



2012 PRESIDENT'S REPORT

WILLIAM & MARY





STEPHEN SALPUKAS

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Cover: View from the Wren Chapel
PHOTO BY KEVIN MONKO



— GIFTS THAT CREATED —

WILLIAM & MARY

I write from James Blair Hall, where the president's and provost's offices have taken refuge during preservation work on the venerable Brafferton, which came on line in 1723 and was last restored in the early 1930s. James Blair Hall sits cheek-to-jowl with a formidable statue of the Reverend James Blair.

As I think about this annual report's account of the past year at William & Mary, I am reminded how much we owe the Reverend Blair and others so long ago. It was Blair, with instructions from the General Assembly, who sailed to London in 1691 to pursue a royal charter for a new college in Virginia. He arrived armed with a "match" — pledges of support totaling £3,000 from 42 Virginia planters and clergymen. In 1693, along with the Royal Charter, King William and Queen Mary gave almost £2,000 for construction of the first college building (the Sir Christopher Wren Building), as well as two land grants of 10,000 acres each, one near the James River and the other near the York River, plus other revenue sources, including proceeds from a tobacco export tax and "fees and profits" from the surveyor general's office.

While in London, the intrepid Blair also bagged part of the estate of the renowned scientist Robert Boyle to create and sustain a school for Indian boys at William & Mary. This stream of revenue began in 1697 and continued until the Revolutionary War when the British, irritated, cut us off. The funds had flowed from the annual earnings on property named "Brafferton" in England, which had been acquired by Boyle's estate executors.

Blair succeeded in another philanthropic coup during that same trip. Three pirates — Lionel Wafer, John Hinson and Edward Davis — had been captured in Hampton Roads with their loot. It was impounded by the authorities, and the pirates were jailed pending their fate. Ultimately, they were allowed to go to London to argue their case. This was perfect timing for the opportunistic Blair. In a negotiated settlement, the pirates were pardoned and allowed to retrieve their loot in return for making a substantial gift (estimates range from £300 to £1,000) to William & Mary. I have looked for similar piratical opportunities, but none has yet surfaced.

After Blair returned to Virginia, the trustees of the new college bought a parcel of 330 acres at Middle Plantation for the school, and construction of the Wren began in 1695. As it was nearing completion in 1700, with no funds remaining, Sir Edmund Andros stepped in with £56 for "Sashing the College" (putting in the windows). In 1705, the interior of the Wren burned. From 1709 to 1710, Queen Anne, William & Mary's successor, gave £1,000 to rebuild it. Her giant portrait now hangs in the Great Hall of the Wren, appropriately over the fireplace.

Bricks and mortar are wonderful, but schools must have scholarships as well. In 1700, Lt. Governor Francis Nicholson gave £500 for a student scholarship. He also left his library to the college. When James Blair died in 1743 after 50 years as president of the college, he, too, left his library to William & Mary plus £500 for a scholarship to educate clergymen. In 1740, former Lt. Governor Alexander Spotswood gave his books and scientific equipment to William & Mary. Later, Norborne Berkeley, Lord Botetourt, royal governor of Virginia from 1768 to 1770 and rector of the Board of Visitors, provided funds for two gold medals to be awarded to the best scholars, one in science and one in classics. Gold medals were given to eight students between 1772 and 1775. The tradition was revived in 1941, and today during Commencement a single student is recognized for outstanding academic achievement with a replica (gold no longer — now bronze) of the original Botetourt medal.

William & Mary — its magnificent campus, its iconic early buildings, and its support for students and library — sprang from the generosity of those who saw its promise and nurtured its growth. In the more recent past, as the university has continued to grow in excellence and prominence, it has been nourished by the support of others, whose gifts have continued the transforming force of our founding donors.

They and we can be enormously proud of what William & Mary has become. It is unique among leading public universities for its continued emphasis on undergraduate education even as its graduate and professional schools have grown, and even as its commitment to research and scholarship has increased. William & Mary does, truly, link the brains of a big research university with the heart of a small liberal arts college. A few highlights from September 2011 to September 2012, covered in this report, illustrate those points:

- The Class of 2016 shows extraordinary promise, drawing on a record pool of applicants for the eighth year in a row, with strong credentials in virtually every area. SAT scores are outstanding, the class set new marks in terms of students of color (about 30 percent), we are more international than ever (6 percent from outside the U.S.), 10 percent are the first in their families to attend college, and 9 percent are legacies.

- Our faculty is exceptional. *U.S. News & World Report* just ranked William & Mary as tied for 6th among all national universities in teaching, and we recently received a \$25 million award from USAID to extend innovative work in documenting all forms of international assistance at the project level.

- Innovation is robust across the campus with scores of projects generating new revenues, lowering costs and improving quality. The provost's new Creative Adaptation Fund has spawned projects to explore eLearning opportunities in economics, chemistry labs and course design.

- We are heavily engaged in community service (students provided more than 332,000 hours a year); in athletics at all levels (with 500 varsity athletes, we have the largest and most successful program in the CAA, as well as powerful club and intramurals teams); and in study abroad (including our new joint program with St. Andrews in Scotland), with a higher percentage of our undergraduates learning abroad during their collegiate careers than any other public university in the country.

- Bob Gates '65, L.H.D. '98, an extraordinary public servant who is now our chancellor, reminded us at his investiture last Charter Day of our tradition and mission of producing leaders.

William & Mary is thriving because of the strong support of its people, who know what it has been and what it can become. With your support, the 21st century bodes well to be its best.



STEVEN BIVIER

Cordially,

A handwritten signature in black ink that reads "Taylor Reveley". The signature is fluid and cursive.

Taylor Reveley
President





2011-2012
YEAR IN REVIEW

Remembering Sept. 11 10 years later



The names of seven alumni who died in the World Trade Center towers were read aloud in the Wren Courtyard as the Wren bell rang in memory of each person: Alysia Christine Burton Basmajian '00, James Lee "Jimmy" Connor '85, Michael Hardy Edwards '90, Mark Gavin "Lud" Ludvigsen '91, Christopher William Murphy M.B.A. '98, James Brian Reilly '98 and Gregory J. Trost '97.

Two alumni sacrificed their lives in the wars that followed: 1st Lt. Donald "Ryan" McGlothlin '01 and 1st Lt. Todd Weaver '08.

Somber students and community members gathered to commemorate the 10th anniversary, framing the pathways of the Sunken Garden with American flags. Sentiments written by students on the sidewalk began with the words "I will never forget."

WMSURE encourages research among underrepresented groups

The newly created William & Mary Scholars Undergraduate Research Experience (WMSURE) seeks to ensure that everyone in William & Mary's diverse population has the opportunity to participate in research. The program offers workshops, guidance and social opportunities to students interested in getting involved. It's open to all students who wish to develop their research potential.

So far, more than 40 faculty members have volunteered to serve as mentors to students or to act as liaisons for their schools or departments.

School of Education celebrates 50 years

The School of Education began operation on Sept. 1, 1961. Today, *U.S. News & World Report* ranks the school 43rd in the nation. In 2010, the modern education building was completed, and it received LEED Gold certification from the U.S. Green Building Council in 2011.

"We have grown in our program offerings, in our funded research and outreach efforts, and in the quality of our faculty and student body," Dean Virginia "Ginnie" McLaughlin '71 said. "The School of Education proudly looks back on the first half century of its accomplishments, having produced star educators and bettering the community, the Commonwealth and the country."

Fisher talks his way off island

Andrew Fisher, associate professor of history representing the social sciences, scored a resounding triumph in the 2011 Raft Debate. Defeated were the humanities, represented by Associate Professor of Classical Studies Vassiliki Panoussi; natural and computational sciences, represented by Mathematics Professor Larry Leemis; and a devil's advocate, played by Associate Professor of Education Pamela Eddy.



The Raft Debate, which began in the 1900s, is a delicate balance between comedy and lecture. Four professors are stranded on a desert island with a raft just large enough for one person to escape back to civilization. Which one most deserves to go? The four debate their worthiness — or their opponents' lack of same — after which the audience inside the Sadler Center decides the winner with applause.

"History swings both ways," Fisher told the audience. "We love the humanities because we have a lot in common with them. We can be rigorous and quantitative like the social sciences, but we can also be elegant and qualitative like the humanities. History is unique because it is both art and science."

Annual Supreme Court Preview brings legal luminaries to Law School

Noted scholars, journalists, advocates and justices gathered to discuss the issues and cases currently facing the nation's highest court at the 24th annual Supreme Court Preview, hosted by the Institute of Bill of Rights Law.

The event kicked off with a moot court on *U.S. v. Jones*, a case decided by the Supreme Court in January 2012 involving GPS tracking and its constitutionality under the Fourth Amendment. Following the moot court, a moderated panel discussed the constitutionality of the Affordable Care Act.

More than 25 individuals participated in the three-day event. Professor Neal Devins, director of the Institute of Bill of Rights Law, recruited several colleagues, including Dean and Hanson Professor of Law Davison M. Douglas and fellow professors Tara Grove, Allison Orr Larsen, William Van Alstyne and Timothy Zick. Faculty members from Stanford, Yale and the University of California at Irvine also participated, as did journalists from organizations including *The New York Times*, *the Washington Post*, *USA Today* and *Slate*.

China conference puts Law School on the map

Scholars, jurists and practitioners from the United States and China gathered for the Eighth Annual Brigham-Kanner Property Rights Conference at Tsinghua University in Beijing, China, to discuss the evolution of property rights on a global scale.

"This was truly a special gathering," said Dean and Arthur B. Hanson Professor of Law Davison M. Douglas. "The relationships

begun during this conference, and the friendships forged over these three days, have laid the groundwork for many more years of collaboration and exchange of ideas.”

A highlight of the conference was the presentation of the Brigham-Kanner Property Rights Prize to retired U.S. Supreme Court Justice Sandra Day O’Connor. O’Connor, who served as William & Mary chancellor from 2005–2012, appeared via video to accept the prize and offered a lively speech about the intersection of American and Chinese law on property rights.

“I believe this international conference placed a global perspective on the important role property rights play in our society and in one’s individual liberty,” said Joe Waldo J.D. ’78 of Waldo & Lyle P.C.

Kevin Byrne ’00 selected ‘Month at the Museum 2’ winner



Kevin Byrne ’00 was chosen as the winner of Chicago’s Museum of Science and Industry’s “Month at the Museum 2” contest. He was one of six finalists chosen from hundreds of applicants.

As the winner, he spent 30 days living, eating and sleeping inside the Hyde Park museum. No space was off limits for Byrne, 33, who shared his experiences via Twitter, Facebook and YouTube. He also took home \$10,000 at the end of his experience.

As part of his 60-second video to enter the contest, Byrne showed online voters how he integrates science into his daily life, from decorating his apartment walls with test tubes to painting in pixilation.

A national leader of Fulbrights

William & Mary is one of the top producers of U.S. Fulbright students in the country, according to data released by the *Chronicle of Higher Education*.

Garnering 11 awards for 2011–12, the university is one of 42 institutions nationwide and the only Virginia university to make the *Chronicle’s* top-producing research institutions list. Other institutions lauded included the University of Michigan at Ann Arbor, Boston College, Brown University and Duke University.

Awardees and their Fulbright destinations for 2011–12 included: Christopher Adams ’08 (China), Aileen Aylward ’11 (Austria), Aaron Branch ’11 (South Korea), Paolo Busante ’11 (Portugal), Laura Evers ’11 (Romania), Amanda Goodman ’09 (Norway), Meredith Howard ’11 (South Korea), Monica LoBue ’11 (Germany), John Pothen ’11 (India), Michael Tsidulko ’11 (Bulgaria) and Julia Zamecnik ’11 (Turkey).

Gift establishes Sultan Qaboos Professorship

A gift from His Majesty Sultan Qaboos bin Said, Sultan of Oman, has established the Sultan Qaboos bin Said Professorship in Middle East Studies.



This endowed professorship will help to support the faculty’s wide-ranging teaching and research on aspects of Middle Eastern culture. It also caps the introduction of the newly designed, multidisciplinary Asian and Middle Eastern Studies Program.

President Taylor Reveley and Her Excellency Dr. Rawiyah bint Saud al-Busaidiyah, Oman’s Minister of Higher Education, signed the agreement during a special ceremony in the

Blue Room of the Wren Building. The Omani delegation also included Her Excellency Hunaina Sultan al-Mughairy, ambassador to the United States.

First residential African-American students honored



Lynn Briley ’71, Karen Ely ’71 and Janet Brown Strafer ’71 share a common bond: They were William & Mary’s first African-American residential students.

The College honored the three alumnae during Homecoming weekend, which also happened to be their 40th reunion. During the ceremony, the women were presented with the Torch Award, which, according to Hulon Willis Association President and Associate Vice President for Development Earl Granger ’92, M.Ed. ’98, “represents an eternal flame that continues to light the way for all of us.” They also were presented with copies of a plaque made in their honor that will be placed in Jefferson Hall, where they lived for three years.

“We felt like any other freshmen,” Ely said. The trio said they were worried about moving in and being away from their parents. It wasn’t until orientation that they realized they were the only African-American students living on campus. Even so, they shared many experiences that other students had. They joined the choir and started a student group — the Black Student Organization. They also participated in traditions, including the wearing of “duc caps” as freshmen.

McGlothlin Fellows discuss economic future

The fundamental question looming over today's tepid economy is not when the crisis will come. It's whether policymakers in Washington, D.C., have enough political will to craft a solution before it arrives.

That was the consensus among James W. McGlothlin '62, J.D. '64, LL.D. '00 and the McGlothlin Forum Fellows David Boies, chairman and managing partner of Boies, Schiller and Flexner LLP; the Honorable John Snow, 73rd U.S. Secretary of the Treasury and former CEO of CSX Corp.; and William C. Weldon, chairman of Johnson & Johnson, during the public forum, "Is America's Engine Off Track?"

The McGlothlin Fellows agreed a two-pronged approach is essential to restore America's economy. Their suggestion: An increase in revenue coupled with a reduction in entitlement programs, such as Social Security and Medicare, which account for a third of the national budget.

Before and after the debate, students had the opportunity to participate in small classes with the fellows.

The forum, co-sponsored by the School of Business and Law School, was conceived by and named in honor of McGlothlin, chairman and CEO of The United Company, to prepare students to make a difference in the world by expanding their understanding of the vital roles of leadership and accountability in global political, legal and economic systems.

W&M tops all public colleges in report on international education

William & Mary has a greater percentage of undergraduates who participate in study abroad programs than any other public institution offering doctoral degrees in the United States, according to a report by the Institute of International Education (IIE).

The IIE's Open Doors 2011 Report on International Educational Exchange ranks William & Mary first at 43.9 percent.

"William & Mary's number one ranking in

the 2011 Open Doors Report shows the remarkably deep engagement of our student body in global affairs," said Stephen Hanson, vice provost and director of the Wendy and Emory Reves Center for International Studies. "All of us at the Reves Center are extremely proud to be at the top rank among public institutions in this crucial sphere of higher education."

More than 40 percent of students study abroad at some time in their undergraduate careers, last year in 41 countries. The Reves Center provides more than \$150,000 in study abroad scholarships each year. The center also provides students information, support and guidance on William & Mary-specific study abroad opportunities, exchanges with international universities and programs sponsored by external providers.

DECEMBER 2011

President Obama signs act named for Kate Puzey '06



President Barack Obama signed the Kate Puzey Peace Corps Volunteer Protection Act, named for the William & Mary alumna and Peace Corps volunteer who was killed while serving in Africa. The act is designed to better protect Peace Corps volunteers and to provide increased support for victims of sexual assault.

Following her death, William & Mary released the following statement:

"We are deeply saddened to hear this tragic news. Kate Puzey was one of us — a member of the William & Mary family who, after graduation, decided she wanted to help others, to make a difference in this world, so she volunteered with the Peace Corps and taught English in a small rural village. She

was by all accounts a remarkable person."

Puzey '06 was murdered in 2009 near her home in Benin, a country in West Africa. Puzey, who majored in sociology and minored in management, had taught with the Peace Corps since July 2007.

EcoVillage

The iconic cottage-style residencies known as the Lodges may be converted into a sustainable EcoVillage.

