

# GENETICS at georgia

volume 3 • department of genetics • www.genetics.uga.edu • university of georgia, athens

## Roger Deal awarded 06-07 Bishop fellowship

The first recipient of the Linton and June Bishop Graduate Fellowship in Genetics is Roger Deal, a graduate student in Rich Meagher's lab. The fellowship, which recognizes the accomplishments of a senior genetics graduate student each year, was established by a generous gift of Dr. Linton and Mrs. June Bishop.



Deal's graduate work focuses on chromatin modification, an important aspect of gene expression in all higher organisms. His thesis examines how nuclear actin related proteins function in histone modification in the plant *Arabidopsis*. Roger plans to begin postdoctoral work at the Fred Hutchinson Cancer Research Center in Seattle in the fall of 2007.

## Alton fellows named

Chih-Horng Kuo and Jodie Linder have received the Kirby and Jan Alton Graduate Fellowship for 06-07 and 07-08, respectively. The Alton fellowship, funded by a generous continuing gift from Dr. Kirby (Ph.D. '81) and Jan Alton, provides full support for an outstanding fourth year graduate student each year. Kuo, who is co-advised by Jessica Kissinger and Daniel Promislow, studies



see Alton on page 6

## Genetics faculty recognized for research and creativity

Robert Ivarie and Richard Meagher were recognized for outstanding research and creativity at the UGA 28th annual Research Awards Banquet.

Ivarie received the Inventor's Award for a number of inventions and novel methods to genetically engineer chickens as bioreactors for the low-cost production of proteins that have therapeutic potential for humans. His work led to the founding of Avigenics, Inc., a biotechnology company located in Athens.

Meagher was named a Distinguished Research Professor in recognition of his outstanding national and international research and creative achievements. He was the first scientist to engineer plants to take up toxins from the soil, a field now known as phytoremediation. In addition, he established himself as a leading authority on the plant cytoskeleton and on monoclonal antibody production.

## Shannon Yu receives Kenyon award

Shannon Yu received the Cynthia Kenyon Undergraduate Award at the third annual undergraduate spring symposium. The Kenyon award, named in honor of a former undergraduate now on the faculty of the University of California-San Francisco, is given each year to an outstanding undergraduate student for exceptional performance in academics, in research, and in leadership outside of the classroom.



Shannon's work centers on an analysis of the parathyroid phenotypes of tissue-specific knockouts of the Sonic Hedgehog signaling pathway in the lab of Nancy Manley. She will enter the PhD program at Sloan Kettering Cancer Center in New York City next fall.

## Norman H. Giles, 1915 - 2006

On October 16, 2006, Norman H. Giles, the Fuller E. Callaway Emeritus Professor of Genetics at the University of Georgia, passed away in his sleep at the age of 91, following complications from a fall. It would be difficult to overstate the impact of his life and career on the Genetics Department and the University of Georgia. Norman was an international leader in the field of Genetics, a great scientist, and an intellectual with broad based knowledge beyond science—someone for whom the term Renaissance man truly applied.



A native of Atlanta, Norman earned his A.B. in Biology from Emory University before moving to Harvard where he completed his Ph.D. in 1940. His dissertation focused on the nature of spontaneous and induced chromosomal mutations and genome rearrangements in plants. He then joined the faculty at Yale University in 1941 where he rose through the ranks, becoming Professor of Biology in 1951 and Eugene Higgins Professor of Genetics in 1961. In the 1940s, Norman began research on the fungus *Neurospora crassa* and during the ensuing 35 years made many fundamental contributions to the molecular genetic analysis of biochemical pathways and the ways in which genes influence metabolism. For example, using X-ray induced mutations he showed that back mutations (or reversions) identify new genes that encode proteins in the same pathway, and he systematically deduced entire metabolic pathways in *Neurospora*. This seminal work set the stage for elucidating much of what we now understand about biosynthetic and catabolic

see Giles on page 4

## Editor's note

It has been a great pleasure to edit the first three volumes of *Genetics at Georgia*, in large part because of the enthusiastic response to our annual solicitation of alumni news. We take great pride in the accomplishments of our 350 undergraduate and 200 graduate alumni and are pleased to have heard from many of you. Please help us by continuing to send news of your current occupation or career or personal milestones to Susan White (whites@uga.edu) for publication in next year's issue.

