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Ruben Carbonell elected to National Academy of Engineering

Ruben Carbonell, Frank Hawkins Kenan Distinguished Professor of Chemical Engineering, has been elected to the National Academy of Engineering (NAE). Ruben is one of 67 new members and 11 foreign associates elected to the NAE in 2014. The NAE is a private, independent nonprofit organization that provides engineering leadership in service to the nation. Election to NAE is among the greatest achievements to which an engineer can aspire. With the addition of the 2014 class, the NAE has 2,250 U.S. members and 214 foreign associates.

Ruben joins Professors Joe DeSimone, Carol Hall, Keith Gubbins and James Trainham (adjunct faculty member) from our department. Our College of Engineering now has 12 active NC State faculty members in the NAE, so our CBE department is highly represented with five members. Three past department members have also been NAE members: Alan Michaels, Warren McCabe and Vivian Stannett. And it bears mention that alumnus Don Paul (*61) is a NAE member, as is former faculty member Bill Koros.

Ruben was cited by the NAE for “research and innovation in multiphase reactor design, high-pressure thin-film coating, and novel bioseparation processes.” In the early 1980s, he developed a new mathematical model to describe the hydrodynamic performance of trickle bed reactors that are useful in petroleum processing. In the mid-1990s, his research group developed a novel way of identifying small, inexpensive and robust peptide ligands for the purification of proteins from biological sources by affinity chromatography.

Ruben's work was instrumental in identifying specific ligands for the removal of the prion protein that is responsible for variant Creutzfeldt-Jakob disease, better known as Mad Cow Disease, in humans. He led the development of a process for making a novel adsorptive filter to be used for the removal of prion protein from human blood during transfusions. One of these ligands is also being used to reduce the risk of prion transmission during intravenous injections of therapeutics such as antibodies derived from pooled human plasma.

Ruben served as head of our department from 1994 to 1999 and was also co-director of the National Science Foundation Science and Technology Center for Environmentally Responsible Solvents and Processes from 1999 to 2008.
Jeff Garwood named Distinguished Engineering Alumnus

Jeff Garwood (’84) was selected as a 2014 Distinguished Engineering Alumnus, joining 87 other NC State engineering graduates who have been so honored. This includes his father, Bill Garwood (’60), who was a 1993 DEA. The award was presented at the Evening of Stars Gala on September 26, 2014. Jeff has been very active at NC State, serving on the Board of Directors of the NC State Engineering Foundation, giving presentations on career development to our Senior Design students, talking to the AIChE Student Chapter on leadership development and speaking at the CBE department’s 2008 commencement ceremony.

Following his graduation from NC State, Jeff started as a process engineer at DuPont in Victoria, Texas. After three years, he left to enter the MBA program at UNC-Chapel Hill, where he graduated first in his class in 1988. He then joined McKinsey Consulting, focusing on business development, change management and strategic business modeling. Jeff joined GE in 1992 in business development and sourcing at GE’s global headquarters and later served in a variety of management roles at GE Plastics, including leading the Engineered Styrenics Resins business.

Jeff expanded his leadership skills outside GE from 1999 to 2001, where he assumed COO roles for Commerx and Youcentric. Jeff then

Ruben is a Fellow of both the American Institute of Chemical Engineers and the Industrial and Engineering Chemistry Division of the American Chemical Society. His numerous awards at NC State include the Alexander Quarles Holladay Medal, the highest award given to university members. He has published more than 230 papers, has advised more than 80 graduate students (50 at NC State), is an inventor on more than 30 patents and is co-founder of two company start-ups, Ligamar, Inc. and PRDT, Inc.

Ruben earned a bachelor’s degree in chemical engineering from Manhattan College in 1969 and a Ph.D. degree from Princeton University in 1973. He spent 10 years in the Department of Chemical Engineering at the University of California, Davis before joining the NC State faculty in 1984.

Jeff Garwood

He is the director of the William R. Kenan Jr. Institute for Engineering, Technology and Science at NC State and has led the Golden LEAF Biomanufacturing Training and Education Center on NC State’s Centennial Campus since 2008.

Alan Michaels

Warren McCabe

Vivian Stannett

Jeff Garwood, right, and Dean Louis Martin-Vega

Ruben is a Fellow of both the American Institute of Chemical Engineers and the Industrial and Engineering Chemistry Division of the American Chemical Society. His numerous awards at NC State include the Alexander Quarles Holladay Medal, the highest award given to university members. He has published more than 230 papers, has advised more than 80 graduate students (50 at NC State), is an inventor on more than 30 patents and is co-founder of two company start-ups, Ligamar, Inc. and PRDT, Inc.

Ruben earned a bachelor’s degree in chemical engineering from Manhattan College in 1969 and a Ph.D. degree from Princeton University in 1973. He spent 10 years in the Department of Chemical Engineering at the University of California, Davis before joining the NC State faculty in 1984.
rejoined GE in 2001 as president of Garrett Aviation Services, and in 2003 was named president and CEO of GE Fanuc Automation. In 2006, he was named president and CEO of GE Water & Process Technologies, which more than doubled under his leadership to a $2.5 billion business with over 5,000 employees. From 2006-2009, Jeff served on the GE Corporate Executive Council, which is responsible for running the $173 billion company.

Jeff is currently managing member at Liberation Capital, a global private equity fund that he founded, which specializes in project finance for renewable energy and water/wastewater solutions. Liberation Capital recently followed up on its $55 million first round of funding with a very impressive $72 million second round. Jeff’s experiences from GE, McKinsey, DuPont and startup companies have positioned him as a valued advisor to many financial and operating firms.

Message from the Department Head

Dear Alumni and Friends of the Department,

Our department has shown explosive growth during my tenure as department head. I wish that I could take credit, but a number of factors have influenced that growth. First the numbers: since 2008, the number of B.S., M.S. and Ph.D. degrees awarded has increased, respectively, from 79 to 177, 20 to 39, and 12 to 20. The B.S. and M.S. degree numbers are record highs; the Ph.D. record was one short of the 21 conferred two years ago. Our faculty has grown from 22 to 29, with 25 tenure - or tenure track - professors, two teaching professors and two research professors. In addition, we have 12 adjunct professors and two associate members. And our contract and grant research expenditures have grown from $6.7 to $8.7 million.

I remain excited about the fantastic students who join our program, and am proud of their many accomplishments. Our AIChE Student Chapter won an outstanding Chapter Award for the 17th time in the last 19 years. And our graduate students have won at least one of three awards at the NC State Graduate Student Research Symposium each of the last four years.

I am proud that even with this large number of graduates, they are finding jobs. Last year, more than 95 percent of our B.S. graduates were placed within six months after graduation. And their starting salary was almost $67,000, with those going to work in the petroleum industry reaching $100,000.

Our faculty members have won several prestigious national awards. I want to highlight that Ruben Carbonell was elected to the National Academy of Engineering, joining Joe DeSimone, Keith Gubbins, Carol Hall and James Trainham. And Joe DeSimone was elected to the National Academy of Sciences and the Institute of Medicine. Lisa Bullard and Matt Cooper won teaching awards from the American Society for Engineering Education Southeastern Section and Rich Felder won an ASEE Lifetime Achievement Award for Engineering Education.

Finally, I want to publicly thank several alumni and a faculty member who have made exceptionally generous donations to fund scholarship, professorship, lectureship and discretionary endowments for the department: Ernie and Beverly Alexander, Van Delk, Elin Gabriel, Bill and Gwen Garwood, Keith and Paula Gubbins, Herb and Leila Hooper, Jerry and Sandra Lewis, Dick and Judy Minday, Zach Nicholson, Alan and Ellen Weinberg and Jim and Johanna Yopp. As state funding is reduced, these endowments generate spending accounts that enable the department to enhance the experience of our students.

Best regards,

PSF
Kenneth O. Beatty passes away at age 100

Ken Beatty passed away on March 24, 2014 at home of heart failure after a short illness. Just three months prior he had celebrated his 100th birthday with several alumni and faculty members in attendance. Ken was born in East Lansdowne, Pa. on December 18, 1913. He earned B.S. and M.S. degrees in chemical engineering from Lehigh (now Lehigh University). After receiving his M.S. degree Ken went to work for Dow Chemical at the company’s research center in Midland, Mich. and he then taught at the University of Rhode Island. He earned a Ph.D. in 1946 at the University of Michigan under Professor Don Katz, his thesis title was “Condensation of Vapors on Outsidies of Finned Tubes.”

Ken was hired as an associate professor in 1946, the first professor that then-Department Head Ed Schoenborn hired. In 1948, Ken and Don Katz published a book through AIChE, “Condensation of Vapors on Outsides of Finned Tubes.” Ken was promoted to full professor in 1948. His first M.S. graduate was Allan Forbes, who earned his degree in 1949, and his first Ph.D. graduate was Jim Ferrell, who earned his degree in 1954. (Aside: Jim received the first Ph.D. ever granted in our department, and served as department head from 1966 to 1980.)

In 1959-1960 Ken served as acting department head while Ed Schoenborn was on sabbatical leave at DuPont. Ken was named the first Reynolds Professor of Chemical Engineering in 1961. He was best known to undergraduate students in the 60’s and 70’s for teaching thermodynamics. Ken was named a Fellow of the AIChE in 1975. He retired at the end of the 1978 spring semester, and according to Jim Ferrell’s department history, “Another outstanding retirement party was held at the Angus Barn.” Ken carried the title, “Reynolds Professor Emeritus of Chemical Engineering” for 36 years – or some four years longer than he taught.

Elementary Principles of Chemical Processes

Approximately 3,900 graduates of our department have used Elementary Principles of Chemical Processes as an introductory textbook for the CHE 205 course on material and energy balances. The textbook written by Rich Felder and Ron Rousseau at NC State in the mid-70s quickly became the best-selling chemical engineering textbook in the world. It is used by approximately 75 percent of chemical engineering departments across the country, and it is used all over the world – having been translated into Chinese, French, Portuguese and Spanish.

Several years ago, Rich and Ron were approached about writing a 4th edition, given that the 3rd edition had been out since 2005. With the possibility that this would be the last time they would take on this task,
Rich and Ron decided to bring on a third author, someone who could carry on with future editions. Rich and Ron wanted to find “an outstanding teacher with an extensive background in teaching material and energy balances; an experienced engineer with first-hand knowledge of both the science and the art of the practice of chemical engineering; and a good writer ....” It turned out to be an easy decision as they quickly agreed that our own Lisa G. Bullard ('86) would be the best choice. The new edition was released in July 2015 and will be used in CHE 205 starting this fall.

The authors note in the preface that, compared to earlier editions, “the biggest difference is in the problems, which reflect the broadening of the scope of chemical engineering during the lifetime of this book from almost exclusively industrial chemistry and petrochemicals to biomedical, biochemical, biomolecular, environmental, energy, materials and safety applications.” There are 737 problems in the book, with 17 percent being new and 30 percent being revised. There are 33 problems dealing with safety, 42 on environment, 42 on bioengineering and 11 on alternative energy. The cover still has a red background (it did come out of NC State, after all), but in addition to the photo of a chemical plant, there are also smaller photos featuring a printed circuit board, nucleic acid, the human body and solar panels, reflecting the broader range of application-based problems.

Additionally, a spreadsheet-based tool was developed to perform many routine calculations. This edition includes an Excel add-in APEx (Analyzing Processes with Excel), developed by David Silverstein of the University of Kentucky, to “easily perform time-consuming tasks required to solve the text’s chapter-end problems.” There are on-line resources as well, including autogradable problems, reading questions that students can use to check their understanding of the chapter concepts, on-line tutorials, short video demonstrations filmed by Michael Dickey, and brief videos by the authors that introduce each chapter. There’s even a short video by Felder and Rousseau reflecting on the history of the textbook.

A number of our alums were involved in putting out this new edition. Karen Uffalussy ('03) reviewed all of the text, appendices, and end-of-chapter problems with an eagle eye for detail and caught several errors that had gone unnoticed since the first edition. Gary Gilleski ('86), Adam Melvin (Ph.D. '10) and more recent graduate Justin Wood ('14) contributed several new problems. In addition, seven CBE undergraduates (now alumni) worked on the solution manual over a period of two years, and 10 current CBE undergraduates helped develop and review the on-line content over the past year.

And yes, the Whizzo problem and the great Boston molasses flood problem are still there, along with some quirky new problems that reference the NC State Free Expression Tunnel, baking bread, Oompa Loompas, the Deepwater Horizon oil spill, espresso, the Cheerful Chicken Coop, carbon nanotubes and climbing Mt. Kilimanjaro.
Erik Santiso

Erik Santiso (‘07) joined our department in December 2012 as an assistant professor. Erik is a native of Venezuela, where he earned B.S. and M.S. degrees in chemical engineering from Universidad Nacional Experimental Simón Bolívar in 1995 and 1999, respectively. From 1995 to 2001, he was an assistant professor at Simón Bolívar. In 2001, he came to the United States as a visiting scientist at Reservoir Engineering Research Institute in Palo Alto, Calif. He was then accepted into the Ph.D. program at NC State and studied under Keith Gubbins.

After earning his Ph.D. in 2007, Erik went to MIT to do a post-doc – he ended up getting married and staying for four years. Next, Erik became a research associate at Imperial College in London, where he stayed for 16 months before returning to NC State.

His current research focuses on developing methods to discover new materials using computer simulations. “We use different optimization approaches to find chemicals suitable for various applications, including surfactants, functionalized surfaces for selective adsorption, and additives to inhibit or enhance crystallization. “In order to efficiently sample chemical space to discover new materials, we need simulation methods to reliably predict their properties. We use different approaches for this, including quantum chemistry, atomistic simulation methods and mesoscopic group contribution methods.”

Erik and his wife, Anna Andrzejewska-Santiso, have a son, Alexander Jose Santiso, who was born in August 2012. Erik’s hobbies include long-distance running, origami and video game programming. He is also a classically trained musician.

Faculty notes

Chase Beisel received a 2014 Faculty Early Career Development Award from the National Science Foundation (NSF). The award, known as the NSF CAREER Award, is one of the highest honors given by NSF to young faculty members in science and engineering. It provides funding over five years to support a faculty member’s research activities.

Lisa Bullard was selected as the recipient of the 2013 ASEE Southeastern Section Mid-Career Teaching Award. Lisa was honored at the awards banquet March 11 during the 2013 ASEE-SE Annual Meeting hosted by Tennessee Technological University.

Ruben Carbonell was elected into the National Academy of Engineering. Ruben was cited “For research and innovation in multiphase reactor design, high-pressure thin-film coating, and novel bioseparation processes.”

Matt Cooper was promoted from lecturer to teaching assistant professor.

Matt Cooper was selected to receive the 2014 Outstanding New Teacher Award of the ASEE Southeastern Section. His award was presented at the ASEE-SE Awards Banquet on March 31, 2014 in Macon, Ga.

Matt Cooper received a 2014 Outstanding Teacher Award and was elected to the NC State Academy of Outstanding Teachers.

Joe DeSimone was elected to the Institute of Medicine in 2014, one of the highest honors in the fields of health and medicine a U.S. scientist can receive.

Joe DeSimone was elected to the National Academy of Sciences (NAS) in 2012, one of the highest honors that a U.S. scientist or engineer can receive. He is the 10th current NC State faculty member to be elected to NAS, a private organization of scientists and engineers dedicated to advancing science and technology and their use for the public good.

Joe DeSimone and two of his former lab members, Jason Rolland and Ben Maynor, were selected to receive the 2014 Kathryn C.
Joe DeSimone was elected a Fellow of the National Academy of Inventors, a nonprofit organization that encourages academic innovation. He was among 143 fellows honored at NAI’s annual convention in Alexandria, Va., March 6-7, 2014. Joe has published more than 300 articles and holds more than 140 patents.

Michael Dickey was selected as the recipient of the 2013 ASEE Southeastern Section New Faculty Research Award. Michael was honored at the awards banquet March 11 during the 2013 ASEE-SE Annual Meeting hosted by Tennessee Technological University.

Rich Felder was selected to receive the 2012 ASEE Lifetime Achievement Award in Engineering Education in recognition of distinguished accomplishments over his career. Rich is the inaugural recipient of the award, which makes this even more special, and he received the award at the ASEE Annual Awards Banquet on June 13, 2012 at the ASEE meeting in San Antonio, Texas.

Christine Grant was elected as a Fellow of the American Institute of Chemical Engineers.

