Department of Genetics
Silver Anniversary Celebration

On April 16, 2005, the Department of Genetics celebrated both its Silver Anniversary and the 90th birthday of Dr. Norman Giles. A scientific symposium during the day featured presentations by twelve former doctoral students who presented talks on aspects of population genetics, molecular evolution, and molecular genetics. The professional diversity of the speakers and the quality of the material presented were impressive and it was exciting to see how each former student’s interests had developed since receiving his/her degree.

While some individuals are still working on subjects related to their doctoral research, many more have moved on into entirely new areas. For example, Bill Donovan ’83, who now works at the Monsanto Company, has

see Anniversary on page 4

BISHOP GRADUATE FELLOWSHIP ESTABLISHED

The Genetics department is pleased to announce the endowment of the Linton and June Bishop Graduate Fellowship in Genetics. Proceeds from the endowment will provide fellowship support for an outstanding Genetics graduate student each year. The endowment was established by a generous gift of Dr. Linton and Mrs. June Bishop. The son of a country doctor, Linton Bishop grew up in Unadilla, Georgia. When he was ready for college in 1940, Unadilla had not recovered from the Great Depression. His father was paid in everything but cash. The University of Georgia awarded Linton an academic scholarship providing his only means to higher education. His years at the University of Georgia prepared him for a successful and satisfying career as a physician. Gratitude prompted his desire to offer help to future students. Having lost a grandson to Duchenne’s Muscular Dystrophy, a devastating genetic disease, the Bishops recognized the importance of genetic research and chose the Genetics department to receive their support.

Rebekah Rogers wins Kenyon award

Rebekah Rogers received the Cynthia Kenyon award at the Spring 2006 Genetics undergraduate symposium. The Kenyon award, named in honor of a former UGA undergraduate now on the faculty of the University of California,

see Kenyon on page 2

Corby-Harris receives Alton fellowship

Vanessa Corby-Harris was named the first recipient of the Kirby and Jan Alton Graduate Research Fellowship for 2005-2006. Funded by a generous gift from alumnus Dr. Kirby Alton (PhD ’81), the fellowship provides full non-teaching support for an outstanding fourth year graduate student each year.

Vanessa’s thesis research in the laboratory of Daniel Promislow is focused on the evolutionary genetics of host-parasite interaction. She is studying variation in resistance to natural microbial pathogens in Drosophila melanogaster.

Five researchers elected AAAS fellows

By Kim Cretors

Five faculty members of the Franklin College of Arts and Sciences have been named Fellows of the American Association for the Advancement of Science. Election as a Fellow is an honor bestowed upon AAAS members by their peers.

The five faculty are Michael Arnold, Jeffrey Bennetzen, Robert Ivarie and Richard Meagher, all with UGAs department of genetics, and Susan Wessler in the department of plant biology.

This year 376 AAAS members were awarded the honor because of their

see Fellows on page 6
Editor’s note

Welcome to the second edition of Genetics at Georgia, the annual Genetics department newsletter. Our goal is to provide departmental and alumni news and to keep in touch with Genetics alumni and friends. Please help us by sending news of your current occupation or career and personal milestones to Susan White (whites@uga.edu) for publication in next year’s issue. We enjoy hearing from our alumni and take pride in your accomplishments.

As always, we welcome your gifts to one of the departmental funds that support our research and teaching missions. We use these funds to support undergraduate and graduate student travel to national and international research conferences, to provide student fellowships, and to recognize outstanding student accomplishments. These funds markedly increase the quality of our program and we are very grateful for your support. Information about how to make a gift to a departmental fund can be found on the inside back page of the newsletter.

I hope that your association with the Genetics department was a good one and that you enjoy reading about the department. I am interested in your feedback on Genetics at Georgia, which can be sent to me at bender@uga.edu.

- Michael Bender

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Please take a look at our fabulous new Genetics web site by visiting www.genetics.uga.edu

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Two thousand five has been another excellent year for the Genetics graduate program. This year alone our students have produced more than 30 publications in many of the top journals, publishing on topics as diverse as population models of parasitism, regulation of flowering in Arabidopsis, the phylogenetics of fish mating systems, and processes of telomere lengthening. Many of these papers have already made a noticeable impact, being featured on journal covers and included in course syllabi at other universities.

A variety of awards and honors were conferred on our graduate scholars during the past year. At the annual Plant Center retreat Dan Ruzicka took the prize for best poster, while Roger Deal won the award for best student presentation. Reed Cartwright was awarded the James L. Carmon Scholarship while Sarah Finch, Karen Stirrett, and Rebecca Tomlinson each received a scholarship from the Achievement Rewards for College Scientists Foundation. Rebecca Tomlinson and Roger Deal both received a Dissertation Completion Award from the graduate school. In addition, Nandita Mullapudi was awarded a Sigma Xi grant-in-aid of research.

