A legacy in glass

College of Arts and Sciences is commemorated in new stained glass window at FSU Heritage Museum
Letter from the dean

As calendar year 2016 comes to an end, we are very pleased to bring you this winter edition of *Across the Spectrum*, the semi-annual magazine of the College of Arts and Sciences. The campus is alive with activity led by a wave of academic excellence sourcing from all corners of the institution. The college's many units are flush with productivity, and each is adding to Florida State University's continued rise in national prominence. It is with great pride that we highlight them by bringing you the accompanying stories of accomplishments of alumni, students and faculty. As well, we bring you an article about the planning and creation of the college's beautiful new stained glass window (cover photo), recently installed at Dodd Hall's Heritage Museum.

Among the stories is a visit with the members of Hengli Tang's Zika lab. Dr. Tang, a virologist and professor of biological science, and his group of talented students are helping uncover the mystery of the Zika virus. Florida State University's ROTC programs, points of pride for the college, are the subject of another story that accents the leadership training for which ROTC is well known.

Former English professor Jerry Stern was an important figure in the growth of our creative writing program. The Stern family and his many appreciative former students helped establish a lasting tribute to Stern by funding the Jerome Stern Distinguished Writers Series. The article peers inside the program's history and reminds us of why it has attained its high reputation.

Several articles highlight the careers of alumni.


Mariel Vazquez, Ph.D. Mathematics, 2000, is a trailblazing and award-winning mathematician, applying her work to biology. She and her husband, Javier Arsuaga, Ph.D. Mathematics, 2000, met in Tallahassee while earning their doctoral degrees under the direction of emeritus Lawton Professor De Witt Sumners.

Tallahassee native and former history student Stephen McLeod, M.A. History, 2005, is director of library programs at a prestigious national library at the Mount Vernon Estate. In our article about McLeod's career, learn how he is putting to work his FSU training to help promote the history of our great nation.

Ed Mansouri, M.S. Meteorology, 2000, has incorporated elements of meteorology and technology to build companies with a range of influences, from K-12 education to innovative collection of weather data. Ed is a great friend of the institution and the state of Florida, having served both in various ways. One senses that Ed's entrepreneurial-driven career has only just scratched the surface of its great potential.

Alumnus Philip Wyatt, Ph.D. Physics, 1959, is a scientist and also an entrepreneur. Read about his spectacular career, many experiences, and the great success of Wyatt Technology, a company he founded. Phil and his wife, Carolyn, are also remarkably generous, having just endowed a chair in the Department of Physics. It is a pleasure to highlight Phil and Carolyn in this issue.

Our students are the heart and soul of the university. I hope you enjoy the article on our renowned weathercasting program, led by Jon Ahlquist, within the Department of Earth, Ocean and Atmospheric Science. It describes the work of current students as well as an army of gifted and highly accomplished alumni.

Thank you so much for staying in touch with the College of Arts and Sciences. Best wishes for a happy holiday season and a productive 2017.

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**FSU breaks ground on new Earth, Ocean and Atmospheric Science building**

Florida State University officials and the university’s Board of Trustees broke ground Oct. 27 on a new building that will house the university’s nationally recognized Department of Earth, Ocean and Atmospheric Science. At completion, the facility, to be located near the intersection of North Woodward Avenue and West Tennessee Street, will include offices, classrooms, teaching labs, research labs and academic support spaces for the department, which comprises the fields of environmental science, geology, meteorology and oceanography. Read more about the new facility at http://fla.st/2eMOUv0.
On the cover
A new stained glass window in FSU’s Heritage Museum honors FSU’s oldest and largest college. See page 6.

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Late fiction-writing professor is memorialized via Jerome Stern Distinguished Writers Series

By Barbara Ash

During his almost 30 years teaching fiction writing in Florida State University’s Department of English, Jerry Stern left an indelible mark on hundreds of students, many of whom went on to become novelists, poets and nonfiction writers who have received national and international acclaim and enviable writing awards.

One of those former students on whom Stern left a lasting impression is Diane Roberts, a journalist, an essayist for National Public Radio, a faculty member of FSU’s creative writing program and the author of four books.

“Jerry Stern, the editor, lives in all of our heads — in the best possible way — to make our writing better,” said Roberts, who received her MFA from FSU in 1981 before earning her Ph.D. at Oxford University. “I took every class I could get with him. He patiently went...”

“Jerry Stern, the editor, lives in all of our heads — in the best possible way — to make our writing better,” says former Stern student and current FSU English professor Diane Roberts.
over every line of whatever I wrote. It was revise, revise, revise. He wrote in the most wonderfully economical style, and was an unbelievably generous teacher. I got super lucky having him.”

As a student, Roberts attended events initiated by Stern who invited nationally known writers — poet and novelist Andre Codrescu, celebrated science fiction writer Jeff VanderMeer, and food and Southern culture writer John T. Edge among them — to read their works and, often, review students’ manuscripts, offering critique as well as encouragement and inspiration.

“Here we were in Tallahassee with access to this incredibly rich resource, a community treasure, that continued to grow more and more vigorous,” said Roberts, who as an MFA student was Florida State’s first Marshall Scholar, selected to study in the United Kingdom.

To keep his legacy alive after Stern’s death in March 1996 at age 57, his wife, Maxine, son, Bayard, and hundreds of former students, friends and colleagues gathered the next year to raise $10,000 and create the Jerry Stern Creative Writing Fund. The fund, administered by the FSU Foundation, has grown to almost $125,000. It helps to supplement the creative writing program’s own funding of the Distinguished Writers Series.

“The Stern family’s lovely gift kept us afloat on more than one occasion over the years, and made a difference as to whether we were able to simply function as a program,” said creative writing program director Erin Belieu, an award-winning poet whose works have appeared in publications such as The New Yorker and The Atlantic Monthly, and been chosen four times for The Best American Poetry’s anthology series.

“While the initial gift by the Stern family was one of great generosity, the creative writing program’s budget has not kept pace with the budgets of its peer programs nationally,” Belieu said. “That’s why we are hoping to expand the Stern fund, and attract donors who have a passion for books and literary culture.”

Belieu said the Florida State writing program is dealing with the same financial challenges many writing programs across the country have in a culture that pays more attention to STEM education than it does to the arts and humanities.

“I’ll respectfully argue that the culture of books is just as primary as that of math and the sciences,” Belieu said. “Think about how defined countries are by the poets and novelists and essayists they produce, the stories they leave behind to tell the world who we are, who we have been. Think about what we know of the Vikings, of the Roman Empire, of the American and French revolutions. Much of what we know of our world is captured by the writers of those places and generations.”

Paying Tribute

This year, to pay tribute to Stern and thank the Stern family — wife Maxine, who died last year, and son Bayard — for the many ways they’ve supported the creative writing program, the popular writers series was renamed the Jerome Stern Distinguished Writers Series.

“My dad’s passion for supporting writers was very clear to me because I grew up with his students coming to the house for classes and parties,” Bayard Stern said. “I got to know people like Diane Roberts, Pam Ball and Mark Hinson, all excellent writers. Others have gone on to have books published and be hired as faculty members across the country. I was always very proud of my parents, and I know they would be pleased with the ongoing support that the fund is receiving and the good work it’s promoting.”

The newly created Jerome Stern Distinguished Writers Series is an annual series of speakers sponsored by the creative writing program. It brings in around 12 visiting writers during the academic year, and has featured Pulitzer Prize and National Book Award recipients, poet laureates and Guggenheim winners — in short, the best of contemporary American literary culture. These writers give public readings, and often work with graduate students in classes or during individual conferences. The sometimes standing-room-only readings take place Tuesday evenings at The Warehouse on Gaines Street in Tallahassee.

Recent speakers have included FSU program alumnus and recent Pulitzer Prize winner Adam Johnson; poet Yusef Komunyakka, recipient of the 2011 Wallace Stevens Award; novelist Janet Burroway, nominee for the Pulitzer Prize and the National Book Award; poet and literary critic Robert Pinsky, who served as the Poet Laureate Consultant in Poetry to the Library of Congress; Lauren Groff, novelist, whose most
recent book was recognized by *The New York Times* as one of the best books of 2012, and fiction writer Junot Diaz, 2008 Pulitzer Prize winner.

Among the speakers for the 2016 fall series: D.A. Powell, author of five collections, including one that received the National Book Critics Circle Award in poetry; Debra Monroe, whose books have won many awards, including the Flannery O’Connor Award; Nate Marshall, whose first book, “Wild Hundreds,” won the 2015 Agnes Lynch Starrett Prize; Andrew Epstein, an FSU associate professor whose work has appeared in numerous journals, including *Contemporary Literature, The Los Angeles Review of Books* and *The Wallace Stevens Journal*; and author David Kirby, recipient of numerous national awards, including several Pushcart Prizes, who is a member of the National Book Critics Circle and serves on the FSU creative writing faculty.

“This reading series is a rare and unusual resource and provides great artistic enrichment not only for writing but also for the Tallahassee community,” Belieu said. “In addition to hearing from established authors, we also hear from our immensely talented graduate students who read their own works. The series also gives students the opportunity to meet the major writers who figure in our national literary landscape.”

**Producing Literary Stars**

Former students, many of whom have made a name for themselves in the literary world, say this is an incredibly valuable experience for a number of reasons.

“The distinguished writers series helps young, aspiring writers to see what it looks like from the other side,” said Kerry James Evans, who earned a Ph.D. in English from FSU in 2013 and is the recipient of a 2015 National Endowment for the Arts fellowship and a Walter E. Dakin Fellowship from Sewanee Writers’ Conference. His poems have appeared in *Narrative Magazine, Ploughshares* magazine and the *New England Review*, as well as other publications. He is the author of “Bangalore” and a visiting lecturer in the FSU English department.

“When you are a young writer, you are getting rejected day in and day out, struggling to find your voice, and all in all, it can be a challenge to find sure footing in an incredibly competitive market,” Evans said. “But when you go to a reading or a talk and listen to someone who is well recognized and incredibly adept and knowledgeable about what you care about, it can be the extra push you need to keep working toward your goals.”

Evans says it was because of the writers series that he met Michael Wiegers, executive editor of Copper Canyon Press, one of the country’s most respected poetry presses. The meeting led to a two-book contract with Copper Canyon, which published Evans’ book “Bangalore” in 2013.

“Michael agreed to read a few student manuscripts and offer suggestions for revision,” recalls Evans. “He selected an earlier version of ‘Bangalore,’ and I was happy to be receiving feedback on the book. Michael offered a number of great edits, and I began revising as soon as I left our meeting. After about a month, he emailed and asked if I had a revision of the manuscript. Thankfully, I did. I sent it to him, and several months later, I received one of the greatest phone calls of my life.”

Kent Wascom came to Florida State in 2008 to pursue his MFA in creative writing and today teaches literature and composition at Southeastern Louisiana University. He is the author of “The Blood of Heaven,” published in 2013, and “Secessia,” published in 2015, both by Grove/Atlantic Press.