Christine Grant received the American Chemical Society 2012 Stanley C. Israel Regional Award for advancing diversity in the chemical sciences. The award was presented at the Southeastern Regional Meeting of the American Chemical Society (SERMACS) on November 14-17, 2012.

Keith Gubbins received the 2013 Lennard-Jones Lectureship and Prize from the British Royal Society of Chemistry for his outstanding contributions to the field of thermodynamics and statistical mechanics. The lectureship and prize are named in honor of Professor Sir John Lennard-Jones, Cambridge University, who proposed the much-used Lennard-Jones intermolecular potential model, among other contributions in his theoretical physics career. Keith delivered the Lennard-Jones Lecture and received the prize in September, 2013 at the biennial RCS Thermodynamics Conference held in Manchester, England.

Keith Gubbins received the 2012 Foundations of Molecular Modeling and Simulation (FOMMS) Medal. The FOMMS Medal honors “profound and lasting contributions by one or more individuals to the development of computational methods and their application to the field of molecular-based modeling and simulation.”

Carol Hall received the 2015 Foundations of Molecular Modeling and Simulation (FOMMS) Medal. The FOMMS Medal honors “profound and lasting contributions by one or more individuals to the development of computational methods and their application to the field of molecular-based modeling and simulation.”

Wesley Henderson resigned from NC State University and took a position as Senior Research Scientist in the Energy Materials Group at Pacific Northwest National Laboratory in Richland, Wash.

Fanxing Li received a 2012 Faculty Early Career Development Award from the National Science Foundation (NSF). The award, known as the NSF CAREER Award, is one of the highest honors given by NSF to young faculty members in science and engineering. It provides funding over five years to support a faculty member’s research activities.

Fanxing Li received a 2015 Sigma Xi Research Award.

Greg Parsons won the 2014 R.J. Reynolds Tobacco Company Award for Excellence in Teaching, Research and Extension. This is the most prestigious award given by the College of Engineering.

Greg Reeves received a 2013 Faculty Early Career Development Award from the National Science Foundation (NSF). The award, known as the NSF CAREER Award, is one of the highest honors given by NSF to young faculty members in science and engineering. It provides funding over five years to support a faculty member’s research activities.

Rich Spontak was selected by the Penn State Alumni Association as the recipient of a 2012 Alumni Fellow Award. The program honors individuals “whose professional accomplishments have broad appeal to the faculty and students in a particular college and, when possible, to the University community as a whole.” The Penn State Board of Trustees has specified the Alumni Fellow title as a permanent, lifelong designation.
Faculty notes (continued)

**Orlin Velev** was selected as the 2013 Distinguished Speaker by the North Carolina Section of the American Chemical Society. This award is the NC Section’s highest honor and is presented to an individual who has made significant contributions to the chemical sciences and to the NC Section. Orlin delivered the Distinguished Speaker Lecture at the 127th NC ACS Sectional Conference.

**Orlin Velev** was selected as an Alumni Distinguished Undergraduate Professor for the 2012-13 academic year. Orlin received the award and certificate during the Alumni Association’s awards ceremony on May 2, 2013.

**Phil Westmoreland** traveled to Nanjing, China on October 6, 2013 to receive an honorary professorship from Nanjing University of Technology (NJUT). NJUT is particularly interested in fostering a relationship with Westmoreland because of his work applying computational quantum chemistry, particularly the chemical steps for converting biomass into bio-oils. Westmoreland was the 2013 president of the American Institute of Chemical Engineers (AIChE), and his role helped the university achieve its goal of broadening its interactions with the chemical engineering community worldwide. The honorary professorship is meant to foster valuable interactions between chemical engineering and materials engineering at NJUT with the U.S. chemical engineering community and NC State.

**Michael Dickey** and **Jason Haugh** were named to the inaugural group of University Faculty Scholars, a recognition and reward program for top NC State early- and mid-career faculty members who will receive $10,000 – in donated funds – for each of the next five years to support their academic endeavors.

The program is part of the university’s strategic initiative to invest in and retain top faculty members. It is funded by generous gifts totaling $5.7 million: $3 million from Jim and Ann Goodnight and $2.7 million from the William R. Kenan Jr. Charitable Trust.

“Investing in retaining and attracting the best faculty to teach our students and lead innovative research that improves lives and enhances the state’s economy is a key strategic goal for NC State,” Woodson says. “The generous support of Jim and Ann Goodnight and the Kenan Jr. Charitable Trust enables NC State to make this strategic investment in some of our most outstanding and promising faculty scholars, for the benefit of our students as well as the citizens of North Carolina.”

Those eligible for awards include assistant professors who have been reappointed for a second term, all associate professors and full professors within the first three years of appointment at that rank. Nominees were evaluated based on evidence of their significant achievements in scholarship, teaching and/or service appropriate to their rank and discipline.

Faculty members are nominated by their colleges and selected by a committee of senior faculty members. Forty faculty members were nominated for the award.

**Lisa Bullard** and **Richard Felder** were members of a team that received the 2013 Maryellen Weimer Scholarly Work on Teaching and Learning Award, sponsored by Magna Publications. The award “recognizes outstanding scholarly contributions with the potential to advance college-level teaching and learning practices”.

The Board of Trustees approved conferral of tenure at the rank of associate professor effective August 16, 2013 for **Michael Dickey**, **Wesley Henderson** and **Bala Rao**.
Scientists are developing a chemical solution using nonflammable electrolyte solvents to help prevent lithium-ion batteries used by Boeing’s 787 Dreamliner from overheating and bursting into flames. The Li-ion batteries carried by the plane model have flammable organic solvents, and the new formulation makes use of perfluoropolyethers and poly(ethylene oxide) or polyethylene glycol. “Recently, it dawned on us that polyethylene glycol is known to be a good medium to dissolve lithium salts,” said Joseph DeSimone of the University of North Carolina in Chapel Hill. Reuters (4/10), Chemical & Engineering News (4/15)

Mary Roberts gave the Department a copy of a newly published Chinese translation of George Roberts’ book, Chemical Reactions and Chemical Reactors. The translation was done by Dr. Gui-Ping Cao, who was a visiting scholar in the STC in 2006. The book is now in the display case outside of the main office.

The CBE Alumni Advisory Board meets annually to help promote our department. Our current board members are: John Chambard (’97), Ana Davis (’91), John Davis (’91), Mark Hurley (’81), Thad Leister (’87), Nate Miranda (Ph.D. ’94), Tim Nolen (Ph.D. ’89), Russ O’Dell (’75, Ph.D. ’78), Ann Quillian (’85), Joan Rodberg (Ph.D. ’89), Joe Royer (Ph.D. ’00), Stuart Thomas (Ph.D. ’96), Allen Tothill (’65), Scott Warlick (’87), Alan Weinberg (’63), Billy Willis (’76, Ph.D. ’81) and Ron Zumstein (Ph.D. ’87).

**Staff notes**

Bona (Jones) Bame joined our staff as an administrative support associate. Bona married Traylor Bame on August 21, 2015.

Yvonne Chacos has joined our staff as a university program associate.

Angela Efimenko was selected for a 2014 College of Engineering Award for Excellence. She received a check for $250 and an extra day of vacation.

Diane Harper retired from the department in 2014 and we are sad to report that she passed away on June 2, 2015.

Sheila Hayes resigned from her position as business officer for the department in 2015 to take a position in private industry.

June McKoy retired from the department and moved to Atlanta, Ga.

Russ O’Dell, our director of alumni relations, retired on May 1, 2014. He returned six months later, however, on a part-time contract basis.

Joan O’Sullivan joined the department as our environment, health & safety manager.

Rajani Verghese resigned from her position as business officer for the department.

Hubert Winston moved to Washington, DC but continues to do special projects for the department.

**Researchers work on chemical fix for Boeing’s Dreamliner batteries**

**Department receives Chinese translation of textbook**

CBE Alumni Advisory Board
Ernie Alexander (Ph.D. ’72) and his wife, Beverly, established the Ernie and Beverly Alexander Scholarship in Chemical Engineering to provide merit-based scholarships for undergraduate students with preference to those participating in the co-op program. Ernie spent his entire career at Westvaco/MeadWestvaco, retiring in 2009 after 37 years. He continues to consult with MeadWestvaco, most recently helping start-up a paper mill in Brazil. For the past five years, Ernie has also been working for the College of Natural Resources in development.

Chisa Brookes (’02) created the Dr. Chisa K. Brookes Scholarship Endowment to provide merit-based scholarships for undergraduate students pursuing a degree in engineering, with a preference for students pursuing a degree in chemical engineering and residing in her native U.S. Virgin Islands. Chisa earned M.S. and Ph.D. degrees in 2004 and 2007, respectively, at Michigan State University. She then went to work for ExxonMobil in Houston, Texas as a senior research engineer. In 2015, Chisa started Sekoorb, an oil and gas consulting company.

Van Delk (’73) named the department in his will establishing the $1,500,000 Van Delk Scholarship Program for undergraduate students in chemical engineering. Both need and merit will be considered. Van went to work for Dow Chemical in Freeport, Texas and has remained there his entire career. He is currently a technical service manager for Dow’s polyurethane business.

Elin Gabriel (’85) created the Elin Gabriel Scholarship in Chemical Engineering. Each year, two half-tuition scholarships are awarded from her endowment to students who have a financial need.

Bill Garwood (’60) and his wife, Gwen, made a $40,000 planned gift to add to the Garwood Family Scholarship Endowment for undergraduate scholarships. The endowment was initially established by Bill and his son Jeff Garwood (’84) for undergraduate students in chemical engineering. Bill worked his entire career for Eastman Chemical Company, rising up through the management ranks to become president of the Tennessee Eastman Division.

Keith E. Gubbins, Worley H. Clark Distinguished University Professor of Chemical & Biomolecular Engineering, and his wife, Pauline, have initiated a $100,000 endowment to fund the Keith E. Gubbins Lecture Series. The endowment will be used to bring in top scholars from around the world to our CBE department to meet with our faculty and present a lecture. Funds will be used to pay a stipend, travel and other related expenses. Many of his graduate students and colleagues have contributed to the endowment in honor of Keith.
Herb Hooper ('85) was the department commencement speaker for the May 2015 ceremony and challenged the Class of 2015 to contribute $100 each toward a class scholarship. Herb and his wife, Leila, offered to match their gifts dollar-for-dollar to create the CBE Class of 2015 Scholarship in Chemical Engineering. Herb is a managing partner at Ampersand Capital Partners in Wellesley, Mass.

Jerry Lewis ('69) and his wife, Sandra, have created the Jerry and Sandra Lewis Scholarship Program using a charitable trust with his retirement assets. This program will provide several merit-based scholarships for undergraduate chemical engineering students. Jerry started his career with Procter & Gamble in Cincinnati and later went to Merck, where he finished his career.

Dick Minday ('66) and his wife, Judy, established a $100,000 Richard M. and Judith A. Minday Young Faculty Support Fund using a life insurance gift. Dick headed off to the University of Minnesota after his BS degree, and earned a PhD in chemical engineering in 1970. He went to work for Exxon Research and Engineering in New Jersey for 4 years, then for 3M in St. Paul, where he spent the rest of his career, retiring in 2011 after 37 years of service. Dick was always involved with research and development, and prior to retiring was Senior Research Lab Manager.

Zach Nicholson ('09) has created the Zach Nicholson Scholarship in Chemical Engineering to provide merit-based scholarships for undergraduate students. Zach was hired by ExxonMobil after his B.S. degree and went to work as a facility engineer for the ExxonMobil Production Company in Houston, Texas.

Richard Phillips ('64, M.S. '66, Ph.D. '70) and his wife, Mary, created the Phillips Family Leadership Incentive Endowment with a gift of $1,000,000. The endowment creates $20,000 awards to recognize Paper Science and Engineering students who have demonstrated extraordinary academic achievement, leadership and service and who have expressed a strong interest in business and professional success. The Phillips Incentive allows the recipients to pursue a minor in business from the Poole College of Management at NC State University in addition to their Paper Science and Engineering degree.

Carl Stutts ('68) and his wife, Tessa Lesley, made an outright contribution of $100,000 to create the Stutts Scholarship Program in chemical engineering. Each year, three $6,000 Stutts Scholarships will be awarded, starting in 2015-16. These scholarships will be merit based, but with need as a consideration. Carl is the chairman of Cyanco, the leading global supplier of sodium cyanide, a critical chemical used in the extraction of gold and silver.

Alan Weinberg ('63) and his wife, Ellen, have made a $667,000 planned gift to create the Alan S. and Ellen M. Weinberg Distinguished Professorship in Chemical Engineering. With state matching funds this will create a $1 million endowment. Allen originally went to work for Esso in New Jersey, but returned south to work at Cryovac / Sealed Air in Duncan, S.C. Alan was R&D director for Sealed Air.
NC State endowments with chemical engineering connections

SCHOLARSHIPS
Ernie and Beverly Alexander
Ernest J. and Ethel H. Angelo Memorial (Bill Angelo)
Robert M. Barefoot (Quint Barefoot)
John K. Beasley
Chisa Brookes
C. Dennis Carroll
Michael B. Christie
Class of 1966
John E. and Ana Piqueras Davis
Van Delk
William C. (Bill) Drake Family Caldwell
William R. Edwards
Elin Gabriel
Garwood Family
William Jackson Goodrum
Carlos D. and Barbara Hoyle Gutierrez
Theodore A. and Peggy B. Hardaway
Herbert and Leila Hooper
Randy D. Jester
James M. and Laura B. Johnson
Richard M. Jones
Robin Barker Jones Memorial
Rolf Kaufman
Jerry G. Lewis
Mike Lowder
Donald C. Martin
Sidney F. Mauney, Jr. Memorial
Alan M. and Nancy D. McGee
Forest O., Jr. and Sandra Mixon/BS&T Friends
Forest O., Jr. and Sandra Mixon/RTI
E. J. and Ruth Mogilnicki Deferred Gift Annuity
Zach Nicholson
Russ O’Dell
Paving the Pathway Scholarship (Brick Walkway)
Johnnie L. Pearson
Richard and Mary Phillips Family Leadership Incentive
Verna Strickland Ramsey (Ron Brown)
George W. Roberts Memorial Scholarship
J. Frank Seely / Caldwell Scholarship
Henry B. and Virginia T. Smith
Theresa Mooney Snyder
Henry C. and Nancy A. Thomas
(John T.) Vaden Family
Alan & Ellen Weinberg
Milt Williams
James D. Yopp Jr.

FELLOWSHIP AWARDS
James K. Ferrell
Edward M. Schoenborn
Vivian T. Stannett

PROFESSORSHIPS
Alcoa
Celanese Acetate Chemical Engineering
Worley H. Clark Distinguished
S. Frank and Doris Culberson
Camille and Henry Dreyfus Foundation
INVISTA Professorship in Chemical Engineering
Frank Hawkins Kenan Professorship
William R. Kenan, Jr. Chemical Engineering Research
Francis (Russ) and Susan (Susie) O’Dell
Alan and Ellen Weinberg
James D. Yopp Jr.

OTHER FUNDS
Lisa G. Bullard Undergraduate Enhancement Fund
Celanese Acetate Enhancement Fund
Norvin A. Clontz/Milliken Grad Student Recruiting
S. Frank and Doris Culberson Academic Enhancement Fund
Wayne T. Day Family Graduate Student Fund
James E. and Lois C. Deas Enhancement Fund
Keith E. Gubbins Lecture Series
Richard M. and Judith A. Munday Young Faculty Support Fund
E. E. Randolph Memorial Fund (BE Lauer)
George W. Roberts Memorial Fund (AIChE)
A. W. and Katie Stafford Enhancement Fund
Bullard family honored for “bleeding red” for 87 years

It seems like NC State has always been a part of the Bullard family. And the Bullard family has long been a part of NC State.

So it’s fitting that they were honored in the fall of 2013 at a football game against Central Michigan as NC State’s Family of the Year. The family was honored between the third and fourth quarters as NC State celebrated Parents and Families Weekend.

The winning entry was submitted by Emily and Meredith Bullard, cousins from the Triangle who are both enrolled at NC State. Emily Bullard recently graduated in applied mathematics and Meredith Bullard is a junior in civil engineering. Emily’s brother, Christopher Bullard, recently graduated in political science. But they are simply the latest members of the Bullard family to study at NC State. Steve and CBE teaching professor and director of undergraduate studies Lisa Bullard (parents of Emily and Christopher) and Michael and Lisa Bullard (parents of Meredith) all graduated from NC State in the 1980s. (Yes, there are two Lisas.)