A study outlined the construction of seven new lodges and the Daily Grind Coffee shop, and the new design was presented to the Board of Visitors. Total cost of the project, which would rely solely on private funds, was estimated at \$5.6 million. Anna B. Martin, vice president for administration, told board members that the feasibility study concluded it was more cost effective to build new rather than renovate.

Cottages will feature energy-efficient appliances, windows and doors. Low-flow showerheads, bathroom faucets and rain barrels would conserve water. Reconstruction also would allow for reorientation of the Lodges to optimize the sun's energy. The new design adds two additional students in each lodge, increasing the university's housing occupancy.

The village features an outdoor solar plaza comprising 183 solar panels to generate and supply electricity to the site. A rain garden would surround the perimeter of the village to help decrease pollutants caused by storm water runoff. A green roof on the coffee house rounds out the landscaping changes.



FEBRUARY 2012

Former U.S. Secretary of Defense Robert M. Gates '65, L.H.D. '98 was invested as William & Mary's 24th chancellor during Charter Day.



Yule Log ceremony

Hundreds of students gathered for the annual Yule Log ceremony, a tradition that marks the end of the fall semester.

The students huddled around wood-burning cressets as the choir sang familiar holiday songs such as “Deck the Halls” and “Silent Night.”

Vice President of Student Affairs Ginger Ambler '88, Ph.D. '06 read “’Twas the Night before Finals.” Students of various faiths shared their holiday celebrations, such as Christmas, Eid al-Adha, Hanukkah, Kwanzaa and Deepavali.

President Taylor Reveley, dressed as Santa Claus, read from Dr. Seuss' book *How the Grinch Stole Christmas*.

Students tossed sprigs of holly into the fire to symbolize casting away their worries.

BOV, faculty explore ideas for innovations, efficiencies

Support for salary increases and need-based financial aid were top priorities of the six-year plan endorsed by the Board of Visitors. Soon thereafter, board members, administrative staff and faculty began working aggressively to make the plan a reality.

The academic innovation project follows an effort launched in 2010 to review and identify innovation and efficiency initiatives on the business side. That administrative initiative determined the university has reduced expenditures by \$8.2 million since 2008. It also identified more than 60 projects, which, when fully implemented, could produce more than \$2 million in annual cost savings and net new revenues.

William & Mary has an established record of stretching its limited resources. *U.S. News & World Report* ranked William & Mary tied for 33rd nationally in quality, but 112th in finances — the lowest resources ranking of any university in the top 50.

Provost Michael R. Halleran has asked each dean to find during the next three years cumulative reductions in cost or new revenues (not including undergraduate tuition) equal to at least 5 percent of their operating budget.

150 year-old drawing of Wren Building finds its way home

As the Civil War raged in Williamsburg, William & Mary's Sir Christopher Wren Building served as a field hospital and was later gutted by a fire set by Union soldiers.

The Special Collections Research Center at the Earl Gregg Swem Library acquired an image of the building from this time period. Archivists knew of the image, a two-sided drawing from August 1862, but it was privately held. The image is particularly special because it depicts the Wren prior to the 1862 fire.



The image came through the Becker Collection at Boston College, which contains otherwise unexhibited and undocumented drawings by Joseph Becker and his colleagues who worked as artist-reporters for Frank Leslie's *Illustrated Weekly Newspaper* in the 19th century. The Wren image is by James Taylor.

Sheila Gallagher, associate professor of fine arts and co-director of the Becker Collection; and the owner of the collection, Natalie Gallagher, Joseph Becker's great-granddaughter, decided the image deserved to come home and gifted it to the William & Mary's archives.

JANUARY 2012

VIMS team assists in Antarctic maritime rescue

Professor Walker Smith of the Virginia Institute of Marine Science (VIMS) and his research team, conducting marine studies aboard the research vessel *Nathaniel B. Palmer* in Antarctica's Ross Sea, were involved in the rescue of seven injured

fishermen from a stricken South Korean vessel, which caught fire in the early hours of Jan. 11.

The 167-foot fishing vessel *Jeong Woo 2* caught fire about 370 miles north-northeast of the U.S. Antarctic McMurdo Research Base and 2,000 miles south of Christchurch, New Zealand, killing three crewmen.

The 308-foot *Palmer* was chosen to pick up the seven injured crew for transport to medical facilities at McMurdo, the closest port.

Smith's team was with colleagues from Woods Hole Oceanographic Institution and Old Dominion University for a six-week National Science Foundation-funded research expedition to study the role that iron plays in controlling the growth of phytoplankton in the Ross Sea. Smith is an internationally known phytoplankton expert with more than two decades of Antarctic research experience, much of it in the Ross Sea area.

W&M professor honored as outstanding scientist



Virginia Gov. Bob McDonnell and the Science Museum of Virginia named Chancellor Professor John Milliman of VIMS one of Virginia's Outstanding Scientists for 2012.

Milliman has conducted groundbreaking research and published seminal works in two key areas of marine science — river discharge and carbonate chemistry. He is also a pioneer in establishing collaborative research ties between the U.S. and China.

For two decades, Milliman has studied how river discharge influences the ocean, and how human actions impact river discharge. This work has culminated in the world's largest river database — with records from 1,534 rivers around the globe — and

publication in 2011 of “River Discharge to the Coastal Ocean: A Global Synthesis.”

Bilal Haq, director of the Marine Geosciences Programs at the U.S. National Science Foundation, noted that Milliman’s 1992 paper on the global importance of small mountain rivers led to a “paradigm shift in the field,” revealing that these steep torrents transport more sediment to ocean basins than all major rivers combined.

Cornel West speaks at Martin Luther King Jr. commemoration



Speaker, author and activist Cornel West challenged students, faculty and staff to consider what it means to be human during the annual Martin Luther King Jr. commemoration. Standing in Commonwealth Auditorium, West said that King was heir to a long humanist tradition that wrestled with that question within the context of institutions of “paedeia,” or deep learning.

West called King a complex person, an “extremist of love; he was a militant for tenderness. He was a radical for sweetness. He was willing to talk publicly, openly, explicitly, unapologetically about love and love defined as steadfast commitment to the well-being of others.”

FEBRUARY 2012

Live from W&M, it’s John King, USA!

More than 700 students with colorful signs welcomed CNN’s live broadcast of *John King, USA* to campus, with the messages “Alma Mater of a Nation” and “William & Mary: Jefferson’s FIRST University.”

Robert M. Gates ’65, L.H.D. ’98, former U.S.

secretary of defense, sat down earlier in the day in the Great Hall of the Wren Building for a one-on-one interview with King, CNN’s chief national correspondent. They discussed the presidential campaign trail, the Iraq War and recent talks out of Washington, D.C., of an Afghan drawdown.

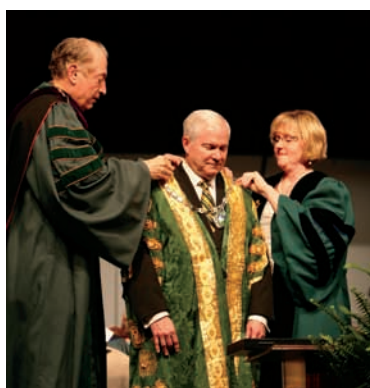


During the live show in the Wren Yard, King joined in on the “Alma Mater of a Nation” spirit and held up a sign telling his CNN correspondent, Kate Bolduan, “This is what they call William & Mary — Jefferson’s first university.”

“I love it,” she replied.

Gates invested as chancellor during Charter Day

Although America faces many obstacles, including increased partisanship, the country has “the power and the means to overcome them,” former U.S. Secretary of Defense Robert M. Gates ’65, L.H.D. ’98 told the Charter Day audience Feb. 3 after being invested as William & Mary’s new chancellor.



“As I enter this next, and last phase in my public life, I will be proud and honored to serve as chancellor as you help right this nation’s course,” he said.

Gates spoke to a crowd of more than 3,500 students, faculty, staff, alumni and community members who were gathered in Kaplan Arena at William & Mary Hall for the annual event, which celebrates the day on which the College received its royal charter in 1693.

Third Eye Blind, Ben Kweller rock Kaplan Arena crowd

“I can just feel the energy in here tonight, I can hear all of you,” Stephan Jenkins, lead singer of Third Eye Blind said, while an electrified crowd roared back in William & Mary Hall’s Kaplan Arena.

The band, known for hits such as “Jumper,” headlined a Charter Day Concert along with opening act Ben Kweller in early February.

Students’ ‘Symphony’ kicks off Global Film Festival

The film studies students in Professor Tim Barnard and filmmaker Jes Therkelsen’s class during the fall 2011 semester had one task: Find out as much as they could about the “real” Williamsburg, collect hundreds of hours of film, then tell the story — in 15 minutes or less — in a style that hasn’t been seen in more than half a century.

Barnard and Therkelsen demanded that the film be modeled after a “City Symphony,” a genre of documentary filmmaking that dates back to the silent era. It grew out of avant-garde filmmaking and was heavily influenced by the Soviet montage movement. The result, “Williamsburg City Symphony,” kicked off the four-day Global Film Festival in 2011.

New admissions viewbook out of the box

Thousands of prospective college students received an unexpected surprise in their mailboxes over the summer — a box.

The new Ampersandbox offers an alternative to William & Mary’s main recruitment tool, its viewbook, in the form of 15 unique postcards. Together, the packaging, made from recyclable cardboard, and the eco-friendly postcards measure less than 7 inches tall and 5 inches wide.

“There’s a war that goes on in everybody’s mailbox and in everybody’s e-mail inbox,” said Associate Provost for Enrollment Henry Broaddus. “It’s about what gets noticed by the students, what really gets their attention.”

Each postcard uses a photo and two-word pairing to explore and highlight the university’s many distinctive strengths.

Prospective students can view the postcards online and explore websites depicting life at William & Mary. Current students and alumni are encouraged to submit their own ideas to add to the word-pair collection.

MARCH 2012

CAA’s Leadership Award winner? Quinn McDowell, again

Quinn McDowell ’12 highlighted the men’s basketball team’s award winners at the annual CAA awards banquet, becoming the first player in league history to earn the Dean Ehlers Leadership Award on two occasions. The award is given to the student-athlete who “embodies the highest standards of leadership, integrity and sportsmanship in conjunction with his academic athletic achievement.”

Freshman guard Marcus Thornton became the 19th Tribe player to be named to the CAA All-Rookie Team, while William & Mary once again led the CAA in All-Academic team honorees with seven. McDowell and sophomore Tim Rusthoven garnered All-Academic first-team honors, while sophomore Brandon Britt was a second-team selection. Juniors Kyle Gaillard, Andrew Pavloff and Doug Howard, along with sophomore Fred Heldring, were named to the CAA All-Academic honorable mention team.

Katharine Conley named Dean of Arts & Sciences

Katharine Conley, former associate dean of the Faculty for the Arts & Humanities at Dartmouth College and the school’s Edward Tuck Professor of French and Comparative Literature, was named William & Mary’s Dean of the Faculty of Arts & Sciences in March 2012.

With more than 400 faculty, 6,400 undergraduate and graduate students, 80 staff members, 12 graduate programs and 35 undergraduate departments and interdisciplinary programs, Arts & Sciences is William & Mary’s largest academic unit. As the chief academic officer, the dean reports to the provost and is responsible for overall leadership and strategy.



Conley graduated cum laude in 1979 from Harvard University, where she received her bachelor’s in English. She has earned two master’s in French and also received an honorary master’s degree from Dartmouth in 2007. In 1992, she earned a Ph.D. in French from the University of Pennsylvania.



Social entrepreneurs-in-training want to make a difference — and a living

Millennials, students born between 1980 and 1996, gathered at the Mason School of Business for the first annual social entrepreneurship conference (SEcon). Approximately 100 business leaders and 50 students spent a day and a half discussing this newly emerging cross-disciplinary academic field at the SEcon 2012 Forum, investigating topics such as health, environmental sustainability and education.

At the core, social entrepreneurs are innovators who take a business-like

approach to solving social problems. They can be companies or individuals.

SEcon is the first comprehensive and global association of faculty and institutions working to advance the academic field of social entrepreneurship. For the first time during the spring 2012 semester, William & Mary offered an undergraduate course on social entrepreneurship, taught by Associate Professor Scott McCoy.

Director of Community Engagement Drew Stelljes also taught a course on the achievement gap, focusing on how social entrepreneurial tools can be used in the education field.

Creative Adaptation selections announced

In November 2011, Provost Michael R. Halleran sent a memo to faculty announcing the Creative Adaptation Fund. In March 2012, the university announced that seven creative adaptation ideas had been accepted and would be implemented.

The creative adaptation initiative followed an effort launched earlier that examined business innovation and efficiencies in all administrative areas of William & Mary. That review identified more than 60 projects, which could produce more than \$2 million in annual cost savings and net new revenues.

APRIL 2012

Faculty honored with 2012 Plumeri Awards

Four years ago, when Joseph J. Plumeri II ’66, D.P.S. ’11 made a commitment to create the Plumeri Awards for Faculty Excellence, he said the goal was to empower William & Mary’s professors to continue to “work passionately to challenge the minds of our exceptional students.”

First awarded in 2009, Plumeri Awards for Faculty Excellence have touched faculty and students at almost every corner of the campus. Including the 2012 cohort, 80 William & Mary faculty members have received this prestigious award, which includes a \$10,000 honorarium. They have used it to strengthen research, support

scholarly publications and travel to conferences and universities around the world.

The 2012 recipients were: Elizabeth A. Allison, Iris C. Anderson, Vladimir Bolotnikov, Michael R. Deschenes, Courtney K. Harris, Judith “Judi” B. Harris, Henry Hart, Laura A. Heymann, Pamela S. Hunt, Roger L. Mann, John B. Nezlek, Nathan B. Oman, Brent Owens, Robert D. Pike, Katherine K. Preston, Alexander “Sasha” Prokhorov, Regina A. Root, Evgenia Smirni, Tamara Sonn, and Laurie J. Wolf.

John Swaddle kicks off Faculty Lecture Series

John Swaddle gave an upbeat presentation on a potentially somber topic to kick off William & Mary’s Faculty Lecture Series —



now the Tack Faculty Lecture Series.

Swaddle, professor of biology, spoke on “Not Just for the Birds: How ecological land management could prevent us from getting sick” to a full house April 24 in the Undergraduate Admission theatre. He explained the cycle of vector-borne illnesses, such as West Nile disease, and outlined how they develop in wildlife hosts and are transferred to humans by vector pests — mosquitoes in the case of West Nile, or ticks, in the case of Lyme disease. Swaddle used a set of visual aids and even pressed the William & Mary women’s rugby team, which he coaches, into service to demonstrate his point.

Provost Michael R. Halleran introduced Swaddle and the series at large, noting that the lecture series will offer talks once each semester. The next two speakers in the series are Professor of Religious Studies John Morreall and Professor of Geology Chuck Bailey ’89.

CW, W&M celebrate Jefferson’s 250th anniversary

April 13 marked the birthday of Thomas Jefferson (April 13, 1743) and April 26 marked the 250th anniversary of the nation’s third president completing his studies at William & Mary.

On April 13, the university hosted an AVAdventure, a highly interactive audio adventure that is a combination of podcasts and flashmobs. AVAdventure productions are based around audio files, which provide participants with directions, dialogue, music and more as they engage together in live-action stories. “The Statues Come Alive” event brought to life William & Mary’s rich history through the statues of campus, including Jefferson himself.

Several hundred students, faculty, staff and newly admitted students participated in the AVAdventure event. It was sponsored by the Office of Student Affairs, the President’s Office and the Student Assembly.

Education Dean Ginnie McLaughlin ’71 to step down in June 2013

Virginia “Ginnie” McLaughlin ’71, dean of the School of Education, will leave the position in the summer of 2013, she announced in April.

McLaughlin, who has served as the dean since 1995, plans to take a year of leave following her departure. She then will return to the school as a member of the faculty.

McLaughlin began her career in education as a teacher for the public schools of Greenville and Charleston, S.C. She later served as a member of the faculty at Clemson University and Old Dominion University. Before taking on her current role as dean, McLaughlin served as chief of staff for then-William & Mary President Tim Sullivan ’66 and as the associate dean of the School of Education.

During her tenure, McLaughlin has led the school to multiple successes, including the acquisition of numerous grants, an increase in partnerships with schools and the completion of a new, state-of-the-art education building. McLaughlin serves as the chair of the national Council of Academic Deans from Research Education Institutions.