The program also minted eight new PhDs during the past year. Judith Mank is now a postdoc at Uppsala University in Sweden while Chenoo Askree moved west to the University of California, Berkeley. Recent graduates Karen Stirrett and Shilpa Iyer have taken postdoc positions on the east coast. Karen is at Cornell Medical School in New York, and Shilpa is at the University of Virginia. Locally, Cindy Vindman is now a postdoc in the lab of Ping Shen in UGA’s Department of Cellular Biology, and Gina Baucom has stayed in the department as a postdoc in Jeff Bennetzen’s lab. Scott Cornman and Laura Menendez both defended their dissertations recently and will soon be moving on to postdoctoral positions.

Our department stands out for the amount of interaction across disciplinary boundaries. The graduate students continue the tradition of weekly seminars, where one or two students present their recent work. For the third year, students have organized a weekly seminar series of population, ecology, and genetics lectures from faculty, students, and visiting speakers. Students also participate in a number of unofficial journal clubs, book groups, and have even organized and taught extracurricular classes in areas of interest to other students. Students thus have numerous opportunities to exchange ideas, present their research, and communicate with and learn from their colleagues and peers.

Our first year class of graduate students is off to an excellent start as well. These students have now finished rotations, chosen labs, and are currently in the midst of final exams.

Finally, students had the unique opportunity to shape the future of the department this year, participating actively in the hiring of new faculty members. A student representative served on each search committee, and the students met and, often after much lively debate, selected their choices for each position. The faculty have welcomed student input, giving students a vote in the final choice of candidates and taking student opinions into consideration in their own votes.

- Roger Deal & Jeff Ross-Ibarra
R. Kelly Dawe named inaugural GRA Lars G. Ljungdahl Distinguished Investigator

By Phillip Lee Williams

Kelly Dawe, a professor of plant biology and genetics at UGA, has been named the first Georgia Research Alliance Distinguished Investigator.

The honor will be awarded to scholars at GRA-affiliated universities who demonstrate outstanding work in either the biosciences or advanced communications and computing. Each honoree will take on the title “Georgia Research Alliance Distinguished Investigator” and receive an annual endowment provided jointly by the GRA and funds raised by the honoree’s university.

The award honors longtime UGA professor of biochemistry and molecular biology Lars G. Ljungdahl.

To earn a GRA Distinguished Investigator designation, researchers must have a proven track record of grant productivity and team leadership in a research environment. Honorees will also demonstrate an interest in applying research to commercial opportunities that build Georgia’s science- and technology-based economy.

Dawe’s research centers on how plant chromosomes are segregated to progeny. His laboratory focuses on structures known as centromeres, which are responsible for the movement of chromosomes from one generation to the next. He hopes to use information about centromeres to create “artificial chromosomes” that can be used to introduce new genetic traits into crop plants.

Dawe received a master’s degree from the University of California, Riverside, and obtained his PhD in genetics from the University of California, Berkeley. He joined the UGA faculty in 1989 and received the 2000 Creative Research Medal from UGA for his study of how plant chromosomes work in cells.

(Original article adapted and reprinted by permission)

News | Undergraduate Program

Genetics undergraduates remain a special source of pride to the department for their accomplishments during and after their stay at UGA. The past year has seen continued growth in the undergraduate Genetics program. As of April 2006, there are 203 Genetics majors and intended majors at UGA.

UGA Genetics students had a number of notable achievements in the past year. Tim Supakornnoj received a prestigious 2006-2007 Barry M. Goldwater Scholarship. He was also an author of a paper published in Molecular Biology of the Cell and participated in the Summer Undergraduate Research Program at Memorial Sloan-Kettering Cancer Center in New York in summer 2005. Rebekah Rogers won the Cynthia Kenyon Award (see article on page 1) and Kurinji Pandiyan was awarded the Crane Leadership Scholarship and a CAES Summer Research Fellowship. Kurinji also presented research work at the National Conference for Undergraduate Research in Lexington, VA. Patrick Pilie was selected as a summer undergraduate researcher at NYU Medical School in 2005 and presented his research at the Leadership Alliance Conference in Boston. Cale Whitworth received a DHS scholarship and did a 10-week

see Undergrad news on page 8
moved far afield in terms of his scientific research. A particularly interesting talk was presented by Betty Jo Wallace ’86, the Chair of the Science Department at Oconee County High School since 1987. She spoke eloquently about the need for dedicated and qualified science teachers and of her own satisfaction of playing an important role in the education of high school students.