The Wolfpack family tree runs even further back in time, with Emily and Meredith noting in their winning essay that the first Bullard — Amos Gentry Bullard — graduated from NC State in 1930 before going on to earn a master’s degree at NC State in 1942. Amos’ son, A.G. Bullard Jr., graduated from NC State in 1956, and then went on to earn his master’s and doctorate in nuclear engineering from NC State.

Which brings us back to Steve (the son of A.G.) and Michael (the nephew of A.G.) and their wives, Lisa and Lisa, and then their children, Emily, Christopher and Meredith. It adds up to four generations of Bullards who have studied at NC State.

“As fourth generation Wolfpackers, Christopher, Emily and Meredith grew up in Wolfpack families and were constantly surrounded with traditions and role models that helped shape who they are today,” reads the winning essay.

“Each one grew up hearing the stories of their parents, grandparents, and great grandparents, going to NC State football and basketball games, dressing up in Wolfpack t-shirts and cheerleading outfits and learning by example what it means to really ‘bleed red.’”
Alumni highlights

Viney Aneja receives EPA appointment

Viney Aneja (’77) has been appointed by the US EPA to serve as a member of the Executive Committee of its Board of Scientific Counselors (BOSC), and to Chair the BOSC Subcommittee for the Air, Climate, and Energy (ACE) national research program. Viney is a professor in the Department of Marine, Earth & Atmospheric Sciences at NC State. He teaches two undergraduate courses “Fundamentals of Air Quality and Climate Change” and “Fundamentals of Air Pollution”. He has published more than 300 papers, articles, and book chapters and two books. In 2015 he was awarded the Rossby Visiting Fellow at the University of Stockholm, Sweden.

Karen Burg named vice president at Kansas State

Karen Burg (’90) was named vice president for research at Kansas State University in August 2014. She was previously at Clemson University, where she served as interim vice provost and dean of the Graduate School since 2011. Karen’s most recent honor is being named a Fellow of the Biomedical Engineering Society. And she was named a Fellow of the National Academy of Inventors in December 2014 for her research, leadership and innovation in bioengineering research.

Elin Gabriel named vice president at HB Fuller

Elin Gabriel (’85) was named vice president of global operations for H. B. Fuller, a $2.1-billion global corporation with a business focus on adhesives, sealants and other similar specialty chemicals. In this role, Elin is an executive officer of the company and she has direct responsibility for manufacturing plants in the United States, Latin America, South America, Europe and Asia. Previously, she was chief operations officer for Alvogen, an international pharmaceutical company with commercial operations in 34 countries around the globe. Elin was an inaugural Women in Manufacturing STEP (Science, Technology, Engineering and Production) honoree, accepting her award at a ceremony in Washington DC, on February 5, 2013. The STEP Awards honor women who have demonstrated excellence and leadership in their careers and represent all levels of the manufacturing industry.

Kent Hudson’s Dude Solutions announces investment

Kent Hudson (’75) the CEO and co-founder of Dude Solutions, was featured in a February 3, 2014 Raleigh News & Observer article announcing an investment of up to $100 million by the private equity firm Warburg Pincus. Dude Solutions had been self-funded since Kent and Lee Provost founded the company 14 years ago. The company’s cloud-based technology manages facilities, ranging from schools to
government buildings, primarily in North America. Kent stated that their technology has helped clients save more than 55 million man hours and saved $1.1 billion through efficiencies. Dude Solutions will look at strategic acquisitions and expects to triple its workforce from the current level of 220 employees over the next five years.

Mark Hurley named CEO of BlueKnight Energy Partners

Mark Hurley (’81) was appointed chief executive officer of BlueKnight Energy Partners, effective as of September 20, 2012. Mark had served as the senior vice president, Crude Oil and Offshore of Enterprise Products, LLC since 2010, where he led the newly formed crude oil and offshore business segment. Mark began his career at Shell, where he served from 1981 to 2009, most recently as president of Shell Pipeline Co., LP. Mark joined the CBE Alumni Advisory Board in 2014.

Brad Lee named president and CEO of Breg, Inc.

Brad Lee (’88) was named president and chief executive officer of Breg, Inc in February 2015. Breg is a premier provider of sports medicine products and services. Brad had served as president of Breg since July 2008 and under his tenure the company doubled its revenues and grew at two times the industry average. Earlier in his career he served as the company’s vice president and general manager. Prior to joining Breg, Brad was vice president of marketing for LMA North America, and throughout his 22-year career in the medical device industry, Brad has served numerous roles in sales, marketing, R&D management and business development.

Elizabeth Nance receives named professorship

Elizabeth Nance (’06) earned a Ph.D. in chemical engineering from Johns Hopkins University in May 2012 and was awarded a two-year postdoctoral fellowship at John Hopkins Medicine in Baltimore, M.D. In 2015, Elizabeth was named in Forbes magazine’s list of 30 under 30 Scientists and also won a Burroughs Wellcome Career Award at the Scientific Interface, a grant of $500,000 over five years. She is starting her academic career as the Clare Boothe Luce Assistant Professor of Chemical Engineering at the University of Washington in Seattle, Wash.

Don van der Vaart named DEQ head

Don van der Vaart (M.S. ’82) was named head of the N.C. Department of Environmental Quality - a cabinet level position reporting to the governor of North Carolina. Previously, Don served as DEQ’s deputy secretary and as the department’s energy policy advisor tasked with increasing domestic energy exploration, development and production in North Carolina as well as promoting related economic growth and job creation. Earlier, he was an engineering supervisor and program manager for the N.C. Division of Air Quality. Don also teaches environmental policy and law at NC State.
Alumni notes

Robin Gardner (’56, M.S. ’58) will lead the Consortium for Nonproliferation Enabling Capabilities (CNEC), resulting from a $25 million National Nuclear Security Administration grant to fund research on nuclear proliferation monitoring. The consortium will investigate hardware and software for detection sensors, improvements in remote-sensing capabilities and the use of data to better detect nuclear materials. Robin is a professor of nuclear engineering at NC State.

Don Paul (’61) received the Institute Award for Excellence in Industrial Gases Technology at the 2013 AIChE Annual Meeting in San Francisco, Calif. The award recognizes “contributions to the scientific foundation of gas permeation in glassy polymers and the development of polymeric membranes for gas separations.” Don is a professor of chemical engineering at U. Texas-Austin.

Leo Simpson (’67) was named to the Sam Walton Fellows Hall of Fame in 2013, the highest honor bestowed upon a faculty leader for Enactus, an international non-profit organization. Leo is the Lawrence K. Johnson Endowed Professor of Entrepreneurship at Seattle University.

Pierre Lepoutre (Ph.D. ’69), founder of the Paper Surface Science Program at the University of Maine, was presented with the 2012 John S. Bates Memorial Gold Medal, awarded to a member of the Pulp and Paper Technical Association of Canada for long-term contributions to the industry.

Kevin Pait (’79) was named director of engineering and site services at Catalent Pharma Solutions in Morrisville.

Benny Freeman (’83) was awarded the Clarence G. Gerhold Award from the AIChE Separations Division at the 2013 Annual Meeting in San Francisco, Calif. Benny holds the Richard B. Curran Centennial Chair in the Department of Chemical Engineering at the University of Texas-Austin.

Med Byrd (’84) has been selected as a 2014 TAPPI Fellow. The TAPPI Fellows are selected in recognition of meritorious service to the association and the paper industry. In particular, Med was selected for his commitment to, and success in, producing energized students who will become the next generation of industry leaders. Med is the director of applied research and undergraduate director in the Department of Paper Science and Engineering and advises our CHE/PSE double majors.

John Lewis (’85) was named process and technology director at DPS Consulting in Raleigh.

Scott Warlick (’87) was named senior director of manufacturing for Mylan in Morgantown, W. Va. He leads the granulation manufacturing departments at Mylan’s 20 billion dose OSD facility.

Tonya Peeples (’88) was appointed as the University of Iowa College of Engineering’s first Associate Dean for Diversity and Outreach. Tonya is a professor of chemical and biomedical engineering.

Richard Venditti (’88) was named a 2012 fellow of TAPPI, the nation’s leading association for the worldwide pulp, paper, packaging and converting industries. Richard is a professor of forest biomaterials at NC State.

Tim Nolen (’89) was elected a fellow of AIChE. Tim is an engineering leader and technology fellow at Eastman Chemical Company in Kingsport, Tenn.

Tim Wallace (’89) is a senior process engineer at Jedson Engineering in Cary.

John Davis (’91) was named Syngenta’s manager for crop protection finished product processing for North America. In this new position, he is responsible for internal and third party formulation production and packaging for the region.

Anita (Jones) Hilliard (’91) is a Realtor with Berkshire Hathaway HomeServices in Port Richey, Fla. She also is the franchise owner, and director of 9Round Chelsea Place, a 30 minute kickboxing fitness gym located in New Port Richey, Fla.

John Weidner (Ph.D. ’91) was elected a Fellow of AIChE. John is department chair and Campaign for Excellence Professor of Chemical Engineering at the University of South Carolina.

Hank Ashbaugh (’92), an associate professor of chemical and biomolecular engineering at Tulane University, is the 2013 recipient of
the Helmholtz Award from the International Association for the Properties of Water and Steam. Hank received the award for his research on the effect of water’s aversion to oil and the resulting insolubility of oil in water.

**Tim Holbrook** ('93) was appointed Associate Dean of Faculty at the Emory University School of Law in July, 2012. Tim has been a professor of law at Emory since 2009.

**Nate Miranda** (Ph.D. ’94) was named director of technical services and development at MonoSol, Kuraray WS Film Division.

**Andy Shiflett** ('95) was promoted to manufacturing technical superintendent for DuPont’s Nafion® products in Fayetteville.

**Hal Lawton** ('96) was named head of eBay North American, one of the world’s largest online marketplaces in June 2015. He also has responsibility for global customer experience and emerging market expansion.

**Chris McDowell** (Ph.D. ’98) was promoted to process engineering manager at the new Novozymes enzyme plant in Blair, Neb.

**Sean Hartig** ('01) earned a Ph.D. in chemical engineering from Vanderbilt University in 2006. Sean is currently an assistant professor of molecular and cellular biology at Baylor College of Medicine in Houston, Texas. He is a recent recipient of a NIH NIDDK K01 Mentored Research Scientist Development Award.

**Tim LeCroy** ('01) earned a Ph.D. in historical theology from Saint Louis University in 2012. He is the pastor of Christ Our King Presbyterian Church in Columbia, Mo.

**Neal Robbins** ('01) was sworn into the bar of the Supreme Court of the United States on March 19, 2012. Neal was appointed director of legislative and intergovernmental affairs at the Department of Environment and Natural Resources on January 9, 2013. DENR Secretary John E. Skvarla III announced Neal’s selection as part of the new leadership team in the McCrory administration.

**Matthew Whitfield** ('01) earned a Ph.D. in biological and agricultural engineering at NC State on August 1, 2014.

**Michael Riley** (Ph.D. ’02) received the 2014 Distinguished Teaching Award at the New Mexico Institute of Mining and Technology, where he is an assistant professor in the Department of Chemical Engineering.

**Garett Franklin** ('03) earned an M.D. degree from East Carolina’s Brody School of Medicine in 2012. He was selected for a residency in family medicine at the Wake Forest School of Medicine.

**Terry Goss** ('03) completed his master’s in environmental engineering at Villanova University. Terry is an engineer at AECOM in Philadelphia, Pa.

**Trey Hathaway** ('03) earned a Ph.D. in nuclear engineering from NC State in May, 2012. Trey works on core neutronics for Babcock and Wilcox in Lynchburg, Va.

**Karen Uffalussy** ('03) earned a Ph.D. in chemical engineering at the University of South Carolina on January 20, 2012. Karen is employed as a corporate process engineer at Resco in Pittsburgh, Pa.

**John Berger** ('05) was named operations manager at GE Power and Water in Wilmington, N.C. in January, 2015.

**Francisco Hung** (Ph.D. ’05), the Paul M. Horton Associate Professor of Chemical Engineering at LSU, received a 2013 Faculty Early Career Development Award from the National Science Foundation (NSF). The award, known as the NSF CAREER Award, is one of the highest honors given by NSF to young faculty in science and engineering. It provides funding over five years to support a faculty member’s research activities. Francisco received a 2014 Rainmaker Award for Emerging Scholars at LSU.

**Austin Kizzie** ('05) earned a Ph.D. in chemistry at the University of Michigan in May 2012. Austin is a research chemist with Scott Safety, a division of Tyco International, in Charlotte.

**Andrea Naranjo** ('05) earned a Ph.D. in chemical engineering from the University of Delaware in October 2014. Andrea accepted a post-doctoral position in the Mast Cell Biology Section at the National Institute of Health in Washington, DC doing research on the mechanism of allergic reactions.

**Brian Pridgen** ('05) earned an M.D. from Stanford Medical School on June 18, 2012. He remained at Stanford to do a residency in plastic and reconstructive surgery. Brian
married Vicky Woo, who also earned an M.D. from Stanford.

Captain Sidney J. Usry, USAF (‘05) completed the Experimental Flight Test Engineer course at the U.S Air Force Test Pilot School at Edwards Air Force Base, California, in December 2013. Captain Usry also has a M.S. in aeronautical engineering from the Air Force Institute of Technology and is a licensed PE. He is currently assigned to Eglin AFB, Florida.

Meghan Howard (‘06) earned an MBA from NC State on May 12, 2012. She has accepted a position as a Compliance Data Officer at Novartis Vaccines and Diagnostics in Holly Springs.

Arthi Jayaraman (‘06) was awarded the AIChe Computational Molecular Science and Engineering Forum’s Young Investigator Award at the 2013 Annual Meeting in San Francisco, Calif. Arthi is an associate professor of chemical and biomolecular engineering at the University of Delaware.

Maggie Linak (‘06) earned a Ph.D. in chemical engineering from the University of Minnesota in 2012, and was subsequently named an AAAS Congressional Fellow. She served on the Senate Health, Education, Labor, and Pensions (HELP) committee in the United States Congress on health policy issues. She is a science and technology policy fellow with the US Agency for International Development.

Robby Moorefield (‘06) earned an MBA from Wake Forest University in May 2014. Robby is a production manager at AkzoNobel in Salisbury.

Remy Roque (‘06) earned an M.D. degree from the University of Maryland in May 2014 and will begin a residency in anesthesiology at Oregon Health & Science University in Portland, Ore.

Devdutta Warhadpande (‘06) completed his M.D. degree at the University of Kansas medical school in May 2015. He is starting a one year radiology residency at the University of Illinois in Chicago.

Julian Willoughby (‘06) earned an M.D. from UNC-Chapel Hill on May 12, 2012. He also has a master’s degree from the UNC School of Public Health (2011). After spending a year at Wake Forest University in internal medicine, he is now in a three-year residency in physical medicine and rehabilitation at Carolinas Medical Center in Charlotte.

David Abrecht (‘07) earned a Ph.D. in materials science from Cal Tech in December 2012. He is currently a postdoctoral researcher at Pacific Northwest National Lab in Richland, Wash.

Megan (Maltais) Baker (‘07) earned a Master of Public Affairs degree from Indiana University in May, 2012. Megan is a policy and budget analyst for the Georgia Governor’s Office of Planning and Budget. She and her husband, Adam, live in Atlanta, Ga.

Brandon Fincher (‘07) earned an MBA from Harvard Business School in May 2014. Brandon is working at Novartis in Holly Springs.

Troy Gould (‘07) earned a Ph.D. in chemical engineering at the University of Colorado on March 20, 2014. Troy is a research scientist at Cree in Durham.

Alton Hare (‘07) earned a J.D. degree from George Washington University in May 2014. Alton is a registered patent agent at the US Patent Office in Washington, DC.

Justin Harris (‘07) earned a Ph.D. in chemical engineering from the University of Texas at Austin in May, 2013.

Samia Ilias (‘07) earned a Ph.D. in chemical engineering from the University of Minnesota in May 2013. She is an advanced researcher with ExxonMobil in Annandale, N.J.

Brittany Lanier (‘07) earned an MBA from Harvard Business School in May 2013. She is an assistant brand manager for ConAgra Foods in Chicago, Ill.

Chris Lowe (‘07) earned an M.S. in nuclear engineering from NC State on May 10, 2014. Chris is continuing as a Ph.D. student in nuclear engineering.

Aleta Hope Metzler (‘07) earned an M.S. in biomanufacturing from NC State in May 2012.