The William & Mary Confucius Institute opens

William & Mary officially opened its Confucius Institute with a daylong celebration of events involving faculty and administrators, as well as delegates from Beijing Normal University (BNU), the Office of Chinese Language Council International (Hanban) and the Embassy of the People’s Republic of China.



The William & Mary Confucius Institute (WMCI) is a collaborative partnership with BNU and Hanban, and will offer Mandarin language and Chinese culture classes, provide teacher training, and augment other programs on Chinese culture for the university and local communities. It is part of a network of more than 300 Confucius Institutes worldwide, and is only the second Confucius Institute established at a Virginia university.

The visit to campus included a tour of Rowe House, the home of the WMCI, as well as a guided tour of Chinese scrolls and exhibits at Swem Library. Delegates also witnessed a Mandarin class in the Wren Building’s historic grammar school classroom.

Board of Visitors renews contract for President Reveley

The Board of Visitors approved a resolution during its April meeting extending the contract of university President Taylor Reveley through June 2015.

“From strategic planning to communications to philanthropy, Taylor understands our challenges,” said Jeffrey B. Trammell ’73, rector of the university. “He is guiding us through challenging financial times at William & Mary as we strive to ensure the

university's academic mission. There is much to be excited about moving forward. The Board looks forward to his continued visionary leadership."

Reveley was named president in September 2008 after serving as interim president for six months. Prior to becoming president, Reveley served as dean of the William & Mary Law School from 1998–2008.

Before coming to William & Mary, Reveley practiced law at Hunton & Williams for 28 years. He was managing partner of the international firm for nine years. Reveley received his bachelor's degree from Princeton University and law degree from the University of Virginia.

MAY 2012

Public policy program names new director

Sarah Stafford, professor of economics, public policy and law, has been named director of the Thomas Jefferson Program in Public Policy.

Stafford received her bachelor's in foreign service from Georgetown University and her doctorate in economics from Johns Hopkins University in 1998, the same year in which she joined the William & Mary faculty. For the past three years, she has served as the Jefferson Program's graduate studies coordinator. She currently holds a joint appointment with the William & Mary Law School.

Stafford said that public policy programs should convey to students the value of using well-developed evidence to foster positive changes. The Jefferson Program was established in 1987 and is celebrating its 25th Anniversary. Stafford succeeds Eric Jensen, professor of economics.

Jim Lehrer calls Class of 2012 to civility, service

Strive for civility and incorporate service into your lives, Jim Lehrer told the Class of 2012 during the Commencement ceremony.

"No matter what you decide to do with your life, also find a way serve," he said. Lehrer, the longtime host of PBS NewsHour, spoke to an audience of thousands in William

& Mary Hall during a ceremony in which more than 1,900 undergraduate and graduate students received their degrees.

The broadcast news icon received an honorary doctor of humane letters at the event. Carolyn "Biddy" Martin '73, president of Amherst College, also received an honorary doctor of humane letters degree, and Jonathan Jarvis '75, director of the National Park Service, received an honorary doctor of public service degree.

Several students, faculty and staff members received awards during the ceremony, and Danielle Greene '12 served as the student Commencement speaker.

Duke Award winner Dudley sets the stage

David Dudley's office is a curiosity shop from which he has helped bring theatrical glory to William & Mary since 1977 as assistant technical director and, since 1986, as technical director in the Theatre, Speech and Dance department. There may be just enough wall space left for Dudley '75 to hang the 2012 Charles and Virginia Duke Award, which he received in recognition for individual accomplishment and exemplary service to the university.

It is the roughest of estimates, but Dudley figures he has worked with nearly 1,700 students since 1977. Many have used the experience of working under him to fuel their own careers.

The Charles and Virginia Duke Award, established in 1997, is presented each year to a staff member for his or her outstanding service and dedication to the university. Awardees receive \$5,000 as well as recognition during the university's annual Commencement ceremony.

W&M and Chancellor Gates featured on CBS This Morning

The William & Mary campus was the backdrop of a national interview broadcast on *CBS This Morning*.

Charlie Rose, co-host of the CBS program, came to campus to interview former U.S. Secretary of Defense Robert M. Gates '65, L.H.D. '98. Rose, an Emmy Award-winning

journalist and longtime host of the PBS talk show "Charlie Rose," interviewed Gates in the Great Hall of the historic Sir Christopher Wren Building. The entire interview aired on PBS.

"We are sitting here on a campus created in 1693," Rose said during the interview. "It is full of history."

The interview covered everything from Gates' assessment of the country's current national security to an insider's take on the killing of Osama bin Laden to the differences between President George W. Bush and President Barack Obama.

Rose reminded viewers that Gates, as chancellor, follows a distinguished group of individuals, including William & Mary's first American chancellor, George Washington.

Party at the Sadler Center celebrates employee contributions



Music played, people hugged and the Griffin shook his "tail feather," as one staff member put it.

The party in the Sadler Center was all part of the annual Employee Appreciation Day, which aims to recognize and celebrate the contributions of hourly, classified and operational staff members.

President Taylor Reveley kicked off the event by welcoming everyone and recognizing four people who reached extraordinary milestones in their service to William & Mary and the Commonwealth this year: Roxie Greene (45 years), Myron Hall (40 years), Della Harris (40 years) and Deloris Thomas (40 years).

Governor announces appointments to Board of Visitors

Kendrick F. Ashton, Jr. '98, Ann Green Baise, Keith S. Fimian '78 and John E. Littel joined Robert E. Scott J.D. '68 as appointees to the Board of Visitors, Gov. Bob McDonnell announced.

Ashton and Fimian are former Tribe football stars. Ashton is director of a global financial services firm based in New York, while Fimian is a businessman in Northern Virginia. Baise is a former elementary school teacher and former rector of Longwood University. Littel is an executive vice president with a national healthcare insurance provider. All are new appointees, replacing Janet M. Brashear '82, Colin G. Campbell, Timothy P. Dunn '83 and R. Philip Herget III (honorary alumnus).

Scott, a law professor at Columbia University and former professor at the William & Mary Law School, was reappointed to a second term of four years.

Board members were appointed to four-year terms beginning July 1, 2012.

Marc Sher — the 'go-to guy' on Higgs boson

Marc Sher, professor of physics at William & Mary, is a "go-to guy" on the Higgs boson. Having written his first paper on the Higgs in 1978, Sher has devoted his entire career to studying a subatomic particle that had been entirely theoretical until the July 4 announcement. Following the announcement confirming the existence of the particle from the European physics collaborative CERN, Sher was in demand by reporters for commentary, context and explanation.

The demand was stoked by an advisory sent out on July 3 to media. The advisory listed information for Sher, as well as a brief synopsis of his career studying Higgs theory.

Sher set his alarm for 2:30 a.m. July 4 in order to see the webcast announcement from CERN, scheduled for 3 a.m. Eastern Daylight Time. He already had written the bulk of an entry for the *Daily Kos* blog, where Sher is a frequent contributor under the byline "science."

A Higgs watcher since CERN began issuing reports on results from its Large Hadron Collider, Sher has written on a number of CERN announcements that essentially stated that physicists were getting closer to finding the particle. He said he expected the July 4 announcement to be another incremental report on the search for the subatomic particle posited to be the basis of mass.

Announcement of the actual discovery of the Higgs boson came as a complete surprise.

"No one thought it would be the official, final discovery. I was not expecting 5 sigma. I was expecting 4 or 4.3, something like that, which is not enough for discovery," Sher said. "I was expecting actual discovery, 5 sigma, to come in the fall."

Arne Duncan, college leaders discuss affordability in higher ed



The United States needs to once again lead the world in college graduation rates, and keeping higher education affordable is key, U.S. Secretary of Education Arne Duncan told a crowd of nearly 300 faculty, staff, students and community members at the School of Education.

"I'm just convinced we're not going to have a strong country or a strong economy if we don't again lead the world in college graduation rates," Duncan said, adding that the U.S. is currently 16th.

Duncan and U.S. Under Secretary of Education Martha Kanter participated in a roundtable discussion about affordability and accountability along with President Taylor Reveley; Carlos Campo, president of

Regent University; Debbie Sydow, president of Richard Bland College; Glenn DuBois, chancellor of the Virginia Community College System; Keith Miller, president of Virginia State University; Carol Simpson, provost of Old Dominion University; and John Dever, president of Thomas Nelson Community College.

Duncan said that going to college no longer is seen as an option for many people because of cost.

"It is vitally important that higher education stay affordable for those who want it," said Reveley, adding that need-based aid is key to making it so.

TRIP survey: East Asia more strategically significant, say IR scholars

A community of 3,466 international relations scholars believes that East Asia is the world's region of greatest strategic importance to nations today.

That was a key finding from the 2011 TRIP survey, published by William & Mary's Institute for the Theory and Practice of International Relations (TRIP). The survey was sent to international relations (IR) scholars in 20 countries and included nearly 90 questions.

Three members of the institute's staff authored the survey, the largest ever undertaken on the discipline of international relations: Sue Peterson and Michael Tierney '87, M.A. '88, government professors and co-directors of the institute; and Daniel Maliniak '06, a principal investigator on the project.

In 2008, 27 percent of all respondents named East Asia as the region of greatest strategic importance to their nations. That percentage rose to 34 percent this time, with 57 percent saying that East Asia will be the most strategically important region in 20 years.

Archaeologists seek evidence of 18th-century Bray School

An archaeological collaboration between the university and the Colonial Williamsburg Foundation hopes to find conclusive evidence of the Bray School, an 18th-century institution dedicated to the education of free and enslaved African-American children.

Terry Meyers, Chancellor Professor of English, has collected evidence that indicates that the original Bray School building may still exist — but the building has been modified extensively over the years and even moved from its original site.

Archaeology near the site of what now is a dormitory may bolster the claim that the existing building is the nation's oldest standing school used for the instruction of African-American children.

The Bray School Archaeological Project (BSAP) is a pair of field schools excavating the area near what Meyers and others believe is the original site of the Bray School, the Dudley Digges House at the intersection of Prince George and North Boundary streets in Williamsburg.

Alumna to star in MTV comedy talk show



MTV is bringing in a fresh new comedic voice to host its late night talk and comedy show. According to a *TV Guide* article, Sara Schaefer '00 is going to co-host the show on MTV, along with comedian Nikki Glaser. The show, tentatively titled *The Nikki and Sara Show*, will air at 11 p.m. once a week. The show is expected to debut later this year.

Schaefer formerly served as the head

blogger for *Late Night with Jimmy Fallon*, where she earned two Emmy Awards. In 2010, she was named as one of Comedy Central's Comics to Watch. She has appeared on numerous shows, including *Best Week Ever*, and has written for others, including *Who Wants to Be a Millionaire*.

Faculty learning to create blended e-learning courses

Faculty members from across campus are exploring blended learning, which will combine traditional in-class instruction with technology-aided learning outside the classroom.

Seventeen faculty members participated in the seven-week E-learning Professional Development (ePD) course. The course, taught by four instructors from the Mason School of Business and the School of Education, was created through Provost Michael R. Halleran's Creative Adaptation Fund.

The initiative, which began last year, seeks to find creative ways to improve the university's educational programs either directly, or indirectly, by reducing costs or generating new revenues. A \$200,000 fund was established to encourage those efforts.

The goal of the course is to prepare faculty members to teach their own blended classes — either new or redesigned ones — in 2013.

Some of the technologies that the faculty members learned about included web-meeting program Adobe Connect, blogs, screen-recording programs, wikis and Twitter.

Student crowned Miss Virginia

King William and Queen Mary may have been royalty, but a new crown is on its way to campus.

Rosemary Willis '13, who was the reigning Miss Roanoke Valley, was crowned Miss Virginia in June at the annual pageant in Roanoke, Va.

Willis, who is majoring in government and minoring in kinesiology at William & Mary, won a \$17,000 scholarship when she received the Miss Virginia crown.

The Chesapeake native's platform, "Get Moving Today for a Healthier Tomorrow,"

promotes exercise and physical activity as a way to improve one's overall quality of life.

Willis has taught exercise classes at the William & Mary Student Recreation Center, and she is a member of the a capella group The Accidentals. As Miss Virginia, Willis will go on to compete at the Miss America pageant in January 2013.

Dignitaries help dedicate VIMS' new Eastern Shore Seawater Lab

A large crowd of dignitaries and friends helped dedicate the new seawater facility at the Virginia Institute of Marine Science's (VIMS) Eastern Shore Laboratory, with President Taylor Reveley praising "a truly unique facility" and recognizing its promise of "vital contributions to the health of Chesapeake Bay, the coastal ocean, and Virginia's fisheries."

The 7,597 square-foot facility, in the seaside village of Wachapreague, is located just a few feet from the edge of a coastal inlet whose quiet waters are as salty as the nearby Atlantic Ocean.

"The facility will bring the Eastern Shore Lab to a new level of scientific excellence and create opportunities for faculty and students to expand VIMS' mission of research, education and advisory service," said VIMS Dean and Director John Wells.

The new facility already is busy with research projects, including studies of how changes in fishing gear might reduce the inadvertent capture of sharks and endangered sturgeon, how hearing and vision differ among various kinds of Virginia sport fishes, and how predation impacts the survival of juvenile scallops.

William & Mary greets newest members of the Tribe

The new undergraduate class of 1,474 came from a pool of more than 13,600 applicants, up from 12,800 last year and continuing an eight-year trend in record application numbers. About 30 percent of the class is made up of students of color, and 6 percent is international students. The SAT middle 50th percentile of the new class is 1250-1460, and 79 percent of the new students graduated among the top 10 percent in their classes.

The university's new graduate students are also a diverse and accomplished group. The Law School enrolled 196 new J.D. students, chosen among 1,770 applicants, and they boast a median undergraduate grade point average of 3.74 and a median LSAT of 164. The Law School also welcomed 27 new students into its LL.M. program.

At the Mason School of Business, 92 new students make up the MBA Class of 2014. Additionally, the second cohort of Major General James Wright MBA Fellows from the U.S. Army began their work at the Mason School this semester.

Graduate applications at the School of Education were up 3 percent from last year. The school has more than 200 new graduate students and 52 fifth-year students, William & Mary undergraduates who transitioned to graduate school via a special program.

The Virginia Institute of Marine Science (VIMS) saw a 17.6 percent increase in applications from last year, and, among the Arts & Sciences graduate programs, the number of applications hit an all-time high.

Smith welcomes students to a place of tradition, change during Opening Convocation

Change and tradition can positively coexist and have done so for more than 300 years at William & Mary, U.S. District Judge Rebecca Beach Smith '71, J.D. '79 told the university's new students during the annual Opening Convocation ceremony.

Hundreds of new students — including

freshmen, transfer students and graduate students — attended the event, along with alumni, faculty, staff and family members.

During the event, President Taylor Reveley presented the 2012 President's Awards for Service to the Community to Associate Professor of Hispanic Studies Regina Root



and student Delaney Janson '13. Root was recognized for her work on ethical fashion, and Janson was recognized for her service at the Lackey Free Clinic.

Following the ceremony, the university's new students took the traditional walk through the Wren Building and were met on the other side with cheers, hugs and high-fives from hundreds of current students as well as faculty and staff members.

SEPTEMBER 2012

Sorority begins new semester in renovated house

The Kappa Kappa Gamma house underwent a major renovation this summer, and a ribbon-cutting ceremony was held in September with current members of the sorority, as well as a number of alumnae, in attendance.

"We're so excited just because the house was in dire need of a renovation," said Madelaine Spangler '13, vice president of the Gamma Kappa chapter. "It's just been a long time in the making. We're so happy and so grateful."

The renovated house, which was built in 1927, includes an expanded living room, an upgraded electrical system, fans in the bedrooms, a new laundry area, new decorations and furniture and a wheelchair ramp.

Funding for the project was provided by Sally Ives Gore '56, with additional support by the Gamma Kappa house board, headed by Bobbie Todd, and the Williamsburg Kappa Kappa Gamma Alumnae Association, led by Cynthia Cashore '64.

The renovation of the house was headed by Mark Ballman, who served as William & Mary's project engineer. Ballman and his team completed the renovation on time and under budget, coming in at approximately \$421,000 for the total cost.