I am also very grateful for your gifts to the Genetics department. This year, thanks to your generosity, the newly established Genetics Alumni Student Travel Fund made two awards to support student travel to research conferences. Vanessa Corby-Harris, a graduate student in Daniel Promislow's lab, presented her research on the relationship between immunity and microbial community richness in natural populations of *Drosophila melanogaster* in a talk at the 48th Annual Drosophila Research Conference in Philadelphia in March of 2007. Shannon Yu, an undergraduate in Nancy Manley's lab, will present her work on the role of sonic hedgehog signaling during parathyroid organogenesis in the mouse at the Society for Developmental Biology meeting being held in Cancun, Mexico in June 2007. Information about how to make a gift to this and other Genetics department funds can be found on the inside back page of the newsletter.



Michael Bender

PLEASE VISIT OUR WEB  
SITE AT  
[www.genetics.uga.edu](http://www.genetics.uga.edu)

## NEWS | Graduate Program

The 2006-2007 academic year was another banner year for the Genetics graduate program. Our students continued to excel, making significant contributions by publishing in top-tier journals such as *Science*, *the Journal of Bacteriology*, *Molecular Biology and Evolution*, *BMC Genomics*, *Proceedings of the Royal Society*, and *Plant Cell*. Several articles authored by Genetics students were highlighted as noteworthy articles in *Science* and on Faculty of 1000. Additionally, several students were invited to present their research at platform and poster sessions at national and international research conferences. Brunie Brugos, a first year student, was selected to speak at the 8th Annual Plant Science Center Retreat at Lake Lanier last fall, and in recognition of his contributions, Roger Deal was awarded a Graduate Research Recognition Award at the 17th International Conference on *Arabidopsis* Research.



Brunie

The Genetics Department graduate students received numerous awards for their research, leadership, and teaching accomplishments in 2006. As a testament to their creativity and scientific rigor, eight graduate students received research grants and fellowships. Monica Poelchau, a third year student, was awarded an Organization for Tropical Studies Research Fellowship to conduct her fieldwork last summer in Central America. Chih-Horng Kuo received both the James L. Carmon Honorarium for his innovative use of computers in his dissertation research, and the second annual Kirby and Jan Alton Graduate Research Fellowship. Eve Basenko and Jodie Linder, both third year students, received Sigma Xi grants for their research. Roger Deal, who is in his final year, was given a Dissertation Completion Award and was the first Genetics graduate student to receive the prestigious Linton and June Bishop Graduate Fellowship. Our students' continued commitment to teaching was exemplified by Nandita Mullanpudi, who

won the 2006-2007 UGA Outstanding Teaching Assistant Award in recognition of her teaching accomplishments. Lastly, Genetics graduate students were recognized for their important leadership roles in the UGA community this past year –



Rebecca

Rebecca Tomlinson and Jeremy DeBarry were selected to participate in the UGA Graduate Future Leaders Program, and Vanessa Corby-Harris was elected to the Blue Key National Honor Society.



Jeremy

Finally, it is important to recognize those students who have recently joined our program and those that graduated this academic year. The Department was excited to welcome seven new students into our family. In addition, we congratulate our most recent graduate, Roger Deal, and those students preparing to graduate this August, including Rebecca Tomlinson, Zhijie (Jason) Liu, and Vanessa Corby-Harris. We are proud that they will be occupying postdoctoral positions in many of the country's top research labs. Roger Deal moves to Seattle, Washington, this spring to begin work with Steve Henikoff at the Fred Hutchinson Cancer Research Center. Also, Vanessa Corby-Harris was awarded a postdoctoral fellowship through the University of Arizona's Center for Insect Science and will begin working with Teri Markow this fall.

With the incoming class of graduate students on their way, our junior students kicking their research projects into high gear, and several students preparing for December and May graduation dates, the Genetics graduate program promises to continue its tradition of productivity, leadership, and vibrancy through 2007 and into 2008.

Vanessa Corby-Harris

## 'Ticking timekeepers'

### Researchers publish first working model that explains how biological clocks work

By Philip Lee Williams

Science has known for decades that biological clocks govern the behavior of everything from humans to bread mold. These ticking timekeepers hold the key to many diseases, annoy passengers on intercontinental flights and can mean life or death for small creatures trying to survive in nature.