Wes Overton (‘07) earned a Ph.D. in chemical engineering from Stanford in June 2014. Wes is staying at Stanford to complete some publications before pursuing employment in the Bay area.

Chris Saunders (‘07) is the recipient of the Henry Law Firm Graduate Assistantship. He
received his J.D. degree from the University of North Carolina School of Law in 2011. He co-authored a presentation at 2010 American Agricultural Law Association Symposium, “Solar Energy: Is It Really A Bright Idea for Farmers?”

Thomas Sinodis ('07) earned a Doctor of Pharmacy from UNC-Chapel Hill on May 12, 2012. He is a pharmacist at Target.

Michael Stewart ('07) earned a Ph.D. in chemical engineering from the University of New Mexico in December 2013. He is a post-doctoral fellow at Stanford’s Department of Mechanical Engineering.

Julie Willoughby (Ph.D. ’07) joined Nike in Beaverton, Ore as sustainable product R&D network director.

Malonda Bumba ('08) earned an M.S. in chemical engineering from NC A&T State University on May 12, 2012.

Sarah (Trexler) Gould ('08) earned a Ph.D. in chemical engineering at the University of Colorado-Boulder on August 23, 2013. She is a research engineer at Novozymes in Franklinton.

Jonathon Harding ('08) earned a Ph.D. in chemical engineering from MIT in December 2014. Jonathon is a consultant at Exponent in Natick, Mass.

Derek Hernandez ('08) earned a Ph.D. in chemical engineering from the University of Texas at Austin in August 2014. He is a research scientist at TeVido BioDevices in Austin, Texas.

Marc Leyrer ('08) earned an M.D. from Wake Forest University on May 19, 2013. He is pursuing a residency in radiation oncology at the Cleveland Clinic in Cleveland, Ohio.

Vanessa Blalock Olion ('08) completed her MBA at Georgetown University in May 2015. Vanessa is an engineer at American Sugar Refining Company in the Washington, DC area.

Liam Royce ('08) earned a Ph.D. in chemical engineering from Iowa State University in December 2013. Liam is a patent examiner at the U.S. Patent and Trademark Office in Washington, DC.

Mohamed Seyam ('08) earned an M.S. in chemical engineering from the University of Colorado. He is a manufacturing support associate at Biogen Idec in RTP.

Sid Subramanian ('08) received his MBA from UNC’s Kenan Flagler School of Business on May 11, 2014. Sid has joined JP Morgan in a Finance Leadership Program in New York.

Alison Thomas ('08) earned an M.S. in engineering from NC State in December 2012. Alison is a supplier quality engineer at GE Hitachi Nuclear Energy in Wilmington.

Clay Wright ('08) earned a Ph.D. in chemical engineering from Johns Hopkins on March 14, 2014. Clay is a postdoctoral researcher at the University of Washington in Seattle, Wash.

Aria Behrouzi ('09) has been accepted to the Edward Via College of Osteopathic Medicine in Spartanburg, S.C. to join the class of 2018.

Andrew Boulton ('09) is the head brewer for Wanaka Beerworks in Wanaka, New Zealand.

Meghan Craven ('09) earned an M.D. degree from Drexel University on May 16, 2013. She is a pediatric resident at the North Shore-LIJ Health System in Great Neck, N.Y.

Lily Bruno-Hymoff ('09) is an engineer at Dow Chemicals in Texas City, Texas.

Rosemary Le ('09) earned a Ph.D. in chemical engineering at the University of Knoxville in December 2014.

Esmeralda Luna-Ramos ('09) was selected as AIChE’s candidate for Engineer’s Week New Faces in Engineering program. The announcement was made during Engineer’s Week 2013 which took place from February 17-23.

Una Stone ('09) earned a DVM (Doctorate in Veterinary Medicine) from Ross University School of Veterinary Medicine in September 2014.

Garrett Swindlehurst ('09) earned a Ph.D. in chemical engineering from the University of Minnesota in October 2014. Garrett works for Praxair as a development specialist in Buffalo, N.Y.

Jake Vestal ('09) earned an M.S. in engineering management from Duke University in May 2013.

Veronica Adams ('10) earned an M.S. in biomanufacturing from NC State in May 2012.

Spring 2016 NEWS FOR ALUMNI AND FRIENDS
Alumni notes (continued)

Tobias Blackburn (‘10) earned an MBA from Duke University in December 2014. Tobias is an engineer at Biogen Idec in RTP.

Steven Burgess (‘10) completed his Ph.D. in chemical engineering at Georgia Tech in March 2015. Steven is a researcher at BASF in Wyandotte, Mich.

Aaron Day (‘10) completed his MBA at Elon University in May 2015. Aaron is a process engineer at Procter & Gamble in Browns Summit.

Courtney Fox (‘10) earned a Ph.D. in chemical engineering from Stanford in January, 2015. Courtney is working as a research scientist at Carbon3D in Redwood City, Calif.

Alex Hunt (‘10) was promoted to superintendent of Potash Corporation’s STF Plant in Aurora.

Arouna Liloudini (‘10) earned an M.S. in nuclear engineering at the University of South Carolina in December 2012. Arouna is employed at the Department of Energy in Savannah River, S.C.

Will McDanel (‘10) earned a Ph.D. in chemical engineering from the University of Colorado at Boulder in February 2015.

Stephen Morton (‘10) completed his Ph.D. in chemical engineering at MIT in May 2015. Stephen is a researcher at Google in Mountain View, Calif.

Sarah Breland (‘11) started a job with DuPont Industrial Biosciences in Cedar Rapids, Iowa at the company’s new enzyme production facility.

Matt Hunsucker (‘11) earned an M.D. from UNC-Chapel Hill in May 2015. He entered the residency program in internal medicine at UNC-Chapel Hill.

Amanda Keeler (‘11) earned a Doctor of Pharmacy degree from UNC-Chapel Hill in May 2015.

Jonathan Lee (‘11) earned an M.S. in materials science and engineering from NC State in May 2013.

Jeremy Palmer (Ph.D. ‘11) received the 2014 Blavatnik Award. The Award recognizes outstanding postdoc scientists working in the fields of chemistry, life sciences and physical sciences and engineering.

Ahsan Raina (‘11) earned a Doctorate of Dental Surgery (DDS) degree at Midwestern University in May 2015. He is completing his residency in pediatric dentistry at the University of Iowa.

Sindhu Sevala (‘11) was accepted into the molecular cancer biology Ph.D. program at Duke.

David Brower (‘12) is working at Ambitech, an engineering consulting firm in Chicago, Ill.

Paul Huang (Ph.D. ‘12) was hired as an assistant professor in the School of Chemical, Biological and Materials Engineering at the University of Oklahoma in Norman, Okla.

Louie Kachulus (‘12) is attending the University of Southern California Gould School of Law.

Reb Kornahrens (‘12) earned an M.S. in chemical engineering from the University of Texas Austin.

Janie Olsen (‘12) has been accepted to Frank H. Netter, MD School of Medicine at Quinnipiac University in North Haven, Conn.

Hannah Reese (‘12) received the Dow Excellence in Teaching Award at the University of California - Berkeley.

David Song (‘12) earned an M.S. in biomanufacturing from NC State on May 10, 2014. David works at Hospira in Rocky Mount.

Stephen White (‘12) earned an M.S. in biomanufacturing from NC State on May 10, 2014. Stephen is an engineer III in Deviation Management at Merck in Durham.

Erik Alvarez (‘13) is working at Enthalpy Analytical in Durham.

Moises Figueroa-Contreras (‘13) earned an MBA from Wake Forest University in May 2015. Moises is a business and systems integration consultant at Accenture in Washington, DC.

Ashley Sough (‘13) earned a Master of Engineering degree in chemical engineering from Cornell University in August, 2014. Ashley is a nano material engineer at IMRA America.
Marriages

Roger Whitley ('86) and Les Bahr, November 8, 2014. Roger is a research associate at Air Products in Allentown, Pa.

Heather Phillips Brown ('91) and Jed Sands, October 27, 2013. Heather is an environmental engineer with the Department of Environment and Natural Resources in Raleigh.

Chad Nussman ('00) and Ashleigh Scherer, October 25, 2014. Chad is a city project manager for the City of Charlotte Storm Water Service Division.

Steven Cheek ('01) and Kristy Rose, May 16, 2013. Steven is a supplier quality manager at GE in Wilmington.

Carl Creel ('02) and Samira Fazel, April 27, 2013. Carl is employed at Celerity in Richmond, Va.

Steven Clark ('03) and Lindsey Renfro, October 26, 2013. Steven is an engineer at Eastman Chemical Company in Kingsport, Tenn.

Megan Rice ('03) and Eric Rowell (LLP '03), April 14, 2012. Megan is a mechanical design engineer for CB&I Power in Charlotte.

Andrea Allgood ('04) and Jay Carter, June 4, 2011. Andrea received her Ph.D. in biophysics from Johns Hopkins University in 2010 and is currently an assistant professor of chemistry at Meredith College in Raleigh.

Cliff Bynum ('04) and Jenna Gudac, May 5, 2012. Cliff is a process improvement engineer at Milliken & Company in Inman, S.C.

James Carnell ('04) and Stefanie Vanjo, February 22, 2014. James is head of process and technology at Opus Maxim in Guilford, Surrey, United Kingdom.

Eston Herring ('04) and Katie Casto, September 29, 2012. Eston is an engineer at Potash Corporation in Aurora.

Wes Hudson ('04) and Mingchun (Stacy) Wu, August 26, 2012. Wes is an energy trader at Dominion Resources, Inc. in Richmond, Va.

Randy Thur ('04) and Jen Lemerise, September 1, 2012. Randy is a consultant at Booz Allen Hamilton in Arlington, Va.

Bryan Tracy ('04) and Melissa Blair, April 20, 2013. Bryan is the CEO of Elcriton Inc. in Wilmington, Del.

Wes Brummer ('05) and Katie Pavia, April 27, 2013. Wes is an environmental engineer at Bensinger & Garrison Environmental, Inc. in Raleigh.

Brent Dixon ('05) and Katelyn Purnell, September 8, 2012. Brent is chief scientist and technical operations manager at Physicians Choice Laboratory Services in Charlotte.

Cindy Hendren ('05) and Nathan Miller, March 8, 2015. Cindy is an ME leader for Coated Paperboard Supply Chain with International Paper in Memphis, Tenn.

Beth Morrell ('05) and Genaro Gaspar, January 20, 2014. Beth is a graduate fellow in mathematics at NC State.

Elizabeth Parrish ('05) and Kevin McMullen, July 7, 2012. Elizabeth is a development engineer at Cook Biotech in West Lafayette, Ind.

Brian Pridgen ('05) and Vicky Woo, August 3, 2013. Brian is completing his plastic surgery residency at Stanford University in Stanford, Calif.

Justin Brett ('06) and Catherine Currin, June 30, 2012. Justin is an engineer at Metrics, Inc. in Greenville.

Sabil Huda ('06) and Afnan Quadery, March 21, 2015. Sabil is an engineer at Intel in Hillsboro, Ore.

Gina Hicks ('06) and Conrad Faust, June 1, 2014. Gina is a senior environmental engineering consultant at Trinity Consultants in Morrisville.

Ryan Nadel ('06) and Charlotte Kubb, July 14, 2012. Ryan is a process engineer at Kimberly-Clark in Knoxville, Tenn.

Sam Price ('06) and Olivia Hubert-Allen, February 22, 2014. Sam is a postdoctoral researcher at the Army Research Laboratory in Baltimore, Md.

Brandon Sandy ('06) and Allyson Scott, October 27, 2012. Brandon is a composite development engineer at Guilford Performance Textiles in Kenansville.

Erin Trimble ('06) and Dylan Stradley, April
19, 2014. Erin is a process engineer at Cree in Durham.

Katie Watlington (‘06) and Kendall Johnson, August 3, 2014. Katie is a banking and finance associate at Latham & Watkins in Singapore.

Trent Watts (‘06) and Andrea Lee, December 13, 2014. Trent is a process engineer at Corning Incorporated in Wilmington.

Steven Aho (‘07) and Nicole Stocking, October 25, 2014. Steven is an anesthesiology resident at the Medical University of South Carolina in Charleston.

Robert Bullock (‘07) and Christina Salmi, October 4, 2014. Robert is an engineer at Summit Design & Engineering in Raleigh.

Heather Carroll (‘07) and Jonathan Holloway (ENG ‘08, M.A. ‘10), April 27, 2012. Heather is an associate scientist at Liquidia Technologies in RTP.

Andrew Covington (‘07) and Alexis Smith (MA ‘07), June 2, 2012. Andrew is a value chain manager at Novartis V&D in Holly Springs.

Brandon Fincher (‘07) and Anna Simmons, June 7, 2014. Brandon is Global Head of Technical Operations BPA at Novartis Influenza Vaccines.

Jeremy Haddock (‘07) and Anne Eskridge, November 10, 2012. Jeremy is a process control engineer at International Paper in Riegelwood.

Justin Harris (‘07) and Liz Gruenwald, June 29, 2013. Justin is a post-doctoral student in chemical engineering at the University of Texas-Austin in Austin, Texas.

Melissa Horton (‘07) and Brian Lehmann, October 6, 2012. Melissa is an engineer at the ExxonMobil polyethylene plant in Mont Belvieu, Texas.

Anthony Howard (‘07) and Sarah Hibler, October 5, 2013. Anthony is a process engineer at Novartis Vaccines and Diagnostics in Holly Springs.

Erin Irons (‘07) and Jay McNeill, October 2, 2011. Erin is an application engineer for MeadWestvaco in Charleston, S.C.

Jordan Keith (‘07) and Amanda Howes, June 28, 2014. Jordan is an engineer at Eastman Chemical Company in Kingsport, Tenn.

Katie Kennedy (‘07) and Darren Hullet, May 25, 2014. Katie is an engineer at ExxonMobil in Fairfax, Va.

Chris Saunders (‘07) and Jenny Bo, October 19, 2013. Chris is a staff attorney at the North Carolina General Assembly in Raleigh.

Thomas Sinodis (‘07) and Tiffany Sterrett (BIO ‘07), June 2, 2012. Thomas is a pharmacist at Target.

Michael Stewart (‘07) and Lauren Sittel, June 28, 2014. Michael is a postdoctoral researcher at Stanford University in Palo Alto, Calif.

Lulu Alborno (‘08) and Mohammed Choudhury, December 28, 2012. Lulu is a process engineer at American Sugar Refining Company in Alexandria, Va.

Michael Akerman (‘08) and Jessica Breazeale, June 28, 2014. Michael is a senior research associate at Novozymes in Franklinton.

Rachel Babson (‘08) and Sam Steffan, February 26, 2015. Rachel is an engineer with ExxonMobil in Beaumont, Texas.

Graham Gibson (‘08) and Martha Federkiewicz, August 25, 2012. Graham is a senior environmental engineer at Mallinckrodt Pharmaceuticals in Raleigh.

Daniel Harpham (‘08) and Samantha Carson, March 22, 2014. Daniel is an engineer at Corning in Wilmington.

Eric Hodgden (‘08) and Kelly Rutledge, March 22, 2013. Eric is the founder and owner of All Around Raleigh DJ in Raleigh.

Taylor Kirkland (‘08) and Megan Ocheltree, June 14, 2014. Taylor is a global supply chain planner at Celanese Corporation in Cincinnati, Ohio.

Akin Omofoye (‘08) and Toma Omonuwa, October 17, 2013. Akin is a production superintendent for the Mobil Equatorial Guinea Jade Offshore Platform in Equatorial Guinea.

Liam Royce (‘08) and Quyen (Gwen) Truong, August 24, 2013. Liam completed a Ph.D. in chemical engineering at Iowa State University and is a patent examiner at the US Patent and
Trademark Office in Washington, DC.

**Chris Smith** (’08) and Marcia Grota, May 19, 2012. Chris is a project engineer at Mustang Engineering in Houston, Texas.

Sid Submaranian (’08) and Tanisha Palvia, March 28, 2015. Sid is employed at JP Morgan in a Finance Leadership Program in New York.

**Diana Tysinger** (’08) and James Locke, February 23, 2013. Diana is an engineer at Grifols in Clayton.

**Clay Wright** (’08) and Rachel Silverman, March 29, 2014. Clay is a postdoctoral researcher at the University of Washington in Seattle, Wash.

Jackson Yeh (’08) and Tzu-I Yang, December 7, 2014. Jackson is an engineer at Air Products in Hong Kong.

