OUR COLLEGE VISION:
To produce graduates who are innovative citizen leaders and to pursue pathbreaking research and creative expression that enriches lives and seeks solutions to society’s problems.

FROM THE DEAN

With great pride in the faculty, staff, and students I present the college’s 2014 annual report—an accounting of our progress on the strategic goals developed to propel the college on a journey to become a Top 25 college among public research universities. We are keeping a steady pace on that journey with much of the distance covered not so much in great strides, but in a steady momentum of incremental steps.

In the pages that follow are examples of the successes of our dedicated faculty and our talented students whose individual accomplishments are remarkable and inspiring—affirming that we are building an increasingly diverse and vibrant intellectual community, attracting the best and brightest faculty and students.

The campus landscape is dotted with evidence of college infrastructure improvements—a new music building was dedicated last year and a new science building is under construction.

Moreover, we have experienced a three percent increase in the number of tenure-track faculty in the last five years as the number has returned to 2008 levels before the severe budget cuts during the Great Recession. Three consecutive years of across-the-board pay raises have improved faculty retention. At the same time ethnic and gender diversity of the faculty is increasing. Progress is evident, optimism is high, and our very successful development-driven fundraising this year indicates that our alumni and friends are taking note of our progress and investing in our future. We strive to be worthy of their investment.

We continue to attract a diverse and talented population of students. Our faculty mentor graduate students to compete for top positions in their fields. Through teaching and engaging students at all levels in research experiences, study abroad, service learning, master classes, and internships, faculty prepare undergraduates to become global citizens with the skills essential for any career: clear and effective communication, independent and creative thinking, collaborative skills, adaptability, and a drive for lifelong learning.

Our faculty are engaged, as well, in working together to advance the frontiers of knowledge and creativity across a wide range of disciplines. Their flourishing programs of scholarship, discovery, and creative activity improve the human condition, enhance quality of life, and solve world problems.

As UT’s largest and flagship college, our faculty are a central driver of the university’s academic accomplishments and the largest contributor to all aspects of the university’s missions of instruction, research, and service to society. Our 2014 annual report tells the story of how our college is leading the journey to the Top 25. 

Theresa M. Lee, Dean
Students who graduate from the college today must be prepared to live in a global village, to pursue a career in a global economy, and to join a diverse workforce where technologies change at a rapid pace, requiring new learning and ever-changing skill sets. Chances are they will not work for only one employer, but will instead change employers and even careers several times over their lifetime. They will likely redefine their community multiple times as career changes require moving across the country and around the globe. As the world becomes more complex, so do the problems. Graduates must be ready to step up and contribute to finding solutions to society’s problems, making the world a better place in which to live and work. Our mission in the College of Arts and Sciences is about educating innovative citizen leaders.

What then, is the best preparation we can give our students to equip them for a future where the only certainty is change? Dating back to the origins of western education in ancient Greece and Rome, the study of the humanities, arts, and sciences has been the gold standard of preparation for difference makers in the world—leaders, innovators, discoverers, knowledge creators, change agents, and problem solvers. The traditional broad education provides students with the timeless knowledge and abilities they need to learn, adapt, and thrive.

Studies in the arts and sciences embrace the broad range of disciplines offered by the college and reflect its breadth, scope, and diversity. The disciplines of the humanities are studies of human values, capacities, and achievements, while the arts are written, visual, and performed interpretations of the physical, emotional, and psychic worlds in which we find ourselves. The social sciences explore the relationships among human beings with areas of study concentrating on individual, economic, political and social behavior. Lastly, the natural sciences examine the structure and function of the natural world and the universe. The college’s programs emphasize not only the importance of the world around us, but also the challenge of the intellectual process, the need for communication skills, and the ability to respond to change.

Our graduates learn everything important for building their future, creating a meaningful life, and pursuing a number of careers over a lifetime.
OUR FACULTY The faculty of the college are committed to providing outstanding instruction and learning experiences to both students who are pursuing concentrated study in a field within the college and students who enroll in the academic courses offered by the college to complete university-wide general education requirements.

The College of Arts and Sciences is the gateway to knowledge for every undergraduate student who enrolls at UT. As part of the university’s general education curriculum, all students receive core instruction from the college in the humanities, the visual and performing arts, and the social and natural sciences. Thus, our faculty provide significant teaching support for undergraduates from across the university. They deliver nearly three-quarters (seventy-one percent) of the student credit hours in the lower division courses in the general education curriculum and about one-third of the student credit hours required for typical four-year degrees in business, engineering, and nursing.

In addition to providing instruction for the university-wide general education curriculum, the college’s instructional faculty—432 tenure-track faculty and 195 non-tenure track faculty—provide instruction within the college to 7,000 undergraduates seeking degrees in the 141 undergraduate majors, concentrations or honors programs. They also provide opportunities for about 1,300 graduate students to seek degrees from fifty different graduate programs.

In total, the instructional faculty in the College of Arts and Sciences provide an impressive fifty-three percent of all student credit hours university-wide.
OUR CURRICULUM

The curriculum of the College of Arts and Sciences is a way-finding handbook for navigating the educational terrain to find the path to realization of students’ educational goals.

It is a resource for faculty advisors and professional academic advisors to guide our diverse undergraduate population in developing and implementing sound educational plans that are consistent with their values and their academic and career goals while also keeping them on track toward graduation.

Faculty representatives from all disciplines within the college collaborate as a committee in the structuring of the curriculum. The goal for requirements in both general education and for each major is to combine both depth and breadth in the educational experience of our graduates.

The college’s curriculum has recently undergone a complete revision, the first since 1984, and will become fully effective in the fall of 2015. The new curriculum adds more depth to the college’s majors and provides students increased contact and interaction with senior faculty teaching the courses in their major discipline.

This new curriculum affords more opportunities for senior faculty to mentor students and involve them in research, study abroad, and service learning activities that complement the classroom instruction and give students valuable experience in applying their learning in real life situations.

An important element of the new curriculum is a requirement of all graduates beginning fall semester 2015—to undertake an educational experience that complements in-depth study in their chosen major. Students may fulfill this “Connections” requirement in one of three ways: completing nine credit hours of study abroad coursework, completing a minor or second major, or completing nine credit hours selected from one of the “Connections” packages.