Other speakers included Douglas Cavener ’80, Richard Sinden ’78, Monte Turner ’82, Iain Farrance ’88, Chris Williams ’88, Stephen Schaeffer ’85, Rollie Clem ’94, David Geiser ’95, Brenda Winkel (Shirley) ’89 and Julie Boylan ’01.

Following the scientific symposium, the celebration continued at the Athens Country Club with dinner and dancing. Music was provided by Short Road Home, a Celtic band that includes our own Daniel Promislow and Ken Ross. Following a delicious meal, Wyatt Anderson presented a brief history of

the Genetics Program and Department at the University of Georgia based on interviews with many of the principles involved in both the formation of the Interdepartmental Program in Genetics in 1972 and the Department of Molecular and Population Genetics in 1980.

The highlight of the evening was a special presentation to Norman that included a framed picture of him with his wife, Doris, as well as reading letters of congratulations from Charles Yanofsky, Robert Metzenberg and Gerald Fink.

Tremendous thanks for this wonderful party go to Bob Ivarie for promoting the idea and Tina Weidemann for meticulously and tirelessly handling all of the planning and details. Hopefully the next event will not have to wait for our 50th anniversary.

- Sidney Kushner
Cara Altimus (BS ’05) is a first year PhD candidate in the biology department at Johns Hopkins University.

Syed (Chenoo) Askree (PhD ‘05) is doing postdoctoral work with Dr. Bruce Ames at Children’s Hospital Oakland Research Institute in Oakland, CA.

A cell biology postdoctoral fellow at UC, Berkeley, Robyn Howard Barfield (BS ’98) received her PhD in cell and molecular biology from the University of Pennsylvania in May 2004.

Nickie Cauthen (PhD ‘98) is an associate professor of biology and pre-med advisor at Clayton State University. Nickie and her husband, Bart, have 2 children, Bailey (6) and Eli (1).

A second year student at the Medical College of Georgia, Ashley Chadha (BS ’03) expects to graduate with a MD in May 2008.

Semil Choksi (BS ‘01) recently completed his PhD in genetics from Cambridge University where he was a Gates Cambridge Fellow. He is currently pursuing postdoctoral studies on zebrafish muscle development with Dr. Sudipto Roy at the Institute of Molecular and Cell Biology in Singapore.

After 6 months of remodeling, Lowell Rayburn Combs (PhD ’04), and her husband are enjoying their first home. She is continuing her postdoctoral research at Carolinas Medical Center in Charlotte and coached field hockey at her former high school last fall.

Life was much to bland earning a respectable living at a biotech start-up at Research Triangle Park, NC, so John Crawford (BS ’89, MS ’91, PhD-medical microbiology ’97) decided to add spice by returning to school to become a veterinarian concurrent with joining the army. He expects to graduate with a DVM in 2008, and he is a 2nd Lieutenant in the US Army Veterinary Corps. John and his wife, Alexandria, have two daughters, Madison, 13, and Sabrina, 8.

Melissa Davis (PhD ’03) is doing postdoctoral work on Drosophila genome analysis with Dr. Kevin White at Yale University where she is supported by an individual NIH postdoctoral fellowship.

An associate professor of plant pathology at Penn State University, David Geiser (PhD ’95) directs the Fusarium Research Center, the world’s largest single-genus public microbial culture collection. His research is in the area of fungal molecular systematics and molecular evolution. His son, William Dashiel (“Dash”), was born on November 4, 2005.

Melissa Gilbert (BS ’97) is doing postdoctoral work on cell growth and proliferation in the lab of Dr. Kenneth Moberg at Emory University.

Where he can finally put his genetics education to good use, Mark Goldstein (BS ’97) is a hematology/oncology fellow at the University of Connecticut. Mark graduated from St. George’s University in 2002 and completed a residency in internal medicine in 2005 at the University of Connecticut.

Holly Gooding (BS ’00) is in her final year of medical school at UC, San Francisco, and will do her residency in internal medicine at Boston’s Brigham and Women’s Hospital in the fall. In 2005, Holly published in Social Science & Medicine her master’s research on APOE genetic susceptibility testing for Alzheimer Disease.

Ed Green (BS ’97) was awarded an NSF postdoctoral fellowship and is now studying with Dr. Svante Paabo at the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany. Ed completed his PhD at UC, Berkeley, last May.