Wascom recalls Tuesday nights at The Warehouse, which he describes as “a gloriously dim cotton storehouse cum pool hall, all...”
nicked hardwood and dust. Among friends and teachers, with a beer or a glass of cheap red in your hand, there was a feeling of comfort, but also a frisson of the illicit, the kind of cool that can’t be bought.”

“Several times a semester, graduate students had the opportunity to take the same stage we’d seen professional writers occupy, and thus subject ourselves to the same combination of thrill and dismay at an audience’s reaction to our work,” Wascom said.

Wascom recalls a reading he did in 2011. The story was “The Civil War by Juju Fandal,” which would win the Tennessee Williams New Orleans Literary Festival Prize. Wascom says it kick-started his career. By the time he won that prize, he was just a year out of graduate school and had been hard at revising his first novel (his master’s thesis).

Wascom says that through the efforts of faculty member and National Book Award winner Bob Shacochis, recipient of The New Yorker Magazine Award for best nonfiction of 1999, Wascom’s novel (“The Blood of Heaven”) made it to Grove/Atlantic and was accepted.

“These are the kind of things that happen because of our reading series.” Belieu said. “It’s an incubator for budding literary stars. We faculty are so lucky to work with some of the very best emerging writers in the country here at FSU. The single greatest pleasure of my work as a teacher is watching these students grow.”

And that Tallahassee should have one of the very best writing programs in the entire world?

“I’m happily determined to invite more people to be a part of this special thing we have that distinguishes our city internationally,” Belieu said.

Readings are free and open to the public at 8 p.m. most Tuesdays at The Warehouse, 706 W. Gaines St., Tallahassee 32304. For a list of visiting writers, visit http://english.fsu.edu/crw.


To contribute to the Jerome Stern Distinguished Writers Series, contact Nancy Smilowitz, assistant dean for development with the FSU College of Arts and Sciences, at (850) 294-1034 or nsmilowitz@fsu.edu.
To walk into Florida State University’s Heritage Museum is to find oneself engulfed in a kaleidoscope of color.

Located in the elegantly renovated Werkmeister Reading Room in Dodd Hall, the museum, which opened in 2011, is home to countless photographs, artifacts and ephemera that document the history of FSU and its predecessor institutions. But what immediately catches the eye are the dozens of intricately handcrafted stained glass windows that ring the room, each telling its own colorful story about an important piece of university history.

Strolling casually around the museum’s perimeter, a visitor will see windows commemorating academic units, athletic organizations, student clubs and individuals who have played an

The new window was a labor of love for artists at FSU’s Master Craftsman Studio.
integral role in making FSU the university we know today. And in spring 2016, a new window was installed that honors an immense segment of the university’s past, present and future — the College of Arts and Sciences.

The window was a labor of love for artists at FSU’s Master Craftsman Studio (http://fla.st/2eXu1gG), an auxiliary of the university’s Facilities Department that creates one-of-a-kind, custom pieces ranging from bronze sculptures to concrete benches to ornate signage and monuments. The window had its origins in 2015 when Sarah Coakley, the studio’s director of public relations and a glass artist herself, approached College of Arts and Sciences Dean Sam Huckaba to inquire whether the college would be interested in sponsoring a stained glass window of its very own.

“Sam immediately said, ‘Yes, absolutely we want to be there,’ Coakley said. ‘We were the first official college (at FSU), we’re the biggest, we need to be there.’”

“I felt it to be entirely appropriate to both honor and memorialize the college with a window,” Huckaba said of his decision. “The Heritage Museum is a beautiful and historic space that contains so many meaningful photos and artwork. We are proud to now be part of it.”

Having agreed in principle to create a stained glass window representing the College of Arts and Sciences, an obvious dilemma presented itself: How does one capture, in a single image, the complexity of a college that traces its history back to the year 1905 — particularly one whose academic offerings range from the traditional sciences and humanities to the Army and Air Force ROTC?

“The challenge of the Arts and Sciences window was definitely the fact that it’s such a large and diverse college,” Coakley acknowledged. “And there was a lot of concern about how you capture all the different groups, the different disciplines, but not clutter up the window. You don’t have that big a space, and visually, you can’t just jam in lots of imagery in a small space. So we struggled a bit at first.”

Early in the conceptual phase, Huckaba had suggested a “tree of knowledge” as a way of incorporating the many facets of the college into a single image. Still, early sketches weren’t quite successful at capturing the college’s breadth and depth in a single, uncluttered image.

Fortunately, a prominent alumna of the college agreed to step forward and oversee the process of designing and producing the window.

Janet Stoner, a two-time FSU alumnus (B.S., physical education, 1970; M.S., mathematics, 1972), currently serves as chair of the College of Arts and Sciences Leadership Council, a volunteer advisory board composed of prominent alumni and friends of the college. Having previously collaborated with the Master Craftsman Studio on a stained glass window honoring FSU women’s athletics, she had some experience in the production process and a willingness to supervise the project through to completion.

“In speaking with Sam, it was clear that he didn’t want anyone in the college to feel left out,” Stoner said of an early discussion she had with the dean. “But trying to get all of the college’s 18 departments and its many programs, institutes and centers into a single 18-by-24-inch stained glass window is something you just can’t do, so Sarah suggested that we take a step back and rethink things. I think there was an agreement that a tree of knowledge was the way to go — that idea resonated with everyone — but how do you get there?”

With that very general idea of a tree of knowledge as the guiding principle, Stoner and Coakley solicited ideas from the Master Craftsman Studio’s group of artists and technicians. One of them, glass artist Juan Comas, soon came back to Coakley, saying, “I think I have an idea.”

“Juan started with the mathematical representation of the tree of knowledge, which is the equal six points, which gave us, in his concept, six circles,” Coakley said. “And then it was like, OK, how can we represent the breadth of the college in six symbols? So he took a list of the departments and just said, ‘Well these are about science, so I think there’s a microscope. And these are Earth-based, so how about a globe?’ And through trial and error, we eventually we came up with six symbols that pretty much represent all of the various facets of the college.”

Starting at the very top of the window and going
clockwise, the six symbols that were ultimately selected for the window are as follows:

- the symbol pi, representing mathematics and the analytical nature of the sciences;
- a globe, representing the earth sciences;
- an open book for the humanities;
- a head, symbolic of psychology and the human mind;
- a flask, indicative of chemistry and scientific experimentation; and
- a telescope for the atmospheric sciences.

Perched in the middle of the window is an owl — a traditional symbol of wisdom, and one with a long tradition at FSU and its predecessor institutions.

“The owl was the original symbol of the West Florida Seminary, the first institution here, which first opened classes in 1857,” Stoner said. “Again, because the College of Arts and Sciences was the first college, Sarah suggested that we take the first symbol (and incorporate it).”

From initial discussions to completion, it generally takes the Master Craftsman Studio at least six months to produce a stained glass window, according to Coakley.

“It takes a lot of time to work with the donor and work out the design,” she said. “Once that’s all finalized, it takes six to eight weeks, maybe 12 weeks, to actually build the window. It depends on the design — how much hand-painting is involve, how much kiln processing. You can see that they’re all so varied.”

She described the College of Arts and Sciences’ window as “much more challenging” than many others in the Heritage Museum.

“The project I’d worked with Janet on previously, the Lady Seminoles (window), was pretty straightforward,” Coakley said. “Here’s an already established logo for this group; make it into stained glass. That’s pretty easy. But with a much larger, more diverse group like a college, how to capture that story in a limited space is far more challenging. So it took many renditions before we came up with a solution that everyone was happy with.”

Juan (Comas’) approach to it was really brilliantly done,” Stoner said. “It answered all those concerns. It’s a clean image, it’s a contemporary image. The dean did want to emphasize that we were the first college and the largest one, but we didn’t want to appear dated. We want to be contemporary and current, too. So balancing that was a challenge. And that’s how we managed it. We have the reference to the history in the center, and the symbols of what the college is about. But the background and the colors and the design of it is very contemporary and modern.”

Huckaba shared Stoner’s enthusiasm for the finished product.

“The final product is superb, and I could not be more pleased,” he said. “Sarah, Janet and Juan did a splendid job that has resulted in a thoughtful, subtle and visually stunning piece. It will stand as a legacy to the college for many years to come.”

The College of Arts and Sciences’ stained glass window is located on the left side of the Heritage Museum as visitors enter the massive room. It is one of the last that will be added; only about a dozen windows, of roughly four dozen total, don’t currently feature stained glass images.

“Since the purpose of the museum is to document the whole history of campus, a committee has been formed to start asking, ‘Who’s not represented? ‘Who should we approach about being here?”’ Coakley said. “Because we’re quickly running out of space.”

To make a donation or request information about sponsoring a new stained glass window in the Heritage Museum, contact Susan Contente of the FSU Foundation at (850) 645-8341 or scontente@foundation.fsu.edu.

Sarah Coakley is director of public relations for FSU’s Master Craftsman Studio and a glass artist in her own right.

Janet Stoner is a two-time FSU alumna who currently chairs the College of Arts and Sciences’ Leadership Council.
Having reached an age when most people would have long since settled comfortably into retirement, Philip J. Wyatt is going stronger than ever. But the Florida State University alumnus (Ph.D., physics, 1959), a successful scientist and entrepreneur, does admit to giving some thought to his legacy, as a recent gift to his alma mater suggests.

Wyatt is the founder and CEO of Santa Barbara, California-based firm Wyatt Technology. He has made a long and successful career out of the production of cutting-edge scientific instruments now used in a wide variety of industries. He was the first company to introduce lasers into commercial scientific instruments.

“We develop and manufacture a special class of laser-based analytical instruments,” Wyatt said of his company. “These instruments are used to measure the scattering of laser light from solutions of molecules. They have become a very important tool for the pharmaceutical industry, where they are developing new biological drugs, as well as for a variety of companies developing new materials and plastics.” Such biologicals include a broad variety of vaccines and anti-cancer drugs, as well as products used in the prevention, diagnosis or treatment of other diseases.

“The pharmaceutical companies also use these instruments to ensure drug purity and effectiveness as required by the Food and Drug Administration before release,” he said. “And our instruments help them to do that.”

Laser particle analysis has been used by scientists in a number of fields in addition to pharmaceuticals. Among them:

- Major U.S. and world research centers and universities.
- Polymer scientists and manufacturers, who use them in the development of new plastics and other synthetic materials.
- Food producers, which use them for detection of drug and pesticide residues.

“We are particularly proud of some of our instruments currently being used at FSU's world-class chemistry department,” Wyatt said. Indeed, the chemistry and chemical engineering departments of most of the world's great universities use these instruments for both research and instruction. Well over 12,000 scientific papers cite them in their work.

“Probably half of our instruments are sold to the biotech and pharmaceutical companies around the world, many of which sell for tens of thousands of dollars each,” Wyatt said. “Such firms include Amgen, Pfizer and Genentech, as well as the major chemical companies, including BASE, Dow Chemical and DuPont. They're sold in over 60 different countries.”

Another prominent customer is biotechnology company 23andMe, which has revolutionized the field of DNA genetic testing and analysis by marketing it directly toward individual consumers. A recent “Today Show” segment on that company included video footage that showcased Wyatt Technology products in its labs.