Jonathan Arnold

Despite the importance of biological clocks, their mechanisms have remained unclear. Now, a team of researchers from the University of Georgia has produced the first working model that explains how biological clocks work.

"When the clock goes awry in mammals, it can lead to many diseases, ranging from cancer and sleep disorders to heart and lung disease," said Jonathan Arnold, a professor in the department of genetics and leader of the research. "It is very important that we know how the clock works at the molecular level."

The research has been published in the online edition of the Proceedings of the National Academy of Sciences.

Arnold's co-authors on the paper were members of a UGA interdisciplinary team, though several have now moved on to other positions. They include: Heinz-Bernd Schuttler, professor of physics and astronomy at UGA; Yihai Yu, a former graduate

see *Timekeepers* on page 6

## NEWS | Undergraduate Program

Research remains a strength of the Genetics department and this certainly includes the contributions of many Genetics undergraduates. Four laboratory classes are now available to Genetics majors (of which there are 118 declared), and there are also abundant opportunities for undergraduate research in the labs of Genetics faculty. In Spring 2006, the Genetics Department Undergraduate Symposium and dinner was held, featuring oral presentations by eight undergraduates on their independent research. Students presenting were Cristina Budde, Erica Hall, Allison Koch, Patrick Pilie, Rebekah Rogers, Jessica Shivas, Cale Whitworth, and Brunilis Burgos-Rivera. The faculty attending were in agreement that the quality of the presentations was excellent.

A second event for Genetics majors was initiated in Fall 2007. The Genetics Student/Faculty Mixer featured ~5

minute presentations by close to half the Genetics Faculty as well as a social hour afterwards. The mixer was aimed at introducing new Genetics majors to faculty members as well as to learn about the research that is carried out in the department. For some students, this event helped them decide which lab to do independent research in.

In other news, current UGA Genetics major Nithya Natrajan was awarded a Mid-term Foundation Fellowship and a Barry M. Goldwater Scholarship for 07-08. Deep Shah, majoring in Genetics and International Affairs, has been named a recipient of a 2007 Harry S. Truman Scholarship, a national award for students who plan careers in public service. Erica Hall was selected to give an oral presentation at the 21st National Conference on Undergrad Research at Dominican University in California in

see Undergrad on page 7

## Head's note

This has been a bittersweet year in the Department of Genetics. We were saddened by the death in October of Dr. Norman Giles, the founder of the Genetics program at UGA (see article on p. 1). Norman was an extraordinary scientist and a true gentleman and he will be greatly missed by all. As we do each year, however, we welcomed new students and faculty members who will help us build on existing strengths and further broaden departmental research and training programs.



This year, the department recruited new faculty in the areas of Molecular Epidemiology, Molecular Evolution, and Ecological Genetics. Dr. Mark Jensen, a molecular epidemiologist, holds a joint appointment in Genetics and in the new UGA College of Public Health. Dr. Jensen is applying molecular epidemiological and population genetics approaches to study infectious diseases including HIV and cholera. Dr. Kelly Dyer, whose research specialty is molecular evolution, is pursuing the question of how evolutionary conflict at many levels shapes the patterns of diversity that we observe in natural populations. Dr. Dyer is completing a Royal Society Research Fellowship with Dr. Brian Charlesworth at the University of Edinburgh and will join the Genetics faculty in the Fall of 2007. Finally, Dr. David Moeller, an ecological geneticist, will join the faculty in the Spring term of 2008. Dr. Moeller is studying the influence of broad-scale spatial and temporal variation in ecological factors on the evolution of functionally important traits. His work focuses on studies of plant species in the genus *Clarkia* in the Sierra Nevada of California and wild relatives of maize endemic to Mexico.

As you will see in these pages, our faculty and students continue to win well-deserved recognition for their accomplishments. This year, Dr. Rodney Mauricio was elected to the UGA Teaching Acade-

see Head's on page 8

## Giles . . .

from page 1

operations within cells.

While at Yale, Norman convinced Mary Case (a research scientist at Oak Ridge National Laboratories) to join his research group as a graduate student, and he also recruited Wyatt Anderson as a young Assistant Professor. Mary would become Norman's life-long collaborator, and as Professor of Genetics she later followed him to the University of Georgia (UGA). At Norman's urging, Wyatt likewise moved to UGA where he became the first Head of the Genetics Department and later Dean of the College of Arts and Sciences.