These packaged sets of courses—New Geographies of Global Economy is one example—are designed to offer students opportunities to see where the core subjects of their major can be applied to problem-solving and making connections across disciplinary boundaries. The “Connections” component of the curriculum enables students to see courses as bricks in an edifice that contribute to the wholeness of the body of knowledge, rather than disconnected experiences students pass through on the way to a degree.

The educational pathway to graduation with a degree in arts and sciences prepares students with more than a set of skills and certifications that may be quickly outdated, but instead cultivates in students the drive for lifelong learning and develops their abilities essential for any career: broadened perspective that leads to “big picture” thinking, clear and effective communication, independent and creative thinking, ability to adapt and adjust with changing circumstances, and to work collaboratively with diverse groups to solve problems.

Our graduates are truly ready for the world!
Certainly students are able to learn much on their own, but the learning is richer and deeper when guided by outstanding faculty teachers and mentors. The renowned faculty scholars and award-winning teachers of the College of Art and Sciences challenge and encourage students to expand their horizons, to realize their potential, and to pursue their dreams. Through investment in the nurturing, shaping, and developing of each student’s human potential, they enable growth and effect transformation in students’ intellectual capacity, perspective, and worldview.

It’s agreed that faculty who are not only knowledgeable, but also passionate about the subject matter they teach are the most effective in their engagement of students. The very best teachers are also those who work on continuous improvement by attending to student evaluations, participating in periodic peer review of teaching and taking advantage of resources available to enhance instruction such as the use of technology in the classroom. Mentoring is a skill apart from teaching, but equally important. It consists of being supportive without being intrusive, and offering the optimal level of support and challenge to students. The balance changes in various stages of the educational path as students require less mentoring in the beginning than at the end of their educational experience. Good mentors invest in the student’s success and look at the whole student, not just their academic needs, and become a resource and support to students as they deal with problems, challenges, or opportunities in their educational experience. The ultimate goal is to help students develop the confidence and competence they need to succeed in the next phase of their life as they continue their education or enter the workforce.

“We must light and kindle the flame of lifelong curiosity and learning in each student.”

- Dean Theresa Lee
With the implementation of the uTrack system all freshmen entered the university with a declared major of choice; thereby eliminating the “interest” category. Through uTrack students now have a very clear picture of what it takes to progress through their major to graduate on schedule.

The dedicated faculty of the college encourage and support student success every day through teaching and mentoring in classrooms, laboratories, field settings, concert halls or wherever they meet at the interface of teaching, discovery, and learning.

We invite you to read in the pages that follow, the stories of four successful students—Valerie King, David Housewright, Todd Barnhill, and Shelby Stravetis—and the role faculty have played in their achievement.
Raising the Bar

Entering UT, the standard set for Valerie King was to graduate, on time, well-prepared for a career. Not surprising to those who know Valerie, she raised the bar.

Now, four years later, she will graduate in May 2015 with a resume of accomplishments that is impressive by any measure. She is the quintessential example of a student who has made the most of every opportunity available at the university, including participating in the Chancellor’s Honors Program, the Baker Scholars Program, and pursuing a double major in Honors Sociology and Global Studies.

Valerie has immersed herself in academic and community-based work with a focus in human rights, international law, and social justice. She has studied abroad in Switzerland, taught English in China, and presented a paper she wrote at the International Critical Legal Conference in the United Kingdom. She was selected as one of only fifty students across the United States to participate in the Oxfam America Change Leaders Program. In her senior year she was UT’s nominee for the prestigious Rhodes Scholarship and named Torchbearer, the highest student honor conferred by the University of Tennessee. Valerie says it is because of professors and mentors like Michelle Brown, associate professor in sociology, that she has been able to achieve beyond her own expectations. “Professor Brown encouraged me to pursue my passion for social justice. She taught me not only to think critically about the world around me but also to reflect on my own experiences within it. On top of that, she continuously supports my efforts to confront social problems and to seek solutions within the community. When I decided to create an Oxfam America Club on campus to solve poverty, hunger, and injustice, she willingly served as my mentor.”

Professor Brown, recipient of UT’s Excellence in Teaching Award, says what she finds most compelling in working with undergraduate students is often an eagerness to have a discussion about the lived experience of social problems. “Opening up the difficult conversation and creating the space to ask and debate questions of all kinds is at the heart of my teaching approach,” she said. “I have found that just pointing to the unequal conditions of life and the manner in which so many human lives endure within and resist contexts of extreme marginalization—is a powerful way to demonstrate to students (and myself) the possibilities for social change and better forms of justice. Valerie’s work in her own research and community service reflects this social justice commitment in every way.”

“When I cross the stage at Commencement, I will be proud of my time at UT,” Valerie said, “and certain that my experiences have helped me not only to be ready for the world but also to create my own place within it.”

When she graduates, Valerie is setting the bar high once again. She plans to pursue a doctorate in Criminology, Law and Society to prepare her for an academic career in a research university or international research institute.
David Housewright’s fascination with Roman culture and interest in Latin was inspired by his high school Latin teacher, Joyce McFall. But it was his experience attending UT Latin Day as a junior in high school that influenced his college plans.

At Latin Day I heard a lecture on “Arma virumque cano.” This is the first half of the first line of the Aeneid by Vergil. Professor Robert Sklenar gave an entire lecture on that seemingly simple phrase. After that lecture, I decided that I simply had to attend UT and take one of his Latin courses,” David said.

David has pursued a major in Classics with a concentration in Latin, taking classes from a number of faculty, including the department head, Chris Craig. “Classics is one of the most interesting subjects in the world to me,” offers David. “Being taught by teachers who are passionate about the subject has kindled my interest. This is definitely the case with Professor Craig.”

David observes that Professor Craig really cares about his students and is a great advisor. “He is concerned about all aspects of his students’ academic careers and helps them to grapple with their tough decisions.

He makes sure he is connected with his students and goes so far as to give them his home phone number so they can call him about anything. This kind of support is encouraging.”

Now in his senior year, David’s accomplishments are admirable. He is a member of Phi Beta Kappa Honor Society, holds office in the UT chapter of Eta Sigma Phi, the national Classics Honor Society, serves on the Dean’s Student Advisory Council, and volunteers at THRIVE Lonsdale, a program for children.