Maria Krotava (’09) and Rob Keehner, July 26, 2014. Maria is an engineer at Novartis Diagnostics and Vaccines in Holly Springs.

Elizabeth Nieman (’09) and Andrew Redfern, May 16, 2015. Elizabeth is a cell manufacturing engineer at Aldagen, Inc. in Durham.

Henryk Orlik (’09) and Gabrielle Flanary, June 3, 2012. Henryk is an environmental engineer at Shell Exploration and Production Company in Wellsboro, Pa.

Tamara Robertson (’09) and Aaron Mascarenhas, September 22, 2014. Tamara is marketing director for consumer products at Inhance Technologies in Marina del Rey, Calif.

**Susan Short** (’09) and Pat Buenaventura (’11), October 19, 2013. Both Susan and Pat work at Rayonier in Jesup, Ga.

Meghan Stewart (’09) and Oliver Browett, September 29, 2012. Meghan is a global procurement manager at Syngenta in Basel, Switzerland.

Trent Tovar (’09) and Anne Talley, February 15, 2013. Trent is a Ph.D. student in chemical engineering at Vanderbilt University in Nashville, Tenn.

Ashley Williams (’09) and Shishir Ghia, October 26, 2013. Ashley is a process engineer at Novartis in Holly Springs.

Tim Wuthenow (’09) and Jess Coe, July 27, 2013. Tim is an IT specialist at IBM in Raleigh.

Megan Bittner (’10) and Tucker Stachitas, September 21, 2013. Megan is a lieutenant in the US Navy serving on a nuclear submarine and lives in Silverdale, Wash.

Elizabeth Butler (’10) and Ryan Scott, April 28, 2012. Elizabeth is a process engineer at Merck in Durham.

Laura Beth Dong (Ph.D. ’10) and Mike Bestor, September 30, 2012. Laura works at Albemarle in Baton Rouge, La.

Matt Edds (’10) and Ashley Sanders, April 26, 2014. Matt is a process engineer at Veolia Water Solutions and Technologies in Morrisville.
The page contains a list of marriages with additional information about the individuals involved and their current employment. Here is the list in a plain text format:

- **Michael Farrow** ('10) and Andrea Highsmith, November 22, 2014. Michael is a scientist at Biogen Idec in RTP.
- **Kendall Fitzgerald** ('10) and Lauren Barton, September 20, 2014. Kendall is a capital projects engineering manager at Syngenta in Houston, Texas.
- **Kyle Ford** ('10) and Michelle Gendy, June 2, 2012. Kyle is employed at R.J. Reynolds Tobacco Company in Winston-Salem.
- **Matt Gebbie** ('10) and Allie Schuster ('11), April 12, 2014. Matt is a Ph.D. student in materials science at the University of California - Santa Barbara, and Allie works at M.F. Strange and Associates in Santa Barbara, Calif.
- **Nick King** ('10) and Vanessa Addai, October 18, 2014. Nick is an engineer with P&G in Cincinnati, Ohio.
- **Camille Kump** ('10) and Austin Holzner, May 18, 2013. Camille is a process engineer at MeadWestvaco in Covington, Va.
- **Peter McAnulty** ('10) and Sarah Eberle, August 24, 2013. Peter is an HPV purification engineer at Merck & Co. in Elkton, Va.
- **Will McDanel** ('10) and Katherine Hoeferkamp ('10), October 26, 2013. Will is a Ph.D. student in chemical engineering at the University of Colorado at Boulder, and Katherine works in the department.
- **Zach McDowell** ('10) and Ame Wickham, December 7, 2013. Zach is employed at Merck in Durham.
- **Kevin Nance** ('10) and Caitlin Gilbride, October 25, 2015. Kevin is an engineer at Honeywell in Hopewell, Va.
- **Natalie Patterson** ('10) and Thomas McAlpin, August 31, 2014. Natalie is a systems configuration engineer at R.E. Mason in Charlotte.
- **Yasir Rashid** ('10) and Jamla Elwir, June 22, 2012. Yasir is an automation engineer at Apro Resources in Raleigh.
- **David Rhoden** ('10) and Julie Wofford, May 22, 2015. David is a staff engineer at Merck in Durham.

- **Carter Smith** ('10) and Wil Kirwan, April 14, 2012. Carter is a scientist at Kemira in Atlanta, Ga.
- **Jordan Smith** ('10) and Makala Katuscak, May 26, 2013. Jordan is a monomers staff engineer at DAK Americas in Columbia, S.C.
- **Jonathan Sokash** ('10) and Laura Meyer, September 28, 2013. Jonathan is a manufacturing technology engineer at DuPont in Chambersworks, N.J.
- **Peter Venema** ('10) and Brandi Melvin, June 28, 2015. Peter is a process quality engineer with Skyware Global in Smithfield.
- **Amanda Vorenkamp** ('10) and Andy Scott, April 30, 2015. Amanda is an innovation project manager at Henkel in Southwick, Mass.
- **Sara Arvidson** (Ph.D. ’11) and Wade Broadaway, June 15, 2013. Sara is a research engineer at Milliken & Company in Greenville, S.C.
- **David Barbee** ('11) and Meredith Hyatt, June 15, 2013. David is a research and process engineer at Tucker Engineering Associates in Locust.
- **Andrew Boggs** ('11) and Kiley Gilbert (BUS '09), March 22, 2014. Andrew is a systems engineer at RoviSys in Apex.
- **Dustin Briggs** ('11) and Jordan Kennedy, April 18, 2015. Dustin is an engineer at Hospira in Denver, Colo.
- **Mary Dickson** ('11) and Ryan Henkes, December 14, 2013. Mary is a process engineer at Jacobs Engineering in Greenville, S.C.
- **Steven Doligalski** ('11) and Meghan Coats (FTM '11), June 1, 2013. Stephen is a process engineer at CRB Consulting Engineers in Cary.
- **Sam Fipps** ('11) and Kelly Purcell, November 8, 2014. Sam is a shift coordinator at Arizona Chemical in Savannah, Ga.
- **Jodie Greene** ('11) and David Mannel, August 31, 2014. Jodie is a graduate student in Chemistry at the University of Wisconsin-Madison.
- **Emma Klaus** ('11) and Stephen Pearsall (CCEE '10), August 18, 2012. Emma works at Bechtel in Las Vegas, Nev.
Kevin Miller ('11) and Hannah Green, May 15, 2015. Kevin is a district engineer at Nalco in Ruston, La.


Tim Moore ('11) and Meredith McNeill, May 10, 2014. Tim is a Ph.D. student in chemical engineering at Vanderbilt in Nashville, Tenn.


Greg Riehle ('11) and Erika Horrocks, July 6, 2014. Greg is an engineer at Novartis Vaccines and Diagnostics in Holly Springs.

Emma Sebeey ('11) and Fongong Achu, May 24, 2014. Emma is an engineer at International Paper in Columbia, S.C.

Brandon Shannonhouse ('11) and Leah Russ, June 6, 2015. Brandon is a process engineer at Ajinomoto in Raleigh.

Shawn Sullivan ('11) and Megan Cope, April 20, 2013. Shawn is a manufacturing associate at Biogen Idec in RTP.

Ben Bell ('12) and Allee Johnson, September 21, 2013. Ben is a process improvement engineer at The Quantum Group in Colfax.

Mandy Burns (M.S. '12) and Patrick Vogel, May 23, 2015. Mandy is a Ph.D. graduate student in the Khan Research Group.

Jonathan Dew ('12) and Elizabeth Woloszczuk June 15, 2013. Jonathan is a process engineer at Weyerhaeuser in New Bern.

Sarah Edwards ('12) and Thomas Breen, April 25, 2015. Sarah is a junior mechanical engineer at AVCON, Inc. in Alexandria, Va.

Lisa Fondario ('12) and Phillip Cooper, December 31, 2014. Lisa is a technical service representative at Colortech in Morristown, Tenn.

David Froggatt ('12) and Monica Nezami, August 2, 2014. David is a process engineer at International Paper in Riegelwood.

Aaron Frye ('12) and Rachel Wilson, May 19, 2013. Aaron works for ExxonMobil in Beaumont, Texas.

Andrea Gill ('12) and Matt Green, May 9, 2015. Andrea is a process engineer at Novozymes in Franklinton.

Darci Hackney ('12) and Nate Marshall, October 19, 2013. Darci is an automation engineer at Merck in Durham.


Jennifer Hinkley ('12) and Clay Abell, April 12, 2014. Jennifer is a process engineer at FMC Lithium in Bessemer City.

Greg Hollis ('12) and Katie Jessup, August 4, 2012. Greg works at International Paper in Orange, Texas.

Neil Kern ('12) and Maggie Taylor, December 14, 2013. Neil is employed at Progress Energy in Raleigh.

Billy Kish (M.S. '12) and Amy Wilson, May 30, 2015. Billy is a Ph.D. graduate student in the Carbonell Research Group.

Amir Lyall ('12) and Elizabeth Bowers ('12), September 27, 2014. Amir is an associate engineer at Merck in Durham. Elizabeth is a process engineer at Novozymes in Franklinton.

Wade Meyers ('12) and Morgan Brooks, June 14, 2014. Wade is a nuclear officer in the U.S. Navy.

Evan Parrish ('12) and Maria Vazquez, October 12, 2013. Evan is an ensign in the U.S. Navy.

Tommy Plante ('12) and Christina Carrera (PSY '12), June 6, 2015. Tommy is an engineer at Rovisys in Apex.

Phil Schoch (M.S. '12) and Kelly Hughes, June 6, 2015. Phil is a Ph.D. graduate student in the Genzer Research Group.

David Shaner ('12) and Stephanie Duke, January 17, 2015. David is co-founder and CEO of Offline and lives in Raleigh.

Logan Shearer ('12) and Sarah Singletary, October 6, 2012. Logan is employed at Highland Industries in Kernersville.

Chelsea Smith ('12) and Eric Hutchinson, October 5, 2013. Chelsea is employed at Novartis in Holly Springs.

Joe Slepitza ('12) and Martha Thorne (FOOD '11), August 11, 2012. Joe is a contact engineer
Gayatri Snigdha (’12) and Aditya Bg, December 11, 2013, at a ceremony in Bangalore, India. Gayatri works at ARCADIS in Durham.

Adam Wallace (’12) and Rose King, June 22, 2014. Adam is a process engineer at Kimberly Clark in Newnan, Ga.

Kimberly Williams (’12) and Tyler Ross, October 13, 2012. Kimberly is a technical support engineer at Merck in Durham.

Brandy Yarbrough (’12) and Justin Potter, June 21, 2014. Brandy is a process engineer at NovoNordisk in Clayton.

Joe Andolsen (’13) and Jessica Dean (CHEM ’11), June 22, 2013. Joe is a polymer engineer at Palziv North America in Louisburg.

Chelsea Daughtridge (’13) and Benjamin Boudreau (CE ’13), March 22, 2014. Chelsea is a remediation engineer at Hospira in Rocky Mount.

Dale Garrison (’13) and Peyton Lambeth (’14), December 28, 2013. Dale is a TPDP engineer at Hospira in Rocky Mount.

Jess Jenkins (Ph.D. ’13) and Pete Broglie (TOX Ph.D. ’10), June 30, 2013. Jess is a post-doctoral researcher at Biomanufacturing Research Institute and Technology Enterprise (BRITE).

Jamie Johnson (’13) and Joshua Harford, November 23, 2013. Jamie is employed at Hospira in Rocky Mount.

Alex Lane (’13) and Alex Atwell (SWK ’12, MSW ’13), August 3, 2013. Alex works at Rovisys in Apex.

Christin Lane (’13) and Aaron Adams, September 20, 2014. Christin is an engineer at Robert E. Mason in Durham.

Josh McClure (’13) and Christina Devine (’13), May 18, 2013. Josh is employed at the Army Research Labs in Aberdeen, Md.

Ashley Overcash (’13) and Tanner Hardee, May 17, 2014. Ashley is an associate specialist, technical operations at Merck in Durham.

Andrew Santos (’13) and Flannery Ronsick, August 10, 2014. Andrew is a Ph.D. student in Chemical Engineering at Princeton University in Princeton, N.J.

Nik Sigmon (’13) and Freda Thompson, June 6, 2015. Nik is a manufacturing specialist at Novartis in Holly Springs.

Michael Steigerwald (’13) and Daphne Crowell, May 30, 2015. Michael is an engineer at GE in Mebane.

Chris Austin (’14) and Monica Mandzak, July 15, 2014. Chris is an engineer at Rovisys in Apex.

Michelle Blood (’14) and Ty Hudson, May 23, 2015. Michelle is an engineer at International Paper in Franklinton, Va.

Yasha Corbett (’14) and Roy Powell, January 11, 2015. Yasha is an engineer at Phigenics in Charlotte.

Moshe Dolejsi (’14) and Victoria Ramos, June 21, 2014. Moshe is a Ph.D. student in molecular engineering at the University of Chicago in Chicago, Ill.

Rachael Kandray (’14) and John Boggs, April 18, 2015. Rachael is an engineer at Eastman Chemical Company in Kingsport, Tenn.

Malika Malhotra (’14) and Alex Eubanks, May 24, 2015. Malika is an engineer at Jacobs Engineering in Cary.

Bryan Raborn (’14) and Allison Alexander, May 2, 2015. Bryan is a consulting engineer at CRB Consultants in Cary.

Christian Bridges (’15) and Haley Higgins, May 21, 2015. Christian is an engineer at RockTenn in West Point, Va.

Ridge Butler (’15) and Sarah Quesenberry, June 5, 2015. Ridge is an engineer at Merck in Durham.

John Edwards (’15) and Jessica Stokes, June 6, 2015. John is an engineer at Domtar in Plymouth.

Chloe Grogan (’15) and Tim Moody, May 16, 2015. Chloe is an engineer in Manufacturing Sciences at Biogen in RTP.

Loan Pham (’15) and Trung Nguyen, May 19, 2015. The couple will be moving to Irvine, Calif.
Steve Humphrey ('95) and his wife, Laura Beth, announce the birth of a son, Garrett Paul Humphrey, on June 1, 2010 and the birth of a daughter, Caroline Rose Humphrey, on September 20, 2012.

John O’Quinn ('96) and his wife, Amy, announce the birth of a daughter, Lauren O’Quinn, on May 15, 2012. John is a partner in the Kirkland & Ellis law firm in Washington, D.C.

Emily Martin ('99) and her husband, Kurt Ellis, announce the birth of a son, Quentin Jack Ellis, on January 10, 2015. Emily is the executive logistics leader at GE Energy in Greenville, SC.

Steven Cheek ('01) and his wife, Kristy, announce the birth of a daughter, Alexandra Rose Cheek, on February 7, 2015. Steven is a supplier quality manager at GE in Wilmington.

Michael Gerber ('01) and his wife, Adrea, announce the birth of a third child, Avinatan (Avi) Chaim Gerber, on May 6, 2013. Michael is a research scientist at Gilead Sciences in Foster City, Calif.

April (Morris) Kloxin ('01, M.S. '04) and Chris Kloxin (Ph.D. '06) announce the birth of a son, Augustine (Augie) Oakley Kloxin, born on August 18, 2013. April is an assistant professor and Chris is a research assistant professor in the Department of Chemical Engineering at the University of Delaware.

Seth Whitaker ('01) and his wife, Tyler, announce the birth of a daughter, Lucy Elizabeth Whitaker, on January 2, 2014. Seth is an attorney at Duffy & Young LLC in Charleston, S.C.

James Wright ('01) and his wife, Jaclyn, announce the birth of a second child, Beau Davis Wright, on April 5, 2013. James works at London Heathrow Airport, and he and his family live in London, England.

Zusan (Wang) Yang ('01) and her husband, David, announce the birth of a son, Stephen Alexander Yang, on November 6, 2013. Zusan works at Advanced Micro Devices and lives in Raleigh.

Kevin Anderson ('02) and his wife, Kellie, announce the birth of a son, Elliott Patrick Anderson, on January 25, 2014. Kevin works for BASF in Plainfield, N.J.

Jenny Brown-Chin ('02) and her husband, Justin, announce the birth of a daughter, Madelyn Ava, on July 2, 2012.

Amber Taylor Collins ('02) and her husband, Benjamin, announce the birth of a son, Cameron Alexander Collins, on April 3, 2012. Amber is a post-doctoral researcher at the University of Delaware.