“They own a miniDAWN TREOS and an Optilab T-rEX, which are very sophisticated instruments produced by Wyatt Technology that are used for testing a variety of macromolecules,” Wyatt said. “We're absolutely thrilled to see our products at the forefront of this emerging industry.”

It was at FSU's Department of Physics where Wyatt, as a twenty-something doctoral student in the late 1950s, first worked on scattering theory (at that time with neutrons instead of light) that eventually became the basis for the laser technology utilized by his company's very successful analytical instruments.

Earlier this year, he acknowledged his appreciation for the knowledge gained at FSU by making a gift to establish The Wyatt/Green Endowed Chair within the Department of Physics, which will provide much-needed support for a highly regarded full professor. It is Wyatt's intent that the recipient of the endowed chair be “committed to interdisciplinary research, collaborating with
Memories of an Extraordinary Life

Have a conversation with Philip J. Wyatt about Florida State University, and anecdotes about his college days, as well as interactions with some of the most renowned figures in Florida State University history, will soon come up. Legendary scientists (Paul Dirac, Harold Kroto) and great faculty, including Ray Sheline, Michael Kasha and university president Robert Strozier, were among the names he offered up during a recent telephone discussion.

On Meeting Dirac

Wyatt recalls meeting the famously taciturn physicist and Nobel laureate, who went on to spend the last decade of his life at FSU:

“During my undergraduate years I attended Christ’s College, Cambridge. And my uncle (world-famous physicist Boris Podolsky) had dropped Paul Dirac a note saying, ‘My nephew is at Cambridge studying physics and would like the opportunity to meet you.’

“So one day, a postcard arrived in the mail (at that time in England, letters mailed before noon were always delivered the next day) stating, ‘We know your uncle. Come to tea at such-and-such a time,’ and it was signed ‘Mrs. Dirac.’ So at the time and date stated, I got on my bike and rode out to their home.

“. . . (In introducing his wife) Dirac didn’t say, ‘This is my wife,’ he would always say, ‘This is Wigner’s sister.’ Eugene Wigner was a very famous physicist who..."
Dirac admired, and he was very proud of the fact he had married his sister. But anyway, how can you not go into physics when you get surrounded by that type of people?"

A Chilly Winter

Having earned a master's degree in physics from the University of Illinois, Wyatt and his wife decided a change in climate was called for in coming to Florida State in 1957:

"So the decision was, it'd be nice to get out of that cold Midwest. I promised my wife that it was going to be orange juice and sunshine. Wow! What an opportunity!"

"That winter was the worst snowfall that Tallahassee had had in maybe 100 years!"

"... If you were an undergrad in a fraternity or sorority or in the dormitories, you had to be in by 10 or 11 o'clock at night, and it was very strict. You could not be out of the dorms; there was no nightlife. Except, of course, during the snowstorm. They let everybody out of the dorms at about 11 o'clock so they could enjoy this once-in-a-lifetime experience. And there were many Floridians there who had never seen snow before. It was quite an exciting winter's night."

Knowing Strozier

Robert Manning Strozier was president of Florida State from 1957 to 1960; the university's main library bears his name.

"The president of the university was Robert Strozier, who I had known quite well at the University of Chicago, where I was an undergrad and he was dean of students of the college. He had tremendous charisma and brilliance at bringing in some of the great faculty members (to FSU)."

"... Bob Strozier told me that among the many things he would be doing was to work hard to get rid of this 'segregation nonsense.' He died too soon."

The Department's Early Years

"It was an exciting time in nuclear physics because there was so much going on following the war. In fact, Alex Green organized a very special nuclear physics conference on the Nuclear Optical Model, and many of the world's greatest nuclear physicists came to Tallahassee to attend in March 1959. And we grad students were thrilled, because we got to meet the great physicists people we had all been reading about all these years. We were also able to meet other guests, including Gov. LeRoy Collins and Supreme Court Justice William O. Douglas!"

"... The faculty were young and brilliant. I think that Florida State, in terms of scientific achievement, was (and is) one of the outstanding universities in the South, certainly among the best. The University of Florida, of course, was an engineering school, but FSU was science."

An Early Brush with Fame

A research paper brings national attention:

"As a graduate student, I decided to write a letter to the journal Nature concerning a speculation that the meteor that struck Siberia in 1908 may have been antimatter. I listed some of the radioactive elements that might be present and should be found. It turned out I wasn't the first to come up with the idea, but it put the Florida State physics department, with its young grad students, in the public eye. We received major mention in Time magazine and The New York Times."

Computing Power

The computers of the late 1950s left something to be desired:

"The department had a new computer, I believe it belonged to the university. It was an IBM 650. It had 2,000 words of memory, and of course, everybody was thrilled with that."

Musical Digressions

Even in the 1950s, Florida State was known for its exemplary music faculty:

"I had heard about Florida State's music department. There was a very famous composer there named Dohnanyi; he had been a student of Brahms. So I did get to shake the hand of a person who shook the hand of Brahms!"

Almost an Astronaut

Wyatt wasn't the first Seminole in space; that honor would go to Norman Thagard, who earned a bachelor's degree in engineering science from FSU in 1965 and went on to log nearly 140 total days in space as a mission specialist on five space shuttle flights. (Another future astronaut, Winston Scott, received his bachelor's degree in music from FSU in 1972; he went on to log a total of 24 days, 14 hours and 34 minutes in space, including three spacewalks totaling 19 hours and 26 minutes.)

Yet Wyatt very nearly preceded both Thagard and Scott.

"In 1965, I was nominated by the National Academy of Sciences as one of 16 possible candidates for the first Scientist-Astronaut Selection Program in the United States," he said. "I was instructed to report to NASA for physical and screening tests."

"Alas, they only took seven, but it was a heady time."

Knowing Kroto

On getting to know Harold Kroto (1939-2016), a Nobel laureate and chemistry professor who concluded his career at FSU:

"A few years ago, I got to know Harry Kroto, who passed this year. What an amazing man! He was a tremendous inspiration to the entire faculty as well as his wonderful students. Then one day while in California, he dropped by my company.

"As we were going to have lunch together, I said, 'Wait just a second, there's a young man interviewing for a job here. He's going to give a 10-minute lecture. Would you mind, could we just sit in on that and then we'll go to lunch?' How could he resist?"

"So there we were in a dark lecture room. A young man was up there talking about his experiments, and suddenly Harry says, 'Hey, that's my handwriting.' The room was silent. The young man had put up a slide of his presentation, which turned out to be the famous lab notation documenting Harry's discovery of the Carbon 60 molecule. You can imagine the grad student's shock seeing sitting in front of him the Nobel laureate who had discovered what he was talking about!"
The commanders of both the Army and Air Force Reserve Officer Training Corps (ROTC) detachments at Florida State University say they notice a demonstrable and positive change in the cadets between the students’ first years in training and when they graduate and become newly minted second lieutenants, the next generation of the military leaders charged with ensuring that the nation’s armed forces remain strong.

“As our cadets grow, you see a real confidence in the way they lead, speak, solve challenging problems and mature as professionals,” said U.S. Air Force Col. Marc Van Wert, commander of the 128-member ROTC Detachment 145 Seminole Airmen, a professor of aerospace studies and a graduate of the U.S. Air Force Academy. “The way we train them catapults their leadership skills. It’s very rewarding.”

Van Wert’s U.S. Army counterpart, Lt. Col. Clint Alexander, who was commissioned after finishing the Army ROTC program at The Citadel 20 years ago, also says the cadets’ personal growth is evident in a number of ways.

“They gain a level of maturity and responsibility you don’t see in other students,” said Alexander, chair of the FSU’s Department of Military Science and commander of the Army Seminole Battalion, which is composed of 150 cadets. “The senior-level cadets are responsible for more than themselves and their classes. They are charged with mentoring, welfare and training of a younger group and for ensuring other cadets maximize their potential.”

At universities and colleges across the country, students are being trained as future officers in the U.S. military through ROTC. Each year, the Air Force ROTC program yields close to 2,000 active-duty officers, while the Army program produces 60 percent of the second lieutenants who join the active Army, Army Reserve and National Guard. ROTC is the largest commissioning source in the country.

In exchange for receiving full academic scholarships, Cadets commit to four years of military service. Freshman and sophomore students are also able to join the FSU ROTC program without a scholarship or military commitment to determine if the Air Force or Army is something they would like to pursue.

At Florida State, the Army and Air Force ROTC battalions are part of the College of Arts and Sciences.

Florida State senior Allison Mills, a public relations major, is cadet colonel who serves as Air Force Detachment 145’s cadet wing commander. The Ocala, Florida, native spent four years in Junior ROTC during high school and easily transitioned into the Florida State program.

Mills says she appreciates working side by side with cadets who share common values of hard work, dependability, service, the drive to succeed, and the tight-knit community of individuals who cheer on and challenge one another.

“Being a cadet takes a lot of self-discipline,” said Mills, whose responsibilities include mentoring and supervising peers and briefing the ROTC.

From left, Air Force ROTC Cadet Michael Hetland; Air Force ROTC Cadet Allison Mills; Air Force Col. Marc Van Wert; Army Lt. Col. Clinton Alexander; Army ROTC Cadet Senior Andrew Young; and Army ROTC Cadet Daniel Croom.

Cadets from FSU’s Army ROTC program head out on a 10-mile foot march during the Ranger Challenge at Camp Blanding, Florida.

By Barbara Ash
commander. “Not a lot of college students want to wake up at 5 a.m. to work out. I’ve learned to strike a balance between studying, staying physically fit and socializing. We have higher expectations set on us, but because of that, I know what I’m capable of and that I can push even beyond that. I know that if you want something enough, you’re going to work hard for it.”

Service, Training and a ‘Pretty Sweet Deal’

ROTC students at Florida State serve their local communities in a number of meaningful ways, including helping with football game security, parking, and stadium and campus cleanup. They serve as ambassadors to the local community, providing U.S. flag honor-guard support for various ceremonies, conducting food drives for homeless veterans, participating in Habitat for Humanity home-building projects, and marching in the local Veterans Day parade. On campus, they also work closely with the FSU Student Veterans Center to support various FSU athletic and academic programs. Both organizations are working with FSU to fund and build a combined FSU ROTC and Student Veterans Center building in the future.

The nation’s ROTC programs have produced some of the country’s most successful leaders, representing diverse professions. Among its alumni: George C. Marshall Jr. (Virginia Military Institute), chief of staff of the U.S. Army under presidents Franklin D. Roosevelt and Harry S. Truman, and Secretary of State and Secretary of Defense under Truman; former Secretary of State Colin Powell (City College of New York); Walmart founder Sam Walton (University of Missouri); former Secretary of Defense Leon Panetta (Santa Clara University); and actor James Earl Jones (University of Michigan).

In addition to following an academic map for their major field of study, cadets are required to take military courses relevant to their branch of service. During their first two years, cadets learn the basics, such as marching, military structure and rank recognition, and physical training. Advanced cadets take courses heavy on leadership training and problem solving and develop knowledge of world military forces and national security issues.