It's BEC: Ultracold rubidium-87 atoms are finally cold enough

Cold atoms are going to generate hot research at William & Mary. A small collection of rubidium-87 atoms in Assistant Professor Seth Aubin's Small Hall lab reached Bose-Einstein condensation after being chilled to a level near absolute zero.

Producing a Bose-Einstein condensate (BEC) is a reason for physicists to celebrate, but it's good news for the general public, too. The science of ultracold atoms can lead to innovations such as atom laser-based interferometers, quantum computing components and ultra-accurate atomic clocks, an essential part of improved GPS and navigation systems.

Physicists use ultracold atoms in the BEC for experiments that otherwise would be impossible. Working with atoms in the quantum state gives researchers a high degree of quality control, Aubin says.

"In the BEC, all the atoms are in exactly the same state," he explained. "They're all identical. That's why they are so useful in experiments. Because they're all the same, the outcomes of your experiments are going to be the same. It's perfect for controlled conditions."

WRC: Better than ever after 25 years

The Writing Resources Center (WRC) turned 25 years old in September with two birthday cakes and a quiet sense of satisfaction that the free help the center offers the William & Mary community is one of the greatest gifts possible.

W&M and EVMS explore school of medicine

William & Mary and Eastern Virginia Medical School issued a joint statement that both institutions have agreed to exclusively explore the feasibility of having EVMS become the William & Mary School of Medicine.

“Before a decision can be made by either William & Mary or EVMS, each must carefully investigate the implications of such a combination,” the statement read. “It is not known how long the necessary due diligence will take. If William & Mary and EVMS decide to proceed, the approval of the General Assembly and Governor will be required.”

The statement followed a message to campus by President Taylor Reveley, who said both institutions will take a careful, long look at the possibility. Provost Michael R. Halleran, Reveley said, would lead William & Mary’s due diligence effort. Other administrators and faculty will be involved.

“In my view, the EVMS possibility is worth careful consideration,” Reveley said. “EVMS is an institution we know and respect. Many of our graduates have gone to medical school there. And there has been productive research collaboration between the two schools.

“Whether asking for state approval of this combination will ultimately prove to be in our best interests, all factors considered, is what we must now carefully determine. The same, obviously, is true of EVMS from its perspective.”

AUGUST 2012

Change in leadership at Ash Lawn-Highland

Sara Bon-Harper was appointed in August as the executive director of Ash Lawn-Highland, the William & Mary-owned historic home in Charlottesville, Va., that once belonged to President James Monroe. Bon-Harper previously worked as the archaeological research manager for Monticello, the historic home of President Thomas Jefferson in Charlottesville. She succeeds Carolyn Holmes, who retired this summer after 37 years of service at the property.

Monroe, the fifth president of the United States, attended William & Mary from 1774 through 1776.

The Dalai Lama visits William & Mary



The William & Mary Student Assembly announced in August that His Holiness the 14th Dalai Lama will speak at William & Mary. The event on Oct. 10, 2012, attracted a full house in Kaplan Arena at William & Mary Hall.

Considered one of the world’s most influential spiritual leaders and winner of the 1989 Nobel Peace Prize, the Dalai Lama visited William & Mary as well as several to U.S. colleges and universities throughout the Northeast.

In addition to the Student Assembly, the event was sponsored by Alma Mater Productions (AMP) — the student programming committee — and the International Relations Club. Additional support was made possible through the Janet and Peter Atwater Lecture Endowment.



Education professor receives Fulbright to Ireland

Shannon Chance, an adjunct professor in the School of Education, traveled to Ireland in

August to conduct research and teach for a year, thanks to a U.S. Fulbright Scholar grant. She is working in the Dublin Institute of Technology (DIT) during the 2012–2013 academic year, researching innovative ways to teach engineering and architecture and co-teaching architecture courses.

“I’ll start by publishing papers, helping teach and implement ideas while I’m in Dublin, and start to work on a book while I’m there,” Chance said.

Gates scholarship paves way for Norfolk student



Micah LeMelle ’16 was one of only 1,000 high school seniors nationwide and one of just 19 students from Virginia awarded the Gates Millennium Scholarship out of 25,000 applicants.

Established in 1999 with a \$1.6 billion grant from the Bill & Melinda Gates Foundation and administered by the United Negro College Fund, the scholarship provides merit-based scholarships to high school students of color with outstanding records of academic achievement, extracurricular involvement and community leadership. Eligible students must qualify for federal Pell Grants and demonstrate significant financial need.

The scholarship covers costs of attendance not met by federal aid, institutional aid and a student’s expected family contribution. The scholarship is good through graduation. However, scholars who earn degrees in science, technology, engineering and math (STEM) fields are eligible for an additional five years of scholarship funding for post-graduate studies.

LeMelle is interested in studying international relations and public health.



MAY 2012

PBS *NewsHour* host Jim Lehrer addresses the Class of 2012 during Commencement on May 13.

Under Professor Sharon Zuber's supervision, a first-class, full-service repository of information has been created. There are even Skype sessions for students who live off campus or are studying abroad.

And it's not just for students.

Faculty can request that student consultants visit their classes to explain the services offered, or they may bring smaller classes into the WRC for an introductory session. Likewise, Zuber is available to assist faculty with integrating writing into courses across disciplines, or to support special writing projects.

Settle's research featured in *Nature*

Research by Assistant Professor of Government Jaime Settle was featured in the September issue of the journal *Nature*. The research focuses on the influence of online social networks on behavior. Specifically, Settle and her colleagues conducted an experiment with 61 million Facebook users, 18 or older, looking at the impact messages sent via the site had on voting behavior during the 2010 Congressional elections.

"The results show that the messages directly influenced political self-expression, information seeking and real-world voting behavior of millions of people. Furthermore, the messages not only influenced the users who received them but also the users' friends, and friends of friends," Settle and her colleagues wrote in their study.

The study's findings also were featured in the *New York Times*, the *Washington Post* and on CNN.

Board of Visitors updates six-year plan

Funding merit-based raises for faculty and staff remained at the top of the priority list of an updated six-year plan approved in September by the Board of Visitors.

The plan, part of an ongoing process that began last year following the Virginia Higher Education Opportunity Act of 2011, outlines funding needs to take a "first step" in bringing faculty salaries to the 60th percentile of the university's peer institutions, as identified by

the State Council for Higher Education in Virginia.

The plan, which the Board approved, also identified other key funding priorities for Fiscal Year 2014, including undergraduate and graduate financial aid, additional funding for instructional technology and continued support for enrollment increases that began to be implemented last year. Continued investments in campus security and support for the ongoing business innovation and improvement process also are included. The university began a business innovation process two years ago to identify projects the university can undertake to be more efficient and more effective while reducing overall costs.



For even more information about William & Mary—including video content—view the 2012 President's Report online at www.wm.edu/presidentsreport.

YEAR IN REVIEW WRAP UPS



Weather

The William & Mary campus had an unwelcome, frequent visitor during the 2011–2012 academic year: extreme weather.

The stage was set earlier in 2011 when deadly tornados hit the region, including one that tore through parts of the King’s Mill and Grove areas of Williamsburg. Students helped clean up some of the damage to Grove following the storm.

“I wanted to help because there was a clear need for someone to do so and I knew other students would likely feel the same way,” said Chelsea Estancona ’11.

Students were again serving in the Williamsburg community when another natural disaster struck the area at the beginning of the fall 2011 semester: a rare 5.9 earthquake. The unusual event struck just one day before classes began, while more than 200 new students were participating in the university’s annual Students Helping Out Williamsburg (SHOW) Day.

“Did anyone else feel that earthquake? It must have been all those SHOW Day volunteers out in the community making an IMPACT,” the Office of Community Engagement tweeted.

Although the experience was something of a surprise for many faculty, staff and students who have lived in the Williamsburg area for a while, it caused no damage to campus.

Less than a week later, the approach of Hurricane Irene forced William & Mary to evacuate, causing classes to be

anceled and the annual Opening Convocation ceremony to be rescheduled.

The campus community pulled together in the face of the storm, offering one another shelter and transportation.

“It’s things like that that make me remember why I came here,” Kylee Ponder ’12 wrote on her blog.

“It’s the fact that when the Tribe is in danger, we all pull together and make sure that we protect our own — that’s our common interest — each other.”

Behind the scenes, members of the Emergency Management Team, facilities management, the William & Mary police department, information technology, dining services, university relations, creative services and other departments worked throughout the storm and after to assess damage and provide updates to the William & Mary community. After the storm passed, leaving about 40 downed trees on campus, university employees went to work to get the campus ready to open quickly.

Although the beginning of the spring semester did bring some light snowfall to the Williamsburg area, the majority of year saw record high temperatures in both the region and the country.

W&M Theatre

William & Mary's theatre program experienced another successful year with multiple productions that entertained, educated and challenged audiences.

One such production, the Pulitzer Prize-winning play *Ruined*, was also the William & Mary directorial debut of alumna-turned-professor Artisia Green. The play focuses on the lives of people affected by war in the Democratic Republic of Congo. Green, who also serves as the president of the Black Theatre Network, said she proposed doing this play because she is "an artist activist."

"So, it's important that I am able to direct works that show how we are constantly responding to the socio-political forces that confront humanity," she said.

Another one of the theatre productions this year was a true family affair. Professor Christopher Owens and his son Jeremy Owens '12 worked together to create and execute the lighting design for a production of Tennessee Williams' *Night of the Iguana*, which ran in February.

"We would absolutely work together again," said Jeremy Owens. "It's been a lot of fun not just because he's easy to work with and is very professional in his work, but it's a time when my dad and I get to do something together that we both love."

William & Mary theatre did not just stay within the confines of Phi Beta Kappa Hall throughout the year. In March, a group of

theatre students traveled to "This is an opportunity to think in terms of what's particular to careers in the performing arts field," said Joan Gavaler, chair of the Department of Theatre, Speech and Dance.

Just a few months earlier in that same city Professor Francis Tanglao-Aguas received the 2011 Dakila Achievement Award in Education from the Philippine American Foundation for Charities, Inc. During his acceptance speech, Tanglao-Aguas thanked his students.

"When I teach, I belong to a fountain of youth through my work with my students," he said. "They are examples of courage and integrity to me as they undertake the scary lessons I encourage them to explore."

Students often find the theatre program at William & Mary so engaging that it's difficult to say goodbye. In fact, Rebekah Rochte '12 stayed an extra semester at William & Mary this year just for a final chance to appear in the Sinfonicron production of "Thoroughly Modern Millie." Sinfonicron is a student-run theatre group that puts on one show each year.

"This is something I love doing," she said. "There's no guarantee that I will get to do theatre after I graduate from William & Mary, so I wanted this one last chance."

Williamsburg tied record high temperatures in February and March and reached new highs in June and July.

Professor Christopher Owens and Jeremy Owens '12





Brandon Heroux '12



Jamie Whiteford '13

Athletics

Any conversation on William & Mary athletics begins not on the playing field, but in the classroom. Varsity athletes are, after all, student-athletes.

In that vein, there were many victories to celebrate. Seventeen students captured individual national academic awards, including seven field hockey players and five from women's tennis. Basketball's Quinn McDowell '12 and Mallory Schaffer '13 of women's soccer were academic All-Americans.

National academic team awards went to women's cross country, field hockey, men's gymnastics, women's lacrosse, women's soccer, men's and women's swimming, women's tennis and men's and women's track and field. That's 10 of the 23 varsity sports offered here.

Three active coaches — John Daly of women's soccer, women's gymnastics assistant Tim Rivera and Stephen Walsh of men's cross-country — were honored with Colonial Athletic Association (CAA), East Coast Athletic Conference or regional coach-of-the-year awards.

And iconic former soccer coach Al Albert '69, M.Ed. '71 was presented a National Soccer Coaches Association of America Honor Award for a lifetime spent promoting soccer.

CAA scholar-athletes of the year were Brandon Heroux '12 of men's track and field, also the conference's male scholar athlete of the year. He also won the CAA javelin competition, and finished sixth in the Canadian Olympic trials.

McDowell was men's basketball scholar athlete of the year, and won the Dean Ehlers Leadership Award for the second consecutive year. Schaffer and Andrew Strait '14 of men's swimming were

scholar-athletes of the year in their respective sports. Strait also qualified for the U.S. Olympic Trials, joining Sidney Glass '13.

On the field, men's cross-country and women's soccer won CAA titles. Men's outdoor track and field placed 66th in the NCAA championships.

Twenty-two athletes were accorded individual accolades. Tara Connors '14 of women's soccer was most outstanding player of the conference tournament. Jessica Cygan '15 was cross-country rookie of the year, while Rad Gunzenhauser '14 took the same award on the men's side.

In football, Jonathan Grimes '12 led the nation in all-purpose yardage (running, receiving, punt returns, kickoff returns) and earned a spot on the practice squad of the NFL's Houston Texans. Grimes, a New Jersey native, then signed with the New York Jets only to be reclaimed by Houston.

Jamie Whiteford '13 was the ITA men's tennis Atlantic Region singles champion; Kristin Milardo '12 was the USAG women's gymnastics senior gymnast of the year. Josh Hardin '13 won the IC4A 5,000-meter championship; Kemp Pettyjohn '15 was the CAA's swimming rookie of the year.

Overall, William & Mary posted a 42.5 percent overall winning percentage last year. The university provides the second-largest and most diverse intercollegiate athletic program in Virginia, meeting the needs of more than 500 student-athletes each academic year. William & Mary has the largest intercollegiate athletic program in the CAA.

Bray School/Brafferton Digs

Two teams of archaeologists sweated in the summer sun, carefully peeling back the surface of the earth to probe into William & Mary's historic past.

One team uncovered remains of fortifications erected by Union troops during the Civil War occupation of campus. Another group probed the grounds of a dormitory looking for evidence of America's oldest school for free and enslaved black children.

The Bray School Archaeology Program, a field school offered with the Colonial Williamsburg Foundation, excavated the area around Brown Hall to look for evidence of the Bray School, a university-related initiative that began in 1760 on the advice of Benjamin Franklin.

English professor Terry Meyers has conducted a great deal of scholarship that suggests that the building that housed the Bray School still stands on campus. Known as the Dudley Digges House, it grew in size through numerous additions and renovations. It was moved down Prince George Street in 1930 to make room to build Brown Hall and now serves as the home of the university's Department of Military Science.

The field school found no definitive link to the military science building, but BSAP co-directors Neil Norman and Mark Kostro M.A. '03 plan to resume archaeological investigations next summer, focusing on promising areas next to Brown Hall and a well that could date to the 18th century.

A short walk across College Corner from Brown Hall, the William & Mary Center for Archaeological Research found evidence of an era in which the campus was literally a battleground. WMCAR Director Joe Jones and his crew found a small plot south of the Brafferton Kitchen crowded with features dating to the occupation of campus by Union troops from 1862-1865. They found a well believed to have been dug by the Yankee occupiers as well as remains of palisades that linked the shell of the Wren Building, the Brafferton and the President's House to defend against attacks by Confederate forces.

WMCAR's findings, which include an unfired Minié ball and a Virginia regimental button, agree with an 1865 report to the Board of Visitors by William & Mary President Benjamin Stoddard Ewell. After the 1862 Battle of Williamsburg, Ewell directed that books and valuable scientific instruments be hidden at what then was called the Eastern Lunatic Asylum, where they survived the war. One such survivor, a fine electrostatic charge generator, was installed this summer in the lobby of the newly renovated Small Hall.

Diversity

William & Mary continues to be a university that values and celebrates the diversity of its faculty, staff, alumni and students.

In September, the university was designated a Military Friendly School by G.I. Jobs. The designation was awarded to the "top 20 percent of colleges, universities and trade schools that are doing the



most to embrace America's military service members and veterans as students," according to the magazine.

Over 2011's Homecoming weekend, William & Mary honored its first African-American residential students: Lynn Briley '71, Karen Ely '71, and Janet Brown Strafer '71. A few months later, the university took another look at its past with the second annual Lemon Project Spring Symposium. The event explored topics ranging from Jim Crow education in Williamsburg to interracial relationships in Virginia.

At the beginning of the spring semester, the community came together to welcome author and activist Cornel West as the speaker for the annual Martin Luther King Jr. commemoration.