He was set to graduate in May 2015 summa cum laude. Instead, he has decided to continue his studies in a fifth year program that will lead to his certification to teach Latin in high school. “Teaching is one of the most important careers,” he said. “I’ve not chosen this field to acquire wealth, but to influence lives. I also want to draw interest toward Latin just as my interest was drawn by my teachers. Of equal importance, as a teacher I will have the opportunity to be a good role model and to influence students in important ways beyond academics.”

Professor Craig observes, “David Housewright is bright enough and dedicated enough to succeed at anything he chooses. Never mind the fact that, besides mastering Latin, he also speaks Japanese. His analytical abilities are simply first-rate. What I like most about David is the way he combines lively intellectual ability with a powerful desire to give back. Out of all the directions open to him, David has chosen a vocation that will allow him to use his gifts to make a positive difference in young people’s lives. For a person of his talent to become a Latin teacher is not a glitzy choice. It is a noble one. He makes me proud.”
Tenor Todd Barnhill is on track to receive the Master’s Degree in Vocal Performance in May 2015. Following graduation, he will return to the Opera Theatre of Saint Louis to cover the lead tenor role, Count Almaviva in Rossini’s Barber of Seville, while performing a supporting role in Puccini’s La Rondine.

Todd’s first major professional engagement is set for January 2016 where he will perform the role of Ferrando in Nashville Opera’s main stage production of Mozart’s Così fan tutte and Dr. Blind in their April 2016 production of Strauss’s Die Fledermaus.

Todd’s current success and promising future are not coincidental. His goals for entering graduate study in voice were clear and he was equally certain about his choice of programs. Following graduate auditions he received several offers of seventy-five percent to full scholarship support from a number of institutions including Mannes Conservatory, Indiana University, Northwestern University, and Boston University.

“I liked what UT had to offer. Its smaller-sized opera program and the opportunity to work with some really great teachers like Andrew Wentzel and James Marvel set it apart. I believe James Marvel is one of the premier opera directors in the United States right now. To work very closely with him over the past two years has truly been a dream. He has further developed some of my acting strengths and helped me unleash many acting skills that I had not found prior to studying with him. He knows what opera companies are looking for in the singers they hire and has helped me be prepared to display those qualities.”

James Marvel, associate professor and director of UT Opera, is Todd’s dramatic coach. He brings a wealth of professional directing to working with students. Since his debut in 1996, he has directed over eighty productions in the United States, England, Scotland, Germany, Poland, Slovakia, Hungary, and the Czech Republic. In 2008, he was named Classical Singer magazine’s 2008 Stage Director of the Year.

Marvel recalls Todd’s performance of the Count in Rossini’s Barber of Seville in his first semester at UT and the first time he had ever performed an opera on stage. “One could already see that Todd was very talented. He grew exponentially in a very short time prior to undertaking his second role in Mozart’s Così fan tutte, demonstrating his unique talent for comedy. I have been consistently impressed by his growth in his second year, culminating in his playing the role of Tamino in Mozart’s Magic Flute. His outstanding vocal talent and excellent dramatic growth have not gone unnoticed in our industry. He has won numerous vocal competitions and been accepted into some of this country’s most competitive young artist programs.”

Marvel said his approach to dramatic training of Todd and other young singers is very individualized. “Everyone comes in with a different set of skills and abilities, and I try to tailor my teaching to the specific needs of the individuals within the class. I begin with a comprehensive exploration of how to analyze characters and roles, followed by intensive physical training in which we explore the facial mask, gesture, breathing, movement, stage combat, and footwork,” he says.

Andrew Wentzel, professor of voice, has served as Todd’s voice teacher at UT. Since his debut at the Metropolitan Opera in 1985, bass-baritone Wentzel has built a distinguished and widely acclaimed career of exciting and commanding performances at many of the top opera houses and concert halls throughout the world. Wentzel brings a wealth of knowledge and experience to the instruction and coaching of his students. His strong connections to the Knoxville Opera Company afford professional opportunities for voice students that make UT’s voice program uniquely competitive in recruiting.
Lead Tenor Takes Center Stage

“While working with Professor Wentzel, I have developed a better vocal technique that has allowed me to have some great success on the young artist circuit. Wentzel knows how to find a person’s full singing voice, and for me this was something I needed in my transition from undergraduate to graduate school. As a young singer, I (like most young singers) tended to hold back and not connect the voice in its entirety all of the time. Finding this fully connected sound has been a process, but I am continuing to work, and we are on the right track and very close to reaching the final product,” Barnhill explains. “Professor Wentzel cares about student success and is a true ambassador for connecting his voice students with opportunities to perform whether it is in outreach occasions for the opera program or paid professional singing venues.”

Wentzel says his role in coaching Todd is that of a team member and that each member of the voice faculty is invested in working with students to develop their gifts and hone their skills so that they might be competitive in the world of the classical singer. “In Todd’s case, he was particularly interested in working with me as his primary contact in his weekly vocal training,” said Wentzel. “We work each week on the technical aspects required to play his instrument—his voice—in the most efficient and complete way. In that work we also address the details of being able to sing in many languages both intelligibly and idiomatically within that technique of optimal vocal production. We also work on issues of stylistic accuracy with each composer and musical period. My final role is to act as mentor when it comes to guiding him through the professional choices which he has been fortunate enough to have had at this early stage of his career. He has a very promising professional career ahead.”

“I liked what UT had to offer. Its smaller-sized opera program and the opportunity to work with some really great teachers like Andrew Wentzel and James Marvel set it apart.”
Shelby Stavretis is feeling lucky! She spent two weeks last summer attending the National School on Neutron and X-Ray Scattering working with top scientists at two national research laboratories. Such an experience was a rare opportunity, especially for a first year graduate student.

Shelby was one of sixty-five graduate students selected for the school as part of nationwide competition. The school is a Department of Energy program and only selected students in physics, chemistry, materials science, or related fields across the country. The main purpose of the school is to educate graduate students, the next generation of scientists, on the utilization of major neutron and x-ray facilities.

Shelby said learning the physics and engineering behind neutron science combined with her knowledge of chemistry to give her a broader understanding of the field. She spent the first week of June at Argonne National Laboratory and the second week at Oak Ridge National Laboratory (ORNL) learning about neutron scattering science and the use of sophisticated instruments used in the research.

Shelby worked several beam line experiments under the direction of scientists and said it was exciting to have hands on experience with the sophisticated instrumentation at Argonne and ORNL so early in her graduate career. “I will employ the techniques and analysis tools I learned from these experiences in both my current graduate research and future research endeavors.”

