C.

Rickey Petty
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U. S. Department of Energy
Office of Biological and Environmental Research



Global Change Education Program

Welcome

The U.S. Department of Energy's Office of Biological and Environmental Research (**BER**) has established the Global Change Education Program (GCEP) to promote undergraduate and graduate training in support of the Department's global change research activities.

Global change research encompasses a wide variety of study areas, including atmospheric sciences, ecology, global carbon cycles, climatology, and terrestrial processes. Global change research is supported by BER through the Atmospheric Science Program (**ASP**), the Environmental Meteorology Program (EMP), the Atmospheric Radiation Measurement (**ARM**) Program, the Terrestrial Carbon Processes (**TCP**) effort, the Program for Ecosystem Research (**PER**), and studies carried out under the direction of the National Institute for Global Environmental Change (**NIGEC**). Other studies address integrated assessments, predictions, and policy, as well as paleoclimatology and earth system processes.

The two components of GCEP are the Summer Undergraduate Research Experience (**SURE**) and the Graduate Research Environmental Fellowships (**GREF**). A major goal of GCEP is to involve undergraduate students at the end of their sophomore or junior year in BER-supported global change research, then continue this experience during subsequent undergraduate summers. SURE is designed to support individual undergraduate students during multiple years. To further improve the quality of emerging scientists in disciplines related to global change research, SURE students will be encouraged to apply for GREF graduate fellowships and postdoctoral study programs.

Who's Who and What's What in GCEP

Dr. Rickey C. Petty is the DOE BER funding officer responsible for GCEP, Dr. Jeff Gaffney of the University of Arkansas at Little Rock is the Chief Scientist, Dr. Nancy Marley of the University of Arkansas at Little Rock is the Assistant Chief Scientist, and Dr. Milton J. Constantin of Oak Ridge Institute for Science and Education is the Program Manager. ***U.S. citizenship is required for application to any of the GCEP projects.***

For further information, contact Jeff Gaffney at jsgaffney@ualr.edu, Nancy Marley at namarley@ualr.edu, or Milton Constantin at milton.constantin@orau.org.



Global Change Education Program (GCEP)

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 - **Summer Undergraduate Research Experience (SURE).** SURE involves students at the end of their sophomore or junior years and includes an orientation course and mentored research experience at national laboratories.
 - **Graduate Research Environmental Fellowships (GREF).** GREF supports graduate students in global change research through collaborations between universities and national laboratories.
- <http://www.atmos.anl.gov/GCEP/>



GCEP Climate Research Area

GCEP DISTRIBUTION*

TECHNICAL AREAS	SURE		GREF	
	#	%	#	%
Climatology	16	15.38	10	13.70
Atmospheric Sciences	45	43.27	26	35.62
Ecology	25	24.04	20	27.40
Terrestrial Processes	9	8.65	8	10.96
Carbon Cycles	9	8.65	9	12.33
TOTAL	104	100.0	73	100.0

*Data From 1999 Through 2007



GCEP Publications

- 246 citations in the data base
- 113 Published
- 13 in press
- 19 papers have been submitted
- 62 papers have been presented at national meetings
- 34 posters & 5 presentations in education outreach



2008 Marvin L. Wesely Distinguished Graduate Research Environmental Fellowship Award

- **The Marvin L. Wesely Graduate Research Environmental Fellow for 2008 is Sarah O'Brien of the University of Illinois at Chicago.**



Sarah's DOE Mentor is Dr. Julie Jastrow
Of Argonne National Laboratory



Many Thanks

- **Ms. Donna Holdridge - ANL**
- **Ms. Rosetta Cox - ORISE**
- **Dr. Milton Constantin – ORISE**
- **Ms. M. Estelle Gilbreth - UALR**
- **Dr. Nancy Marley – UALR**
- **Dr. Jeff Gaffney – UALR**



Backup Slides

**Thank you for your
attention.**