Cindy Groff-Vindman (PhD ’05) is doing postdoctoral work on the molecular genetic analysis of feeding and hunger-driven behaviors in Drosophila in the lab of Dr. Ping Shen in the department of cellular biology at UGA.

A first year student at the Medical University of South Carolina, Nalini Hasija (BS ’05) loves living and studying in Charleston.

After a 2-year fellowship in rural health care following receipt of his dental degree in 2002, Kaz Hasnani (BS ’97) is now in private practice in Tennessee. Married to Jennifer, also a UGA graduate, they have two children, Madison, 3, and Marissa, 1.

Stephanie Hatch, nee Bundy (BS ’96), is doing postdoctoral work at the Institute of Cancer Research, London, on the role of the Rho small GTPases in tumor cell movement in Dr. Chris Marshall’s lab.

Evelyn Hiatt (PhD ’00) is an assistant professor of biology at Kentucky Wesleyan College, in Owensboro.

An assistant professor in the department of entomology at UGA, Tracie Jenkins (PhD ’93) works on applied insect genetics.

Shilpa Iyer (PhD ’06) will be starting postdoctoral work in the lab of Dr. James Bennett at the University of Virginia. She will be working on mitochondrial gene therapy for neurodegenerative diseases.

Trey Kidd (BS ’98) is doing his postdoctoral work on regeneration in a zebrafish system with Dr. Kenneth Poss at Duke University.

Excited by her new career, Amy MacRae (PhD ’88) recently joined Woodbury Financial Services/Diversified Financial Concepts, a subsidiary of The Hartford, as a financial representative. After training, she will be selling securities, life insurance and annuity products within Missouri.

Adrienne Nehrling (BS ’04) is pursuing a microbiology PhD at Emory in Dr. Tony Romeo’s lab. She and alumnus Brian Edwards (JD ’04, BS ’99) will marry in June.

Ravi Palanivelu (PhD ’98) joined the department of plant sciences at the University of
It is with great sadness that we note the passing of Dr. Robert Lansman on February 2, 2006, a faculty member in the Interdepartmental Program in Genetics and Department of Genetics from 1975 to 1982. Bob came to Georgia after working on the analysis of mammalian mitochondrial DNA in the laboratory of David Clayton at Stanford University. Shortly after his arrival Bob attended a dinner at which the visiting seminar speaker, Allan Wilson, was discussing how to determine relatedness in natural populations with John Avise and Richard Meagher. Bob suggested using mitochondrial DNA because it was easy to isolate and could be readily digested with Type II restriction enzymes. The rest is history. He and John published their first joint paper on the use of restriction endonucleases to measure mitochondrial DNA sequence relatedness in natural populations in 1979. This methodology went on to become an important underpinning for the molecular analysis of population genetics.

Shortly after Bob left Georgia to take a position at the University of British Columbia, he was diagnosed as having a slow growing malignant brain tumor. Over the next 21 years while he valiantly struggled with the medical complications of this disease, he continued to pursue an active scientific career at the University of British Columbia and Quadra Logic Technologies, Inc. From 1991 to 2003 he was a member of the Department of Biology at the University of Wisconsin—Oshkosh. Bob is survived by his wife, Rosemary Shade, who received her PhD from the Department of Genetics in 1982.

- Sidney Kushner
Alumni...

from page 5

Arizona in 2006 as an assistant professor. He employs molecular, cellular, and genetic approaches to identify and characterize pollen tube guidance molecules.

An attorney practicing biotech patent law in Atlanta, David Perryman (JD 86, BS 83) is a shareholder at Needle & Rosenberg, P.C. David’s peers in the legal community voted him one of Georgia Trend magazine’s “Legal Elite” in 2004 and Atlanta magazine’s Georgia “Super Lawyers” in 2004 and 2005. David is married, has three children and coaches both baseball and soccer.

Nick Priest (MS ’01) is working as a postdoctoral researcher in the lab of Dr. Mike Wade at Indiana University.

A second year student at the Medical College of Georgia, Drew Prosser (BS ’04) was awarded the dean’s research fellowship at MCG and spent last summer working with Dr. David Pollock in the Vascular Biology Center on the role of aldosterone in chronic angiotensin II dependent hypertension. Recently, Drew was one of three students selected to serve on the MCG admissions committee.

April Shiflett (BS ’99) is a fifth year doctoral candidate in the Brown University-Marine Biological Laboratory’s joint program in biological and environmental sciences. She works with Dr. Stephen Hajduk at the Global Infectious Disease Program, Marine Biological Laboratory in Woods Hole, MA. Her research focuses on the subclass of human HDLs that provide innate immune protection to humans against infection by Trypanosoma brucei brucei. April presented her recent findings at the Kinetoplastid Molecular Cell Biology meeting and the Molecular Parasitology meeting in 2005.