Originally from Fort Wayne, Indiana, Shelby became interested in science in high school and went on to complete a bachelor’s degree in chemistry.
at Butler University. Positive research experiences at Butler inspired her to continue her studies in graduate school. After considering graduate programs in chemistry around the country, Shelby applied to UT because of its close proximity to ORNL. She was invited to the Graduate Orientation Weekend hosted by the Department of Chemistry and interviewed seven faculty before making the decision to work with Ben Xue.

“I chose to work with Professor Xue for several reasons. His research is in my interest area and he is engaged in neutron scattering research at ORNL; I knew that working with him would afford me opportunities to be involved there as well. He was friendly, approachable, and had a reputation for close engagement with his students. But the most important factor was that I could see that he was driven, like me. I sensed that he could and would help me advance my career.”

Other students seek out Xue as a mentor as well. At any time he may have more than a dozen students in his laboratory with wide-ranging experience and ability—beginning and advanced doctoral students, undergraduates, and some high school students who are Upward Bound program participants. What is his approach to mentoring?

“I seek to provide students with stimulating and challenging projects to foster curiosity. When they become curious, they become self-motivated,” Xue explains. “I’ve been fortunate to attract funding for a three-pronged research program that offers students opportunities and choices based on their interest. I strive to provide students with the excellent research opportunities that they expect at a flagship public research university, drawing on collaborators on campus as well as scientists in the United States and other countries.”

He definitely takes an active role in seeking opportunities to advance his students’ current research and their future careers. “I try to get them to the frontier of the research in teaching, at the national laboratories, and in industry,” he said.

This past fall Shelby completed the last three classes of her coursework and served as a teaching assistant for a graduate class during fall semester. Currently she is student operator for the Powder X-ray Diffractometer (PXRD) and the Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES) in the chemistry department. Shelby also passed her candidacy exam this year and has been accepted officially as a doctoral degree candidate in the department.

Shelby is engaged in research focused on the determination of the zero-field splitting parameters of metalloporphyrins by Inelastic Neutron Scattering (INS). Xue’s group is using the Cold Neutron Chopper Spectrometer at the Spallation Neutron Source at ORNL.

According to Xue, Shelby’s research has probed an intrinsic magnetic property of paramagnetic compounds using the unique technique of neutron scattering. Although the intrinsic magnetic property she studies, zero-field splitting, has been known for some time, Shelby is studying this property using a unique technique to the field of molecular magnetism, neutron scattering.

“Her research studying molecular magnetic properties has the potential to be used as the next generation of electronic storage materials used in cell phones, computers, and automobile control panels,” Xue said. “Now we use solid state materials, but her work could dramatically increase electronic storage capacity—perhaps leading to storing data in a single molecule.”

Shelby is satisfied with her decision to pursue graduate studies in chemistry at UT. She has had the support she expected from Professor Xue and other faculty in the department. “The student culture in the department is also positive,” she said. “My fellow students are collaborative and helpful and that’s important.”

She also enjoys living in Knoxville where the winters are milder than in Indiana. A hiker, Shelby also appreciates being near the Smoky Mountains and all of the recreational and cultural opportunities in the greater Knoxville area to enjoy as her schedule permits.

Following degree completion, Shelby is interested in a career in industry or at one of the national laboratories. She explained, “I enjoy the applied side of science.”
A 2007 graduate of the College of Arts and Sciences, Johnny Dantonio credits his experience as an English major with a concentration in creative writing for jump starting his career in the advertising industry.

As creative director at Anomaly, an agency in New York, Dantonio wrote the heartwarming Budweiser Super Bowl ad “Puppy Love.” The ad earned one of the most coveted advertising honors, the top spot in USA Today’s consumer-judged Ad Meter for Super Bowl commercials.

Dantonio also contributed to the 2013 winning ad, “Brotherhood.”

Dantonio and his team at Anomaly do most of the international advertising for Budweiser. In addition to Budweiser, Anomaly handles most of the advertising for Converse, Dick’s Sporting Goods, Renaissance Hotels, Captain Morgan, as well as a number of projects with Google, Procter & Gamble, and international beverage supplier Diageo.
After ten years of paying her dues in the New York theater world as a member of the ensemble, a swing, and an understudy in shows like *Ragtime*, *110 in the Shade*, *The Book of Mormon*, and *The Threepenny Opera*, singer/actress Valisia LeKae landed a breakout role in 2011 as Diana Ross in the smash hit *Motown: The Musical*.

At UT, LeKae received a scholarship for playing the role of Smokey for her first two years and she performed at Dollywood during her last two. After receiving the Bachelor of Arts degree in psychology in 2001, she headed to Broadway.

Based on her performance as Diana Ross, LeKae was selected as a 2013 “The Root 100” honoree and as one of “13 to Watch in 2013” by *Entertainment Weekly*. She also received nominations from the Drama League for Distinguished Performance Award, Outer Critics Circle Award for Outstanding Actress in a Musical, Tony Awards for Best Performance by an Actress in a Leading Role in a Musical, and a Grammy Award for Best Musical Theatre Album.

In 2013, she won the Theatre World Award for Outstanding Broadway or Off-Broadway Debut Performance, was a National Action Network Honoree at the Triumph Awards, and received the UT Accomplished Alumni Award. During her visit to campus, she embraced the opportunity to represent her alma mater and inspire the students, faculty, and alumni with her expertise and her interest in helping them. She gave generously of her time in attending classes in the Departments of Psychology and Theatre and in meeting with members of the Clarence Brown Theatre Society.

Shortly after her visit to campus, LeKae was diagnosed with ovarian cancer and decided to go public with her diagnosis and her battle with the disease. “Because I shared my story,” she said to Deborah Welsh, professor and head of the Department of Psychology, “young women will be more proactive about their health and early detection.”

LeKae has shifted her focus to education and awareness of ovarian cancer and has recently been named the national spokesperson for the National Ovarian Cancer Coalition.
Founded just three years ago, NeuroNET (Neuroscience Network of East Tennessee) was created in response to the rapidly growing neuroscience research and teaching presence across the University of Tennessee, Knoxville (UT), the UT Medical Center of Knoxville (UTMCK) and the Oak Ridge National Laboratory (ORNL).