Soon after, the university held its annual "I am W&M" week, which celebrates the diversity of the campus population through a variety of activities, discussions and performances.

Also during the spring semester, a comparative sociology class paired American students with international students to discuss the shared cultural experiences of their generation. The 2011–2012 academic year saw a record enrollment of international students.

A new aspect of diversity also began to be explored in 2011–2012: neurodiversity. The Neurodiversity Working Group, a collection of faculty, staff, students, alumni, parents and community members, was formed to work toward a better understanding and acceptance of brain differences — such as autism spectrum disorders — on campus.

As the year came to a close, William & Mary held its first Donning of the Kente ceremony. The event, sponsored by the Hulon Willis Association and the Lemon Project, celebrates academic achievement among students of color. During the event, each participant was presented with a student-designed stole with a symbol that means "unity in diversity."

A new set of grants also supported diversity efforts at William & Mary. The Office of Diversity and Community Initiatives awarded three Innovative Diversity Efforts Awards (IDEA) grants for the first time in the fall. During the spring semester, the projects supported by those grants began or expanded their outreach efforts. The three projects included: a multicultural science education support initiative, the Safe Zone program and the Virtual Conversation Partner Program.



The Arts

Thanks to world-class exhibitions and a rich program in art and art history, William & Mary continued to lead the way for American higher education in the visual arts during 2011–2012.

The university's Muscarelle Museum of Art, the first museum at a Virginia university to be accredited by the American Association of Museums, displayed works by Rembrandt and Picasso. The Muscarelle also exhibited pieces from its permanent collection of about 4,800 works. Monet's masterpiece, "Houses of Parliament in the Fog," debuted in Virginia at the Muscarelle, generating increased attendance.

In April, the Muscarelle provided the first public viewing of a recently discovered painting by El Greco, an exhibition that was featured in *The New York Times*. The museum was also busy in the spring as students in the seminar course, Curating and Connoisseurship, worked with the director and chief curator for the hanging of works for the exhibit "Grand Hallucination: Psychedelic Prints by William Walmsley and Friedensreich Hundertwasser."

Inside the studios, students expanded their creativity in the visual arts, taking classes in drawing, painting, sculpture, ceramics, printmaking and architecture. Thirteen studio art majors presented an array of works from bronze sculptures to charcoal drawings as

part of the annual senior art exhibition. Most students worked throughout the entire year to showcase their best work, which filled Andrews Gallery.

An array of exhibitions and community events were held at the Muscarelle and Andrews Gallery through the year to educate and inspire creative wealth. For the first time ever, stunning black- and red-figure Greek vases from antiquity filled the Muscarelle. This special exhibition was held in conjunction with the grandiose international conference on Greek art and archeology, hosted by the Classical studies department. It was the first time more than 75 scholars from around the world gathered on U.S. soil to investigate topics such as iconography, excavation pottery and export and trade.

The arts are indeed thriving at William & Mary, and the coming year promises to be another great one for exhibitions. The Muscarelle will celebrate its 30th anniversary with drawings by the renowned artist Michelangelo. Drawings in the major exhibition are from the master's collection that was preserved by his descendants in the family home, the Casa Buonarroti in Florence. They are among Michelangelo's most famous, recognized masterpieces, including some that have never been seen before in America.



STEM

The sciences have long been a part of the liberal arts tradition, and William & Mary has been teaching in the fields of science, technology, engineering and math before STEM became an acronym — and a national area of focus in education.

Students in STEM concentrations at the university get involved with research at an exceptionally high rate. Work in the “phage” lab, which began in 2008, continued this year, focusing on the investigation of a group of viruses known as bacteriophages. The freshmen who were initially involved with that biological research graduated this year with a unique experience to add to their resumes — the discovery of a previously unknown form of life, which was dubbed “CrimD” for William & Mary’s Crim Dell.

Two others graduated from the university with an international computing competition under their belt. Two seniors and a junior — together as “Team Gold” — competed in the World Finals of the Association for Computing Machinery’s International Collegiate Programming Contest (ACM-ICPC) in Warsaw, Poland. The competition took place just as William & Mary’s Computational Science training for Undergraduates in the Mathematical Sciences (CSUMS) ended. The five-year collaborative program between the departments of mathematics, applied science and computer science sought to help prepare students in the mathematical sciences to pursue graduate work and careers in fields where integrated computation and math skills are required.

For students who are looking at medical school following graduation, William & Mary’s science professors have started working on preparing them for the expected increased computational emphasis in the Medical College Admission Test, or MCAT. Part of this is accomplished by having mathematician Drew Lamar work in the biology department. Thanks to the

preparation that students receive, William & Mary graduates who apply to medical school are accepted at a rate higher than the national average. In 2011, 46 percent of all applicants nationwide were accepted into M.D.-granting institutions, and 60.7 percent of all William & Mary-connected applicants were accepted.

The university is fortunate to have a higher proportion of female professors in STEM fields than many other universities. One such professor, chemist Elizabeth Harbron, was featured in a national Associated Press story this year that focused on her success in the development of young women scientists at William & Mary.

Others at the university are focusing on providing support to female STEM faculty. Professors in the university’s neuroscience and psychology departments developed the Women in Scientific Education (WISE) initiative this year. The initiative is sponsoring career-development activities, research opportunities and assessments for female STEM faculty not only at William & Mary and the Virginia Institute of Marine Science, but Thomas Nelson Community College and Richard Bland College as well.

WISE is but one of many STEM outreach initiatives that William & Mary supports. Some are aimed at K-12 students, like the School of Education’s STEM Education Alliance. Others, like WISE, are aimed at college professors. For instance, Geology Professor Heather Macdonald’s “On the Cutting Edge” outreach provides resources to college-level geoscience teachers through a website and a series of workshops.

These outreach efforts, along with William & Mary’s continued focus on STEM, are in line with a national effort spearheaded by the White House to improve STEM education in America.

Recreation Sports

More than 2,100 students signed up to play club sports in 2011-12. Choosing from 46 active clubs, more than 1,600 students actually participated in 379 registered events — by any measure another hugely successful year.

William & Mary students practiced a total of 440 hours last year, played 144 events on campus and traveled to 235 events, 85 of them beyond Virginia's borders.

Among the colleges and universities competing on our campus in 2011–2012 were American University, Appalachian State, Duke, East Carolina, Georgetown, Johns Hopkins, North Carolina State, Penn State, Temple, University of South Carolina, University of North Carolina-Chapel Hill, University of Maryland, Florida, Virginia, the Naval Academy, Virginia Tech, Virginia Military Institute, Wake Forest and West Virginia.

Our students competed in Philadelphia, Gainesville, Ga., Boone, N.C., Clemson, S.C., Jersey City, N.J., Atlanta, White Sulphur Springs, W.Va., Oak Ridge, Tenn., Geneva, N.Y., Tampa, Annapolis, Md., and San Antonio, Texas.

There were many highlights:

- The croquet club was crowned national champions at the U.S. Croquet Association College National Championship, hosted at the world-famous Merion Cricket Club in Haverford, Pa., in April.
- The ice hockey team began the season with a 13-game winning streak, had the best record in its division at 15-1 and was ranked 15th in the Southern Region. This marked the first time the club has earned a regional ranking. Behind goalie Ben Huff — named the league's most valuable player — the team advanced to the conference finals for the second straight year. While they didn't win the championship, some comfort could be taken from beating the University of Virginia for the second straight time, and second time in school history.
- The women's basketball club made a stellar debut in the fall 2011 East Coast Women's Club Basketball League, finishing as runner-up.
- The men's rugby club reached the Elite Eight of the National Small College Rugby Organization national championship before losing by a mere two points to the University of North Florida.
- The racquetball club won the overall championship in the state of Virginia.
- The rock climbing club competed at the Virginia Collegiate Climbing Competition held at James Madison University in February. Both the men's and the women's teams placed first in the "advanced" division.

Lemon Project

William & Mary's Lemon Project continued to explore the university's history this year with myriad programs and new events.

The research project, which began in 2009, examines William & Mary's history with slavery and its continued relationship with the African-American community following the Civil War and through the Jim Crow era.

The project hosted its second annual spring symposium in March. The event, "The Journey Continues: Learning from Difference," was attended by more than 140 faculty, students and community members, many of whom shared personal stories about growing up around William & Mary.

"We didn't think about William & Mary; we'd go right by it and not even think about it. But now I think about it; I want my grandchildren to go there," said community member Edith Heard.

The day-long symposium offered a number of presentations and panel discussions on topics ranging from Jim Crow education in Williamsburg to interracial relationships in Virginia.

"While much progress has already been made on the Lemon Project, it remains still relatively early in its gestation," President Taylor Reveley told those in attendance. "There is much more to come during the next few years. Our hope is that this effort will have a serious impact on the campus, on the larger Williamsburg community, and on scholarship. The Lemon Project matters to William & Mary."

A few months before the symposium, two of the Lemon Project's leaders brought the project to an even larger audience by speaking on a public radio show. Jody Allen, managing director and co-chair of the Lemon Project, and Robert Engs, consulting scholar of the Lemon Project, were interviewed by "Another View" host Barbara Hamm Lee. The interview aired locally on WHRV 89.5 FM.

As the school year came to a close, the Lemon Project collaborated with the Hulon Willis Alumni Association to host the College's first Donning of the Kente ceremony, which celebrated academic achievement among students of color.

During the event, each participant was presented with a student-designed stole that included a symbol that means "unity in diversity." Each participant selected an individual — including family members, friends, faculty, administrators and mentors — to place the stole around his or her neck during the event. The stoles were also worn during the university's Commencement ceremony.

"We are excited about adding this ritual to other William & Mary traditions," said Allen.

Research

William & Mary can legitimately call itself a university in large part due to the quantity and the quality of its contributions to the creation of knowledge.

Our faculty members continue to punch above the institution's weight in terms of scholarship and research. A number of William & Mary scientists are involved in big-idea (and big money) research projects. The past year saw a number of global advances in particle physics and our physicists were involved in many of them.

William & Mary is particularly strong in neutrino research; our position is borne out by the university co-hosting (along with Jefferson Lab) NuFact 2012. This annual gathering brought together 150 of the world's top neutrino scientists, including William & Mary's Jeff Nelson, Michael Kordosky, Robert McKeown and Patricia Vahle.

These four were among the collaborators at one or more of the big neutrino experiments based at the U.S. Department of Energy's Fermilab and at Daya Bay, China. The renovation and expansion of Small Hall provided the physicists with a new high-bay facility, a space large enough for them to assemble components of the enormous detectors required for the science.

The year was a great one for research facilities. As the better and bigger Small Hall was opened, the design of the third phase of the Integrated Science Center (ISC) was unveiled. ISC 3 will fill the space between ISC 1 and ISC 2. Its four stories and 113,000 square feet will contain a large neuroscience presence and house a considerable computational component, including the new home of SciClone, the university's research computer cluster.

A team led by Harry Wang at the Virginia Institute of Marine Science (VIMS) was recognized for their work on a cutting-edge computer model for predicting storm-tide flooding of Chesapeake Bay shoreline during storm events. Their Chesapeake Bay

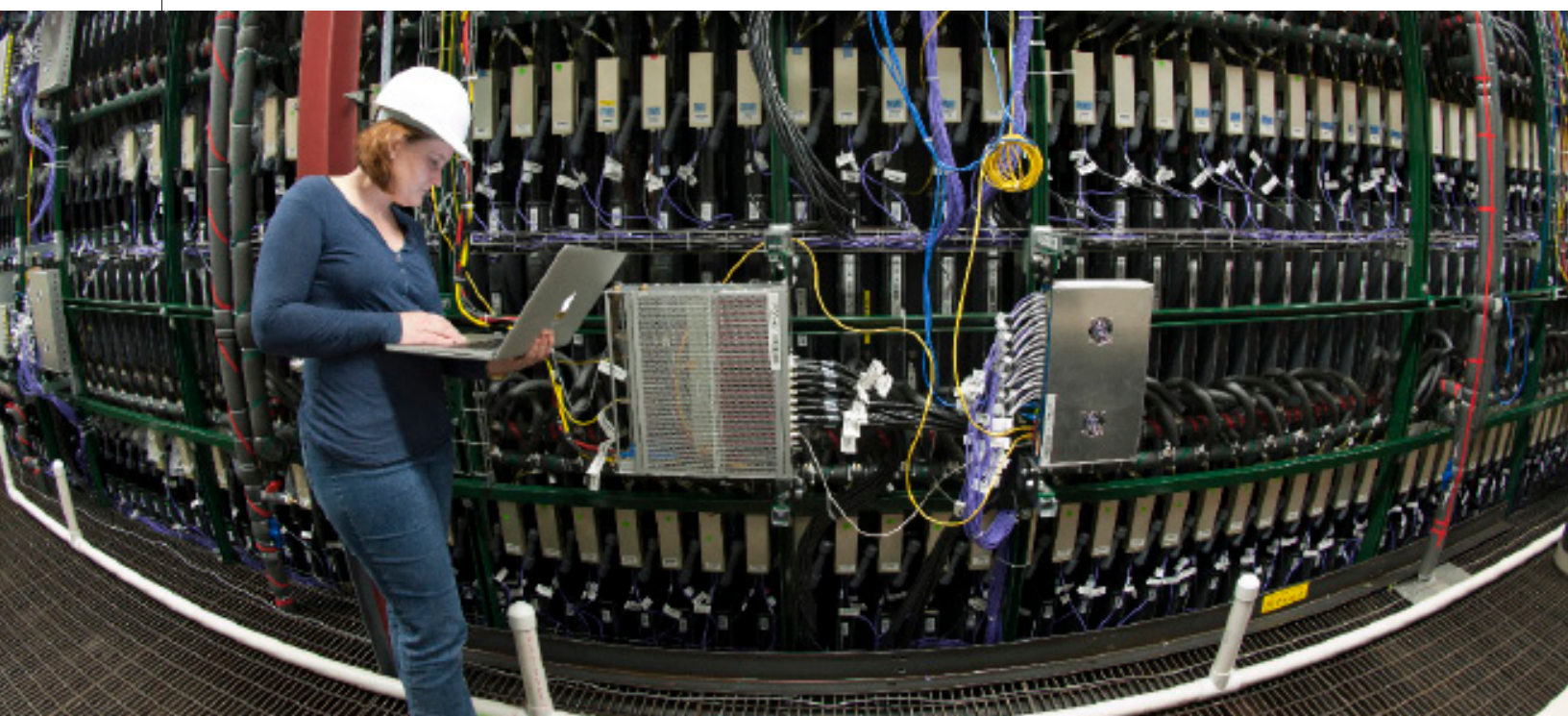
Inundation Prediction System, or CIPS, won a prestigious Governor's Technology Award.

Cooperation and collaboration in research are especially common among William & Mary faculty. The past year saw a couple of relatively uncommon collaborations, though. In one, geologists Greg Hancock and Jim Kaste teamed up with historian Jim Whittenburg to investigate water from the wells used by the original Jamestown colonists. Also, chemist Kristin Wustholtz teamed up with Shelley Svoboda, a conservator at the Colonial Williamsburg Foundation, to devise a practically nondestructive method for analyzing paint on historic paintings.

Especially notable among the books produced by William & Mary scholar-authors in the past year was *A Nation of Deadbeats: An Uncommon History of America's Financial Disasters*, in which Scott Nelson melds the outlooks of both economist and historian to examine the many hard times that preceded what we now call the Great Recession.

The Center for Conservation Biology (CCB) rolled out Project OspreyWatch, enrolling owners of waterfront property as "citizen-ornithologists" to report data on nesting ospreys. The CCB also tracked a set of four whimbrels, long-migrating shorebirds, who used various strategies to continue their southward journey through Hurricane Irene.

And, of course, work continued on many fronts during the year, leaving much to look forward to. Henry Hart in English moves ahead on his literary biography of the great poet Seamus Heaney, as anthropologist Martin Gallivan advances his book on the Native chiefdoms of the Chesapeake. Last, but by no means least, from applied science, Joel Levine is putting together a plan for a mission to Mars.





Rankings

Despite financial resources that continue to lag behind its national peers, William & Mary remains one of the top universities in the nation — and one of the best for undergraduate teaching — according to rankings released in September by *U.S. News & World Report*.