During advanced summer training camps, cadets refine skills such as marksmanship, land navigation and team building in simulated missions that also enable them to hone their leadership abilities in an actual military environment.

This past summer, 45 Florida State Army cadets joined 200 peers from across the nation at Fort Knox, Kentucky, under Lt. Col. Alexander’s regimental command for a month. During training, cadets learned to move tactically, how to shoot and throw grenades, and how to evaluate casualties on the battlefield. At the same time, 38 Air Force ROTC cadets from FSU were among the almost 900 cadets from universities around the country who trained for six weeks under Van Wert’s command at Camp Shelby, Mississippi, and Maxwell Air Force Base, Alabama.

One of the most valuable things cadets learn at field training is the ability to operate and lead under stressful conditions. Once they become officers, they will be placed in stressful situations, and the ability to cope and continue to make decisions is an absolute must-have, Van Wert said.

Kyle Radcliffe, a senior from Naples, Florida, majoring in international studies, joined the program during his freshman year at FSU.

“When I was in second grade, I dressed as a soldier for Career Day, so I’ve had the desire to join the military since I was a kid,” said Radcliffe, a captain in the Army Seminole Battalion. “I want to serve and give back to my country. I want to be able to lead and motivate people to grow. These things will help me even outside the military.”

Radcliffe has his sights set on an assignment with the Army’s Armored Division after he is commissioned and finishes what he expects will be a year in the Basic Officer Training Course and Ranger School. He says he’d like to serve in combat for the experience, as well as hone the skills in Arabic he developed during seven weeks he spent studying the language in Jordan, before eventually landing a military intelligence assignment.

Air Force 2nd Lt. Anita Naylor, a spring 2016 Florida State graduate who was a Seminole Airmen wing commander in 2015, says Air Force ROTC was a “pretty sweet deal” for her. A political science and criminology major whose mother had reached the rank of senior master sergeant, Naylor figured ROTC and the military were the best means of attaining her ultimate goal of becoming a lawyer and serving in the Air Force Judge Advocate General Corps.

On temporary assignment as a Gold Bar recruiter for the Air Force ROTC, Naylor tells high schools students in North and Central Florida that joining the program can be a great option for them as well.

“ROTC allows you to try out the military because you have an entire year to decide if you want to stay in the program or leave without penalty,” Naylor tells potential recruits. “The benefits are awesome — both monetarily and educationally. Another really great thing is that you can study what interests you, play whatever sport you want and still be a Seminole.”

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The sudden outbreak of Zika virus transmissions in early 2016 changed everything for four Florida State University doctoral candidates working for Hengli Tang, a professor in the Department of Biological Science.

The team had been studying the Hepatitis C virus, but breakthroughs in recent years introduced drugs that effectively cure those with the virus.

“We were working at the tail end of a field of study,” fifth-year doctoral candidate Emily Lee said. Their research lacked urgency, but that changed almost overnight in February.

“We heard about the Zika virus, first as an obscure virus that nobody was really sure about, to seeing it blow up in Brazil and start to spread throughout the Western Hemisphere,” Lee said. “It was basically a whole new experience, because we were working at the beginning of a field.

“We felt a sense of urgency to work as quickly as possible and to answer as many questions as possible,” she said.

In addition to Lee, the other doctoral candidates in Tang’s lab include Sarah Ogden and Christy Hammack, both also in their fifth year, and third-year candidate Yichen Cheng.
“It’s very exciting,” Tang has said. “It’s one of those things that makes you want to get to the lab as early as you can. I have had students who didn’t sleep trying to go through these things. It’s really exciting because you are literally the first people in the world to know this.”

He has high praise for his students.

“They serve as excellent research assistants, and complete the research team, which is essential for the success of our research projects,” Tang said.

Instead of just reading about research in textbooks and journals, the students in Tang’s lab on the third floor of FSU’s King Life Sciences Building are conducting hands-on research on the front line of a real-world crisis.

The researchers made news in August when the journal *Nature Medicine* published their findings of potential Zika therapies. Reports on the team’s research soon appeared in *The New York Times*, *India TV*, the French daily newspaper *Le Monde*, the United Kingdom’s *Daily Mail*, Germany’s *Die Welt*, *The Miami Herald*, FoxNews.com, and many other news outlets around the United States and the world.

Tang’s team, along with collaborators at Johns Hopkins University, the National Institutes of Health and other organizations, found two existing drug compounds; one is able to stop the Zika virus from replicating in the body, and another inhibits the virus from killing brain cells. The latter could prevent microcephaly in unborn children of women infected with the virus.

Other Zika findings by the team have been published in *Cell*, *Nucleic Acids Research* and other journals. But that doesn’t mean the research is over.

“For the first paper, we screened 6,000 (drug) compounds,” Lee said. “Now we’re working on an additional compound screening, which is 80,000 compounds. We’ve developed a new assay that allows us to screen more compounds in higher capacity.”

That’s how he started out.

“I served as a research assistant at the University of California, San Diego, and published papers in high-profile journals, which contributed to my recruitment by FSU,” Tang said.

The FSU Department of Biological Science’s doctoral candidates “all go on to bigger things,” he said. “Of the most recent two students, one is doing a postdoctoral fellowship with a National Academy of Sciences member at Rockefeller University; the other one went on to get a J.D. and now specializes in biomedical intellectual property law.”

Both Hammack and Sarah Ogden are looking at other options. Hammack says she’s thinking about governmental agencies, such as the Centers for Disease Control and Prevention, while Ogden is considering either the industrial pharmaceutical sector or “more government or nontraditional-type of systems that are interesting, because there are some needs for virology expertise in those areas.”

While that future is closer for the fifth-year doctoral candidates, it’s a bit further away for third-year candidate Yichen Cheng. She says she has “two more years, and I’m still deciding. All this work experience is really interesting. I’m not sure if I’m staying in academia, or leaning toward pharmaceutical companies.”

Tang said that working at Florida State on real-world problems, such as the Hepatitis C and Zika viruses, has its benefits. The students “gain relevant experience, which enhances motivation for their independent research careers and builds their credentials, as well,” he said.

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Christy Hammack said. “I feel very fortunate to be working on it.”

While they continue studying the Zika virus, the doctoral candidates are also thinking about their futures after Florida State.

Lee says she wants to remain in research.

“When you’re in a large field, you have to find a niche,” she said. “Our lab has a small niche, where we combine aspects of neuroscience and virology. So I’m looking to expand on that and find a postdoctoral program that can harbor those interests, and then go into academia, be a professor at some stage and have my own lab.”

From left: Professor of Biological Science Hengli Tang and his doctoral students, Emily Lee, Sarah Ogden, Yichen Cheng and Christy Hammack.
Mariel Vazquez is a rising academic star whose research spans not one, not two, but three disciplines. That makes her a kind of science triple threat. For those lacking her proficiency in mathematics, biology and physics, some of her papers ("Fts-K dependent XerCD-dif unlinks replication catenanes in a stepwise manner," anyone?) might be a bit out of reach.

If that includes you, not to worry: We’ll draw some mental pictures to help you appreciate this gifted scholar, a professor in both the mathematics and the microbiology and molecular genetics departments at the University of California, Davis. Our approach may be unusual, but it is also apt: Vazquez is a visual learner, too, she says. So with the following images, even English majors can grasp the gist of her path to science and unique research.

Picture No. 1: A Winding Road

Vazquez’s path has many twists, turns, zigs and zags, both across the globe and across her mind.

The starting point is Mexico City, where young Mariel, the daughter and granddaughter of engineers, showed an early love for numbers.

“I remember that I was always counting and always looking for patterns in my counting,” Vazquez remembered. Blocks, footsteps, swimming strokes: Everything could be quantified, categorized, analyzed.

By high school, it was clear her relationship to math would not be exclusive.

“I fell completely in love with molecular biology,” she said, “everything having to do with the cell.”

Vazquez was hopeless with names and dates in history class. But when it came to memorizing cell parts, she was a whiz.

“With microbiology, everything was visually beautiful, and that is what attracted me,” she said. “By drawing cells, I could learn.”

In college, Vazquez added physics to her expanding collection of interests. And it was there, at the National Autonomous University of Mexico (commonly referred to by its Spanish acronym, UNAM), that her winding path crossed that of another interdisciplinary explorer, De Witt Sumners.

“We just became friends from day 1, and we started working together from day 1,” Vazquez says of her husband and former FSU classmate, Javier Arsuaga.

Sumners, now an emeritus professor of mathematics at Florida State University, was at UNAM to give talks on his research. Although he had spent the first two decades of his career doing math "as pure as the driven snow," by this time his work had taken an unconventional turn. Sumners discovered that applying a mathematician’s insight to biological problems such as the knots in DNA was a powerful way of understanding them.

At first, his purist peers raised eyebrows over the cross-disciplinary approach: If he wrote a paper without the word "theorem" in it, was that really a paper? But it gained traction, attracted funding and changed Sumners’ career.
Sitting in the UNAM audience as Sumners described this emerging line of research, Vazquez was riveted.

“It put the two things I liked the most together,” she recalled.

**Picture No. 2: A Venn Diagram**

Vazquez increasingly saw academic disciplines not as islands, but as overlapping circles. When you looked closely at those areas of overlap, exciting patterns emerged.

That meeting of minds at UNAM eventually led Vazquez to Florida State. Other high-profile graduate programs tried luring her, but they didn’t offer the interdisciplinary environment championed by Sumners.

“I was very lucky to get her to come to FSU — she got some very competitive offers,” Sumners said. “She’s the person you dream about getting as a grad student because she was so good.”

As co-director of a national center in the mathematics of molecular biology, Sumners plugged his students into a broad network of prominent scientists and encouraged the cross-fertilization of ideas. Vazquez and others were free to explore the fertile academic ground between disciplines.

“FSU allowed me to pursue an interesting career when very few places in the U.S. or the world were set up for that,” Vazquez noted. “So I’m very grateful.”

Vazquez wasn’t Sumners’ only big catch that year. On the same day on which she flew in from Mexico City, a plane from Madrid carrying fellow Sumners recruit Javier Arsuaga touched down on the Tallahassee tarmac.

The pair of protégés hit it off from the start, drawn together by a shared love of math and molecular biology and the challenge of a new campus, new city and new country. They signed up for utilities together, prepped for exams together, traveled to the same conferences and co-organized workshops.

“We just became friends from day 1, and we started working together from day 1,” Vazquez remembered.

**Picture No. 3: A Knot**

After day 1 came day 2, day 3, day 4. Eventually it was clear that a countless number of days lay ahead of them: They grew from colleagues into a couple. About three years into their Ph.D. program, they tied the knot.

Their partnership was one strand in the close community of students and professors they belonged to at FSU. Along with all the hard work was some play: The couple threw great parties at Alumni Village, said Sumners, recalling his imperfect attempts at dancing the Macarena there.

Arsuaga and Vazquez have not only created a family together (they are raising a daughter and son) but a career. They co-direct the Arsuaga Vazquez lab at UC Davis, leading an interdisciplinary team of students and scientists conducting research on topological molecular biology. The also teach classes together.

“It was very natural,” Vazquez said. “We met working together, so we have always continued doing that.”