Directed by Rebecca Prosser, professor of biochemistry and cellular & molecular biology in the College of Arts and Sciences, NeuroNet has grown to more than 100 members. Twenty-five of those members are on the faculty of the College of Arts and Sciences, representing five different departments. In addition to Prosser, they are: Jim Hall, Alex Osmand, Jae Park (biochemistry & cellular and molecular biology); George Kabalka and Shawn Campagna (chemistry); Fernando Schwartz (mathematics); Harriet Bowden (modern foreign languages and literatures); and Helen Baghdoyan, Debora Baldwin, Gordon Burghardt, Aaron Buss, Matthew Cooper, Daniela Corbetta, Subimal Datta, Todd Freeberg, Lowell Gaertner, Jessica Hay, James Lawler, Theresa Lee, Jake Levy, Ralph Lydic, Greg Reynolds, Gregory Stuart, and Deborah Welsh (psychology).

The research of the NeuroNet memberships spans five broad areas of neuroscience which can be viewed as clusters with overlapping areas:

- Cellular and Molecular Neuroscience
- Cognitive and Behavioral Neuroscience
- Systems Neuroscience
- Neural Engineering and Computational Neuroscience
- Clinical Neuroscience/Nervous System Disorders

Due to the interdisciplinary nature of neuroscience, most members are affiliated with more than one of these research areas. Within this broad panorama of basic and clinical science there are several foci where NeuroNET members coalesce in their research interests. These areas of convergence represent potential topics for initial extramural funding proposals:

- Aging/Dementia/Neuropathology/Traumatic Brain Injury
- Stress/Addiction/PTSD
- Sleep and Circadian Homeostatic Processes
- Auditory/Speech Processing
- Neural Sensing, Imaging, Integration, and Interfacing
- Neural/Cognitive Development
Much of NeuroNET’s progress can be attributed to its establishment as a research center based in UT’s Office of Research and Engagement in July 2014. The center now includes a unique set of resources, research capabilities, and clinical expertise that are strengthened through interactions with other interdisciplinary organizations at UT and UTMCK, such as the National Institute for Mathematical and Biological Synthesis (NIMBioS), the Institute for Biomedical Engineering (iBME), and the UT Medical Center Brain and Spine Institute. These interactions have led to external funding from the Kavli Foundation, and have helped launch the Pat Summitt Alzheimer’s Clinic at the UT Medical Center.

The NeuroNET Research Center also serves as the organizing center for coordinating and maximizing the success of a new undergraduate interdisciplinary major in neuroscience, a local Society for Neuroscience Chapter, and a student-led organization, Advancement of Neuroscience at UT. Together with these groups, NeuroNET is working to enhance neuroscience research, education, and outreach within the individual institutions and the surrounding community.

One of the most exciting outcomes of NeuroNet was the creation of an undergraduate concentration in neuroscience housed in the Interdisciplinary Programs Major within the College of Arts and Sciences, which is chaired by Jim Hall, professor of biochemistry and cellular & molecular biology. The neuroscience concentration, which also has an honor’s option, combines courses from multiple departments across several colleges, and aims to provide undergraduates with a broad introduction to neuroscience. It strongly emphasizes research experience, and is designed to prepare students for both graduate school and the health professions; currently more than 125 undergraduates are enrolled in the major. Students can also minor in neuroscience, and many students majoring in BCMB or Psychology are combining that with a neuroscience major or minor. The program’s emphasis on research is already paying off. Ashley Charest, one of the first graduates of the neuroscience program is a shining example. 
She wanted to continue in research and became aware of the Intramural Research Training Award (IRTA) post baccalaureate fellow program at the National Institutes of Health (NIH) in Bethesda, Maryland. She completed an online application, uploading a resume, a transcript of her coursework and grades, a cover letter, and three references. Principal Investigators review the files of IRTA applicants looking for those who are a good fit for their lab. The competition is keen, but Ashley’s application caught the eye of Dax Hoffman. He conducted a phone interview with her in August and subsequently offered her the position. She accepted the offer and quickly moved to Washington, D.C. to join Hoffman’s team in September.

In Hoffman’s lab, Ashley is engaged in research that focuses on the role that ion channels have in regulating firing properties, synaptic integration, and synaptic plasticity in pyramidal neurons in the hippocampal CA1 area. She is learning and perfecting new techniques that will undoubtedly advance her understanding of neurobiological processes and propel her career in the field of neuroscience.

“I have the opportunity to work with brilliant post-doctorate fellows, like my current research mentors Emilie Campanac and Jakob Gutzmann, and staff scientists from all over the United States and the rest of the world,” she says.

Her Bachelor of Arts degree in Interdisciplinary Programs, neuroscience concentration (honors), combined with her undergraduate research experience, landed Ashley this coveted opportunity and enabled her to make a smooth transition.
“Ashley came to the lab with some relevant experience in electrophysiology, which helped her get started on her research project right away,” said Dax Hoffman. “Aside from her previous hands-on experience, I think Ashley benefited from her undergraduate research training by coming to the NIH with a familiarity of the lab environment that enabled her to quickly fit in and help others in some of the routine lab activities such as making solutions and stocking supplies as well as contributing to discussions during our lab weekly meetings. I am confident that Ashley is well on her way toward obtaining her goal of pursuing a doctorate in neuroscience after completing her work here at the NIH.”

Ashley honed her research skills in the neurobiology lab of Jim Hall, associate professor of biochemistry and cellular & molecular biology, and chair of the undergraduate neuroscience program where she spent two years studying the neural pathways of tiny crabs no bigger than her thumb. Working under the direction of Hall in what students affectionately called the ‘Crabatory’, Ashley learned how to obtain electrophysiological recordings from individual nerve cells in the brains of fiddler crabs in vivo.

“Our projects focused on determining the neural basis of vibrational communication in fiddler crabs (genus Uca pugilator), or put more simply: we wanted to find out how fiddler crabs localize behaviorally important vibrational signals produced by the animals during social interactions,” Ashley explains.

In addition to teaching Ashley invaluable technical research skills in his lab, Ashley was grateful that Professor Hall secured opportunities for her to meet with and to present her work to other neuroscience researchers by having her participate in NeuroNET.

Ashley credits Professor Hall for encouraging her growth and achievement. “I speak with sincerity and gratitude when I say that having Professor Hall as a mentor helped me become not only a better neuroscientist but also a better person. He was and continues to be an irreplaceable resource for important and constructive advice. He has always encouraged me to pursue my interests and to follow my curiosity—an essential skill for any scientist. I am absolutely certain that I would not be at the NIH today if not for him and my work in his lab.”