Carl Creel ('02) and his wife, Samira, announce the birth of a daughter, Layla Grace Creel, on October 16, 2015. Carl is a process engineer at Industrial TurnAround Corporation (ITAC) in Richmond, Va.

Carrington Edmunds ('02) and his wife, Karise, announce the birth of a third child, Phoebe Zahara Edmunds, born June 10, 2013. Carrington is an engineer at Abbott Laboratories in Westerville, Ohio.

Billie-Jean (Savage) Ferguson ('02) and her husband, Tim, announce the birth of a daughter, Anna Grace Ferguson, on January 9, 2013. Billie-Jean is an engineer at Novozymes, and they live in Belton, Texas.

Mike Foote ('02) and Katie (Wright) Foote ('03) announce the birth of twin daughters, Emily Noel and Avery Elizabeth Foote, on January 5, 2013. They live in Charlotte, where Katie is a process engineer at LCI Corporation and Mike is a process engineer at Akzo Nobel in Salisbury.

Brock Harris ('02) and his wife, Kira, announce the birth of a daughter, Lilly Grace Harris, on June 15, 2013. Brock is an assistant professor of pharmacy-pediatrics at Wingate University School of Pharmacy.

Ryan Kellogg ('02) and his wife, Anita, announce the birth of a daughter, Rebekah Suzanne Kellogg, on August 13, 2012. Ryan is a senior business planner for Occidental Petroleum in Los Angeles, Calif.

Bill Ketchie ('02) and his wife, Rebecca, announce the birth of a son, Andrew Thomas Ketchie (their second), on September 19, 2012. Bill is a senior development chemical engineer at Eastman Chemical Company in Kingsport, Tenn.

Mark Laney ('02) and his wife, Amanda, announce the birth of a son, Noah Michael
Births (continued)

Laney, on April 26, 2014. Mark is an implementation team manager for Merge Healthcare in Morrisville.

Everett Minga ('02) and his wife, Maria, announce the birth of a second child, Adela Minga, on June 18, 2013. Everett works for Nile Petroleum in Houston, Texas.

Wes Moyer ('02) and his wife, Lauren, announce the birth of a son, Isaac Alexander Moyer, on September 18, 2012. Wes is a senior chemical engineer at Eastman Chemical Company in Kingsport, Tenn.

Chris Oldham ('02, M.S. MSE '04, Ph.D. MSE '09) and Josephine (Greenwood) Oldham ('02, B.A. Chem '02) announce the birth of a daughter (their second), Florence Penelope Oldham, on February 17, 2014. Chris is CEO of VaporPulse Technologies and Josephine is the founder and president of SpecLine Consulting in Raleigh.

Jay Thompson ('03) and Emily Lewis Thompson ('02) announce the birth of a third son, Cruz Landon Thompson, on February 23, 2015. Jay is an engineer at Novo Nordisk in Clayton and Emily works at CRB in Cary.

Mark Treece ('02, M.S. '03) and his wife, Ann (ZOO '03), announce the birth of a daughter, Makayla Abigail Treece, on April 19, 2013. Mark is an advanced chemical engineer at Eastman Chemical Company in Kingsport, Tenn.

Rob Ashcraft ('03) and Amanda Burris Ashcraft ('04) announce the birth of a son, Nathaniel Clay Ashcraft, on January 23, 2014. Rob is a staff engineering/manager at the Samsung Advanced Institute of Technology and Amanda is a process engineering manager at Genzyme in Cambridge, Mass.

Justin Bennett ('03) and his wife, Stephanie, announce the birth of a daughter, Eliza Irene Bennett (their second), on September 19, 2011. Justin is an emergency room physician in Gainesville, Fla.

Garett Franklin ('03) and his wife, Linsi, announce the birth of a son, Isaac Daniel Franklin, on October 4, 2014. Garett is a family medicine physician at Wake Forest University Baptist Medical Center in Winston-Salem.

Terry Goss ('03) and his wife, Jennifer, announce the birth of a daughter, Piper Delamar Goss, on August 22, 2014. Terry is an engineer at AECOM in Philadelphia, Pa.

Karen (Rackley) Marsh ('03) and her husband, Rich, announce the birth of a second son, Edison Paul Marsh, on January 7, 2015. Karen is a registered PE and consulting engineer at ERM in Raleigh.

Dustin Mountcastle ('03) and his wife, Kristin, announce the birth of a daughter, Ella Scott Mountcastle, on September 21, 2012. Dustin is a strategy consultant vice president at Wells Fargo in Charlotte.

John Russell ('03) and his wife, Isela, announce the birth of a daughter, Isabella Russell, on April 5, 2012, and the birth of a second daughter, Emma Russell, on June 15, 2014. John teaches 8th grade math, algebra, and geometry at Stephen F. Austin Middle School in Irving, Texas.

Andy Thomasson ('03) and his wife, Andra, announce the birth of a son, James Andrew Thomasson, on September 4, 2013. Andy works at Merck in Durham.

Eric Blanchone ('04) and his wife, Sara, announce the birth of a son, Shepard Arthur Blanchone, on November 26, 2014. Eric is a reliability engineer at Merck in Durham.

Kristen Jones Eads ('04) and her husband, David, announce the birth of a second daughter, Katrina Rose Eads, on April 21, 2014. Kristen is a senior compliance analyst at GSK in RTP.

Josh Edmonds ('04) and his wife, Amy, announce the birth of a third child, Elijah James Edmonds, on July 25, 2013. Josh works with Praying Pelican Missions in Winston-Salem.

Baher Eskaf ('04) and his wife, Elaine, announce the birth of a son Gustavo Yuji Eskaf on April 2, 2015. Baher is an engineer at Samsung Semiconductor in Austin, Texas.

Jessica (Sharp) Gardner ('04) and her husband, Michael, announce the birth of twins,
Owen John Gardner and Olivia Elena Gardner, on April 11, 2013 and the birth of a second son, Landon Alistair Gardner, on June 4, 2015. Jessica is a pediatrician at Naval Medical Center in Norfolk, Va.

Blake Herring (’04) and his wife, Heidi, announce the birth of a son, Evan Blake Herring, on November 16, 2012 and the birth of a daughter, Norah Hyatt Herring, on November 7, 2014. Blake is a process engineer at Milliken & Company in Spartanburg, S.C.

Eston Herring (’04) and his wife, Katie, announce the birth of twin boys, Owen Arthur Herring and Eli James Herring on October 16, 2013. Eston is an engineer at PotashCorp in Aurora.

Allison (McGuire) Hoke (’04) and her husband, Robbie, announce the birth of a daughter, Meghan Rose Hoke, on February 14, 2012. Meghan joins big sister Sarah. Alison works at Areva in Charlotte.

Matt Kain (’04) and his wife, Sarah, announce the birth of twin girls, Hannah Pearce and Madison Elisabeth, on March 22, 2013. Matt is an attorney at Moore & Van Allen in Charlotte.

Stephen Keel (’04) and his wife, Angie, announce the birth of a daughter, Alexandra Marie Claire, on March 26, 2012. Stephen is an advanced process engineer at Milliken & Company in Spartanburg, S.C.

Lauren (Killough) Kirkpatrick (’04) and her husband, Garin, announce the birth of a son, Collin Jude Kirkpatrick, on July 9, 2014. Lauren is a purchasing specialist with the National Oceanic and Atmospheric Administration (NOAA) in Forestdale, Mass.

Jebina Rajbhandari Mills (’04) and her husband, Andrew, announce the birth of a daughter, Nora Marie Mills, on October 11, 2014. Jebina is a process engineer at LyondellBasell in Houston, Texas.

Tom Rajala (’04) and his wife, Heidi, announce the birth of a daughter, Lily, on May 27, 2014. Tom is a senior process engineer at IPS (Integrated Project Services) in Morrisville.

David Roof (’04) and his wife, Jayme, announce the birth of twins, Allie and Logan, on February 12, 2012. They join big sister Alayna. David is employed at Ashland and lives in Raleigh.

Joseph Skipper (’04) and his wife, Stephanie, announce the birth of a son, Bennett Rockwell Skipper, on May 27, 2014. Joseph is the director of plant operations at Scr-Tech/CoaLogix in Charlotte.

Bryan Tracy (’04) and his wife, Melissa, announce the birth of a daughter, Deirdre Oona Brighid Tracy, on February 5, 2015. Bryan is CEO of Elcrton, Inc. in Wilmington, Del.

John Berger (’05) and his wife, Lindsay, announce the birth of a daughter, Emerson Berger, on December 22, 2012, and a second daughter, Everly Berger, on December 4, 2014. John is an operations manager at GE Power and Water in Wilmington.

Melissa (Evans) Copeland (’05) and her husband, Josh, announce the births of two sons: John Evans Copeland on June 21, 2012 and Andrew Sloan Copeland on April 4, 2014. Melissa is a global product line manager at Milliken & Company in Spartanburg, S.C.

Jonathan Leerkes (’05) and his wife, Jennifer, announce the birth of a daughter Sonja Verniece Leerkes on April 20, 2013. Jonathan is a process engineer at Lorillard in Greensboro.

Dustin Herrmann (’05) and his wife, Erin (COM ’05), announce the birth of a daughter, Reagan Leigh Herrmann on December 13, 2012. Dustin is the contract manufacturing manager for MeadWestvaco in North Charleston, S.C.

Chinlun Jou Huang (’05) and her husband, James, announce the birth of a son, Nathaniel Robert Huang, on September 19, 2014. Chinlun lives in Spring Lake.

Andrew McAllister (’05) and his wife, Elizabeth, announce the birth of a second son, Samuel Bradley McAllister, on January 1, 2013 and the birth of a daughter, Claire Elizabeth McAllister, on October 2, 2014. Andrew is a supply chain manager at P&G and they live in Mason, Ohio.

Kelsey Norwood (’05) and her husband, Joel Aviles, announce the birth of a son, Asher Reid Aviles, on September 8, 2014. Kelsey is an engineer at L’Oreal in Jersey City, N.J.

Elizabeth Parrish (’05) and her husband, Kevin McMullen, announce the birth of a daughter, Eva Caroline McMullen, on February 13, 2015. Elizabeth is a regulatory program manager at Genentech in Oakland, Calif.
Whit Rawls ('05) and his wife, Lauren (BCH ’04), announce the birth of a son, Claude Sidney Rawls, on January 3, 2012. Whit is a project engineer at S&ME Inc. in Raleigh.

Allison (Wagner) Schiller ('05) and her husband, Doug, announce the birth of a daughter, Kaelynn Elizabeth Schiller, on April 11, 2014. Allison is a resident physician at Conemaugh Memorial Medical Center in Johnstown, Penn.

Brenda Sepulveda ('05) and her husband, Roberto M. Villarreal, announce the birth of a son, Thiago Villarreal Sepulveda, on March 24, 2013. Brenda and her family live in Sabana Grande, Puerto Rico.

Chris Shaul ('05) and Katherine (Schadel) Shaul ('05) announce the birth of a son, Benjamin Christopher Shaul, on February 12, 2013, and the birth of a daughter, Emma, on February 15, 2015. Chris is an engineer at DuPont in Buffalo, N.Y., and Katherine is a post-doctoral researcher at the University of Buffalo.

Ashley (Amstutz) Weber ('05) and her husband, Kevin, announce the birth of a daughter, Quinley Belle Weber, on November 25, 2013. Ashley is a territory business manager at Zoetis in Stamford, Conn.

Randy Welch ('05) and his wife, Caryn, announce the birth of a daughter (their third), Lucy Rose Welch, on February 6, 2014. Randy works at Ajinomoto AminoScience LLC in Raleigh.

Robbie Williams ('05) and his wife, Jessica, announce the birth of a second son, Dylan Matthew Williams, on December 2, 2013. Robbie is a process engineer at Hospira in Rocky Mount.

Sara (Welter) Abbe ('06) and her husband, Joshua, announce the birth of a son, David Charles Abbe, on December 24, 2013. Sara is employed at Georgia-Pacific in Big Island, Va.

Paul Antalik ('06) and his wife, Amy, announce the birth of a daughter, Makayla Ann Antalik, on August 3, 2012. Paul is the manager of process development at Parable, Inc. in Melbourne, Fla.

Jeffrey Brumbaugh ('06) and his wife, Sara, announce the birth of a daughter, Savannah Marie Brumbaugh, on April 13, 2015. Jeffrey is an engineer at ExxonMobil in Beaumont, Texas.

Carl Cox ('06) and his wife, Allison, announce the birth of twin sons, David and Hudson, on May 15, 2013. Carl works at ExxonMobil in Baton Rouge, La.

Jessica (Willems) Creech ('06) and her husband, Aaron, announce the birth of a daughter, Hadley Rose Creech, on March 26, 2015. Jessica is a pharmacist at Wake Forest Drug and lives in Knightdale.

Gina (Hicks) Faust ('06) and her husband, Conrad, announce the birth of a son, Conrad Henry Faust, III on November 20, 2014. Gina is a senior environmental engineering consultant at Trinity Consultants in Morrisville.

Mary (Andrews) Hamrick ('06) and her husband, Geoffrey (ME '07), announce the birth of a son, Geoffrey William Hamrick, Jr., on November 13, 2012 and a second son, Elijah Yates Hamrick, on July 6, 2014. Mary is an optimization and modeling engineer at ExxonMobil in Fairfax, Va.

Maryn (Heerman) Hilken ('06) and her husband, Matt, announce the birth of a son, Samuel Mark Hilken, on January 29, 2013 and a daughter, Leila Lee Hilken, on September 4, 2014. Maryn is a radwaste shipper at NextEra Energy in New Orleans, La.

Eric Hickman ('06) and his wife, Colleen, announce the birth of a son, Alec James Hickman, on July 19, 2012 and twin girls, Chloe Elizabeth Hickman and Emma Rose Hickman, on March 25, 2014. Eric is an engineer in cell culture development at Biogen Idec in RTP.

Brett Howell ('06) and his wife, Michelle, announce the birth of a son, Dylan Cruz Howell, on June 27, 2012 and a daughter, Katelyn Grace Howell, on January 15, 2015. Brett is a research investigator at the Hamner Institutes for Health Sciences in RTP.

Chris Kloxin (Ph.D. ’06) and April (Morris) Kloxin ('01, M.S. '04) announce the birth of a son, Augustine (Augie) Oakley Kloxin, born on August 18, 2013. Chris is a research assistant professor and April is an assistant professor in the Department of Chemical Engineering at the University of Delaware.

Meredith (Fulp) Mackey ('06) and her husband, Dave, announce the birth of a
son, Owen Donan Mackey, on June 26, 2014. Meredith is an engineer at DuPont in Parkersburg, W.Va.

Robby Moorefield ('06) and his wife, Ann, announce the birth of a son, Robert Odell Moorefield, IV on January 15, 2013, and a second son, Daniel Thomas Moorefield, on June 3, 2015. Robby is a production manager at AkzoNobel in Salisbury.

Hunter Plemmons ('06) and his wife, Morgan (ANSC '04, DVM '08), announce the birth of a son, Bradley Dean Plemmons, on January 24, 2013 and a second son, William Edward Plemmons, on December 30, 2014. Hunter is an associate attorney at Aceto Law Office in Waynesville.

Jennifer (Filipowski) Rasnake ('06) and her husband, Jason, announce the birth of a daughter, Emma Leigh Rasnake, on May 5, 2015. Jennifer is the owner of Take 5 Worldwide in Boiling Springs, S.C.

Jeremy Schwartz ('06) and his wife, Limor, announce the birth of a second daughter, Shira Danielle Schwartz, on August 22, 2013. Jeremy is a .NET Developer at Canvas on Demand in Raleigh.

Reid Todd ('06) and his wife, Brittany, announce the birth of a daughter, Clara Reid Todd, on June 8, 2013. Reid is a technical services manager at 3V, Inc. in Georgetown, S.C.

Devdutta Warhadpande ('06) and his wife, Maitreyi, announce the birth of a daughter, Rhea Warhadpande, on November 14, 2014. Devdutta is starting a one year radiology residency at the University of Illinois in Chicago, Ill. and then will continue his residency in Tucson, Ariz.

Corey Allen (‘07) and his wife, Jenny, announce the birth of a daughter, Aria Yongxue Allen, on December 25, 2013. Corey works for ExxonMobil in Houston, Texas.

Diana (Bisbee) Brown ('07) and Kevin Brown ('08) announce the birth of a daughter (their second), Abbygaye Grace Brown, on August 21, 2012. Diana and Kevin both work at Biogen in RTP.