The magazine's "Best Colleges 2013" guidebook was one of several rankings lists that highlighted the nation's second-oldest institution of higher education. During the past year, William & Mary also received high marks in other publications such as *Forbes*, the *Princeton Review*, *Kiplinger's Personal Finance* and *Businessweek*.

In the *U.S. News* undergraduate ranking, William & Mary remained tied for 33rd among national universities and was listed sixth among public institutions. The magazine once again recognized the university as one of the nation's top schools for "its commitment to undergraduate teaching." In that category, William & Mary moved up from eighth to a tie for sixth among all universities. William & Mary's financial resources ranking fell from 97th last year to 112th this year. The 79-spot gap between overall quality and financial resources is by far the largest among the national top 50.

The release of the *U.S. News* report comes on the heels of several other national college rankings. In August, William & Mary was included in *Princeton Review's* "The Best 377 Colleges: 2013 Edition," coming in sixth in the report's "Top 10 Best Value Public Colleges" listing. William & Mary was also included in *Forbes'* "America's Top Colleges" guide in August, ranking at fourth among the country's public universities (including military institutions) and 40th overall. In *Forbes*, William & Mary was the second highest ranked state supported school in the country. Last spring, *U.S. News* released its annual rankings for graduate schools and professional programs. In those rankings, the Law School was listed 35th and the School of Education was ranked 43rd. The 2012 ranking by *Bloomberg Businessweek* listed the Mason School of Business 25th in the country among undergraduate programs. In January, *Kiplinger's* ranked William & Mary fourth on its list of top 100 American public colleges and universities that combine "outstanding education and economic value."



Anne Charity-Hudley



Elizabeth Harbron



John Spike



Robert Gates '65, L.H.D. '98

W&M Experts in the Media

National media called upon William & Mary faculty for expertise on many of the year's top news stories, including the 10th anniversary of the 9/11 terrorist attacks, the death of Osama bin Laden, the Supreme Court's ruling on healthcare reform, the Occupy Wall Street movement and Hurricane Isaac. Faculty appeared in stories by *The New York Times*, *Wall Street Journal*, *USA Today*, *Washington Post*, *MSNBC*, *Fox News* and *ABC News*, among others.

More than 300 quotes from William & Mary experts were used by the press from August 2011 to August 2012. Among the faculty members who were quoted were Education Professor Jeremy Stoddard on how the 9/11 attacks and their aftermath are incorporated into secondary school education (*Washington Post*, *Christian Science Monitor*); Adjunct Professor of Government Lawrence Wilkerson on the death of Osama bin Laden (*MSNBC*, *NPR*); Law Professor Tim Zick on free speech aspects of the Occupy Wall Street movement (*Forbes*, *Associated Press*, *Wall Street Journal*, *ABC News*, *FOX News*, *Philadelphia Inquirer*); Muscarelle Chief Curator John Spike on the public debut of El Greco's St. Francis at the museum (*The New York Times*); Associate Professor of Geology Greg Hancock on Hurricane Isaac (*ABCnews.com*); Health Promotion Specialist Eric Marlow Garrison on the repeal of Don't Ask, Don't Tell (*The New York Times*); Law Professors Neal Devins and Allison Orr Larson on healthcare reform (*The New York Times*, *U.S. News & World Report*); Anthropology Professor Barbara King in a Time magazine cover story on animal relationships; Government Professor Larry Evans on campaign gaffes (*Wall Street Journal*) and Newt Gingrich (*NPR*); Law Professor Rebecca Green on the court challenges to the Virginia Primary Ballot (*CBS Radio*); Associate

Professor of Chemistry Elizabeth Harbron on women making strides in science and math (*Associated Press*); Geology Professors Greg Hancock and James Kaste, as well as History Professor James Wittenburg on Jamestown settlers (*History.com*); Associate Professor of Marine Science Mark Patterson on saving the undersea lab Aquarius (*Associated Press*, *ABC News*, *CBS News*, *San Francisco Chronicle*); and Government Professor George Grayson J.D. '76 on Mexico (*CNN*, *Wall Street Journal*, *L.A. Times*, *Associated Press*, *Reuters*, "NBC Nightly News" and the "Today" show).

Additionally, two William & Mary experts appeared one week apart in *USA Today* in March 2012. Linguist and Professor of English Anne Charity-Hudley discussed the use of derogatory language in pop culture, and Dean of Admission Henry Broaddus discussed diversity in the admission process.

William & Mary Chancellor Robert Gates '65, L.H.D. '98 brought both CNN and CBS News to campus for interviews. CNN's "John King, USA" did a live broadcast from campus following an interview with Gates over Charter Day weekend. Charlie Rose, who did an interview with Gates for "CBS This Morning," also ran parts of the interview on his PBS program.

On the international front, the BBC featured two stories showcasing W&M faculty in early June. The stories addressed climate change, its impact on the ecology of Chesapeake Bay and the politics of environmental change. They featured Carl Hershner '72 of William & Mary's Virginia Institute of Marine Science and Bryan Watts M.A. '87, director of the Center for Conservation Biology.





Unique

PERSPECTIVES

William & Mary Students Share Diverse Stories



Whether it's an appreciation of tradition and community, an exploration of academic and personal discovery, or a chance to learn from and be engaged by exceptional faculty, students are called to William & Mary for different reasons, yet they share some common motivations for attending the university.

The stories of Maria Arellano '13, Augustine Kang '04, M.A.Ed. '06 and Max Miroff '16 are each different, but related by one commonality: Each of these students chose William & Mary because he or she believed, with hard work, the university would help prepare them to reach for goals they deeply value.

For video clips featuring each of these students, visit the online edition of the President's Report at www.wm.edu/presidentsreport.



Maria Arellano '13

Helping Others

REALIZE THE AMERICAN DREAM

Before she was born, Maria Arellano’s parents emigrated from Mexico to the United States to make a better life for their family.

Maria is the first person in her family to finish high school and attend college. She has high expectations of herself, to help realize her parents’ goal of a better life for their children.

She secured scholarships to attend private schools from seventh grade and all through high school. A serious scholar whose appreciation for education was instilled by her parents, Maria considered her choices for college carefully.

“I come from a small town with a big sense of community, and that’s what I found at William & Mary,” she says. “I could tell that everyone here loved their school and was passionate about what they were doing. It’s not something you see at many places.”

Like the people she encountered on that visit to William & Mary, Maria has pursued her passion as an undergraduate. She reaches out to the Hispanic-speaking community, volunteering with the Community Partnership for Adult Learners (CPALs), a student-run organization that offers free English language classes for the Williamsburg community.

Maria’s involvement with CPALs led to another opportunity — volunteering with Hispanic-speaking students at the local James River Elementary School in the Williamsburg area.

“The aim of the program is to help these students improve their native language, and as time went on, encouraging them to celebrate and appreciate their heritage became a large focus,” Maria says. “I see a lot of myself in these kids, and I love that I’m able to help them be proud of where they come from.”

As a double major in government and Latin American studies at William & Mary, Maria is able to pair these experiences outside the classroom with her undergraduate studies.

“The classes I’ve taken have opened my eyes to many issues that I had never thought about,” she says. “William & Mary has definitely changed me.”

Without financial assistance, Maria would not have been able to attend William & Mary. After graduation, she is considering law school or perhaps teaching. Whatever path she decides to follow, it will be one that allows her to effectively help the Latin American community.

“If my parents hadn’t struggled, I never would have had this chance,” Maria says. “I want to help other people who haven’t had the opportunities I have been given. I know their struggles because they are the same struggles my family and I have faced. The American dream is big for us.”





Augustine Kang '04, M.A.Ed. '06

Educational Leader

After completing both an undergraduate biology degree and a master's in education at William & Mary, Augustine "Auggy" Kang taught science for five years at two different middle schools.

During this time, Auggy came to appreciate how leadership can have a profound effect on the quality of schools. He decided to pursue a doctorate in education, again turning toward his alma mater, which he hopes will help provide him with the tools he needs to be an effective leader. Now in his second year of doctoral studies in the Educational Planning, Policy and Leadership program, and focusing on K-12 administration, Auggy feels especially confident about his decision to return to the School of Education.

"The most outstanding aspect of my experience at William & Mary has been the faculty," he says. "They are outstanding. They bring amazing experience to their teaching, yet they are so easy to talk to and approachable. The door is always open."

Auggy says he also benefits from his interactions with other students at William & Mary. "Everyone is passionate about what they are doing. We are all here because we care about education and children. When we get together, that's what we talk and think about."

Another factor in Auggy's decision to return to William & Mary was the graduate assistantship he received from the School of Education.

"The fact that I got a graduate assistantship made it possible for me to come back," he says. "I never could have paid out-of-state tuition. Now my tuition is covered and I have a small stipend."

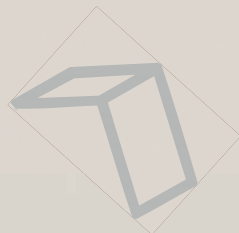
As part of his assistantship, Auggy works with Project Hope Virginia, which advocates for education for homeless students. He also serves as president of the Graduate Education Association (GEA) at the School of Education, a position that is allowing him to hone his leadership skills and to pursue his long-term goals while helping the school to connect with alumni.

Upon completing his degree, Auggy plans to return to the classroom.

"I love teaching middle school," he says. "You are reaching kids at a point in their lives when you can make all the difference."

However, after a few more years in the classroom, Auggy plans to move into an education administration position.

"I believe I can find the answer to the question, 'How can we turn our public schools around?'" he says. "Perhaps at some point in the future, I will return to William & Mary again with an answer to that question."



A Path for Growth and Discovery

Although he has been on campus only for a few months, freshman Max Miroff feels he chose the right place to pursue his undergraduate studies.

“I’m from Virginia and I know we have some of the best public universities in the country,” he says. “Even among those schools, William & Mary stood out because of its size and its strong focus on undergraduates.”

That impression was confirmed when Max visited campus and had a chance to meet with some members of the faculty.

“I really value the sense of community at William & Mary,” he says. “Although I have only been here a short while, I have had plenty of chances to connect with faculty, students in the 1693 Scholars Program, and other students on campus.”

The 1693 Scholars Program, William & Mary’s elite scholars program, was another factor in Max’s decision to attend.

“The tuition benefit is really important. Now my family doesn’t have to worry about how we are going to pay for college,” he says. “But the research opportunity is just as essential. The chance to fund a project and travel means a great deal to me academically.”

In high school, Max, who is now considering a philosophy major, was a member of the policy debate team and organized weekly philosophical discussions with fellow students around a featured topic. As a

writer, he has contributed to online blogs and had his creative work published by online literary journals.

At William & Mary, he already has had a chance to start on research.

When he visited William & Mary as a 1693 finalist, Max made a presentation to a faculty group about a possible idea for a future project. The project involves looking at the physical arrangement of educational spaces and the ways in which that organization affects teaching and learning.

“Broadly, I’m interested in the relationship between school space and the ideological assumptions of pedagogical practice. I’d like to look at how seemingly ordinary objects — things like desks, chairs, or hallways — exert force upon students and teachers to act in certain ways.” Max says. “It’s a very preliminary idea, but it’s the kind of question that intrigues me and that has attracted me to studying philosophy.”

The freedom William & Mary provides Max for exploring this and other novel research ideas, along with the perspective of its faculty and his fellow students, creates the potential for exciting growth and discovery throughout his four years on campus.





Max Miroff '16



Assistant Professor of Biology Shantá D. Hinton works with student Ethan Harwood '13 to transfer agarose gel to plates for setting.

Building Breakthroughs

Medically related research at William & Mary contributes to solutions

For years William & Mary Professor John Delos had been conducting research on the hydrogen atom from his office in Small Hall with the help of undergraduate and graduate students.

But the course of this physics professor's research changed with an e-mail five years ago from a former student, Abigail Flower, who'd completed her senior project under him and had eventually wound up as a graduate student in biophysics at the University of Virginia.

"She was working with a cardiologist and a statistician and she needed a physicist to talk to about data they'd collected on premature newborns in the neonatal intensive care unit," Delos recalled. "She asked if I'd be interested in getting involved."

Now, Delos is helping to save the lives of premature babies with inventions that, by analyzing breathing and heart rate data, can warn doctors of the likelihood of a

serious infection or the possibility of a major apnea episode in which the baby suddenly stops breathing.

"We're looking for non-invasive, purely electronic methods for detection and diagnosis of health and illness in premature infants," said Delos. "We're applying signal analysis and pattern recognition ideas to monitor the health of infants, using unexpected methods to get unexpected results. It's physics and engineering applied to a problem where you wouldn't think it would work."

It also highlights the fascinating, cutting-edge and potentially life-saving medically related research that is taking place in labs at William & Mary. From many corners of campus — and beyond — innovative work is occurring that may hold answers and promise for diseases from diabetes, tuberculosis and cancer to Alzheimer's and Parkinson's.

"Innovation? We've got that.

We've really got that," said Dennis M. Manos, vice provost for research, graduate and professional studies at William & Mary. A physicist, Manos also is CSX Eminent Professor in both the physics and applied science departments. He has helped to lead a wide variety of campus research — on everything from turning algae into biofuel to the development of graphene as a high-capacity energy storage material — which has been awarded more than \$22 million in grants and contracts since 1992.

"When I walk people through here who (attended college) here 50 years ago, they say, 'Holy cow!' We have equipment that is state of the art and our kids are being exposed to the frontiers as undergrads," he said. "It is one thing to read a book about things, but when you go into the lab and do it for yourself, you get a whole different level of experience and a very different view of what it means."

In August 2012, *Forbes* ranked William & Mary 21st among the nation's research institutions. For some, the news was surprising considering that the university doesn't have the big-school resources, such as a medical school or the engineering research focus that many top-tier research institutions such as Columbia, Harvard and Stanford universities possess. In the fiscal year that ended June 30, 2012, research and development expenditures at William & Mary totaled roughly \$58 million. To put that in perspective, Johns Hopkins University, an institution known worldwide for its hospital and leading medical research, led the world with research and development expenditures of \$2 billion in 2010, according to a March 2012 National Science Foundation report.



Dennis M. Manos, vice provost for research, graduate and professional studies at William & Mary, has helped to lead a variety of campus research.

Despite the major resource difference, both professors and university officials note that William & Mary has a solid reputation for the work it does and the students it produces.

Manos said he'd compare selected individual research projects at William & Mary to work at research powerhouses such as M.I.T. and Caltech any day. Manos, who came to William & Mary from Princeton University, said professors migrate to William & Mary because they see the potential to do great work without losing the close association with students — a hallmark of William & Mary.

"Although our portfolio is small compared to other universities, in our niches, we are superb at what we do. There's a subset of work here at the college that has to do with medical imaging and early diagnosis. It's an important area for the college and for society. We are at the cutting-edge of trying to advance it."

William & Mary students are highly sought after by graduate programs in the sciences — and they fare well in medical school admissions — in part because of the opportunities they have to learn and work in the labs on the Williamsburg campus.

The work of several faculty members highlighted here provides only a glimpse of the medically related research occurring at William & Mary — research that has enormous implications for prevention, treatment and understanding of disease.

LIZABETH A. ALLISON

Investigating traffic control

The thyroid gland, a small organ that straddles the vertebrae in the neck, plays a big role in how the body functions. It produces hormones that regulate metabolism, bone growth and the function of many other systems in the body.