Like any good teacher and mentor, Hall said seeing his students succeed is his greatest reward. Throughout his career, he’s always been heavily invested in teaching at the undergraduate level as well as mentoring undergraduates participating in research projects in his laboratory. “I’m excited about the material that I teach and the research being conducted in my lab. My goal is to spark that interest in my students. Ashley is a student who evidenced keen interest and passion for research early on.”

Professor Hall said he understands students have different styles and paces of learning and tries to get to know them well enough to offer appropriate support and guidance. He also aims to influence students’ character by modeling honesty, patience, empathy, compassion, objectivity, flexibility, and a sense of humor. “Ashley was one of those students who not only performed well in my courses but rapidly progressed from novice to expert with respect to research in my lab. I also watched her mature as an individual, gaining confidence and self-esteem. The fellowship she now holds is a prestigious position that stems from her dedication, hard work, and success as an undergraduate at UT.”

“I am incredibly grateful that my undergraduate degree and research experience are having a direct influence on my current and future career opportunities,” Ashley concluded. “I never thought as a kid from a small town in Middle Tennessee that I would now be living in D.C. and working at the NIH.”

Following the completion of the fellowship at NIH, Ashley plans to enroll in graduate school and continue to pursue her dream of earning a doctorate in neuroscience, perhaps following in the footsteps of her mentor.
OUR TOP 25 SCHOOL OF ART

Already highly ranked, the School of Art continues on an upward trajectory. They have added five new members to their studio art faculty since 2011—all top choices attracted through competitive national searches. Sculptor John Douglas Powers is one of them.

John Douglas Powers (assistant professor of sculpture) received the Master’s Degree in Fine Arts in sculpture (with distinction) from the University of Georgia and a bachelor’s degree in art history from Vanderbilt University. He came to UT in August 2013 from the University of Alabama-Birmingham where he received tenure in spring 2013.

His work has been acknowledged by numerous awards and grants including the Virginia A. Groot Foundation, First Place Award (2013), the Alabama State Council on the Arts Fellowship in Visual Art (2011), the Joan Mitchell Foundation MFA Grant (2008), and the prestigious Margaret Stonewall Wooldridge Hamblet Award (2001). He was Artist in Residence, MIT, Cambridge, Massachusetts (2014), and at the Joan Mitchell Center, New Orleans, Louisiana (2013), and the recipient of The Manifest Prize, Manifest Creative Research and Drawing Center, Cincinnati, Ohio (2012).

Since 2008 he has had seventeen solo exhibitions; five since 2013; two more are scheduled for 2015, including one at The Sculpture Center in Cleveland, Ohio. He was one of three artists featured in an exhibition titled “5,000 Moving Parts” that opened at the MIT Museum in Cambridge, Massachusetts—a major exhibition that was on view for a year and then held over for an extra two months (November 2013 – January 2015).

His work has been included in seven group exhibitions since 2013—the most noteworthy of which was “State of the Art,” a major national exhibition of contemporary art, including artists from across the U.S. selected by the curators at Crystal Bridges Museum of American Art after studio visits. Two of Powers’s works were selected for inclusion, and two were purchased for the Crystal Bridges permanent collection.

Regarding his work, Powers says, “Only the inaccessible and elusive is truly alluring, and what could be more inaccessible or elusive than the past? The allure of the unattainable and its connection to the passage of time has become central to my research. Drawing from areas as diverse as natural history, architecture and the history of technology, I am engaged in an investigation of what lies at the intersection of cinema, computation, music and physical space. By employing motion and sound in my work, I incorporate the passage of time as a compositional element in an attempt to more closely examine abstract and often intangible topics such as memory, thought, emotion, language and the essence of self.”

Cate McQuaid writing for the Boston Globe observes,

“In ‘lalu,’ scores of sticks mounted upright on wooden beams flutter and tilt as a motor moves the beams. The sticks sway; they lean into one another, then rise and lean the other way, like reeds in a blustery marsh. A video of the sky is projected on the wall behind them.

Powers’s canny use of sound amplifies the lulling effect. The machinery squeaks and groans. If you listen long enough, those noises transform into a seaside concert: gulls cawing, the wind moaning. ‘lalu’ refers to an Egyptian myth of paradise, a wetland with fish and fowl to feed those who live there after death.”

website: john-powers.com
SCHOOL OF ART
BY THE NUMBERS

National Rankings:

3 Disciplinary rankings—Printmaking ranks third nationally behind the University of Wisconsin and the Rhode Island School of Design.

17 Overall rankings of graduate programs among public colleges and universities—tied at seventeen with Indiana University, University of Arizona, University of California Berkeley, SUNY-Purchase, University of Illinois-Chicago, and University of Minnesota-Twin Cities.

These national rankings are from the 2012 US News & World Report—rankings of the Best Graduate Schools in the Arts (MFA in Studio Art). Two hundred and thirty programs are ranked. Program rankings occur every five years.

CREATIVE ACTIVITIES OF FACULTY IN STUDIO ART IN THE 2014 ACADEMIC YEAR:

The seventeen members of the faculty in Studio Art had work in eighty-nine exhibitions, performances, and screenings. There were:

23 solo exhibitions, performances, screenings;
7 international exhibitions, performances, screenings;
73 national exhibitions, performances, screenings;
9 local and regional exhibitions, performances, screenings; and
35 “choice” exhibitions, performances, screenings, exhibitions in major museums and venues, including major commercial galleries in urban settings.

The same group of seventeen faculty members in Studio Art received nine awards for residencies, two of which were international.
What has been the greatest impact on humanities scholarship resulting from the establishment of UTHC?

TH: The UTHC is the principal advocate for the crucial importance of the humanities to the intellectual life of the university community and celebrates the creative work of these UT scholars. It also provides an intellectual and collegial center not previously available—a welcoming place where faculty from disparate disciplines can come together for a common purpose.

Elaborate on the view that traditional structure and organization of departments might impede faculty working across disciplines.

TH: I completed my doctoral degree at Cambridge in the history of religion of the European Middle Ages. My archival study focused on Medieval Latin and Old & Middle English homiletics in manuscript. Although I was hired by the Department of English, I likely knew less about English literature than a bright undergraduate. But the department needed an historical philologist and my training allowed me to teach those courses. We clearly suited each other in some hard to quantify manner!

