Department of Geology University of Georgia Awards Ceremony April 27, 2012

## Introduction of Alumni Advisory Board Members

Dr. Mack Duncan, Chair (oil & mining business, retired) Mr. Alex Glover\* (Director of Mining & Environment, Active Minerals, International, LLC) Mr. Mark Hall (State Geologist for Georgia & Florida, Natural Resource Conservation Service) Ms. Jane Marshall (Deputy Director, Security Operations Division, U.S. Nuclear Regulatory Commission) Mr. Mark Mitchell\* (President, Genesis Project, Inc.) Ms. Sally Moore\* (Manager, Geology & Geophysics, Mobil New Business Development) Ms. Johannah Phelan\* (Project Manager, CH2M HILL) Dr. Jeff Reid (Senior Geologist, Minerals & GIS, North Carolina Geological Survey) **Dr. James Saunders\*** (Professor of Geology, Auburn University) Mr. Roger Sharpe (Director, Geotechnical & Mining Services, USG Corporation) Dr. Colleen Stapleton (Associate Professor of Science, Mercer University) Mr. Ryan Stepler\* (Senior Geophysicist, Marathon Oil Corporation)

\*new member, spring 2012

# Presentation of 2012 Outstanding Young Alumni Award

Mr. Ryan Stepler, Senior Geophysicist, Marathon Oil Company

# Presentation of 2012 Distinguished Alumni Award

**Dr. Harry (Hap) McSween,** Chancellor's Professor and Distinguished Professor of Earth and Planetary Sciences, University of Tennessee, Knoxville

# Closing Remarks from Dr. Mack Duncan, Chair Geology Alumni Advisory Board

**Geology Club Program** 

Alberto Patiño Douce: *Thermodynamics of the Earth and Planets* 

**Undergraduate Advisors** 

Rob Hawman Alberto Patiño Douce

**Graduate Coordinator** 

**Steve Holland** 

**Professor of the Year** 

?

#### **Teacher of the Year**

?

## **Staff Accolades**

A Group of Extremely High Performing Individuals

Rachel Ashton Julie Cox Chris Fleisher Michael Lewis Jacqui Maleski Ashley Moore Robert Phares

#### **Undergraduate Accolades**

#### B. S. Recipients Summer 2011-Spring 2012

Tristan Betzner Sean Cameron (ΦBK) Jordan Carney Meredith Cole Elizabeth Ducker Tony Gesualdo Leanne Hancock Patrick Harold Richard Jarrett Jacqui Maleski (ΦBK) Steve O'Connell Laura Quirk (ΦBK) Ben Powers Dylan Radford Erin Summerlin Will Teeter Robert Wilson

#### **Senior Theses**

**Tristan Betzner**, *Heterogeneities in recruitment on experimental* substrates, Ross Sea, Antarctica (Sally Walker)

**Sean Cameron,** *Well-log correlations and sequence stratigraphic interpretations of the Jurassic Sundance Formation, northwest Wyoming* (Steve Holland)

**Jordan Carney,** *Developing a key for identifying trepostome bryozoans from the Cincinnatian Series of the Cincinnati Arch* (Steve Holland)

**Meredith Cole,** *Mineralogy of a carbonate vein, Balsam Gap olivine mine, North Carolina* (Sam Swanson)

**Tony Gesualdo**, *Principal Component Analysis of the Bulk Chemical Composition of Ordinary Chondrites* (Alberto Patiño Douce, Mike Roden)

**Leanne Hancock,** *Depth-related bryozoan associations within the* C5 sequence (Late Ordovician, Richmondian) of the Cincinnati Arch (Steve Holland)

**Patrick Harold**, *Sulfur isotopes of quartz-arsenopyrite veins from the Money Knob deposit in Livengood, Alaska* (Doug Crowe)

Jacqui Maleski, Receiver function analysis of crustal thickness variations and Vp/Vs across the southern Appalachians from SESAME (Southeaster Suture of the Appalachian Margin Experiement) (Rob Hawman)