Dan Chamblee ('07) and his wife, Ashton (BIO '08), announce the birth of a son, William David Chamblee, on May 31, 2013. Dan is a VP and business control manager at Bank of America in Charlotte.

Nathaniel Dick ('07) and his wife, Jessica, announce the birth of a daughter, Jobie Dick, on July 5, 2014. Nathaniel is an international trade specialist at Prospero International in Taiwan.

Renee Nobles Gregory ('07) and her husband, Machon, announce the birth of a son, Solomon Henry Gregory on December 15, 2014. Renee is a stay-at-home mom in Silver Spring, MD.

Jeremy Haddock ('07) and his wife, Anne, announce the birth of a son, George Allen Haddock, on November 15, 2014. Jeremy is a process control engineer at International Paper in Leland.

Thomas Medlin ('07) and his wife, Edith, announce the birth of a son, Gabriel Reid Medlin, on June 18, 2012 and a second son, Palmer Elias Medlin, on September 9, 2014. Thomas is a formulation engineer at Syngenta in Greensboro.

Ashley (Forté) Miles ('07) and her husband, Nathan, announce the birth of a son, Julian Nathaniel Lee Miles, on August 2, 2012. Ashley works at General Mills in Murfreesboro, Tenn.

Christian Plautz ('07) and his wife, Mary, announce the birth of a daughter, Lucy Eleanore Plautz, on May 20, 2012. Lucy joins twins Max and Maggie. Christian is an automation engineer at Biogen Idec in RTP.

Erik Santiso (Ph.D. ’07), and his wife, Anna, announce the birth of a son, Alexander Jose Santiso, on August 31, 2012. Erik joined our department as an assistant professor in December 2012.

Lisa Saxon ('07) and her husband, Deryll, announce the birth of a son, Connor William Saxon, on August 7, 2012. Lisa works at Novartis Vaccines and Diagnostics in Holly Springs.

Dan Stark ('07) and his wife, Anne, announce the birth of a daughter, Molly Copeland Stark, on October 14, 2014. Dan is employed at Appealing Products in Raleigh.

Mike Vergamini ('07) and his wife, Jessica, announce the birth of a son, Paul Arthur Vergamini, on April 25, 2015. Mike is an environmental engineer at EnSafe in Nashville, Tenn.
Births (continued)

Kathy (Fraley) Weiger (‘07) and her husband, Michael Weiger (‘08), announce the birth of a son, Logan John Weiger, on October 4, 2014. Kathy is an engineer at ExxonMobil in Houston, Texas and Michael is an instructor at the MD Anderson Cancer Center in Houston, Texas.

Graham Gibson (‘08) and his wife, Martha, announce the birth of a daughter, Evelyn Anne Gibson, on February 18, 2015. Graham is a senior environmental engineer at Mallinckrodt Pharmaceuticals in Raleigh.

Christie (Reynolds) Hagan (‘08) and her husband, Chris, announce the birth of a daughter, Chelsea LeeAnn Hagan, on March 21, 2012 and a second daughter, Chloe Brea Hagan, on July 18, 2014. Christie is a nuclear plant health engineer at the Duke Energy Nuclear Plant in Southport.

Eric Hodgden (‘08) and his wife, Kelly, announce the birth of a daughter, Nora Grace Hodgden, on February 15, 2015. Eric is the owner and DJ of All Around Raleigh DJ in Raleigh.

Brandon Locklear (‘08) and his wife, Erica Rodarte-Jehn, announce the birth of a daughter, Xenia Elaine Locklear, on February 10, 2014. Brandon is an engineer at the ExxonMobil polyethylene plant in Mont Belvieu, Texas.

Laura (Blackwell) Mead (‘08) and her husband, David, announce the birth of a son, Joel David Mead, on November 20, 2012 and a second son, Evan Bryant Mead, on January 15, 2015. Laura is an associate validation engineer at GlaxoSmithKline and lives in Raleigh.

Elizabth (Vara) Pierce (‘08) and her husband, Brian, announce the birth of a son, Luke Allen Pierce, on March 13, 2014. Elizabeth is an environmental engineer at Nucor Steel in Colrain.

Kendra (Moreau) Taylor (‘08) and her husband, George, announce the birth of a son, Copeland Nash Taylor, on February 19, 2013. Kendra is a development engineer at Zeus Industrial Products in Columbia, Ga.

Abby (Lithgo) Willis (‘08) and her husband, Meades, announce the birth of a daughter, Lucy Paige Meade, on June 3, 2014. Abby works at Teva Pharmaceuticals in Greensboro.

Jackson Yeh (‘08) and his wife, Tzu-I, announce the birth of a daughter, Jessie Yeh, on April 21, 2015. Jackson is an engineer at Air Products in Hong Kong.

William Barnes (‘09) and his wife, Ashley, announce the birth of a son, Camden Gregory Barnes, on September 11, 2014. William is an engineer at ExxonMobil in Houston, Texas.

Catherine Currence Conner (‘09) and her husband, Travis, announce the birth of a daughter, Daisy Elise Conner, on July 22, 2014. Catherine is an environmental engineer at Georgia-Pacific in Brunswick, Ga.

Cori (Rose) Dary (‘09) and her husband, Luke, announce the birth of a second son, Charles Fletcher Dary, on August 12, 2013. Cori is currently a full time mom to Fletcher and big brother, Beau, in Durham.

Jamie Forbis (‘09) and John Jackson announce the birth of a son, William Cole Jackson, on March 31, 2015. Jamie is a process engineer at Biogen Idec in RTP.

Dane Grismer (‘09) and his wife, Kathleen, announce the birth of a son John Grismer on November 25, 2014. Dane is a Ph.D. student in chemical engineering at Notre Dame in Notre Dame, Ind.

Bridget (Hamill) Hafshejani (‘09) and her husband, Daniel, announce the birth of a son, Freydoon Alexander Hafshejani, on May 17, 2014. Bridget is an engineer at Milliken and Company and lives in Gastonia.

Tabatha (Blalock) Penny (‘09) and her husband, Christopher, announce the birth of a son, Cain Alan Penny, on April 12, 2013. Tabatha is a patent examiner at the US Patent and Trademark Office in Washington, DC.

Kyle Smalling (‘09) and his wife, Laura (BIOSC ‘10, SCIRED ‘10), announce the birth of a daughter, Annabelle Berenice Smalling, on February 14, 2014. Kyle is a law student at the Norman Adrian Wiggins School of Law at Campbell University in Raleigh.

Lindsey Jerrim Stamm (Ph.D. ‘09) and her husband, Josh, announce the birth of a son, John Copeland Stamm, on December 29, 2014. Lindsey is a teacher/engineer at the Gwinnett School of Math, Science, and Technology in
Duluth, Ga.

**Timothy Wuthenow** (’09) and his wife, Jess, announce the birth of a son, Rory McAllister Wuthenow, on November 26, 2014. Timothy is an IT specialist with IBM in Chicago, Ill.

**Autumn (Place) Bixler** (’10) and her husband, Bryce, announce the birth of a daughter, Savannah Grace Bixler, on November 11, 2014. Autumn is a certified physician assistant at New Hope Family Practice in Fayetteville.

**Aaron Day** (’10) and his wife, Brittany, announce the birth of a daughter, Kyra Rose Day, on September 17, 2014. Aaron is a process engineer at Procter & Gamble in Browns Summit.

**Ben Donnalley** (’10) and his wife, Lauren, announce the birth of a third child, Ella Elisabeth Donnalley, on November 18, 2013. Ben works at Ecolab in Raleigh.

**Chris Hanson** (’10) and his wife, Jamie, announce the birth of a son, Charlie Jay Hanson, on May 11, 2013 and a second son, Miles Allen Hanson, on November 7, 2014. Chris is a process engineer at ExxonMobil in Beaumont, Texas.

**Alex Majeska** (’10) and his wife, Amanda, announce the birth of a daughter, Evelyn Victoria Majeska, on August 13, 2012 and a son, Cornelius Alan Majeska, on April 8, 2014. Alex is a manufacturing process engineer at Becton Dickinson in Durham.

**Adam Melvin** (Ph.D. ’10) and his wife, **Liz Melvin** (Ph.D. ’12), announce the birth of a son, Charles Oliver Melvin, on May 7, 2015. Adam is an assistant professor at LSU and Liz is a lecturer at LSU in Baton Rouge, La.

**David Rojas-Holmquist** (’10) and his wife, Pongsupha, announce the birth of a daughter, Sabrina Belle Holmquist, on July 7, 2013. David is a sales engineer for Nalco in New Orleans, La.

**Sean Austin** (’11) and his wife, Melody, announce the birth of a second son, Vincent Eli Austin, on May 25, 2014. Sean is a process engineer at Frazier Barnes and Associates in Memphis, Tenn.

**Annie Chu** (Ph.D. ’11) and her husband, Jeffrey Roberts, M.D., announce the birth of a son, Bennington Roberts, on January 29, 2014, and a second son, Harrison Roberts, on April 15, 2015. Annie is a senior products research associate at Pfizer in Richmond, Va.

**Kyle Lindsay** (’11) and **Catherine Currence Connor** (’09) and announce the birth of a daughter, Emelia Harper Lindsay, on May 24, 2012. Catherine is an environmental engineer at Georgia-Pacific in Brunswick, Ga, and Kyle is a process control engineer at Rayonier in Fernandina Beach, Fla.

**Emma Sebeey** (’11) and her husband, Fongong Achu, announce the birth of a daughter, Arie Buri Achu, on July 8, 2013. Emma is a process engineer at International Paper in Columbia, S.C.

**Dominic Brown** (’12) and his wife, Katherine (BUS ’11), announce the birth of a daughter, Natalia Marie Brown, on January 24, 2013. Dominic works at Albemarle in Baton Rouge, La.

**Ryan Hart** (’12) and his wife, Denyelle, announce the birth of a son, Ian Christopher Hart, on October 17, 2013. Ryan and Denyelle live in Bear, Del.

**Greg Hollis** (’12) and his wife announce the birth of a son, Arlo Everett Hollis, on May 1, 2013. Greg is a REACH engineer at International Paper in Orange, Texas.

**Andrew Loebl** (Ph.D. ’12) and his wife, Nora, announce the birth of a son, Maxwell Arthur Loebl on August 4, 2014. Andrew is a research engineer at Albemarle Corporation in Baton Rouge, La.

**Sarah McMullen McGee** (’12) and her husband, Kacey, announce the birth of a daughter, Katherine Diane McGee, on January 25, 2012; and a son, Alexander Devin McGee, on January 29, 2014.

**Kimberly Ross** (’12) and her husband, Tyler, announce the birth of a daughter, Charlotte Ann Ross, on February 4, 2015. Kimberley is employed at Merck in Durham.

**Logan Shearer** (’12) and his wife, Sarah, announce the birth of a daughter, Lexie Renee Shearer, on October 30, 2013. Logan is employed at Highland Industries in Kernersville.

**Erik Alvarez** (’13) and his wife, Jenna, announce the birth of a daughter, Jane Everleigh Alvarez, on December 30, 2014. Erik is an engineer at Coalogix in Charlotte.
**Births (continued)**

Emily Curtis (Ph.D. '13) and her husband, Douglas, announce the birth of a son, Bradley Jay Curtis, on August 25, 2013. Emily is a post-doctoral researcher at NC State.

Mick Doriani ('13) and his wife, Natalia, announce the birth of a daughter, Clara Isabel Doriani, on August 9, 2014. Mick is an engineer at ExxonMobil in Houston, Texas.

Michael Naclerio ('14) and his wife, Mandy, announce the birth of a daughter, Olivia Rose Naclerio, on June 6, 2015. Michael is a surface warfare officer in the U.S. Navy.

Keyi Sun (Ph.D. '14) and her husband, Ben Mengbin Yang (M.S. EE '09, MBA '14), announce the birth of a son, Vincent Sun Yang, on August 22, 2014. Keyi is a senior application engineer at BASF in Shanghai, China.

Sarah Atanasov (Ph.D. '15) and her husband, Stoyan, announce the birth of a daughter, Eva Atanasov, on April 27, 2015. Sarah will join Intel in Portland, Oregon in August 2015.

**Undergraduate student notes**

Amanda Lee Cox ('12) was selected as a winner of the 21st Undergraduate Research Symposium (2012) for her poster on elastomeric photovoltaics. Amanda's faculty mentor is Rich Spontak.

Nicole Santos ('12), along with two other students, was awarded 3rd place in the 2012 Odebrecht Award for Sustainable Development.

Heidi Klumpe ('13) and Brinda Monian ('13) received Goldwater Scholarships.

Brian Schuster ('13) received a Udall Scholarship. Brian was a Caldwell Fellow and a member of the University Honors Program.

Isaac Kichak ('13) received first place in the ACS poster competition.

Five of our students won poster awards at the 2012 AIChE Annual Student Conference in Pittsburgh as follows:

- **Nik Sigmon**, 1st, Materials Engineering and Sciences III, Greg Parsons/Chris Oldham
- **Keith McGrath**, 2nd, Materials Engineering and Sciences II, Saad Khan/Christina Tang
- **Brandi Shaw**, 2nd, General Engineering and Engr Education, Michael Dickey/Jan Genzer
- **Andrew Crothers**, 3rd, Fuels, Petrochemicals and Energy II, Ahmed Ismail (Germany)
- **Dale Garrison**, 3rd, Food, Pharmaceutical and Biotechnology II, Bob Kelly

Two of our students won poster awards at the 2013 AIChE Annual Student Conference in San Francisco as follows:

- **Curtis Martin**, 1st, Separations II, Kim Williams and Steven Boyes (CSU)
- **Tracy Hendrick**, 3rd, Food, Pharmaceutical and Biotechnology, Amith Naik (BTEC)

One of our students won a poster award at the 2014 AIChE Annual Student Conference in Atlanta:

- **Kimberly Dennis**, 1st, Fuels, Petrochemicals, and Energy

Laura Sandtner ('15) was one of four seniors to receive the Mathews Medal. The medal is awarded to seniors who’ve made significant contributions based on leadership and service. Modeled after the Watauga Medal, the Mathews Medal is the highest non-academic distinction awarded to NC State students. The award is named after Walter J. Mathews, the first student enrolled at the NC College of Agriculture and Mechanic Arts in 1889.
Graduate student notes

**Alex Richter**, a Ph.D. student in Professor Orlin Velev’s research group, won a $15,000 Lemelson-MIT Student Prize for work to improve agricultural pest control that could strengthen the global food supply. The Lemelson-MIT Student Prize is a national competition and recognizes student innovation and entrepreneurship. Alex is the first student from any school in North Carolina to win the Lemelson-MIT Student Prize.

**Emily Curtis** (Ph.D. ’13), advised by Carol Hall, placed second in the Engineering category at the March 20, 2012 Graduate Student Research Symposium.

**Mohammad Khan** (Ph.D. ’15), advised by Michael Dickey, and **Alina Higham** (Ph.D. ’13), advised by Saad Khan, placed first and third, respectively, in the Engineering category at the March 19, 2013 Graduate Student Research Symposium.

**Nancy Burns** (M.S. ’12), advised by Saad Khan, placed second in the Engineering category at the March 26, 2014 Graduate Student Research Symposium.

**Kenny Mineart**, advised by Rich Spontak, and **Nathan Galinsky**, advised by Fanxing Li, placed first and third, respectively, in the Engineering category at the March 25, 2015 Graduate Student Research Symposium.

**Alex Richter** (M.S. ’12), advised by Orlin Velev, was selected as one of seven graduate finalists in the 2013 Collegiate Inventors Competition. Alex was nominated for his project: “Silver Nanoparticles Without Metal - A New Generation of Environmentally Benign Antimicrobials.” According to the criteria for the competition: “The Collegiate Inventors Competition recognizes student inventors whose research and inventions will change our future. Since 1990, the Competition has showcased the most advanced student research in science, engineering, mathematics, technology (STEM) and creative invention.”

An entrepreneur team of **Megan Szakasits** (’13), **Joey Brown** (’13) and **Alex Richter** (M.S. ’12) was selected as one of six finalists out of 117 applicants for the 2013 Charlotte Venture Challenge (CVC) competition. The Challenge, “a start-up competition for early-stage high growth companies,” provides participants with the resources, mentoring, and connections to potential financial backers start-up companies typically need to grow. The team made a business plan for commercializing environmentally benign nanoparticle technology with the new startup BENANOVA. The technology behind the particles was developed by the students and their faculty mentor, Orlin Velev, in his research lab.