Norman was elected into the National Academy of Sciences in 1966, and in 1972 he was recruited to UGA as a Callaway Professor of Genetics, a position that he held until his retirement in 1986. In Athens, Norman formed an inter-departmental program that soon became the Department of Genetics. In addition to maintaining a high-profile research program, he recruited and inspired many younger faculty members (including the authors of this obituary).

Norman's many contributions to science will long be remembered, but those of us who knew him personally will cherish even more our memories of his humanity, warmth, and wit. Over cocktails or at dinner parties, Norman could recite, with equal facility and perfection, the genetic workings of a complex biochemical pathway, the flute-like song of a wood thrush, or every line from any of dozens of poems. Norman was a delightful paradox: comfortable and down-to-earth, yet sophisticated and complex. His intellectual brilliance was overmatched only by his lack of pretense.

Norman had more facets than a diamond, and to best convey this, we (JCA and JW) will each offer a personal anecdote. Shortly after joining the University of Georgia in 1975, I (JCA) began to teach Ornithology. While thumbing through early issues of *The Oriole* (the official publication of the Georgia Ornithological Society, or GOS), I stumbled upon the name Norman Giles and thought to myself: what a coincidence that a Georgia birdwatcher would have the same name as the famous molecular geneticist in our department. Of course,



Back row, L to R: Graeub, Binford, Crain, Paton-Ash  
Front row, L to R: Scott, Breevoort, Berke

**T  
E  
A  
M  
  
B  
E  
L  
I  
E  
V  
E**

Six UGA students will bike from Oregon to Virginia this summer to raise \$60,000 for cancer research. Believe in the Cure was co-founded by Sarah Breevoort (biochemistry and molecular biology) and Nathan Crain (genetics and Spanish). Other members of Team Believe include Clare Scott (genetics and entomology), John Binford (genetics and psychology), Michael Berke (exercise and sport science), and Megan Cole (UGA alumna and MCG student). Mark Paton-Ash (finance), who is recovering from serious injuries from an accident while riding his bike in February, will participate in spirit.

Team Believe is partnered with the American Cancer Society and all proceeds will benefit the ACS. For more information or to donate visit [www.believeinthecure.com](http://www.believeinthecure.com)

that was before I knew that Norman the geneticist was also an avid field naturalist. Indeed, Norman had co-founded the GOS in 1936! Throughout his life, Norman traveled the world with his wife Doris, attending genetic conferences and delivering lectures but also taking many welcome opportunities to observe the native birds.

I (JW) also knew Norman as a wonderful neighbor. Our houses were just a short distance apart and Norman and Doris were neighborhood treasures. For departmental or other functions, they often hosted parties—legendary events that brought us together as friends as well as colleagues. Such gatherings on the decks of their magnificent house, which overlooked a stream, were almost weekly events. The Giles were master gardeners and their yard was filled with native plants. A few days ago, I noticed with nostalgia that their Cherokee Rose was in full bloom, a former signal for the start of spring gatherings. Typical of Norman's nature, his non-science neighbors knew little of his professional accomplishments, such as the fact that he had established a major program of science at UGA or that he was one of the few members of the National Academy of Sciences in the state of Georgia. At a memorial gathering after Norman's death, one such neighbor shared a newspaper article listing

Norman's accomplishments; everyone was overwhelmed by the list, and then, upon further reflection, even more so by the humility of the man himself.

Norman's intellectual abilities were powerful and his interests broad. He had a boundless appreciation for meaningful human accomplishments, and an unbridled disdain for the converse. Although his eyesight and hearing diminished over the years, his mind remained as engaged and sharp as ever. He could listen to a bird's call—a bird he could no longer see—and describe from memory its appearance, where it nested, and the many details of its lifestyle. Norman was also socially and politically engaged. For example, he voted in every election even when he needed help to see and read the ballot. Among his last words on the evening of October 16 were damnations for U.S. activities in the Middle East and his anger at the horror of the war in Iraq.

Norman was exceptional in many ways—as a person, as a colleague, as a mentor, as a neighbor, and as a friend. His legacy will endure for generations of scientists who will benefit from his pioneering work, and for everyone who was privileged to know this great human being.