Beyond their nuclear family is their lab family, and Vazquez is committed to her role as mentor and role model there. Their lab is structured to encourage questioning across disciplinary lines and across lines of seniority. It can make for clashes and discomfort, Vazquez said, but in ways that lead to new ideas and push them all to be better researchers.

Vazquez has not allowed her ties to former FSU peers and advisers to loosen. They catch up at conferences worldwide, meet up at each other’s homes. In April 2016, she and other former Sumners students converged in Wakulla Springs State Park for a “Sumners Fest.” Beneath a large portrait of the mathematician commissioned for the occasion, the scientists talked shop, reminisced and toasted their former mentor.

**Picture No. 4: An Upward Slope**

Perhaps the best picture one could draw to represent Mariel Vazquez is an upward slope.

Her work has been recognized by several prestigious national awards, including the National Science Foundation CAREER Award in 2011, the Presidential Early Career Award for Scientists and Engineers a year later and, most recently, the Blackwell-Tapia Prize in 2016. The latter award recognizes a mathematician who has contributed significantly to his or her field and helped address the under-representation of minorities in math.

Vazquez sees her increasingly high profile as a powerful symbol to aspiring mathematicians and scientists who, like her, don’t fit the stereotypes.

“It’s very important to stand up there and show that a woman can do this research, that you can receive an award, that you can do math — and you don’t need to look a specific way,” Vazquez said.

Her research — which could lead to better drug designs and cancer treatments — is often illustrated by knots, twists and turns that show how DNA interacts, untangles, packs and rearranges itself. Those same figures could just as well represent her career: a path fueled by curiosity, blind to disciplinary barriers, successful not despite its many zigzags, but because of them.

“Focusing on a single thing is difficult,” Vazquez said. “I’m naturally attracted to many different things.” She’s as at home in a concert hall, art gallery or museum as in a lab, and sometimes spies links to science in a canvas or sculpture. She’s that conference participant who attends all the sessions, even when they don’t relate to her work.

“If the talks are good, I’ll enjoy them, and sometimes I’ll get ideas,” she said. “I will see some connection, and I find that exciting.”

Vazquez, seen with renowned mathematician Richard Tapia, was awarded the Blackwell-Tapia Prize in October 2016. The award recognizes a mathematician who has contributed significantly to his or her field and helped address the under-representation of minorities in math.
young boy watches lightning streak across the sky, counting the seconds between the flash of light and the boom of thunder. A girl is glued to the television set watching as the "cone of uncertainty" shows a hurricane might actually hit where she lives. Another is lulled to sleep by the soothing smooth-jazz soundtrack accompanying the Seven-Day Outlook on The Weather Channel.

And so a weathercaster is born.

And Florida State University’s Department of Earth, Ocean and Atmospheric Science (EOAS) is where they are made, in the one-credit, pass-fail MET 3940 course with the eponymous name “Weathercasting,” and a peerless half-hour, five-day-a-week live weather program.

In the early 1980s after students presented a petition, Associate Professor Jon Ahlquist’s department chair in what was then the Department of Meteorology asked him to create a class that would teach weathercasting basics. Despite his initial reservations — and a math and physics background that had him more interested in computers and satellites than "seat-of-the-pants forecasting," he took on the task, and has been teaching the class ever since.

Only two other universities offer a weathercasting curriculum, said Ahlquist — Penn State and Mississippi State. But undergraduates don’t get the experience of doing on-camera forecasts at Penn State, and Mississippi State’s is more broadcast-oriented, without being backed up by a full meteorology department.

FSU’s graduates have a leg up in the competitive job market because stations seek recommendations from Ahlquist, and because of the department’s now-vast alumni network. Chief-meteorologist alumni will call their alma mater when hiring junior staff, and younger graduates give a heads-up when they’re moving to larger markets from their starter jobs in places such as Alexandria, Louisiana; Minot, North Dakota; or Alpena, Michigan.

In all his years of teaching, Ahlquist has never actually done a televised weathercast himself, but he knows a thing or two about performing for an audience.

His commitment to get out of his comfort zone and jump into weathercasting was twofold:

“One is that meteorology is the only science that has a major part of every local newscast, and I would like that represented by somebody who understands the science,” Ahlquist said.
“And the second reason is that I’d like that person to be one of our graduates.”

And the national weathercasting ranks are full of FSU grads. Some of them are household names, such as hurricane expert Bryan Norcross, New York City-based Janice Huff and The Weather Channel’s Stephanie Abrams, Jennifer Lopez and Rich Johnson. Others have had long, award-winning careers in their markets, including Alan Sealls at WKRG in Mobile, Alabama; Harrison Hove at WCMH in Columbus, Ohio; Greg Dee of WKYC in Cleveland; and five bilingual Spanish-English weathercasters, including Florida-based Ariel Rodriguez and Jennifer Correa of Miami and Irene Sans in Orlando.

Norcross and Huff went to FSU before the weathercasting class began but often return for a fall workshop, joining other working professionals in critiquing videos of students’ forecasts.

At the beginning of the once-a-week weathercasting classes, Ahlquist offers his critique of two-minute-long videos of his students doing an actual weathercast. But as the semester progresses, each member of the class writes comments, which are then passed on to the presenter as immediate feedback.

Compliments are welcome; comments such as “That was bad” are not.

“What I have the students do . . . is to concentrate on what’s the simplest thing that will make the biggest improvement,” Ahlquist said.

There is a wide range of ability in what Ahlquist calls his “one-room schoolhouse,” from newbie freshmen to about-to-graduate seniors who have taken the class two or three times already and gained real-life experience in internships or FSU’s weekday weathercasts.

Some of the commentary is substantive — how to best describe what “dew point” means, for example — but some of the most interesting are performance-related. In one class, Ahlquist gave pointers on deep breathing to calm nerves, lower the heart rate and dissipate tension before the camera turns on; and how to keep from “bouncing” while forecasting by thinking “heavy legs.” He also offered an amusing discussion into how long ponytails can distract viewers. (Everyone knows it’s unwise to wear green in front of a green screen for obvious reasons, but clothing with fine lines and plaids “are like the worst,” he said, creating wavy more patterns.)

One of the semester’s favorites is “Distraction Day,” when something will go wrong while a student is doing his or her report. The graphics get cut off, somebody walks in front of the camera, a fan blows in the student’s face or — and this one is guaranteed to happen to a real-life weathercaster at some point — the audio goes out.

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“Those things really teach you to roll with the punches because, basically, no matter how large a market you’re in, there’s always a potential for something to happen,” said Brittany Bedi, a 2013 FSU graduate now working as a weathercaster for WCTV in Tallahassee.

Not everybody in the class necessarily sees themselves as a future meteorologist. The only prerequisite is MET 1010, “Introduction to the Atmosphere,” which can fulfill the basic science requirement, and the weathercasting class counts as one of FSU’s required “oral competency” credits. By semester’s end, students will have made 13 presentations — not enough to make it as a pro, Ahlquist said, but a good taste of what the job is all about.

Those on track to become professional weathercasters can hone their skills by participating in the “FSU Weather” show. Every weekday, a volunteer crew of students produces a half-hour-long live show featuring weather information broadcast to a three-county area around FSU on Comcast channel 4.

Students, most undergraduates, are completely responsible for planning the show’s 10 three-minute segments, building graphics, making on-camera reports, and doing all the technical activities required to create a live broadcast.

In addition to the traditional forecasting in front of a green chroma key wall, there are in-studio reporting segments. They appear to be located in a bright, expansive studio featuring marble, pediments and burl wood, but it’s all green-screen magic. The student broadcasters are actually sitting in a bedroom-sized room at a folding table in the basement of the Love Building, in a windowless and well-worn broadcast studio.

But the studio will be moving on up around December 2018, when construction is complete on a new, $69.5 million EOAS building right next door to its current home. Because of its visibility from Tallahassee’s West Tennessee Street, the new facility is planned to be a “signature” building on campus, featuring a modern gothic design of brick and glass. Construction is planned to begin in January 2017, and the studio is set to be located on the second of the building’s six floors.

 Corrections, Jan. 3, 2017:

While Jon Ahlquist created FSU’s weathercasting course and has taught it for most of its history, he was not the only instructor. Then-Assistant in Meteorology Howard Kilpatrick taught the course from approximately 1987 to 1991. Also, while meteorology degree programs at FSU, Penn State and Mississippi State run the three largest TV weathercasting training operations, offering experience for both undergraduate and graduate students, they are not the only ones. An ever-growing number of colleges and universities offer weathercasting, and competition is stiff. :-}
Hermine Comes to Town

Student weathercasters at FSU got the chance of their (albeit short) lifetimes this fall when, after days of tracking and forecasting Hurricane Hermine through the Caribbean and Gulf of Mexico, it looked to be taking dead aim at Tallahassee. It would be the first hurricane to make landfall in Florida since Wilma in 2005, when most of them were in elementary school, and the first to hit Tallahassee in 31 years, well before any of them were born.

A team of meteorology students — the “Hermine 11” — decided to hunker down in the weather studio in the basement of the Love Building to stream live reports of Hermine as the hurricane moved toward Northwest Florida in the overnight hours between Thursday, Sept. 1, and Friday, Sept. 2.

As the Category 1 hurricane closed in, the crew cut off the broadcasting at about 11 p.m., but mobile devices were up and running, so they continued to share information via social media.

As luck would have it, just as a few students went to the roof of the building to take a look at the situation around midnight, the lights went off campus-wide. Fourth-year student Matt Reagan was able to snap a photo in the eerie darkness and tweet it out to the world.

The world noticed.

“I was tweeting all my experiences, and that was one of the pictures. It was just a picture of darkness and it ended up getting quite a bit of traction on Twitter,” Reagan said. “I picked up over 400 followers that night. That’s when I started getting the messages saying ‘Hey, can we talk to you?’

Before the night was over, Reagan was the go-to guy for hurricane information for many media outlets, including ABC News, radio shows in the United Kingdom and Ireland, and the BBC World Service — with its average daily audience of 30 million people.

“It was a pretty interesting day,” he said. ☺️

Andrés Rondón and Jordan Frazier staff the anchor desk during a live broadcast of “FSU Weather.”

“Do any of you have any interest in teaching?”

Educational innovator

Ed Mansouri’s WeatherSTEM stations are bringing meteorology to the classroom

By Rosanne Dunkelberger

He didn’t know it at the time, but that fateful question asked of meteorology graduate students in the fall of 1997 started Ed Mansouri down a path that would lead him to spectacular success over the next two decades. And while that path would eventually veer away from Florida State University and its College of Arts and Sciences, both have always been within hollering distance throughout his entrepreneurial career.

Since nobody raised their hands — and it was a paying gig — Mansouri stepped up to teach MET 1010, the college’s introductory meteorology class.

“My (graduate school) research was very programming-oriented . . . and I recognized it would not be that big of a deal to start writing some software that could help me teach my courses,” he said. Mansouri’s profile quickly eclipsed the meteorology department, and he became known around campus as “that guy putting his course online . . . doing a bunch of stuff with the internet.”