**Steven O'Connell,** *Geochemistry of alteration of the Money Knob deposit, Livengood Alaska* (Doug Crowe)

**Ben Powers,** *Sulfur isotope geochemistry of the Haile gold deposit, South Carolina* (Doug Crowe)

**Erin Summerlin,** Origin of Flow Banding in the South Mountain Rhyolite at Valles Caldera, New Mexico (Mike Roden)

#### **Professional Meeting Presentations**

**Sean Cameron**, Sharon McMullen, Steve Holland, *Well-log* correlation and sequence stratigraphic interpretations of the Jurassic Sundance Formation, Northwest Wyoming (SE GSA)

**Jordan Carney, Leanne Hancock,** Steve Holland, *Developing a key for identifying trepostome bryozoans from the Cincinnatian Series of the Cincinnati Arch* (SE GSA)

**Meredith Cole,** Sam Swanson, *Mineralogy of a carbonate vein, Balsam Gap olivine mine, North Carolina* (SE GSA)

**Humberto Dugarte-Newman,** *Provenance and tectonic evolution of the pre-Mesozoic Caparo block and Merida terrane in the Venezuelan Andes* (Jim Wright)

**Joelle Freeman,** Use of indoor radon data to analyze the effectiveness of radon risk prediction based on geochemical and geologic proxy data for the state of Georgia (Sam Swanson)

**Sharon McMullen,** *The occurrence of vertebrate and invertebrate fossils in a sequence stratigraphic context: the Jurassic Sundance Formation, Bighorn Basin, Wyoming, USA* (Steve Holland)

**Adam Sarafian,** *Apatite as a tool to determine the volatile content of eucrite meteorites* (Mike Roden)

#### Graduate Student of the Year

?

## **Faculty Accolades**

## **Facility Upgrades/New Instruments**

Electron Microprobe: Sam Swanson, Alberto Patiño Douce, Mike Roden

#### **New Books**

Steve Holland: Stratigraphic Paleobiology (with Mark Patzkowsky)

## **Levy Memorial Fund**

**Lori Demosthenes,** *Shallow marine archaeological geophysical investigation at Wormsloe Plantation, Isle of Hope, Georgia* 

**Darin Lang,** *Epibenthic foraminiferal assemblages at Gray's Reef* National Marine Sanctuary: Dispersal, recruitment and seasonality

## **Graduate Student Awards**

## **Outstanding Teaching Assistant Award**

Erin Smith Dana Susina

## 2011-2012 Graduate Degrees

#### Ph.D.

**Jason Austin,** *Assessing the viability of pedogenic gibbsite as a proxy for paleo-P<sub>CO2</sub>* (Paul Schroeder)

## M.S.

**Lori Babcock,** Accessory minerals stable isotopes, and petrographic structures of Pentelic and Proconnesian quarry marbles: Analysis with nonmetric multidimensional scaling for artifact provenance (Sam Swanson)

**Richard Cary,** *Dynamic Emma: Investigating watershed flow pathways using geochemistry and timing at Panola Mountain research watershed* (John Dowd) **Tony Gesualdo,** Michael Roden, Alberto Patiño Douce, *Principal component analysis of the bulk chemical composition of ordinary chondrites* (SE GSA)

**Leanne Hancock, Jordan Carney,** Steve Holland, *Depth-related bryozoan associations within the C5 sequence (Late Ordovician, Richmondian) of the Cincinnati Arch* (SE GSA)

**Leanne Hancock**, Sally Walker, Samuel Bowser, *Parasitism by the foraminiferan*, *Cibicides*, *on its host, the Antarctic scallop*, *Adamussium colbecki: A key to depth and environment* (National GSA)

**Patrick Harold, Steven O'Connell, Robert Wilson,** Dana Susina, Geochemical characterization of vein-hosted gold mineralization in the Money Knob deposit, Livengood, Alaska (SE GSA)

Davison Hogan, Beth Tabor, John Harper, Brandon North, Ethan Van Hazebroek, Jesse Lawler, Abigail Saenger, Nicholas Taylor, Chris Fleisher, Sam Swanson, *Comparison of mineralogy of Li pegmatites in the Kings Mountain district, North Carolina* (SE GSA)