John Avise & Jan Westpheling

Currently an American Cancer Society postdoctoral fellow in Paul Sternberg's laboratory at the California Institute of Technology, **Ryan Baugh** (BS '97) received his doctorate from Harvard in 2004. He is investigating developmental physiology in the nematode *C. elegans*. His paper on the subject was published in April 2006 in *Current Biology*.

Still at Carolinas Medical Center researching Angelman syndrome and Prader-Willi syndrome, **Lowell Rayburn Combs** (PhD '04) is getting ready to welcome her first batch of transgenic mice to the lab with hopes of gaining insight into the pathogenesis of AS.

**Kenneth DuBois** (BS '03) is a second year dental student at LSU in Baton Rouge.



After trekking in Peru and Bolivia last summer, **Joseph Edwards** (BS '04) is back at Emory in his third year of medical school. He is considering a specialty in ophthalmology.

**Sarah Finch** (PhD '06) is a postdoctoral fellow at the Rothberg Institute for Childhood Diseases, a non-profit dedicated to finding a cure for tuberous sclerosis complex (TSC). Her work on TSC marker discovery may ultimately help identify therapeutic agents for specific TSC tumor types.

**Nicole Fitzpatrick** (BS '99) is project coordinator for the Pediatric Dengue Vaccine Initiative in Mangua, Nicaragua, working for Sustainable Sciences Institute. Formerly, she served in the Peace Corps in the Dominican Republic after obtaining an MPH from Tulane University, and then as a regional epidemiologist for The South Carolina Department of Health and Environmental Control.



Continuing her postdoctoral work in Ken Moberg's lab at Emory, in 2006 **Melissa Gilbert** (BS '97) was awarded an NIH NRSA Fellowship to study the role of the *Drosophila* ortholog of mammalian Tsg101 in maintaining epithelial cell polarity and growth control.

After completing an MD at UCSF in 2006, **Holly Gooding** (BS '00) is now working as a resident physician in internal medicine at Brigham and Women's Hospital in Boston. She published work

# A l u m n i News

from her masters' thesis on genetic testing for Alzheimer's disease in *Social Science and Medicine* and *Patient Education and Counseling* in 2006.

**Ed Green** (BS '97) recently gave a Genetics departmental seminar on his work on Neandertal DNA. This research was published in *Nature* in November 2006.

**Julie Gunnells**, née Letford, (BS'01) received her Ph.D. in August 2006 from the University of North Carolina at Chapel Hill and is currently a postdoctoral fellow in the department of cell biology at Duke University.



**Shanna Henk**, née Carney (PhD '96), has left academia and is now at the USDA ARS in Fort Collins, CO as a safety and occupational health specialist. She is married to Adam Henk who received his BS from UGA in zoology. They have two children, Taran (8) and Kasia (2).

After retiring from the NFL, **Terry Hoage** (BS '85) is now growing yeast cultures again...just really big ones! With his wife, Jennifer, he started a winery in Paso Robles, CA and they are now in their 5th vintage. They specialize in Rhone varietals and their first production, "The Hedge,"

paid homage to UGA.

A second-year PhD candidate at Wake Forest University, **Katherine House** (BS'04) is doing organic chemistry research in the lab of Suzanne Tobey. She is married to Chris Temple and they have a one-year-old daughter, Sarah.

**Deborah Ingram** (BS'94) is solo practitioner and owner of Ingram Pediatrics in Fort Lauderdale where she also holds an ancillary faculty appointment with Nova Southeastern University College of Osteopathic Medicine. She has been a mentor in the Big Brothers/Big Sisters program since 1999.

**Jonathan Kulbersh** (BS'01) is a second-year otolaryngology resident at the Medical University of South Carolina.

Working with Howard Ochman in bacterial evolutionary genomics, **Renyi Liu** (PhD '05) is a postdoctoral associate at the University of Arizona. Research Renyi conducted at UGA with Marjorie Asmussen will be published in *Theoretical Population Biology*.

With sanity intact after his first hectic year as assistant professor of biology at the Mississippi University for Women, **Paul Mack** (PhD '01) is busy developing the evolutionary biology component of MUW's biology program.



**Amy MacRae** (PhD '88) is enjoying her work as a financial services professional at Executive Financial Group in St. Louis, MO. Her husband, Gary Brown, is an adjunct professor at Jefferson College teaching biology.