One of his professors told Mansouri about Blackboard, a computer program the university had purchased that he might be able to use. At the time, the program “was not much more than the teacher uploading a syllabus and maybe some course guides,” he recalled.
Mansouri was already building functions that would allow an instructor to give tests online, keep track of grades, and have chat sessions.

“I had, of my own accord, already started developing some mature functionality that I felt matched up better than what I had seen in this program Florida State invested in . . . I ended up becoming much more fascinated with how the internet could be used as a teaching tool and how a business could be developed to support that,” he said.

While still in grad school, Mansouri cultivated the first customers for his teaching program, called Educator, ultimately landing his first big fish, Texas A&M University. Throughout the early 2000s, his company, Ucompass, would grow, with at one time as many as 150 colleges and universities on his client list. Ultimately, Ucompass would shift gears to focus almost exclusively on its multimillion-dollar contract with the Florida Virtual School (FVS).

“If you’ve taken or taught a course from Florida Virtual School in the last 15 years, you’ve used that software,” he said. “I’ve played a role in the education of . . . it’s gotta be close to 2 million Florida kids. So that’s something I’m pretty proud of.”

In recent years, Mansouri’s business focus has shifted to an interest that dates back to childhood — the weather. While working with the FVS curriculum, he thought there was a glaring omission in the state’s science elective offerings; there was no high school-level meteorology course.

“Look at our two biggest industries in Florida. Agriculture and tourism. Name me something that impacts those industries more than weather,” he said. “I believe our children in Florida should be amongst the most weather-literate in the world.”

His latest venture, called WeatherSTEM, uses school-based weather stations to provide real-time weather data that can be used to teach meteorological concepts online with curricula for grades K-12. In 2014, he donated 15 weather stations to schools in Leon County. A year later, he spent about $1.5 million of his own money to place one weather station in each of Florida’s 67 counties to be used by local students.

Each weather station has its own web and social media presence, offering temperature, wind, rain, solar radiation and other meteorological information as well as livestream video.

This year, Mansouri sold Ucompass to the state of Florida for $5.7 million and will now turn his attention to transitioning WeatherSTEM from a philanthropy to a successful for-profit business.

In addition to the main campus, Mansouri has donated WeatherSTEM units to FSU’s Coastal and Marine Laboratory, Ringling Museum of Art and Panama City campus.

Mansouri is discovering that his weather stations’ utility extends beyond education. After reading a news story about WeatherSTEM, FSU’s emergency management director saw the potential for using weather stations on campus for safety and disseminating information; now they’re located on eight different Florida State properties, 12 ACC stadiums, two from the SEC, and others nationwide.

Farmers are using weather stations to measure soil moisture and temperature, leaf wetness, and the usual weather information.

“‘I’m definitely looking to position WeatherSTEM to be an acquisition target,” Mansouri said. “What industry that ends up being in — Is it going to be education? Is it going to be agriculture? Is it going to be health and safety? — is a story that remains to be written.

Throughout his entrepreneurial career, Mansouri has maintained relationships with his alma mater. He has hired FSU alumni and alumni-owned businesses through the years — including his No. 1 employee, his wife, Ginny. They have three young children, 9-year-old Max and 7-year-old twins, Mason and Abigail. Max, who is autistic, has been helped by FSU’s Center for Autism Research and Development.

In addition to the main campus, Mansouri has donated WeatherSTEM units to FSU’s Coastal and Marine Laboratory, Ringling Museum of Art and Panama City campus.

Mansouri somewhat sheepishly admits one of his current FSU connections is as a “failing student.” He signed up in fall 2016 as a Ph.D. student, hoping to discover a way to predict lightning. Unfortunately, a calendar mix-up led him to miss a midterm exam and drop the class.

“‘I’m not going to be that hard on myself,” he said. “I think the difference between a successful entrepreneur and one that does not succeed is not talent, it’s persistence in spite of failure.’"
For most of the 1990s, Stephen McLeod owned a popular florist shop in mid-town Tallahassee, where he and his 10 employees arranged flowers for some of the capital city’s most exclusive occasions and prominent citizenry. The high-volume shop was a gem, and before the end of the decade, it attracted a buyer. The sale of his shop opened a whole new world to McLeod.

“|I enjoyed owning a business, but it wasn’t what I aspired to do,” McLeod said, who had earned bachelor’s degrees in communications and public relations with a minor in history from the University of Alabama in 1988.

So McLeod enrolled in the graduate program in history at Florida State University. He graduated in 2005 with a master’s degree, specializing in public history. He also earned a certificate in history museum studies.

Today, instead of arranging flowers, the Tallahassee native is arranging major academic conferences, prestigious lecture series and symposia and coordinating a robust fellowship program. These are only a few of the things McLeod is responsible for as director of library programs at the Fred W. Smith National Library for the Study of George Washington at Mount Vernon Estate, Museum and Gardens in Virginia.

Situated on the Potomac River and on the grounds of Washington’s Mount Vernon plantation, one of the nation’s most-visited historic sites, the new presidential library is a rich resource for scholars and students from around the globe, as well as those interested in George Washington, colonial America, and the Revolutionary and founding eras. For anyone aspiring to use their American history degree to forge a career, McLeod’s position there is an enviable one.

“This is one of those rare positions available in our field,” said McLeod’s former professor Edward Gray, chair of Florida State’s Department of History, who reconnected recently with McLeod when he was invited to Mount Vernon to participate in a scholarly conference on the American Revolution.

“George Washington’s home is an incredibly important institution, the mother lode of national historic sites. I’m proud that, through Stephen, FSU has a presence there. I’m also hugely gratified to know that, partly because of his experience in our department, Stephen is so well suited for this unique job.”

McLeod says Florida State prepared him well. Also, while working on his master’s degree, he took advantage of prime internships, one working with the head curator of Britain’s National Trust, both in London and in the Cotswolds in south central England. While completing his master’s, he also worked with the Florida Department of State’s Division of Historical Resources, managing the state’s four museum shops.

“I have always been passionate about history and preservation, so it is very easy for me to be motivated about my job,” Stephen McLeod said.
George Washington's iconic estate is owned and maintained by the Mount Vernon Ladies' Association, the oldest national historic preservation organization in the United States. Founded in 1853, the association purchased the property from the Washington family in 1858. In 1986, the association broadened its vision beyond the preservation of Mount Vernon to more broadly educate the public about Washington's life, achievements and character.

In 2010, that mission expanded to include the construction of a new research library. The Campaign for the Library — with Gay Hart Gaines, the vice regent for Florida, as chair — set an ambitious goal to construct the library: $100 million. In just three years, the campaign raised $106.4 million in private funding, including a gift of $38 million from the Donald W. Reynolds Foundation. Groundbreaking took place in April 2011, and the library opened in September 2013.

McLeod also is coordinating a new academic partnership with King’s College London to establish a scholarly exchange through Georgian Papers Programme, launched at Windsor Castle in 2015 to digitize, disseminate, study and interpret an extraordinarily rich collection of correspondence, maps and royal household ledgers. The intention is to create a rich internet resource open to academics and the public, allowing documents to be searched and analyzed creatively. Each year, a Washington Library scholar and a King’s College scholar will both be named to three-month fellowships.

In addition, McLeod administers the Washington Library’s research fellowship program, which annually awards about $115,000 to scholars who reside on the library campus for varying amounts of time.

In the course of all of these activities, McLeod has crossed paths with and developed personal and professional relationships with leading historians, such as Pulitzer Prize winner and legal scholar Edward J. Larson of Pepperdine University; Akhil Reed Amar, an expert on constitutional law and former law professor at Yale Law School, who was awarded the Pulitzer Prize for History and 15 other prizes in 2009 for her work regarding the relationship of Thomas Jefferson and Sally Hemmings.

“I absolutely love where I am in life and I know that what I am doing daily adds greatly to the lives of others,” McLeod said. “Many people along the way, particularly in Tallahassee, encouraged and believed in me. I am so grateful for them all and the parts they played in getting me to where I am today.”

McLeod arranges major academic conferences, prestigious lecture series and symposia and coordinates a robust fellowship program in his role as director of library programs at Mount Vernon.
Florida Rep. Jim Boyd currently serves in a House leadership position as deputy majority leader and majority whip.

Legislative leader

**FSU psychology studies ‘prepared me for the real world,’ says state Rep. Jim Boyd**

By Kati Schardl

When it came time for Florida state Rep. Jim Boyd, R-Bradenton, to choose the university he would attend, it was a toss-up between the University of Florida in Gainesville — closer to his hometown, with friends from Bradenton enrolled there — and Florida State University in Tallahassee, where an aunt and uncle lived.

A visit to check out the FSU campus clinched his decision.

"I had a lot of friends who were Gators, and I gave that a good look," Boyd said. "But I really liked the feel of FSU's campus, the topography with the rolling hills. I liked the community — Tallahassee reminded me of Bradenton. So that's what I chose."

Boyd came to FSU in 1976 after earning an A.A. degree at Manatee Junior College (which later became Manatee Community College and is now the State College of Florida, Manatee-Sarasota).

"My first year at FSU was such an eye-opener," he said. "I came from a small town to a big world with a lot of new people and friendships. I enjoyed getting plugged into the larger university community."

Boyd is the scion of one Bradenton's most prominent families, whose insurance and investment firm has been in business for more than four decades. He originally planned to study business, but took a psychology class along the way and enjoyed it so much he decided to major in it.

"Psychology is never a bad thing to study, regardless of what you end up doing," Boyd said. "FSU has a very good psychology program. It prepared me for the real world."

His favorite class was a behavioral psychology course with a clinical component at Florida State Hospital in Chattahoochee.

"I really enjoyed that," he said. "I might have considered doing that for a living. The practical application (at the hospital) made it seem really real."

Looking back, Boyd thinks joining a fraternity would have enriched his FSU experience, but he did take part in a full range of students activities and especially enjoyed going to football and basketball games.

"My claim to fame is that I got to FSU the same year as Bobby Bowden," Boyd quipped.

After graduating in 1978 with his bachelor's degree in psychology, Boyd returned to Bradenton, where he joined the family insurance firm. He also took up the family tradition of public service — grandfather Hugh Boyd served in the Florida House of Representatives and uncle Wilbur H. Boyd served in the House and Senate. Boyd started on the local level, serving on the Palmetto City Council from 1989 to 1993 and also holding office as vice mayor and mayor.

In 2010, Boyd was elected to succeed Republican state Rep. Bill Galvano in the 68th District, which encompassed parts of Manatee County. In 2012, he ran in the newly designated 71st District, which covered most of the territory in the 68th after House districts were reconfigured. He currently serves as the House deputy majority leader and majority whip.

"He was in the Senate when I got to the House," Boyd said. "I got to know him early on and had such respect for him and grew to like him. We worked on some of the 'Seminole Caucus' things together."

"He was a wonderful choice for president to lead FSU."

The respect is mutual.

"Jim is a good friend, and I worked with him closely on many important issues impacting higher education," Thrasher said. "Jim is one of the real 'go-to guys' in the Legislature. We are truly blessed that he is an FSU alum and appreciate all he does for higher education in our state."