**Kathleen Johnson,** Carla Hadden, Sally Walker, Samuel Bowser, *Finicky forams: Heterogeneities in recruitment on experimental substrates, Ross Sea, Antarctica* (National GSA)

Carla Hadden, **Kathleen Johnson**, Sally Walker, Sarah Hakala, Morgan Rosenberg, Samuel Bowser, *Rapid recruitment of benthic foraminifera to experimental arrays in McMurdo Sound, Ross Sea, Antarctica* (National GSA)

**Jacqui Maleski**, Horry Parker, Rob Hawman, Karen Fischer, Lara Wagner, Vedran Lekic, *Receiver function analysis of variations in crustal thickness and Vp/Vs across the southern Appalachians from SESAME broadband data* (SE GSA) Nicholas McMillan, Jacob Black, Hunter Carr, Amelia Hays, Mark Hirons, Alexa Burgess, Hamilton Goodner, Chris Fleisher, Sam Swanson, *Mineralogy of marble from the J.M. Huber mine, Georgia marble district* (SE GSA)

**Dylan Radford, Lauren Overstreet,** Joan Bernhard, Susan Goldstein, *Experimentally grown foraminiferal assemblages from the "mud patch" continental shelf site (Cape Cod, USA): The roles of temperature and diet (National GSA)* 

**Abigail Saenger,** Sam Swanson, *Mineralogy of primary phosphate minerals in Li pegmatites of the Kings Mountain district, North Carolina* (SE GSA)

## **Internal Funding**

Meredith Cole, Vernon Hurst Undergraduate Research Award

Abigail Saenger, Vernon Hurst Undergraduate Research Award

**Tristan Betzner**, Newmont Mining Corporation Outstanding Undergraduate Student Award

**Na Hyung Choi**, Newmont Mining Corporation Outstanding Undergraduate Student Award

**Abigail Maxwell**, Newmont Mining Corporation Outstanding Undergraduate Student Award

**Nick McMillan**, Newmont Mining Corporation Outstanding Undergraduate Student Award **Judi Sclafani**, Using Hubbell's neutral theory to test the species-area relationship in the Late Ordovician of Laurentia

**Dana Susina,** *Characterization of vein-hosted gold mineralization, Money Knob deposit, Livengood, Alaska* 

## **Miriam Watts-Wheeler Travel Scholarships**

Lori Babcock (National GSA, SEG – Lima, Peru) Brooke Hamil (National GSA) Sharon McMullen (National GSA) Alison Platsky (National GSA, Short Course, San Salvador, Bahamas) Dana Susina (SEG - Lima, Peru)

## **Gilles and Bernadette Allard Geology Award**

**Joe Boreman**, *Mesozoic evolution of the U.S. Cordillera: Structural and provenance analysis of the North Cortez Mountains and Adobe syncline in north-central Nevada* 

**Christopher Ginn,** *Tectonic evolution and provenance of the Boyer Ranch Formation, west-central Nevada: Implications for Mesozoic orogenesis, deformation and sedimentation in the western U.S. Cordillera* 

## Joseph W. Berg Scholarship in Geophysics

Pending

## **Internal Funding**

#### Miriam Watts-Wheeler Research Scholarships Fall 2011-Spring 2012

**Joe Boreman**, *Mesozoic evolution of the U.S. Cordillera: Structural and provenance analysis of the North Cortez Mountains and Adobe Syncline in north-central Nevada* 

**Alex Brown,** *Pre-Cretaceous geology of the igneous, deformational, and metamorphic history in the Merida Andes* 

**Liz Cary,** Filtration of perchlorate from water by Hexadecyltrimethylammonium (HDTMA)-montmorillonite

**Lori Demosthenes,** *Shallow marine archaeological geophysical investigation at Wormsloe Plantation, Isle of Hope, Georgia* 

**Nicole Duhamel,** *The use of mineral compositions for soapstone provenance: An example using samples from the Joseph Bond soapstone quarry (18H01), Maryland* 