A doctoral student at Emory University in the Population Biology, Ecology, and Evolution program, **Andrea McCollum** (BS '99, MS '02) is working on the population genetics of drug resistant malaria. She expects to graduate within a year.

**Anna Meyer-Manlapat** (BS'01) completed a PhD in molecular immunology at The Medical College of Georgia in March 2006. She is now engaged in postdoctoral studies on the role of mast cells on dendritic cell function in the lab of David Segal at the Experimental Immunology branch of NCI, NIH in Bethesda, MD.

A postdoctoral fellow in Stokes Peebles lab in the Division of Allergy, Pulmonary, and Critical Care Medicine at Vanderbilt University, **Marty Moore** (PhD '03) is mapping the regions of the respiratory syncytial virus (RSV) genome that contribute to airway dysfunction. He was elected senior co-chair of the Vanderbilt Postdoc Association and will again represent postdocs at the National Postdoc Association meeting.

**Lyn Moran**, née Stuckey, (BS '01) is a dancer for "The Wiggles," an Australian children's entertainment group. She married Sam Moran in 2006, and they reside in Sidney.

## Timekeepers . . .

from page 3

student in physics, now working in industry; Wubei Dong, a postdoctoral fellow in Arnold's lab in genetics; Cara Altimus, a former UGA undergraduate and current graduate student at Johns Hopkins University; Xiaojia Tang, a doctoral student in Schuttler's lab; James Griffith, Arnold's research coordinator, who is supported by funds from the UGA College of Agricultural and Environmental Sciences; Melissa Morello, a former UGA undergraduate, now a student at the Medical College of Georgia; and Lisa Dudek, also a former undergraduate in physics and now a graduate student at UCLA.

Because of the importance of biological clocks to survival and health, evolution has built them into an astoundingly diverse array of organisms, including bacteria and humans. These clocks make it possible for organisms to "tell time," even in the absence of such stimuli as temperature changes or daylight.

## Alton . . .

from page 1

host-parasite co-evolution and genome evolution in protozoan parasites. In both of these projects, he has developed novel computational approaches to address questions of biological and evolutionary significance.

Linder, the 2007-2008 Alton Fellow, is a student in the laboratory of Daniel Promislow. Linder's work centers on the interaction between the environment and immune function. She is investigating how warmer temperatures assist recovery from infection in the model organism *Drosophila melanogaster*. This research will not only increase our understanding of how environmental effects influence the immune system, but also may be relevant to pest control and survival of insect species as global temperatures increase.

The UGA team discovered how three genes in *Neurospora crassa*—bread mold—make such a clock tick at the molecular level. The paper in *PNAS* describes how to identify genetic networks and show how the tools of systems biology can yield insights into what makes the clock tick.

"Much of what we know about the biological clock comes from the study of *Neurospora*," said Arnold, "so the insights on this clock mechanism are likely to provide insights into clocks of other organisms."

The discovery also has broad implications for understanding biochemical signaling and other regulatory processes in cells, said Arnold.

Before this research, there has been little experimental support for any of the many existing models of the biological clock. The UGA team studied actions of three genes in *Neurospora*: white-collar-1, white-collar-2 and frequency. The team found that the products of these three genes constitute the building blocks of a biological clock. The discovery crosses species boundaries, since human beings have a gene analogous to white-collar-1.

A number of human diseases are associated with genes under control of the biological clock. For instance, a gene called PAI-1 is involved with early-morning heart attacks. Another gene called DBP affects sleep cycles. Both are controlled by clock genes.

"One of the most interesting parts of the research is that the biological clock shows how a complex trait can emerge from the interaction of even a small number of gene regulatory elements," said Arnold.

One interesting aspect of the research is the involvement of UGA undergraduates through the Research Experiences for Undergraduates program sponsored by the National Science Foundation.

The research published in *PNAS* also was supported by grants from the National Science Foundation.

## Friends of Genetics

We proudly recognize alumni and friends who have supported our academic programs from June 2006 to date. We are grateful for the generosity of all of our donors. If your name is missing or is listed incorrectly, please email whites@uga.edu so that we may properly acknowledge your generosity. To make a gift to the department, please refer to the gift form on page 7.