Boyd is an active member of Seminole Boosters, and he and wife Sandy — who have two children, Ansley and Austin — have had football season tickets for many years, he said. He’s also an enthusiastic supporter of FSU’s academic programs.

"(Former presidents) T.K. Wetherell and Eric Barron and, now, John Thrasher have done such a great job advancing the academic accomplishments FSU has attained," Boyd said. "The sports are fun to be part of, but at the end of the day, what matters is the quality of education FSU delivers."

"It’s fulfilling to me to see how we’ve grown in that way and the respect we’ve gotten across the academic world."

Boyd’s longstanding connection to FSU was fostered by a fellow alumnus serving in the Legislature — future FSU President John Thrasher.

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The respect is mutual.
We’re on our way — with your help
Philanthropic support is key to FSU’s climb in national rankings

By Barry Ray

Florida State University is on the move.

This past September, U.S. News and World Report released its annual rankings of the nation’s top universities. That ranking showed FSU moving up five spots to No. 38 among all public universities — the university’s highest ranking yet, and the greatest gain among any of the nation’s top 50 public universities this year.

As President John Thrasher pointed out, “This upward movement is a testament to the hard work of our exceptional faculty, staff and students who continue to make FSU one of the best universities in the nation.” This is certainly true, but there is another group of people who also share in this success — the thousands of alumni and other friends of Florida State who generously give of their time and money to enhance the lives of our students and faculty.

Nowhere is such support more critical than in the College of Arts and Sciences.

“As Florida State University continues ahead with its steady climb among U.S. public universities, the College of Arts and Sciences — FSU’s oldest and largest — plays a central role, and there is no doubt that your commitments have a sizable impact,” said Dean Sam Huckaba. “Your generosity is essential for helping us meet our needs.”

For example, Huckaba said, when you make a gift, you help the college:

• Recruit the best faculty, and keep those who are being recruited by our competitors.
• Fund scholarships and fellowships that directly affect the lives of students. These can make a difference in many ways, including recruitment of students in targeted areas, enrichment of the undergraduate experience, improvement in the area of retention, and enhancement of career preparation.
• Provide flexibility and a way to strengthen the research component across the college. Whether outfitting labs to state-of-the-art levels, placing students into lab settings to help prepare them for careers, or providing funds for students to travel to present their research findings, the costs of reaching for greatness extend beyond the capacity available through non-private sources.

“Gifts have a major impact on our departments, faculty and students,” Huckaba said. “For example, a recent gift from 1959 graduate Philip Wyatt established an endowed chair in Physics (see story on page 9), and we are recruiting a genomics expert to an existing endowed chair in Biology. Meanwhile, study-abroad scholarships help send dozens of students per year to global sites.”

Such support “creates an atmosphere of excellence and the expectation of superior performance,” Huckaba said. “I extend to you an invitation, via your philanthropic efforts, to join us as we strive to turn such expectations into reality.”

Ermine Owenby is an FSU alumna who has accepted that invitation. Owenby, a three-time Florida State graduate (B.S. in business in 1963, M.S. in education in 1975, and Ed.S. [educational specialist] degree in 1981), has made several gifts to the college to establish the Ermine M. Owenby, Jr., Fund to Promote Excellence, which provides financial support for women enrolled in any of the graduate programs in the College of Arts and Sciences so that they can present papers at professional meetings or conferences.

Merry Elizabeth Low, a third-year doctoral student in the Department of Modern Languages and Linguistics, recently wrote a letter of appreciation to Owenby after the fund made it possible for Low to attend a conference in Italy.

“Thanks to your financial support, I was able to present some of my research on my dissertation, ‘Women Writing Through Reform in France and Italy: Marguerite de Navarre and the Female Spiritual Community,’ at the American Association of Teachers of Italian international conference in Naples, Italy,” Low wrote. “As a young scholar, funds are not always available, and so every ounce of external support is incredibly helpful, especially when it comes to international travel. Had it not been for your generosity, I would not have been able to afford such a conference.”

Dorsa Komijani also wrote a letter of thanks to Owenby after receiving her own travel award, which helped her travel to a major conference in Maryland.

“I am writing this letter to express my sincere gratitude to you for selecting me as a recipient of the Ermine M. Owenby, Jr. Travel Award,” wrote Komijani, a graduate research assistant in physics who is conducting research at the National High Magnetic Field Laboratory’s Electron Magnetic Resonance Facility. “I am so humbled to have been chosen for this award, providing support to present my recent research at the American Physical Society’s annual March meeting, one of the largest physics meetings in the world. I received many interesting comments and questions regarding my presentation which will direct me in my future research.”

If you’re interested in learning more about the College of Arts and Sciences’ “Raise the Torch” campaign priorities or other giving opportunities, contact Assistant Dean for Development Nancy Smilowitz at (850) 294-1034 or nsmilowitz@fsu.edu. To make an online contribution, visit http://fla.st/1Q6bmO0.
Duly Noted

News and notes from around the College of Arts and Sciences

Faculty Accomplishments

Pioneering polymer scientist receives top faculty honor

Joseph B. Schlenoff, a world-renowned pioneer in the creation of thin films through polymer science, has been named the 2016-2017 Robert O. Lawton Distinguished Professor, the highest honor given by the Florida State University faculty to one of its own.

“As the widely recognized world leader in the layer-by-layer assembly of novel chemical surfaces known as thin films, Joe Schlenoff has significantly contributed to materials research and we are exceptionally proud to name him this year’s Lawton Distinguished Professor,” said FSU President John Thrasher.

Schlenoff is the Leo Mandelkern Professor of Polymer Science in the Department of Chemistry and Biochemistry.

“Knowing the caliber of past and present faculty of this great university, I am humbled and honored to be selected by my colleagues for such a distinction,” Schlenoff said.

Using alternately stacked layers of polymers containing an excess of either negatively or positively charged atoms, Schlenoff essentially builds polymer “sandwiches.” These ultra-thin polymer coatings, similar to those found in shampoo, can be engineered with tailored properties for a range of applications and are useful for creating biocompatible surfaces that can be implanted into the human body.

Read more about Schlenoff at http://fsu.st/2JH1VQ.

Professor of French awarded two preeminent fellowships

Lori J. Walters, the Harry F. Williams Professor of French in the Department of Modern Languages and Linguistics, has earned back-to-back honors, receiving two of the most prestigious fellowships in the humanities.

Walters, who specializes in medieval and early modern French literature, has been awarded a National Endowment for the Humanities (NEH) Fellowship and an American Council of Learned Societies (ACLS) Fellowship for 2016-2017. Both of these grants are ranked as “highly prestigious” in FSU’s Extraordinary Accomplishments Program, an incentive program that recognizes faculty achievements and encourages research development.

Walters is conducting research and writing about Christine de Pizan (1365 – c. 1430), a late medieval author who wrote for French royal courts during the reign of Charles VI. She composed both poetry and prose works such as biographies and books containing practical advice for women.

“The awards provide me with an entire year to devote to my project,” Walters said. “This is a real blessing for a professor, since so much of our time is given over to teaching and related responsibilities. Besides being a great honor for me, the awards are also a tribute to this remarkable woman whose contributions have not yet been fully appreciated,” she said.

Read more about Walters’ awards at http://fsu.st/2JLEQBF.

English professor Jimmy Kimbrell wins Guggenheim Fellowship

Florida State University English professor James “Jimmy” Kimbrell has received a highly competitive Guggenheim Fellowship for 2016 from the John Simon Guggenheim Memorial Foundation.

Kimbrell, who specializes in poetry, is using the fellowship to work on a new collection of poems. He characterized receiving the award as “truly humbling.”

“It is a great honor to represent FSU as a Guggenheim Fellow,” said Kimbrell, who joined FSU’s faculty in 2000. “I have been proud of my program, my department and my university for years now, so it feels especially rewarding to help spotlight what a truly vibrant and supportive community we have here at FSU.”

Kimbrell joins his English department colleagues Barbara Hamby, David Kirby, Robert Olen Butler and Gary Taylor as a Guggenheim Fellowship recipient.

Kimbrell’s new collection of poetry is tentatively titled “Flea Trap.”

“These poems will focus on the ways in which we cope, and often do not cope, with a wide range of circumstances, including grief in its many forms, and the overarching need for love and belonging to a community, tradition and mission that hopes to address and relieve the parameters of our geographical, cultural and emotional isolation,” he said.

Read more about Kimbrell’s award at https://goo.gl/vSS6td.

FSU chemist Alan Marshall named to Florida Inventors Hall of Fame

Alan Marshall, a world-renowned chemist and professor at Florida State, was named one of seven 2016 inductees to the Florida Inventors Hall of Fame for his transformative work in mass spectrometry.

Nominees to the hall of fame must be connected to Florida and have at least one U.S. patent. With eight to his name, Marshall more than fits the bill.

In 1973, Marshall co-invented Fourier transform ion cyclotron resonance (FT-ICR) mass spectrometry, used to analyze complex structures such as petroleum molecules and proteins. He has spent the ensuing decades developing the field, collecting patents and awards along the way.

He came to Florida State and the FSU-headquartered National High Magnetic Field Laboratory in 1993, where he serves as Robert O. Lawton Distinguished Professor of Chemistry and chief scientist of the MagLab’s Ion Cyclotron Resonance Facility.

Since then, he has done anything but rest on his laurels, said Gary Ostrander, vice president for Research at FSU.

“Co-inventing a powerful, new approach to mass spectrometry is very impressive, but Dr. Marshall did not stop there,” Ostrander said. “He has devoted a long, productive career to working tirelessly to promote FT-ICR by finding new applications and traveling the world to educate scientists about how it can advance their research goals.”

One measure of that impact is the number of FT-ICR instruments in use worldwide. In 1973, there were only about 35 ion cyclotrons available and their applications were limited, according to Marshall. Today, thanks to the work of Marshall and other pioneers in the field, there are 800. Marshall has trained about 160 graduate students and postdoctoral researchers over the years, who in turn have gone on to grow the field.

Read more about Marshall’s honor at http://fsu.st/2JDespW.

Alumni News

Oceanography alumnus named president of UCAR, elected to National Academy of Engineering

Three-time Florida State alumnus Antonio J. Busalacchi has a pair of recent accomplishments that distinguish him as one of the world’s top oceanographers.

Busalacchi, who previously served as director of the University of Maryland’s Earth System Science Interdisciplinary Center and is a professor in that university’s Department of Atmospheric and Oceanic Science, was named the next president of the University Corporation for Atmospheric Research (UCAR) on May 5, 2016, following an extensive international search. UCAR is a nonprofit consortium made up of more than 100 member colleges and universities focused on research and training in the atmospheric and related Earth system sciences. The center’s primary activity is managing the National Center for Atmospheric Research (NCAR) on behalf of the National Science Foundation, NCAR’s sponsor. UCAR also oversees a variety of education and scientific support activities under the umbrella of the UCAR Community Programs.