**Kenny Mineart** was selected to receive the 2015 Chemical Engineering Division Future Faculty Award from the American Society of Engineering Education (ASEE). Kenny also received the Deep Science Award at the 2015 Milliken Graduate Research Symposium. The Deep Science Award is given to the speaker whose work is voted by their peers to be the best amongst the speakers. This is a particularly noteworthy accomplishment since presentation at the symposium is competitive with a limited number of participants chosen from those who apply.

**Nathan Galinsky, Katherine Phillips** and **Arya Shafiefarhood** received Outstanding TA Awards from the University Graduate Student Association on March 25, 2014 in a ceremony at the McKimmon Center.

**Nathan Galinsky, Dhsit Parekh**, and **David Rutkowski** received Outstanding TA Awards from the University Graduate Student Association.
The number of B.S. ChE degrees awarded by our department has set new record highs the last four years:

**2011-12**
137 B.S. (67 with honors), 37 M.S., 12 Ph.D.

**2012-13**
156 B.S. (86 with honors), 30 M.S., 21 Ph.D.

**2013-14**
157 B.S. (82 with honors), 33 M.S., 19 Ph.D.

**2014-15**
176 B.S. (103 with honors), 39 M.S., 20 Ph.D.

The previous high for our department was the 136 B.S. degrees awarded in 1994-95.

The 21 Ph.D. degrees awarded for the 2012-13 academic year is also a record, surpassing the 18 Ph.D. degrees awarded for 2005-06. It took 13 years from the time that Ph.D. degrees were first awarded in 1953-54 for 21 Ph.D. degrees to be awarded by our department.

The total number of ChE degrees awarded at NC State now stands at 5,305 B.S., 750 M.S./MChE and 438 Ph.D. as of May 9, 2015.

The alumni and student speakers at our recent department commencement ceremonies were:

**May 12, 2012**
Mike Lowder (’78) and Kelly Fitzwater (’12)

**May 10, 2013**
Theresa (Mooney) Freeman (’85) and Isaac Kichak (’13)

**May 9, 2014**
John O’Quinn (’96) and Joshua Chappell (’14)

**May 8, 2015**
Herb Hooper (’85) and Ethan Smith (’15)
University Valedictorians

Our department continued its streak of having at least one university valedictorian (4.0 GPA) each year since 1992. No other department can match this feat. Congratulations to the following students on their outstanding accomplishment:

### Spring 2012
Matt Behrhorst, Mary Burroughs, Jordan Keith, Daniel Piephoff, David Shaner, Chelsea Smith

### Summer 2012
Matt Ostrowski

### Spring 2013
Kyle Bennett, Joey Brown, Kyle Goodman, Brinda Monian, Andrew Santos, Brian Schuster, Nik Sigmon, Ross Smith, Kevin Ward

### Summer 2013
Heidi Klumpe

### Fall 2013
Allison Coats, Andrew Crothers

### Spring 2014
Nick Capets, Lisa D’Costa, Juhi Fernandes, Haley Hanes, Claire Kilmer, Lauren Lownes, Michael Naclerio, Bryan Raborn, Matt Shurer, Meghan Wilt

### Summer 2014
Ryan Vest

### Fall 2014
Evan Musten

### Spring 2015
Ridge Butler, Victoria Hunt, Katie Kirkley, Kasey Koballa, Jesseeca Nguyen, Billy Nunn, Igor Podolsky, John Ritter, Spencer Rocco, Aaron Rozelle, Stephen Ryan, Stanton Wiggins

Victoria Hunt, who is now pursuing a Ph.D. at the University of Delaware in chemical engineering, put a lot of effort into decorating her graduation cap and mortar board.

Golden Chain Honor Society

The Golden Chain Society selects up to 12 outstanding rising seniors each year from across the entire student body. The students are chosen on the basis of character, leadership, scholarship and service to the university. More chemical engineering students have been selected over the history of NC State than any other department, and six more were added in the past four years.

### 2012-13
Steve Mazur, Brian Schuster, and Will Mullen

### 2013-14
Julie Boyles

### 2015-16
Thomas Pulliam and Andrew Steffan

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CBE Outstanding Seniors

The following CBE Outstanding Seniors were nominated for College of Engineering Awards:

2011-12
Mary Burroughs (Scholarly Achievement), Jordan Keith (Leadership), Nga Nguyen (Citizenship & Service), Matt Ostrowski (Humanities).

2012-13
Brinda Monian (Scholarly Achievement), Isaac Kichak (Leadership), Will Mullen (Citizenship & Service), Christine Burdett (Humanities).

AlChE Student Chapter Officers

Our AlChE Student Chapter continues its tradition of strong leadership. Thanks to the following students for all their efforts: (shown as president, vice president of operations, vice president of finance, vice president of records, vice president of industry relations (2), respectively)

2012-13
Isaac Kichak, Nik Sigmon, Julie Boyles, Nga Nguyen, Shivalik Daga and Andi Hawksley.

2013-14
Shivalik Daga, David Phipps, Alexis Xenakis, Andi Hawksley, Mallory Moran and Donald Smart.

AlChE Othmer Sophomore Academic Excellence Award

Congratulations to the most recent winners of the Donald F. Othmer Sophomore Academic Excellence Award. This award is presented to the one AlChE student member in each student chapter who has attained the highest scholastic grade-point average during their freshman and sophomore years.

2012-13 Nga Nguyen

2013-14 Claire Kilmer (Scholarly Achievement), Shivalik Daga (Leadership), Taylor Thornton (Citizenship & Service), David Williams (Humanities).

2014-15 Michael Burroughs (Scholarly Achievement), Steven Plante (Leadership), Elliott Locke (Citizenship & Service), Callie Longo (Humanities).


2015-16 Andrey Orichi-Socana, John Carter, Rebecca Slotkowski, Jeff Redpath, Pari Palizhati and Robert Runfola.

A list of our AlChE Student Chapter officers going back to 1929 is posted on our history website at www.che.ncsu.edu/about/history/aicheofficers.pdf. Hopefully someone will be able to help us fill in the missing names for the treasurer and secretary for the 1970-71 academic year and the treasurer for the 1955-56 academic year.

2012-13 John Lee

2013-14 Shelby Williams

2014-15 Rebecca Slotkowski

Previous winners can be found on our website at http://www.che.ncsu.edu/about/history/AIChEAwards.pdf.
**AIChE Freshman Recognition Award**

The Freshman Recognition Award is presented to the one National AIChE student member who has been the most active in their student chapter during his/her freshman year. Recent winners are:

- **2011-12** Sam Porter
- **2012-13** Andrey Orichi-Socana
- **2013-14** Rebecca Slotkowski
- **2014-15** Ryan Cavanagh

**AIChE Outstanding Senior Award**

The AIChE Outstanding Senior Award is presented to an active AIChE member who has the highest scholastic grade point average during their academic career at NC State:

- **2011-12** Jordan Keith
- **2012-13** Brinda Monian
- **2013-14** Claire Kilmer
- **2014-15** Spencer Rocco

**Engineers’ Council**

Benton Riordan served as president for the 2012-13 academic year.

Brooke McGirr served as secretary for the 2014-15 academic year and will serve as vice-president for the 2015-16 academic year.

Elton Luong will serve as treasurer for the 2015-16 academic year.

**NSF Graduate Research Fellowship Awards**

- **Allie Landry** (’11) University of California – Berkeley, Park Scholar, University Honors Program
- **Jennifer Lewis** (’11) Massachusetts Institute of Technology, University Scholars Program
- **Matthew Ostrowski** (’12) Stanford University, University Honors Program student
- **Evan Piephoff** (’12) Massachusetts Institute of Technology, Park Scholar and University Honors Program
- **Hannah Renee Reese** (’12) University of California – Berkeley
- **Brinda Monian** (’13) Massachusetts Institute of Technology, Caldwell Fellow, Goldwater Scholar, University Honors Program
- **Joey Brown** (’13) Cornell University
- **Andrew Robert Crothers** (’13) University of California – Berkeley, University Scholars Program
- **Andrew Pablo Santos** (’13) Princeton University, University Honors Program, Astronaut Scholar
- **Kevin Ward** (’13) University of Florida
- **Laura Lynn Lee**, Ph.D. current graduate student, High Point University undergraduate
Schoenborn Graduate Student Award

Our senior graduate students compete annually for the Schoenborn Award by giving an oral presentation of their work to faculty, other graduate students and guests. Dr. Edward M. Schoenborn was department head when our Ph.D. program was established. Congratulations to the Schoenborn Award recipients:

2012
Emily Curtis (1st), Casey Galvin (2nd), Inci Ozdemir (3rd)

2013
Arpan Mukherjee (1st), Rachita Sharma (2nd), Mohammad Hassan (3rd)

2014
Aaron Hawkins (1st), Dennis McOwen (2nd), Cathy Fromen (3rd)

2015
Alex Richter (1st), Mandi Burns (2nd), Daniel Morales (3rd)

A list of previous award winners can be found on our website at http://www.che.ncsu.edu/about/history/AIChEAwards.pdf.

Stannett Fellow Award

The Vivian T. Stannett Fellow Award recognizes research excellence, initiative, focus and tenacity during the early career of Ph.D. candidates in the department. The award is named in memory of Professor Vivian T. Stannett, a CBE faculty member who was an internationally renowned polymer scientist, research leader, and National Academy of Engineering member. The award was first presented in 2014, and winners were announced at the Schoenborn luncheon. Congratulations to the Stannett Fellow Award recipients:

2014
Daniel Morales (1st), Nathan Galinsky (2nd)

2015
Michelle Luo (1st), Feng He (2nd)

NC State engineers develop Jar with a Twist

Jar with a Twist was started by four engineering students in the College’s Engineering Entrepreneurs Program.
The scenario was the same. On the kitchen counter sat an open, half-full jar of peanut butter, but reaching in to gather the contents left Michael Bissette’s knuckles covered in the buttery spread. It was the same for mayonnaise and salsa — a mess.

The problem resurfaced when Bissette, then a senior in chemical engineering. So he brainstormed with his teammates from the Engineering Entrepreneurs Program (EEP). The team, recent graduates Sean Echevarria and Spencer Vaughn, mechanical engineering and chemical engineering majors, respectively; and Stephen Smith, then a senior in mechanical, electrical and computer engineering, met in Engineering Building I on NC State’s Centennial Campus.

Rejecting some ideas and closely evaluating more promising ones, the students soon found a concept that stuck: Jar-with-a-Twist — a problem-solving product that works similarly to a deodorant stick that twists on the bottom while moving the contents of the container to the top.

“The idea came naturally to us,” Smith said. “Michael had the idea that the world needed a knife that never got dirty above the blade; his PB&J sandwiches were always too messy.”

The team had a great mentor — NC State engineering alumnus and founder of HowStuffWorks.com Marshall Brain. Brain, who is the director of EEP, and others in the program were the driving force behind encouraging the entrepreneurs-in-training to protect their idea and file for a patent. Since 1993, EEP has helped more than 1,000 students become well-versed in everything from marketing to business planning to financing.

From the first prototype — a plunger inside a PVC tube filled with peanut butter — to the final product, Smith and the team appreciated the easy access to top-notch professors and technology that the engineering buildings on Centennial Campus provide. The team used the innovative space on Centennial Campus dedicated to budding entrepreneurs — the Phase I Garage — and took advantage of the 3-D printing tools for initial prototyping. The group also met with professors in the Department of Food, Bioprocessing and Nutrition Sciences to discuss the ins-and-outs of food packaging and sought advice from professors in the Edward P. Fitts Department of Industrial and Systems Engineering on manufacturing their technology.

The new James B. Hunt Jr. Library was also a big help. The team used library film equipment for various production shots of the jar and to create an informative product pitch that became a YouTube sensation.

Solving an everyday problem captured the attention of Good Morning America, ABC News and Business Insider.

The team anticipates the additional cost of the jar to be just three cents per unit compared to normal jars. They hope to license the product with major food companies.

“In the future, your favorite food condiments will all be sold in Jar-with-a-Twist,” Smith said.

Consumers may soon be able to experience a full-jar effect, even when little content remains.
The Temperfect mug keeps beverages at an ideal 140°F.

Some people think that university researchers are so occupied with their laboratories that they’ve lost sight of the world outside the ivory tower of academia. They should check with Logan Maxwell, a researcher at NC State who has developed a coffee mug that will keep your coffee hot – but not too hot – for hours at a time. And what could be more practical than that?

“Our goal was to create a coffee mug that will take piping hot coffee and cool it to a hot, but drinkable, temperature – and keep it at that temperature for a long time,” says Logan Maxwell, a research assistant at NC State and co-founder of Joeveo, the company that makes the “Temperfect” mug.

Maxwell came up with the idea as an undergraduate at NC State (he graduated in May 2013), and developed his first prototypes as part of his senior design project. The idea is fairly simple.

The Temperfect is an insulated mug with three walls. Between the outer and middle walls is a vacuum, like a conventional insulated mug. But between the middle wall and the inner wall of the mug is a non-toxic chemical that we’ll call “Material X.” Material X is useful for putting into coffee mugs because it “melts” at 140 degrees Fahrenheit.

At room temperature, Material X is a solid. But when you pour hot coffee into the mug, the heat dissipates through the stainless steel inner wall of the mug and is absorbed by Material X, which becomes a liquid. This pulls the temperature of the coffee down to 140 degrees F. As the coffee cools, Material X releases its heat back through the lining of the mug – keeping the coffee hot.

“I did some research and found that most coffee is served at between 200°F and 185°F, and that coffee can burn you at any temperature above 140°F,” Maxwell says. “So we set our ‘ideal’ temperature at 140°F.”

The concept of a “phase-change” coffee mug to keep beverages warm was patented in the 1960s, but never made it to the marketplace due to manufacturing difficulties. But Maxwell happened to meet an engineer named Dean Verhoeven who had already solved the manufacturing problem and done extensive design work of his own. Dean and Maxwell teamed up and Joeveo was born.

The two recently launched a Kickstarter campaign to finance an initial production run of Temperfect mugs, and reached their funding goal in less than two weeks.

“NC State’s senior design project pushed me to think entrepreneurially, and that was the impetus for the Temperfect mug,” Maxwell says. “Without that push from NC State, and the support I got from my professors, I would have never started the project, never met Dean, and this never would have happened for me.”
Silver nanoparticles (AgNPs) are used as antimicrobial agents in a wide variety of products. Uses include electronics, clothing, paints, sunscreens, cosmetics and medical devices. However, since AgNPs kill both target and friendly bacteria, the wisdom of their use has been questioned because their long-term persistence in the environment can be detrimental to the health of some natural ecosystems.

Recently, Dr. Orlin Velev and Alex Richter, a PhD student in his research group, have developed an alternative antimicrobial that’s both effective and environmentally benign. The new antimicrobial is built around lignin, a by-product of wood pulp processing that’s present in all woody plants and in some algal species.

The lignin nanoparticles are infused with silver ions, and are coated with a charged polymer layer. The polymer layer promotes the adhesion of the particles to bacterial cell membranes, which gives the silver ions killing access to the bacteria.

As the nanoparticles kill the targeted bacteria, they become depleted of silver and benign. The remaining particles degrade easily after disposal because of the biocompatible lignin core.

According to Dr. Velev, the new lignin nanoparticles have several major advantages. First, they carry only 5 to 10% of the metal used in traditional silver nanoparticles. Second, they’re designed to be “time-selective,” i.e. they kill most microbes within a certain time frame after application, then get depleted of silver ions and become benign. Finally, the nanoparticles are synthesized using green chemistry principles.

Alex, who’s also a winner of the prestigious Lemelson-MIT Student Prize, has launched BENANOVA, a science startup that’s commercializing this lignin-based product. According to Alex, “We expect this method to have a broad impact.”... “We may include less of the antimicrobial ingredient without losing effectiveness while at the same time using an inexpensive technique that has a lower environmental burden. We are now working to scale up the process to synthesize the particles under continuous flow conditions.”

The research is reported in a recent paper in the journal Nature Nanotechnology. Funding for the research was provided by the U.S. Environmental Protection Agency, the National Science Foundation and NC State. Researchers from the EPA, University of Hull, Wageningen University and University College London participated in the study.
We’d like to hear from you!

Please let us know if your contact information has changed: Send the following information to Russ O’Dell by email to russ_odell@ncsu.edu or by postal mail to Campus Box 7901, NC State University, Raleigh, NC 27695-7901.

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