Anonymous (2)

Drs. Margaret & Wyatt Anderson

Dr. Kirby Alton & Mrs. Jan Alton

Dr. Jonathan Arnold &

Mrs. Barbara J. Hartman-Arnold

Dr. Michael Arnold

Dr. Todd E. Arnold

Dr. Mary Bedell

Dr. Michael & Mrs. Alice Bender

Drs. Jeffrey L. Bennetzen & Katrien Devos

Ms. Margaux E. Charbonnet

Dr. Lowell Rayburn Combs

Drs. Brian Condie & Nancy Manley

Dr. Kelly Dyer

Dr. Shari Freyermuth

Dr. Norman H. Giles

Dr. Holly Gooding &

Mr. Buudoan V. Tran

Dr. Richard E. Green Jr. &

Ms. Christine B. Green

Dr. Robert Glenn Gregerson

Dr. David Hall

Drs. Joseph E. & Robin C. Hightower

Mr. Bob Inkrot & Ms. Janet Inkrot

Dr. Bob Ivarie & Ms. Julie Morris

Dr. Shilpa Iyer

Sallie R. Jocoy

Ms. Meera Kesavan

Mr. & Mrs. Ram Kesavan

Dr. Jessica Kissinger

Drs. Deena & Sidney Kushner

Dr. Tong-Ruei Li

Ms. Valerie F. Maples &

Dr. Richard B. Meagher

Dr. Lowell Y. Rayburn

Dr. Somasekar Seshagiri

Ms. Sugithra Somasekar

Mr. Bronson K. Strickland &

Ms. Kacey M. Jones-Strickland

Dr. Thomas C. Talley

Ms. Katherine H. Temple

Dr. L. DeEtte Walker

Dr. Joseph H. Williams, Jr.

Dr. Brenda S. J. Winkler

Dr. Charles Yanofsky



## Undergrad . . .

from page 3

April 2007.

Many recent Genetics graduates have moved on to professional or graduate schools. Among those we know of include Hannah Bosdell (M.D. program, MUSC), Conley Carr (M.D. program, Univ. of Alabama), Jonathan Gardner (M.D. program, Ross Univ. School of Medicine), Carl Mabry (M.D. program, LSU), Katie Maher (LSU school of Vet. Med.), William McMaster Jr. (M.D. program, MUSC), Oliver Molliere (M.D. program, LSUHSC, Shreveport), Ramya Muralimohan (M.D. program, MCG), Rebekah Rogers (Ph.D. program in Organismic and Evolutionary Biology, Harvard), David Wiley (Ph.D. program in Biology, UNC), Lela Lasiter (M.D. program, MCG), Adam Perry (M.D. program, Emory) J. Grant Zarzour (M.D. program, Univ. of South Alabama) and Burt Wrenn (Pharmacy, UGA). Another Genetics graduate, George Masoligites, completed an M.S. in Physics and will join the Biochemistry and Biophysics Ph.D. program at the Univ. of California-San Francisco.

Mike McEachern

In the Molecular Cancer Biology doctoral program at Duke University, **Gautham Pandiyan** (BS '04) has been awarded a DOD Pre-doctoral Breast Cancer Research Grant. He also serves on the Board of Directors of the National Association of Graduate & Professional Schools and on the Executive Board of the Graduate & Professional School Council at Duke.

Associate Professor **Aleksandar Popadić** (PhD '94) received a 2006 Wayne State University Career Chair Development Award and spent spring of 2007 between Cambridge University, University of Sussex, and Yale. His wife, Nela, works at the WSU Genomics Center and they have two girls, Lyuba (10) and Sandra (6).

**Justin Possner** (BS '03) is a third-year medical student at Midwestern University, Arizona College of Osteopathic Medicine, in Glendale.

A research geneticist in the Fruit Laboratory at the Beltsville Agricultural Research Center in Maryland, **L. Jeannine Rowland** (PhD '87) heads a program to identify markers/genes of horticultural value. For several years, their main focus has been the study of genes controlling cold hardiness in the blueberry.



Dana and James

**Shenara Austin Sexton**, M.D. (BS Biology '96) is now practicing as a dermatologist in Athens, Georgia.

**Cindy Buckner Starke** (BS '91) is an internal medicine physician at Montreal Internal Medicine Associates in Tucker, GA specializing in women's health. She has two children, Jessica Marie (4 ½) and Wyatt Buckner (2 ½). Cindy is active in her church and enjoys spending free time with friends, family, camping and hiking.