In addition, Busalacchi was elected to the National Academy of Engineering at the Academy’s annual meeting, held on November 3, 2015. The academy is a private, non-profit, engineering membership organization that elevates engineering to the level of arts and sciences. By announcing Busalacchi’s election at the meeting, the academy is emphasizing the importance of oceanography as a field of study on a par with other sciences.
In addition, in February 2016, Busalacchi was elected to the National Academy of Engineering (NAE), which is among the highest distinctions accorded to an engineer. He was cited by the NAE for his understanding of tropical oceans in coupled climate systems via remotely sensed observations and for international leadership of climate prediction/projection research. He is among 80 domestic and 22 foreign members elected to the academy’s Class of 2016.

Busalacchi earned a Bachelor of Science in physics in 1977, a Master of Science physics in 1980 and a doctorate in oceanography from FSU in 1982. He then spent 18 years at the NASA/Goddard Space Flight Center applying satellite observations to tropical oceanography and climate activities. Since 2000, he has worked at the University of Maryland.

In Memoriam

Endowed fund honors longtime English professor Fred Standley

Fred Standley, a highly regarded scholar who specialized in both British literature and the works of African-American writers, spent 50 years teaching English at Florida State University until his retirement in 2013.

Standley, the Daisy Parker Flory Professor Emeritus, died Dec. 17, 2014, at the age of 82.

Many associate Standley with a popular class he taught on banned books, a course he originally developed for FSU’s London program that led to a tradition of faculty members and students spending one day each school year reading aloud from previously banned books outside Strozier Library.

But Standley may be best remembered as a champion of faculty members and the critical role they play in the life and governance of a university.

Standley served as chair of FSU’s English department from 1973 to 1982, and filled in again as head of the department from 1982 to 1999. Longtime faculty member David Kirby credits Standley for ushering FSU’s program into the modern era.

“Fred Standley was the first of the new chairs in English. He was not a true child of the ’60s, but when he became chair in 1973, he brought an openness to new ideas that brought our department in line with the times,” Kirby said. “During his years as chair, he encouraged every faculty member in every area of the department, hiring people for their accomplishments as much as the degrees they held. He pointed out opportunities for book contracts and conference presentations; that mentoring on his part influenced the way the rest of us operate, which is why our students today do so well when they leave FSU.”

After his retirement, Standley remained active on campus in the Association of Retired Faculty and in the Friends of the Florida State University Libraries, the latter having honored him by establishing the Fred L. Standley Award for Academic Librarian of the Year, which is presented annually. Those wishing to make a memorial contribution to Friends of the Florida State University Libraries can do so by contacting Susan Costente of the FSU Foundation at (850) 645-8341 or sco8nten@foundation.fsu.edu.

A Tallahassee Democrat article memorializing Standley can be viewed at http://p2z/jH19.

Meteorology and physical oceanography professor emeritus James O’Brien

James O’Brien, a professor emeritus of meteorology and physical oceanography at Florida State who was widely known as “Dr. El Niño” for his groundbreaking research into that climate phenomenon, died Sept. 20, 2016. He was 81.

O’Brien began his tenure at Florida State in 1969, becoming a full-tenured professor in 1972. He was a fixture at FSU for more than 40 years, during which time he established the Center for Ocean-Atmospheric Prediction Studies as a center of excellence, performing interdisciplinary research in ocean-atmosphere-land-ice interactions to increase understanding of the physical, social and economic consequences of climate variability.

He was the recipient of numerous awards, including being named a Robert O. Lawton Distinguished Professor, which is bestowed on one FSU faculty member each year by his or her peers. O’Brien was a fellow of the American Association for the Advancement of Science, the American Geophysical Union, the American Meteorological Society and the Royal Meteorological Society, and a Foreign Fellow of the Russian Academy of Natural Science. Most recently, in 2015, he was recognized as a fellow of the International Union of Geodesy and Geophysics, a global organization dedicated to advancing research of the Earth and its environment, for his exceptional contributions to international cooperation in geoscience and for having attained eminence in the field of earth and space sciences.

Throughout the course of his career, O’Brien taught, performed research, and served on numerous boards and honorary societies. During his tenure at Florida State, he mentored 45 Ph.D. students and 66 master’s students. He also supervised more than 25 postdoctoral assistants. He considered his role as a mentor one of his proudest accomplishments, and many of his students and postdocs have gone on to make their own contributions to their scientific fields.

A longer obituary can be viewed at http://fla.st/2fDEhi1.

Physics professor and dean emeritus Steve Edwards

Steve Edwards Jr., a longtime professor of physics at Florida State who wrote the book used by a generation of FSU undergrads who took his basic physics introductory class, died May 27, 2016. He was 85.

Edwards taught at FSU for 44 years and served as Dean of the Faculties for 18 years. Believing strongly in the importance of higher education, he approached his work at FSU and in the profession with dedication, integrity, and a fierce commitment to academic standards. He always wanted to help faculty achieve their potential to further knowledge. Since he knew all the statutes and codes by heart and often wrote versions of the FSU history, he was known as the unofficial historian of FSU and as a source of institutional knowledge and wisdom.

Having earned bachelor’s and master’s degrees in physics from FSU in the early 1950s, Edwards began his teaching career at the university as a graduate student. He went on to earn a Ph.D. in theoretical physics at Johns Hopkins University, then returned to FSU to join the physics faculty in 1960, where he served until his retirement in 2003.

Edwards served as chair of the Department of Physics from 1973 to 1979. He was named the Dean of the Faculties and deputy provost in 1985 and served in that position until his retirement. Upon his retirement, he was honored with the Westcott Medal for his service to FSU. He won a teaching award, and he also received a distinguished service award from the FSU Alumni Association. In addition, during his time at FSU, he served as president of the Faculty Senate and was active in numerous honor societies, including Phi Beta Kappa, Mortar Board, and Omicron Delta Kappa, and was active in the Kappa Sigma fraternity-alumni association.

A theoretical nuclear physicist, he saw physics as an art form, and he was respected for his contributions to the field. His research focused specifically on theories of low-energy stripping reactions and other direct nuclear reactions. He wrote a physics textbook, “Physics: A Discovery Approach” (1971, 1982), and strove to make physics exciting and accessible for undergraduate students.

A Tallahassee Democrat article memorializing Edwards can be viewed at http://p2z/jQdAbnX.

Nobel laureate Harold Kroto

The Florida State University community mourns the loss of a scientific giant, chemistry professor and Nobel Laureate Harold Kroto, who died April 30, 2016, at the age of 76.

“Florida State University has lost a beloved member of its family with the passing of Sir Harry Kroto,” said President John Thrasher. “Sir Harry was a brilliant scholar and an even better man who was generous with his time and expertise in mentoring our students, collaborating with faculty and elevating the stature of this university.”

Kroto — a world-class chemist, teacher, mentor, friend and sometimes graphic designer — joined the Florida State faculty in 2004, capping off a brilliant career that included the 1996 Nobel Prize in Chemistry for the discovery of the Buckminsterfullerene molecule.

The discovery of Buckminsterfullerene, otherwise known as buckyballs, opened up a new world of chemistry. In 2015, researchers from the University of Basel in Switzerland discovered that these molecules were part of a cloud of gas floating between stars. Kroto had made that prediction years ago, but scientists only recently were able to adequately create the conditions in a lab to confirm that.

It also led to the development of new materials such as buckypaper, a feather-light material that is being tested in electronics, energy, medicine, space and transportation. Though it is light, it is also remarkably strong. The aviation industry, for example, projects that it could replace metal shielding in the Boeing 787, currently made up of 60 miles of cable.

Read more about Kroto’s life and career at http://fla.st/2fDEhi1.
A s long as she can remember, Miami native Lucia Sicius has wanted to be involved with marine biology.

“The first time I went snorkeling, when I was about 7, it was love at first sight,” the Florida State University junior said. “I’ve always said I have salt water in my veins.

“I am extremely passionate about marine conservation and animal rights, and originally I tackled this passion by going to protests against the Miami Seaquarium, or I’d pledge online to conservation campaigns. But eventually I realized the best way to bring about change is through research — that’s the basis of any major change.”

Sicius’ research dreams came true last summer when she was one of 10 from a pool of more than 400 nationwide applicants awarded a National Science Foundation Research Experience for Undergraduates grant to study at the renowned Woods Hole Oceanographic Institution in Massachusetts.

“The application for the program consisted of a personal statement, a few essays about the reasons for applying, my future directions and what researcher I’d like to work with, along with two letters of recommendation,” Sicius said. “I actually didn’t realize they only accepted 10 students (for the program) until after I had applied, so I thought my application process was a waste of time because I felt I had no experience and no chance of being accepted.

“I applied mostly to amuse my curiosity, not actually believing there was a chance of acceptance as a freshman. When I received the acceptance, I was so grateful and amazed I cried. It felt surreal.”

While at Woods Hole, Sicius conducted research on the pupillary movement of skates, a type of fish that resemble stingrays. She worked with live animals and in the lab doing work with the microscope to reveal the mechanisms behind the fish’s pupil.

“It was amazing, because I was placed in a setting where I was given the opportunity to conduct actual research and discover things that have never been researched before, rather than repeating experiments in a college laboratory where the results are already known,” she said.

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At the end of the summer, everyone created a poster and gave a presentation on their research.”

It wasn’t all work and no play for the participating students.

“The times we weren’t (working), trips and activities were planned for all the interns, so the summer was filled with more than just research,” Sicius said. “Also, Woods Hole is a scientific haven where the most amazing researchers from all over the world escape to during the summer, so I was able to have lunch with Nobel Prize winners and other well-known scientists almost every day.

“This experience opened my eyes and made me realize what actual research is like, and what a career in science entails and that it is truly amazing and always exciting.”

What’s next for Sicius, now that she’s back at FSU?

“I hope to keep conducting research and discovering what it is I want to devote my career to,” she said.

Correction, Jan. 3, 2017:

Lucia Sicius conducted research at the Marine Biological Laboratory at Woods Hole, Massachusetts, not at Woods Hole Oceanographic Institution. The Marine Biological Laboratory is affiliated with the University of Chicago.

“This experience opened my eyes and made me realize what actual research is like, and what a career in science entails and that it is truly amazing and always exciting,” Sicius said.
Barry Ray
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Born and raised in Jacksonville, Florida, Barry Ray graduated from FSU in 1988 with a bachelor's degree in English literature. He credits his college studies with helping him to hone the skills needed to become a successful writer, editor and communications professional. He has held communications positions in state government and with a daily newspaper, and has worked extensively as a freelance writer and editor. In 2005, Barry returned to FSU, working with University Communications to focus national and international media attention on the groundbreaking research and accomplishments of Florida State faculty.

Barry moved to the College of Arts and Sciences in 2013 and is excited about this opportunity to promote the college. He and his wife, Susan (a 1987 FSU grad), have two children.
Mark Your Calendar!

FSU’s Great Give is a 36-hour online giving campaign that provides an opportunity for Florida State supporters to make gifts toward specific academic programs, scholarships and student activities. In 2017, the Great Give will start at 9 a.m. on Thursday, March 30, and continue until 9 p.m. on Friday, March 31. Learn more about how your generosity advances the academic mission of the university — and the College of Arts and Sciences — by visiting http://greatgive.fsu.edu/.