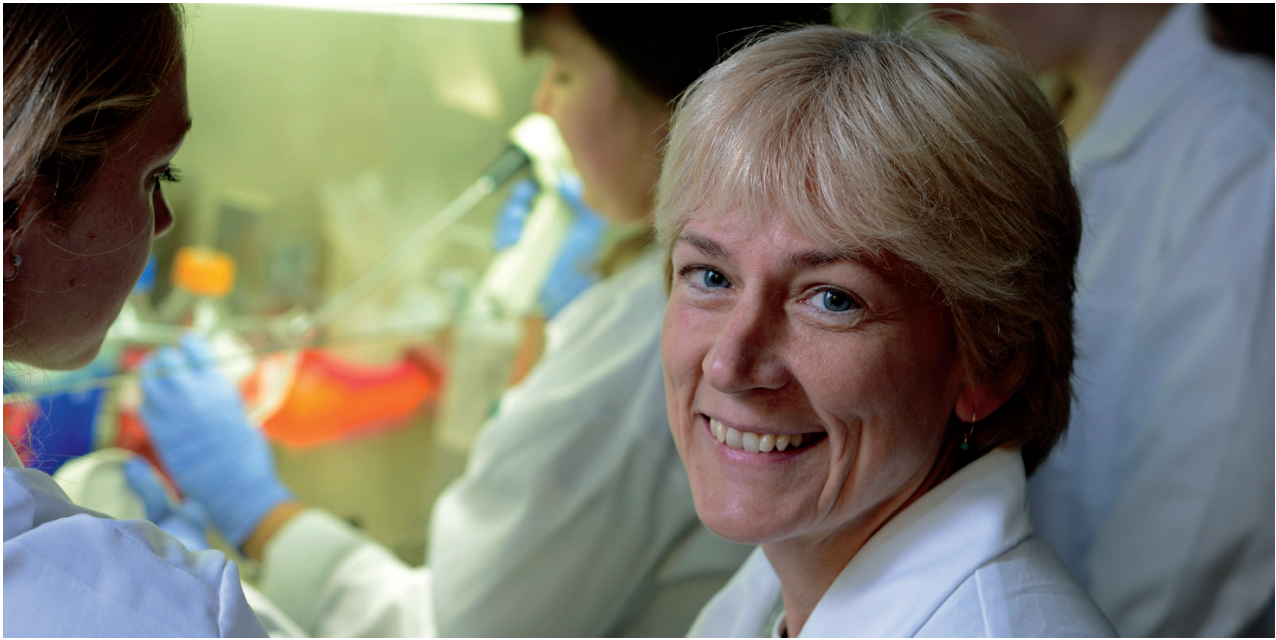
"Thyroid hormone pretty much affects every tissue in the body," explained Lizabeth A. Allison, a molecular biologist and chair of William & Mary's Department of Biology.

For nearly 17 years, Allison has been researching thyroid hormone receptor, which responds to thyroid hormone and turns particular genes within the body on and off when it locates within a cell's control center, or nucleus.

"What we found early on is that (thyroid hormone receptor) moves into the nucleus, but it comes out again. It goes back and forth, and the question is why. If it's not in the nucleus, then it can't be directly regulating genes in response to the thyroid hormone."

This question of how "traffic control," as Allison calls it, can be misregulated is what drives Allison's research. With the help of about a dozen undergraduate researchers each semester in her lab at William & Mary's Integrated Science Center, Allison is investigating the signals that propel thyroid hormone receptor into and out of a cell's nucleus and how the signals are regulated.

"We've found that one of the cancer-causing variants, or mu-



Lizabeth A. Allison, a molecular biologist and chair of William & Mary's Department of Biology, is investigating the signals that propel thyroid hormone receptor into and out of a cell's nucleus and how the signals are regulated.

tants, of thyroid hormone receptor mislocalizes in the cell. It's in a compartment called the cytoplasm, which is outside of the nucleus," she said. "And it can take a normal receptor and bring it outside of the nucleus, too."

Her research, which is funded largely by the National Institutes of Health and the National Science Foundation, has major implications for understanding the progression of certain types of cancer, as well as understanding various thyroid hormone-related disorders.

In one such case, patients with normal levels of thyroid hormone become hypothyroid because they've inherited a genetic trait involving a mutation in their thyroid hormone receptor, Allison said. The resulting weakness, fatigue, depression, weight gain and other symptoms can be debilitating, ac-

ording to public health officials.

As chair of the biology department, Allison is sensitive to William & Mary's mission of teaching and engaging undergraduate students in research. Yet faculty continually balance the pressure to produce — in both their research and publishing — to keep federal and outside research dollars flowing.

"It's very competitive," Allison said. "And we're competing with major research institutions with a different style of doing research that have graduate students and post-docs working at a faster pace."

To have a stronger level of base support from private sources would make a major difference, she said.

"For us, there are no boundaries between the teaching and the scholarship," she said. "Doing research with undergraduates is

part of how we teach," including the expected turnovers and training needed for undergraduates to become proficient in a lab, Allison said.

For many students, it's their first experience conducting research and working in a laboratory. And for many, "this is the moment they realize what they want to do with their lives," she said.

"Whatever they end up doing, the experience of how you ask questions and how you design experiments, how you troubleshoot, how you interpret — that analytical component — is useful in many different areas," Allison said. "Students benefit by learning those skills, or by learning how to communicate — both in writing and in giving presentations. Those skills are valuable in any career."

CHRISTOPHER A. DEL NEGRO
**'Zapping' Technique Pinpoints
Respiratory Failure Threshold**

The long, hard road of Alzheimer's, Parkinson's and Lou Gehrig's disease often ends when the patient perishes from respiratory failure — not the disease itself. It can be a fatal side effect of the slow, progressive and cumulative effect of losing brain cells in neurodegenerative diseases.

When Professor Christopher A. Del Negro, a neuroscientist, became interested in the field more than a decade ago, researchers already knew the region of the

brain where breathing originates. Yet Del Negro's steady and evolving work, backed by funding from the National Institutes of Health, has pushed the boundaries of knowledge in determining *which* cells in that region of the brain stem control breathing and *how* do they do it. His latest work goes even further to answer the question of *how many*.

"If you have a network that contains, let's say, 300 neurons that control the rhythm-generating system of breathing, how many of them have to die before the network fails?" Del Negro asked. "If

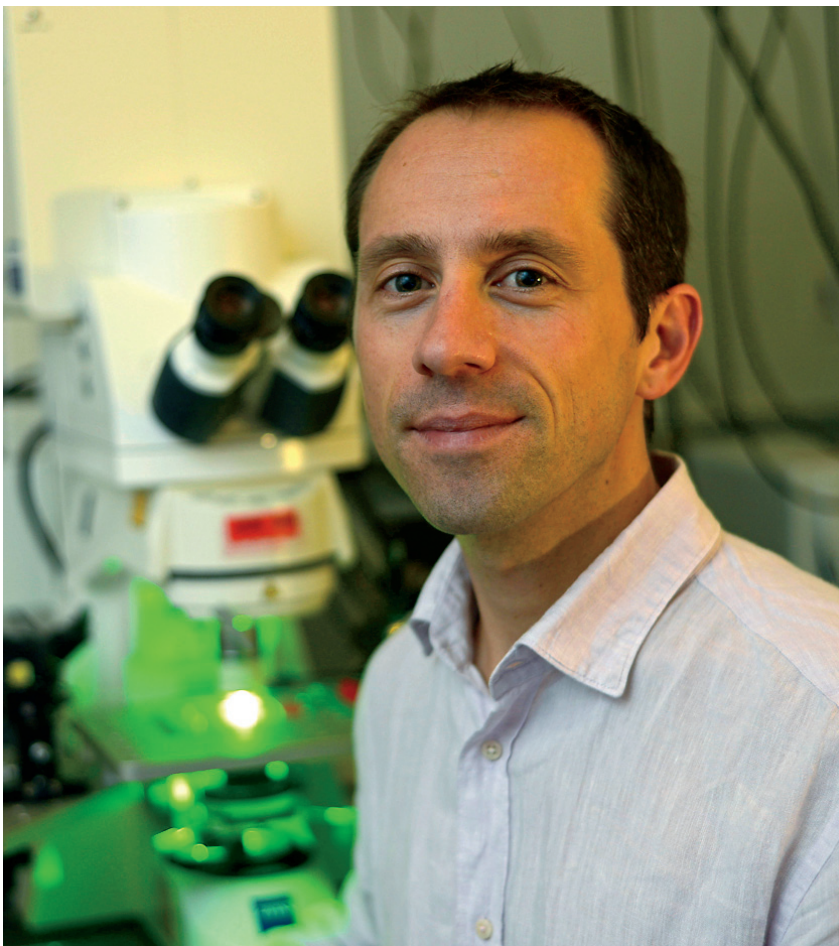
we can find that point, then we can begin to develop strategies to ameliorate or improve that function."

From four labs anchored by an office in McGlothlin-Street Hall by the Sunken Garden, Del Negro and his team of graduate and post-doctoral student researchers in the Department of Applied Science have developed a method of identifying and zapping brain cells that mimics the cell-by-cell destruction that accompanies neurodegenerative diseases.

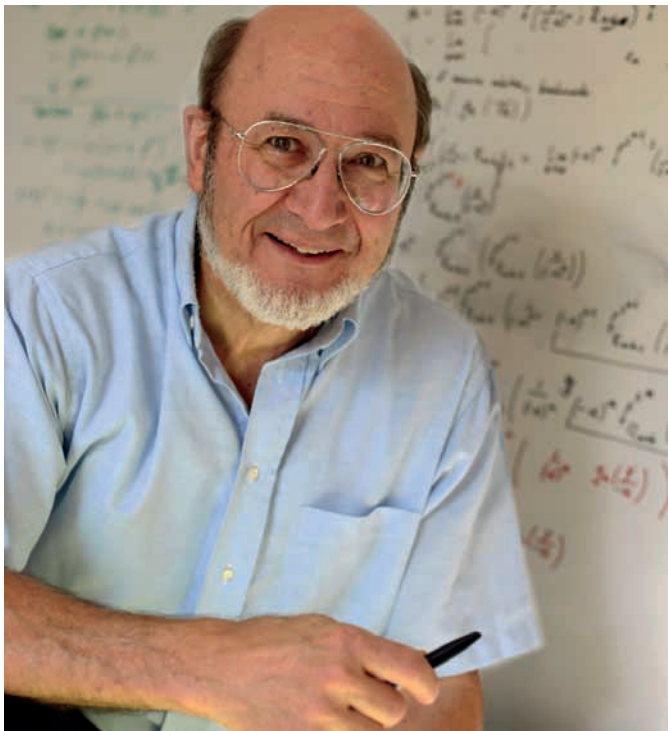
His system uses a laser microscope to automatically detect the neurons and then delete them one at a time, in sequence, with the laser's full power. Previously, researchers had to hand-target the laser to zap particular brain cells, which was error prone and practicable only in simpler organisms with few brain cells — not mammals.

"They had to know what the targets are, take the time to hand-target them and then confirm each deletion on their own," Del Negro explained. "With our system, individual neurons can be detected automatically, deleted automatically and confirmed automatically through computer routines."

While the invention is in the process of patent protection, Del Negro said, he wants it to remain in the public domain so that researchers across the world can replicate the technique in their own laboratories and further study brain systems and neurodegenerative diseases.



Christopher A. Del Negro works with a laser microscope purchased in 2007 for his research.



Using signal and pattern analysis, John Delos, in his research, has developed a method of monitoring changes in heart rate that gives warning of infection (sepsis) up to 24 hours before any other clinical signs become evident.

“That’s the way science advances,” said Del Negro, who chairs the Applied Science Department at William & Mary. “What scientists produce are intellectual products. So for us, the payment is reputation. The more we give it away, the better.”

Using the technique, Del Negro’s team determined that the brain’s respiratory rhythm-generating network fails if 18 percent of the neurons in the network are killed. Research results were published in May 2012 in the *Proceedings of the National Academy of Sciences*.

At a recent scientific conference in Madison, Wis., scientists and researchers from Sweden and Denmark to Canada and Japan expressed interest in the technique developed at William & Mary, Del Negro said.

“They definitely found the work compelling,” he said. The zapping

technique may be applicable to other models in the brain, such as the memory system and the motor systems of the spinal cord.

While he emphasized that real applications are down the road, Del Negro said he hopes the discovery will be applied.

“This is just the beginning,” said Del Negro, who already has submitted an application for a major grant from the National Science Foundation for further neuroscience study using the invention. “I think we will probably need a few more years to work out the details,” he said. “I don’t expect this is the final answer.”

JOHN DELOS **Early Warning System Saving Infants’ Lives**

The rate of sepsis was high among the 2- and 3-pound infants at the Charlottesville hospital’s neona-

tal intensive care unit, where the highest-risk infants in the area are sent. The immune systems of the very premature babies are not fully formed, so they have trouble fighting the bacteria, virus or fungus that may invade their blood systems, causing sudden and severe infection and inflammation.

“Sometimes the bacteria win and the babies die,” explained John Delos, a William & Mary physicist and professor who has been working with doctors and researchers at the hospital to analyze electronic heart rate and breathing rate data.

Cardiologist Randall Moorman wondered if heart rate monitoring offered an early warning of the potentially fatal infection.

“The answer turned out to be ‘Yes!’” said Delos, who helped develop a new method for analyzing electronic heart rate signals for babies that provides an early warn-

ing for sepsis and ultimately saves lives. Using data from more than 3,000 newborns with and without sepsis, Delos and researchers from the University of Virginia came up with a computerized pattern recognition system that detects and measures the slowing heart rate patterns in babies that occur within 24 hours of the onset of illness.

“Storms of (heart rate) decelerations are a predictor of sepsis,” Delos explained. “If you see seven or eight decelerations in a half hour, the baby is 10 times more likely than the average baby to have a septic event in the next 24 hours.”

Because of his work, electronic monitors over the babies’ bedsides in the Charlottesville hospital’s NICU now send signals about heart rate that are analyzed every hour for clusters of deceleration. When those clusters appear, “it does not prove the baby has the illness. It shows that the baby is at high risk for illness,” Delos said. “It says these are the babies you’d better watch.”

With that information, medical doctors, nurses and other clinicians can take appropriate steps to help the high-risk preemies avert infection. The number of deaths in sample groups has declined by about 20 percent, Delos said.

The early-warning system methodology and technology has been patented jointly by researchers at William & Mary and the University of Virginia, with the potential for using it in medical centers across the nation.

Delos had been studying the

hydrogen atom for years until his former student, Abigail Flower ’99, then a graduate student in biophysics at U.Va., requested his help in analyzing electronic data that doctors felt held clues to why preemies, who had shown no visible signs of illness, suddenly appeared to be septic.

Additionally, Delos and other researchers at William & Mary and U.Va. are working to refine their new method for detecting apnea in premature newborns. In babies born before 30 weeks of gestation, the respiratory rhythm generators located in the brain stem may not be fully developed. Using signal analysis, pattern recognition and the power of William & Mary’s SciClone network of computers in Jones Hall, Delos, his post-doctoral researcher Hoshik Lee, and a team of undergraduate and graduate researchers at William & Mary, are developing a new way of analyzing respiration rates and heart rates to detect and predict life-threatening apnea episodes.

The result is a sophisticated monitoring and data analysis system that catches many of the apneas that current monitors are missing. Delos and his team also are working to improve the electronic system so that it can provide real-time data and work in tandem with a vibrating mattress or shirt that gently can stir the baby into breathing again during an apnea episode.

Delos, whose prematurely born granddaughter, Sarah Rose, lived two weeks before dying, now makes this research his priority.

“What makes this special is that it’s about babies and it’s about physics,” said Delos. “Studying the hydrogen atom was fun, but it didn’t have the human factor like this and the impact on people’s lives. If you have a baby who’s not breathing and you can invent a warning system or an automatic system that can start the baby breathing again, then that’s very cool.

“When we quantitative folks, who like to look for patterns in electronic signals, work together with physicians and we overcome the communication and knowledge barriers, important and unexpected advances in health care can be made,” Delos said.

MARK K. HINDERS

Innovation leads to real-world solutions

From his basement lair — a machine shop-like laboratory nestled underneath the William & Mary Undergraduate Admissions Office on Jamestown Road — Professor Mark K. Hinders is revolutionizing the tools of dentistry.

Hinders and his students in the Applied Science Department have come up with a device that uses ultrasound technology to detect gum disease.

Instead of using a traditional, sharp metal pick to poke teeth and gums to detect gum disease, dentists can place the small, hand-held probe next to the tooth and the gum line. It painlessly sends ultrasound waves — sound that is emitted at too high a pitch for the human ear to hear — through the

soft tissue. The resulting data is sent electronically to a pocket-sized black box that processes, analyzes and transmits it to a computer for diagnosis by the dentist.

Using the ultrasonographic probe, dentists can more accurately — and less invasively — determine whether a patient has periodontal disease. It also eliminates the pain and sensitivity some patients experience with the metal pick that can drive them to switch dentists or avoid dental care altogether.

Hinders said the technology and technique, which have been in de-

velopment at William & Mary for about 15 years, have been refined through clinical research with dentists and patients at Old Dominion University's graduate program in dental hygiene.