Through conversations and collaboration in a setting—where faculty and students discover connections between different disciplines—we create a powerful synergy. The traditional departmental structure sometimes unwittingly fosters isolation between disciplines. Whereas, the best scholarship in the humanities is almost always interdisciplinary, the UTHC provides that additional arena where it can flourish. Furthermore, the very environment at UTHC breaks down such disciplinary isolation and brings together scholars from different programs to share and learn from each other.

Please share an example of a faculty fellow in 2014 class who discovered a new avenue for scholarship during the year in the center?

TH: I could cite any number but Nancy Henry, professor in the English department, and a resident National Endowment for the Humanities Scholar in UTHC this academic year, is embarked on a new project—women investors in the 19th century. Nancy is an historian in the English department, not an economist, yet her work will reveal much about what women did as private investors in Victorian England. Nancy’s talk at our weekly luncheon stimulated considerable discussion among faculty and graduate students whose interests ranged from ancient China, 18th century Virginia to renaissance England and Spain. Such sharing of ideas happens on a daily basis as people converse and interact in seminars, lectures, in their offices, and over coffee in the UTHC.

How is UTHC encouraging interdisciplinary conversations and research among faculty across campus?

TH: We currently have eight research seminars, e.g., The Caribbean Region in a Global Context, Centers and Peripheries in East Asia, Freedom from All Sides—Philosophical Issues, Late Antiquity, Modern Germany and Central Europe, Nineteenth-Century British Studies, and The Transatlantic Enlightenment.
Additionally, we seek to encourage new seminars. Charles Sanft, associate professor of history and a fellow in the center this year, has proposed a new seminar on Manuscript Studies. This seminar is designed for scholars who work with hand written documents, whether millennia old or written last year. Ten individuals from different departments will begin meeting fall of 2015. This seminar would not have happened if UTHC did not exist.

UTHC is also partnering with the UT Confucius Institute to inaugurate a new series of distinguished lectures in Chinese culture. Our hope is that this program will begin in the fall semester of 2015.

“"The humanities are crucial to our development as thoughtful citizens capable of thinking critically in an ever increasingly complex world. Our knowledge of our historical traditions is an indispensable guide to an enlightened future.""

- Thomas Heffernan

How has the work at UTHC had a positive impact on undergraduate education?

**TH:** The humanities are the core of liberal arts education and remain central to our educational objectives. They are essential to nurturing students’ intellectual and moral growth and are, therefore, the most transformative part of the undergraduate experience.

The humanities provide access to civic and historical knowledge, ethical reasoning, and writing skills. History provides a map of past human activity and our understanding of a complex canvas enables the creation of character and human values.

This crucial component of education thrives if instruction is by our best teachers and engaged scholars—faculty enthusiastic and excited about their subject. UTHC affords faculty the opportunity to participate in an intellectual community that fuels their passion for their discipline. Lastly, I believe the humanities faculty teach the great majority of the general education courses required of all students.

This past year UTHC became involved in community outreach. Why is outreach an important aspect of the mission?

**TH:** Liberal arts education creates a desire for lifelong learning. UTHC partnered with the Orangery, a local restaurant, to provide a program of thirty-minute talks on faculty research followed by Q & A on the first Tuesday of the month. It has proven very successful and goes under the rubric “Conversations & Cocktails”.

UTHC is also sponsoring the Tennessee Ethics Bowl which promotes critical thinking and collaborative work and prepares East Tennessee high school students who participate to be active and engaged citizens.

Spotlight some highlights of the accomplishments of the faculty and graduate students in the 2014 Class of Fellows.

**TH:** The UTHC faculty and graduate students have been very productive during their tenure. Space does not allow a report on all their work and so this small sample of their accomplishments must suffice.


**Lauren K. McMillan** (graduate fellow, 2014-15 department of anthropology) had two co-authored articles on the archaeology of 17th-century Virginia published in late fall 2014. Additionally she submitted articles on her clay tobacco pipe analyses for peer review in the fall 2014 semester and has had one accepted for publication early next year. Lauren is writing a chapter on smuggling and illicit trade in the Colonial Chesapeake for a book on the archaeology of consumerism. In November, she was awarded the Kneberg-Lewis Dissertation Scholarship by the UT Department of Anthropology.


**E.J. Coffman** (faculty fellow 2013-14, associate professor of philosophy) The book he worked on in the UTHC last year was published as Luck: Its Nature and Significance for Human Knowledge and Agency (Palgrave McMillan; 2015).

**Gregory Kaplan** (faculty fellow 2014-15, Lindsay Young Professor of Spanish) His manuscript “Spinoza’s Rabbi: A Critical Edition and Study of Saul Levi Morteira’s ‘Arguments against the Christian Religion in Amsterdam’” has been accepted for publication by Amsterdam University Press in 2016.

**Jacob Latham** (faculty fellow 2013-14, assistant professor of history) The book project he completed during his fellowship year has been accepted by Cambridge University Press and will appear in 2015 as Performing the Pompa Circensis from the Late Republic to Late Antiquity.

**Christopher Magra** (faculty fellow 2013-14, associate professor of history) The book project he was working on as a fellow at UTHC is now under contract with Cambridge University Press. Poseidon’s Curse: Naval Impressment and the Atlantic Origins of the American Revolution is scheduled to be published in 2016.

**Anthony Welch** (faculty fellow 2014-15, associate professor of English) has completed an essay on the “Anthropology and Anthropophagy in In Faerie Queene,” which will appear in the journal Spenser Studies in January 2016.
The base budget of the College of Arts and Sciences increased modestly in Fiscal Year 2014, largely due to state-funded raises that were augmented by university resources to further increase faculty, staff, and graduate teaching assistant salaries and stipends. The good news is that we have made progress in closing the salary gap between the average salaries of our faculty and staff and that of the Top 25 public research universities.

Our base budget for equipment remained constant in FY14 and our operating budget decreased in nominative dollars by 4.6 percent. Only five percent of the college’s FY14 base budget was allocated to operating and equipment, as illustrated on the next page. The college relies not only on nonrecurring funds from the campus central administration, but more importantly, on restricted funds from external grants and contracts and gifts from donors. The resources from grants, contracts, and gifts are necessary to sustain our research initiatives and to provide our students with state-of-the-art instrumentation and equipment. Twenty-three cents of every dollar spent by the college comes from these external, or restricted, funds.