**Christopher Ginn,** *Tectonic evolution and provenance of the Boyer Ranch Formation, west-central Nevada: Implications for Mesozoic orogenesis, deformation, and sedimentation in the western U.S. Cordilleran* 

**Brooke Hamil,** *Mantle metasomatism and the generation of alkaline lamprophyres in the Spanish Peaks instrusive complex, south-central Colorado* 

**Don Lundy,** *An investigation of the relationship between lateral spreading and mass depletion of an LNAPL plume in contact with groundwater* 

Adam Sarafian, Apatite-hosted volatile elements in eucrites

#### AIPG Georgia Section Scholarship

**Hamilton Goodner** 

**AIPG National Scholarship** 

Na Hyung Choi

## **NAGT Field School Scholarship**

Na Hyung Choi

## GSA/ExxonMobil Field Camp Scholar Award

Na Hyung Choi

## **Undergraduate Student of the Year**

?

# **Graduate Student Accolades**

#### **Presentations at professional meetings**

Heath McGregor, **Brooke Hamil, Adam Sarafian,** Michael Roden, Alberto Patiño Douce, Linda Davis, *Petrogenesis of contemporaneous sodic and potassic alkaline magmas at Spanish Peaks, Colorado* (National GSA) **Sharon McMullen,** Robin O'Keefe, Steve Holland, *The occurrence* of vertebrate and invertebrate fossils in a sequence stratigraphic context: The Jurassic Sundance Formation, Bighorn Basin, Wyoming, USA

Sean Cameron, **Sharon McMullen**, Steve Holland, *Well-log* correlation and sequence stratigraphic interpretations of the Jurassic Sundance Formation, Northwest Wyoming (SE GSA)

**Horry Parker,** Rob Hawman, Karen Fischer, Lara Wagner, Vedran Lekic, *Preliminary results of SESAME: Southeastern suture of the Appalachian margin experiement* (fall AGU)

**Alison Platsky, Judi Sclafani,** Sue Goldstein, *The effect of increased salinity on foraminiferal assemblages in Georgia salt marshes* (SE GSA)

T. Curtin, B. Spencer, J. Rayburn, **Alison Platsky**, *A record of postglacial relative lake level fluctuation in Seneca Lake basin*, *NY* (National GSA)

**Adam Sarafian,** Michael Roden, Alberto Patiño Douce, *Apatite as a probe of volatile composition in HED magma* (74<sup>th</sup> Annual Meteoritical Society)

**Adam Sarafian,** Michael Roden, Alberto Patiño Douce, *The nature of volatiles in Vesta: Clues from apatite in eucrites* (43<sup>rd</sup> Lunar & Planetary Science Conference)

Patrick Harold, Steven O'Connell, **Dana Susina**, *Geochemical characterization of vein-hosted gold mineralization in the Money Knob deposit, Livengood Alaska* (SE GSA)

#### **Imperial Barrel Award Team**

(a competition at Eastern AAPG in oil exploration)

Alex Brown Humberto Dugarte Christopher Ginn Bill Wylie

## **External Funding**

**Dana Susina,** *Bates Scholarship to attend the Forum on Industrial Minerals* 

Adam Sarafian, NASA Cosmochemistry travel grant to attend 74<sup>th</sup> Annual Meteoritical Society

Adam Sarafian, Sigma Xi Grant-In-Aid-of-Research, The nature of volatiles in Vesta: Clues from apatite in eucrites

**Alison Platsky,** *SE GSA Research Grant, Testing the effect of sealevel change on biodiversity and dispersal* 

**Alison Platsky,** Paleontological Society Grant to attend "Taphonomic and Ecological Processes in Tropical Environments" Field Course, San Salvador

**Judi Sclafani,** *GSA Student Research Grant, Using Hubbell's neutral theory to test the species-area relationship in the Late Ordovician* 

**Judi Sclafani,** *Sigma Xi Grant-In-Aid-of-Research, Using Hubbell's neutral theory to test the species-area relationship in the Late Ordovician* 

**Judi Sclafani,** The Paleontological Society Kenneth E. & Annie Caster Award, Using Hubbell's neutral theory to test the species-area relationship in the Late Ordovician