A second year law student at Florida State University and a Delores Auzenne Fellow, Dyal Singh (BS ’01, BBA ’01) anticipates graduating spring 07 with a JD and a MS in international affairs.

Steven C. Smith (BS ’02) is a MSTP (MD/PhD) student at The University of Virginia. His work with Dr. Dan Theodorescu centers on the molecular genetics of cancer progression and metastasis. Steven recently was elected to the Associate Member Council of the American Association for Cancer Research. He also serves as a regional contact for the Alumni Association.

Chrissie Spencer (PhD ’03) is on the move, but staying north of the border. She will move (fiddle in hand, of course) from Vancouver to join Dr. Aneil Agraval’s lab as a postdoc.

An internal medicine physician in the urgent care/primary care clinic at The Reagan Medical Center, Lawrenceville, since 2002, Cindy Buckner Starke (BS ’91) received both her MD and PhD in genetics and molecular biology from Emory University in 1999 and in 1991, respectively. Cindy is married to Steve, a vice president of Lanier Community Bank in Buford, and they have two children: Jessica (3) and Wyatt (1).

Working on conservation genetic/molecular ecology projects in the US, Europe, Asia and South America, Lisette Waits (BS ’91) is associate professor at the University of Idaho. She co-directs the Center for Research on Invasive Species and Small Populations and the Laboratory for Ecological and Conservation Genetics.

Maylee Wu (BS ’05), who is working as a technician in Dr. Brian Condie’s lab, will be starting the PhD program in molecular and cellular biology at UC, Berkeley next fall.

- Compiled by Susan White

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If you would like to make a pledge gift, please contact Sarah Baines at sbaines@franklin.uga.edu or (706) 583-0825.
Undergrad news...
from page 3

internship at Lawrence Livermore National Laboratory in California in summer 2005. Both Cale and Karen Petree will be entering graduate school in the fall at The Johns Hopkins University. Brunillis Burgos-Rivera presented research work at conferences in Seattle and Madison, Wisconsin and was an author on a paper published in Plant and Cell Physiology. Ashley Chadha (class of ’05, now a medical student at MCG) was an author on a paper published in Molecular and Cellular Biology.

Development of undergraduate research skills remains a very important part of the Genetics major. In fall semester 2005, a new laboratory course, GENE 4230L (Evolutionary Biology Laboratory) was taught for the first time, developed by assistant professor John Wares. This class includes organismal and molecular experiments using plant, animal, and microbial model systems, computer simulations, and studies of natural populations. GENE 4230L will complement the two molecular genetics and one bioinformatics and modeling Genetics lab courses that had been previously available. In addition to the expanded attendance of formal Genetics laboratory courses, UGA Genetics majors also commonly do independent research projects working in the labs of faculty members. In 2005, 28 majors were registered for independent research in spring, 19 in summer and 27 in fall semester.

- Michael McEachern

LAURELS

Dr. Norris Armstrong has been selected for the Franklin College Sandy Beaver Excellence in Teaching Award.
Dr. Jonathan Arnold and Dr. Mary Bedell have been appointed to the NIH Genetic Variation and Evolution and to the Cellular, Molecular and Integrative Reproduction study sections, respectively.
Retired distinguished research professor, Dr. John Avise, has been named emeritus.
Dr. Michael Bender has been appointed treasurer of the North American Drosophila Board.
Brunillis Burgos-Rivera has been awarded an American Society of Plant Biologists travel grant to attend Plant Biology 2006 in Boston.
Reed Cartwright has been named a co-recipient of the Carmon Scholarship, an annual scholarship awarded to a student whose dissertation research reflects state-of-the-art utilization of computer or networking technology in the sciences or creative arts.
Dr. Brian Condie has been selected to serve on a NIH special emphasis panel to evaluate the $20 million mouse knock-out project.
Graduate student Eleanor Kuntz has been selected for the UGA Outstanding Teaching Assistant Award.
Dr. Nancy Manley has been appointed Chair of Developmental Biology at UGA.
Dr. Rodney Mauricio has been awarded the 2006 Excellence in Undergraduate Research Mentoring Award (early career award).
Graduate student Nandita Mullapudi has been awarded a Sigma Xi Grant in Aid of Research.
Dr. Daniel Promislow has been awarded a UGA Creative Research Medal.
Graduate student Karen Stirrett has been named an ARCS Foundation Scholar.