In February 2005, **Dana Hager Underwood** (PhD '02) and her husband had a baby boy, James. She also enjoys teaching biology part-time at Central New Mexico Community College.

**Javier Valle** (BS '05) is a first-year medical student at Ponce School of Medicine in Puerto Rico.

Compiled by Susan White

## I proudly support The Franklin College Department of Genetics

You can make a secure online gift by visiting our web site ([www.genetics.uga.edu](http://www.genetics.uga.edu)). Please click the "make a gift" link. Alternatively, return this form with your check to the Department of Genetics.

Enclosed is my gift of \$ \_\_\_\_\_, representing a one-time gift, to the following fund (check one):

**Genetics Department Fund** :: This fund supports the ongoing work of the department in teaching and research.

**Genetics Alumni Student Travel Fund** :: This fund supports graduate and undergraduate travel to national and international research conferences.

**Genetics Alumni Graduate Support Fund** :: This fund supports graduate fellowships.

Your gift is tax deductible.

AFASGEN207

**Make checks payable to the Arch Foundation.**

Name(s) \_\_\_\_\_  
(as you wish it to appear on the gift recognition list)

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Phone/E-mail \_\_\_\_\_

I would like my gift to be anonymous.

Please mail your gift to the Department of Genetics, Fred C. Davison Life Sciences Complex, University of Georgia, Athens, Georgia 30602-7223

If you would like to make a pledge gift, please contact Linda Bachman at [lbachman@franklin.uga.edu](mailto:lbachman@franklin.uga.edu) or (706) 542-4658.



Department of Genetics  
Fred C. Davison Life Sciences Complex  
University of Georgia  
Athens, Georgia 30602-7223

Nonprofit Org.  
U.S. Postage  
**PAID**  
Permit No. 165  
Athens, GA

## LAURELS

- ☞ Professor Michael Arnold has been elected as a Research Fellow of Merton College, University of Oxford.
- ☞ Erica Hall has been chosen to give an oral presentation at the 21st National Conference on Undergraduate Research at Dominican University of California in April 2007. She also was selected as runner up for the UGA Libraries Undergraduate Research Award.
- ☞ The UGA Research Foundation has named Professor Robert Ivarie as this year's recipient of the Inventor's Award.
- ☞ Chih-Horng Kuo, a doctoral student, has been awarded the James L. Carmon Scholarship for innovative use of computers.
- ☞ Associate Professor Nancy Manley has been selected as a member of the NIH Skeletal Biology Development and Disease Study Section.
- ☞ Associate Professor Rodney Mauricio has been elected to the University of Georgia Teaching Academy for his achievements in teaching and learning.
- ☞ Professor Richard Meagher has been appointed a Distinguished Research Professor by the UGA Research Foundation.
- ☞ Doctoral candidate Nandita Mullapudi has received a 2007 Outstanding Teaching Assistant Award.
- ☞ Nithya Natrajan has been awarded a Mid-Term Foundation Fellowship and a 2007-2008 Barry M. Goldwater Scholarship.
- ☞ Doctoral student Rebecca Tomlinson has been named an ARCS Foundation Scholar for her studies in the biogenesis and intracellular trafficking of telomerase.
- ☞ Deep Shah has been named a recipient of a 2007 Harry S. Truman Scholarship.

### Professor pens new book on evolution as a "web of life"

Oxford University Press has published a new book by Professor Michael Arnold, *Evolution through Genetic Exchange*, in which he describes evolution as a web that crosses and re-crosses through genetic exchange. In the book, Arnold argues that the predominant evolutionary metaphor, a tree-like pattern of diversification to represent evolutionary change in all life forms, is inadequate to represent evolutionary change in all life forms.



### Head's . . .

from page 3

my for his accomplishments in teaching and learning and Dr. Richard Meagher was appointed to a UGA Distinguished Research Professorship. Student awards included the Harry S. Truman and Barry M. Goldwater awards, both prestigious national awards, the Carmon Scholarship, the ARCS Foundation Scholarship, and a UGA Outstanding Teaching Award.

Finally, your gifts have greatly strengthened our research and teaching programs. These gifts contribute in very real ways to the many accomplishments of our students and faculty, and we are deeply grateful for your continued support.

Bob Ivarie