Moreover, these external grants and contracts generate some of our unrestricted funds in the form of facilities and administrative cost recoveries. Facilities and administrative cost recoveries (F&A) is the overhead that granting agencies pay to conduct research on our campus. The university, in turn, returns a portion of that F&A recovery to the college. In FY14, over $2 million of F&A was returned to the college for its use to buy equipment, fund start-ups for new faculty, provide small pilot projects for new research, and augment operations.

Along with the achievements of our faculty in obtaining grants and contracts and the F&A revenue return that followed, our development staff had a successful year as well that enabled the college to make significant progress in building its resource base for the Top 25 initiative. Our five major gift officers raised more than $10 million in total commitments, including $567,230 in annual gifts raised from 3,397 donors, the largest number ever to support the college.

The F&A from restricted grants and contracts combined with gifts from donors, enabled the college to stretch its very small base budget of $33,994 for equipment to purchase over $3.9 million worth of scientific instrumentation, Steinway pianos, and furnishings and equipment for a new psychology clinic downtown.
The percentage of the college’s base budget that is committed to personnel has increased to ninety-five percent, leaving only five percent for operating and equipment expenditures.
### Base Budget, FY 2014

#### Sources of Funds, FY 2014

**Unrestricted Sources of Funds:**
- Base budget state funds (including tuition) $67,943,347
- Additional nonrecurring instructional funding $8,056,160
- Educational services revenue $2,053,678
- Summer School and study abroad revenue $2,154,027
- Net facilities and administrative cost recoveries $2,302,592
- Central UT support of benefits, funding transfers, net carryover $22,112,386
- Central funding of joint institutes, matching funds, etc. $760,337

**Total Unrestricted Sources of Funds** $105,382,527

**Restricted Sources of Funds:**
- Grants and contracts $24,291,270
- Endowment income and annual gifts $4,527,598
- State appropriations for governor’s chairs and centers of excellence $2,453,365
- Other restricted sources, net carryover $986,687

**Total Restricted Sources of Funds** $32,258,920

**Total Sources of Funds** $137,641,447
Sources of Funds, FY 2014

Uses of Funds, FY 2014

Fortunately for the college, the fundraising was very successful this year resulting in significant progress in building the College’s resource base for the Top 25 Initiative.
LEADING THE JOURNEY, Setting the Pace

As the vanguard of the university’s journey to the Top 25, the College of Arts and Sciences has led the way and set the pace of this important journey. Over the next five years we need to accelerate the pace to continue our leadership role and achieve the goals of our 2020 vision!

Last year we collected data from aspirational peer colleges in Top 25 institutions and determined where we need to focus on improvement and growth to reach the standards of our aspirational peers. From this data we have developed a strategic vision for closing the gap by 2020 and established some associated fundraising priorities which we intend to pursue incrementally to maintain steady progress toward our long-term goals.

With the support of our constituents, the staff of the Arts and Sciences Office of Development made significant progress this past year in addressing these fundraising priorities and building the college’s resource base for the Top 25 Initiative. Their success is a testament to the commitment of our alumni—and our friends who are “alumni by choice”—to our educational, research, and service missions and to the advancement of the college and the university.

Continuing investment in the priorities of our 2020 vision is essential to providing a supportive environment for student and faculty excellence and creating a brighter future for the college, and the university.

In today’s environment, budget shortfalls have become part of the landscape of higher education. In Tennessee, state appropriations have dropped from fifty-three percent of our unrestricted educational and general revenues in 2001 to thirty-nine percent in 2014. That trend is not expected to reverse. Increases in tuition have mitigated the shortfall somewhat, but not entirely. Moreover, tuition increases are reaching the ceiling of what Tennessee students can afford.

We have accepted the reality of the budget situation; however, we do not intend to let it slow the pace of our journey to become a Top 25 college. So how will we meet our financial goals and continue our progress? We must rely on private investment to make up the difference!

We have identified opportunities for investment that can have a transformative effect on our college and the university—fueling the acceleration of our pace to become a Top 25 college of arts and sciences in a public research university.

We need our alumni—and our friends who are “alumni by choice”—to support us not only with their financial gifts, but also through advocacy and promotion of the college to other citizens, the legislature, and to future students.

Your gifts to the college strengthen the foundation of the university and enable the college to continue its leadership and influence in advancing the university’s journey to the Top 25.

Investments in the college also leverage our ability to produce graduates who are innovative citizen leaders and to support faculty in their pursuit of pathbreaking research and creative expression that enriches lives and seeks solutions to society’s problems.

We’re headed for the Top 25, but we need your help to get there. With your support, the college will continue to lead the journey, set the pace, and close the gap!
COLLEGE PRIORITIES

FACULTY AWARDS  To advance in a competitive higher education environment, we will recruit, retain, and support top faculty who will teach, mentor, and challenge our students and will pursue high impact innovative research and creative activity. Achieving this goal requires hiring an additional fifty faculty to move towards a Top 25 student to faculty ratio, and providing the means to reward and retain high-achieving faculty with recognition awards and endowed professorships and chairs.

UNDERGRADUATE STUDENT SUPPORT  To increase the number of students who can participate in experiential learning opportunities such as study abroad, service learning, research, and master classes, securing additional need-based endowed scholarship support is critical. Endowed scholarships also help attract and graduate a higher number of “top choice” students preparing to take their place in a global society as engaged citizen leaders. Such philanthropic investment enables students to expand their worldview and create more options for their lives.

GRADUATE STUDENT SUPPORT  To leverage our competitiveness in attracting “top choice” graduate students in all disciplines, additional endowed funds will not only provide higher graduate student stipends, but also offer students research awards and assistantships. With adequate financial support, students are able to focus more intensely on their graduate studies and research and to achieve the credentials and confidence for an early and successful launch into their careers.

STRATEGIC OPPORTUNITIES  To advance the college’s strategic goals for Top 25, lead gifts and recognition opportunity investments for new programs and facilities will support high impact programs such as the UT Humanities Center. To provide an environment that supports excellence in achievement, we must provide our stellar faculty and their students with state-of-the-art teaching and research facilities.

ANNUAL SUPPORT  To strengthen and sustain the college’s capacity to reliably make short-term strategic investments that advance students, faculty, and programs, the number of annual donors and unrestricted gifts must increase.

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