"And because the equipment is very portable, we've used it in conjunction with very large and very small dental companies and dental schools mostly in Virginia," Hinders said.

The results are promising. Already, three companies are interested in commercial possibilities for the probe. Hinders' research

also is looking at variations of the technology to detect cavities, cracks and de-mineralized precarious areas that may be prospects for fluoride treatments and healing before a cavity erupts.

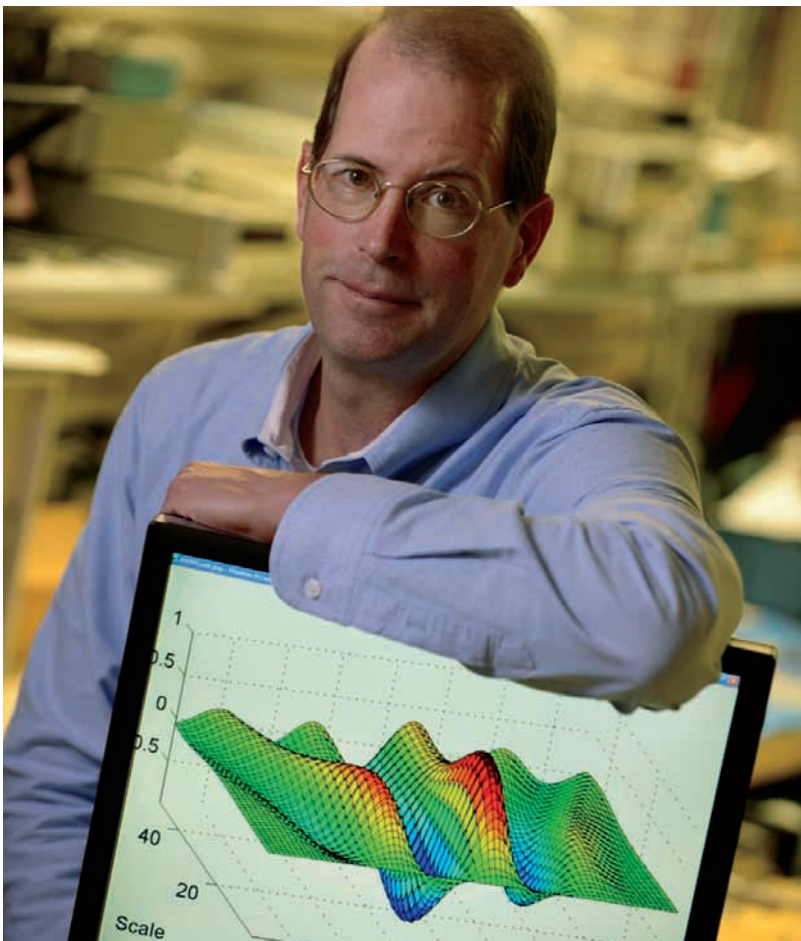
"There are lots of interesting problems in the dental office that ultrasound is suitable for," Hinders said, including exploring whether enough bone has grown around a dental implant that it's ready for the teeth to be set.

"Ultrasound as a technology also doesn't present the same health risks as X-rays. So it's safe, even in use with pregnant women."

The new instrument is not a far stretch for Hinders and the mostly graduate students who populate his lab. They were developing techniques for finding structural flaws in aircraft, spacecraft and advanced materials with their partners at NASA Langley Research Center in Hampton, Va.

NASA officials had asked Hinders and his lab at William & Mary to take over their project for the Navy of finding a better way to screen sailors for periodontal disease before they head out on a six-month deployment. Apparently, a ballistic missile submarine on a critical stealth mission had to surface to offload a sailor whose gum disease was so serious that he needed immediate attention on shore. The new technology may find a home in the Navy and in civilian life.

"Our goal is to allow a commercial entity to take the things the students and I have developed and



Mark K. Hinders, chair of the Applied Science department, is using ultrasound technology to revolutionize dentistry.

package them in a way that solves a real problem in the real world,” Hinders said. “Applied science means we’re applying science to and developing technology that solves actual problems that are important out in the real world.

SHANTÁ D. HINTON

Analyzing MK-STYX Protein Communication

When Biology Professor Shantá D. Hinton explains her research on the protein MK-STYX with the uninitiated, she shows the same patience and enthusiasm embodied by the best William & Mary faculty as they steer young apprentices awakening to the world of scientific research.

Now in her third year on the William & Mary faculty, Hinton’s lab is trying to determine the function of the protein MK-STYX in cellular communication.

“Just as we communicate as human beings, so do the cells in our body,” said Hinton. “And just as human beings, if we have a miscommunication, it could lead to a disruption of our relationships with one another and people’s feelings are hurt. In a cell, if a certain protein or enzyme doesn’t do its job, then there is miscommunication and it can lead to diseases.”

For MK-STYX (its prototype, STYX, so named for the mythological River Styx) and its super family of protein tyrosine phosphates, their role is a critical one in the body. Some are players that send the message that controls cellular processes. When they go wild, or don’t know what to do, it



Biology Professor Shantá D. Hinton reviews films of the protein MK-STYX with Lauren Rusnak, a second-year master’s student in biology.

tremendous contribution to this field.”

With the assistance of six undergraduate student researchers and one graduate student, Hinton is working in her lab at the Integrated Science Center toward what may be a breakthrough for families across the globe. Understanding MK-STYX may help in drug development and other treatments for sufferers of many diseases.

Hinton became interested in the protein during her post-doctoral work at Cold Spring Harbor Laboratory in New York, where, in 1953, James D. Watson first publicly described the structure of DNA. Hinton has continued her work with MK-STYX as she teaches an upper-level biology course and sem-

research into a teaching lab at William & Mary that will allow more students to be exposed to the wonders of communication, from both the human and protein perspective. “For me, the greatest job is seeing these inexperienced students come into my lab. And after working one-on-one with them, they leave as accomplished scientists,” Hinton said. “That’s why a large majority of our students are accepted into M.D. and Ph.D. programs, because these universities trust that our undergraduates have had a true research experience. The community should understand that when we say we integrate teaching and research, it really is true.”



Protecting William & Mary innovation, eyeing the marketplace

JASON MCDEVITT

The path from invention to development to the actual marketplace and use can be long and arduous.

That's where Jason McDevitt comes in.

McDevitt is director of Technology Transfer at William & Mary. His office is dedicated to getting the viable technology invented by William & Mary professor-researchers — including biomedical technology — into the public domain. He assists with obtaining patents to protect the researchers' invention and the university's interest. And he helps to find possible commercial avenues for the new product or technology. That may include licensing the technology for use by an existing company or helping to create a startup company.

For many medically related inventions, the process from invention to market can take anywhere from two years to 10 years or more, McDevitt said, because of health and safety concerns, possible clinical trials and required approvals from various agencies.

Currently, McDevitt's office is seeking patent protection for about 10 biomedical technologies created at William & Mary.

To encourage commercialization, William & Mary shares 50 percent of all money received from an

invention's commercialization with the professor-researcher who invented the product or technology.

"A lot of people believe that the initial research and invention are the biggest steps in producing a product," McDevitt said. But that's really only the tip of the iceberg. "Development, engineering, marketing and intellectual property protection can all be the key to a successful product," he said.

"For most inventions, there's an awful lot of work to get it into a form that's convenient and inexpensive, or at least commercially competitive. And that's really hard to do," he said. "No matter how good your invention is, you have to have buy-in from (outside interests) willing to put up money to develop it. It's not always a straightforward path, even if your technology is better than what's out there."

Many larger research-focused universities have venture funds, where alumni and outside donors can contribute to a particular invention's development or a new technology startup, McDevitt said. These donations are different from typical contributions to an institution's foundation because of the donors' expected return on their investment.

LIST OF MEDICALLY RELATED RESEARCH AT W&M

APPLIED SCIENCE

Christopher A. Del Negro

http://people.wm.edu/~cadeln/Del_Negro_Lab_Homepage/Welcome.html

Studying the fundamentals of brain function, particularly basic physiologic functions such as breathing. The research has produced a new method of identifying and destroying brain cells, a new method of identifying and destroying brain cells to assess the resilience of brain functions. The discovery may have major implications for understanding the progression of Alzheimer's, Parkinson's and other neurodegenerative diseases.

Gregory D. Smith

<http://wmpeople.wm.edu/site/page/gdsmit>
Mathematical and computational aspects of normal and pathological calcium signaling pathways in the heart.

BIOLOGY

Lizabeth A. Allison

<http://laalli.people.wm.edu/>
Conducting research on the signals regulating traffic control of the thyroid hormone receptor and gene regulation in response to thyroid hormone. Disruption of this cellular communication process can lead to diseases, such as cancer.

Eric Bradley

<http://elbrad.people.wm.edu/>
Investigations into the endocrine-disruptive effect of environmentally relevant levels of mercury contamination, with particular emphasis on reproductive impairment and metabolic disruption.

Mark H. Forsyth

Biology, http://mhfors.people.wm.edu/Forsyths_Website/Welcome.html
Studying the genetics of the gastric pathogenic bacterium, *Helicobacter pylori*, a major cause of peptic ulcer disease and some forms of stomach cancer. Studying the genetics, genomics, signaling pathways and the process of adhesion to host cells, may shed light on the decades-long persistence of this infection.

Mark Forsyth, Margaret Saha and Kurt Williamson

(Biology) and **J.C. Poutsma** (Chemistry), Studying CrimD and other recently isolated bacteriophage as possible biological tools in the investigation of the genetics of bacteria such as those that cause tuberculosis.

Paul Heideman, Biology and Neuroscience,

<http://pdheid.people.wm.edu/>
Testing for natural variation in neurons and hormones related to infertility in mice. The goal is to develop a model for the role of natural variation to infertility in other animals, including humans. Also developing methods, materials, and courses to improve learning by college premedical students and researchers.

Shantá Hinton

<http://wmpeople.wm.edu/site/page/sdhinton>
Protein research and its role in cellular stress signaling. Disruption of cell signaling can lead to cancer, diabetes, Alzheimer's.

John D. Griffin, Biology and Neuroscience,

<http://wmpeople.wm.edu/site/page/jdgriz>
Control by the hypothalamus of the body's thermoregulation in response to fever.

Oliver Kerscher

<https://sites.google.com/site/yeastgenetics/home>
Studying how genetic information is maintained and transmitted during the cell division cycle. Specifically, errors in this process can lead to DNA loss and damage, which can result in health problems from cancer to Down syndrome to spontaneous abortions.

Matthias Leu, John Swaddle, Daniel Cristol, and Oliver Kerscher

<http://wmpeople.wm.edu/site/page/mleu> and <http://www.wm.edu/as/biology/research/iibbs/>
Conducting research on how forest fragmentation influences the distribution of ticks, tick hosts (birds and deer), and diseases carried by ticks, such as Rocky Mountain spotted fever. Understanding how ticks and their hosts respond to forest fragmentation will inform urban planning within a human-health context.

Margaret Saha

<http://wmpeople.wm.edu/site/page/mssaha>,
Our research investigates how neural cells acquire their specific identities during embryonic development and how the nervous system recovers from environmental and genetic perturbations. This is relevant for developing treatments for neurological disease.

S. Laurie Sanderson

<http://slsand.people.wm.edu/>
Studying the fluid dynamics of biological filtration mechanisms relevant to blood and fluid flow in the human body, and the biomedical applications of industrial crossflow filtration.

John Swaddle, Biology and Institute for Integrative Bird Behavior Studies,
<http://jpswad.people.wm.edu/> Understanding the health consequences of exposure to low levels of mercury—levels equivalent to tuna fish. Researching how land management, bird behavior, and species biodiversity affect the risks to humans of contracting infectious diseases such as West Nile virus.

Matt Wawersik
<http://wmpeople.wm.edu/site/page/mjwawe>
How germ cells (cells that make sperm and eggs) develop into stem cells. This research is to help understand infertility and to develop new techniques for growth, maintenance and transfer of stem cells for therapy.

CHEMISTRY

Deborah Bebout
<http://people.wm.edu/%7Edcbebo/faculty.html>
Developing methods for investigating the mobility and sequestration of environmentally significant heavy metal toxins. The studies will help identify the physiological targets of heavy metals and inform the development of more effective therapies for acute and chronic exposure to them.

Randolph Coleman,
department of chemistry & affiliated faculty in neuroscience.
1 – Developing computational studies and biochemical models of neurodegenerative diseases. Our mathematical/modeling approach allows us to better understand the disease state and how potential drug therapies might work to combat the disease. We have published papers on multiple sclerosis and Parkinson's disease to date and are preparing papers for publication on Alzheimer's, ALS, Prion, and Huntington's diseases.

2 – We are also applying these computational studies and biochemical models to learning more about certain cancers. This summer we began a study of renal cell carcinoma and hope to have a mathematical model completed this year. This model will allow us to probe the disease dynamics in a way difficult to achieve with human subjects.

Lisa M. Landino
http://www.wm.edu/as/chemistry/people/faculty/landino_l.php
Oxidative stress, protein damage and neurodegenerative diseases. Studies of microtubule protein oxidation and repair provide clues to early steps in Alzheimer's and Parkinson's.

J.C. Poutsma,
Investigating the mechanisms of polypeptide fragmentation mechanisms. These studies will lead to improved computer simulation programs that will be used for differential proteomics studies of human disease.

Jonathan R. Scheerer
<http://wmpeople.wm.edu/site/page/jrscheerer>
Works with bioactive small molecules at the interface of chemistry and biology. He recently completed the synthesis of a new calmodulin (CaM) inhibitor that holds promising implications for the treatment of neurodegenerative and vascular diseases and cancer. Additional efforts from his lab are directed toward a family of natural insecticidal molecules originally isolated from fungal sources that appear to have low toxicity in mammals and might find application in organic farming (agricultural practices).

COMPUTER SCIENCE

Qun Li, computer science
<http://www.cs.wm.edu/~liqun/>
Developing ECG analysis system on small sensors and smart phones for 24-hour cardiac disease monitoring. The ECG sensors and smart phones can automatically detect abnormal signals associated with cardiac diseases on a patient and remotely alert a doctor for assistance.

KINESIOLOGY AND HEALTH SCIENCES

Michael Deschenes
<http://www.wm.edu/as/kinesiology/faculty/index.php>
Investigates how muscle unloading (e.g., post-operative bed rest, crutches assisted ambulation) impairs neuromuscular function of the involved limb(s) and what strategies can be used to effectively mitigate those impairments, as well as how they are affected by aging.

M. Brennan Harris
http://www.wm.edu/as/kinesiology/faculty/harris_m.php
Exploring the molecular and physiologic effects of exercise that improve the decline in blood vessel function with age. These mechanisms also play a role in impaired blood vessel function in diabetes, hypertension and atherosclerosis.

Scott Ickes
http://www.wm.edu/as/kinesiology/faculty/ickes_s.php
1 – Understanding the role of maternal agency on children's nutrition in low-income countries
2 – Examining the impact of lowering the linoleic acid (omega-6) content of therapeutic foods for children suffering from malnutrition. The research can help inform products, interventions and policies that aim to improve child health in developing countries.

KINESIOLOGY AND HEALTH SCIENCES

Ken Kambis

<http://www.wm.edu/as/kinesiology/faculty/research/jbarf>
Developing tests that can predict an individual's response to acute hypoxia and thus help prepare people for, and protect people from, Acute Mountain Sickness, a debilitating disorder caused by rapid ascent to high altitudes. This long-term study is being conducted as part of a Collaborative Research and Development Agreement (CRADA) with the U.S. Army Research Institute of Environmental Medicine.

Robin Looft-Wilson

http://www.wm.edu/as/kinesiology/faculty/looft_r.php
Studies how exercise changes gene expression in arteries. This will provide insight as to why exercise protects arteries from atherosclerosis.

MATHEMATICS

Larry Leemis

www.math.wm.edu/~leemis.
Developing algorithms for generating random variates for Monte Carlo simulation associated with the Cox proportional hazards model and the accelerated life model which incorporate the effect of covariates (e.g., gender, blood pressure) into survival models.

Jianjun Paul Tian

<http://www.math.wm.edu/~jptian/>
Developing mathematical models to study cancer initiation from stem cells and tumor growth with therapies.

Sarah Day and Jesse Berwald

<http://www.math.wm.edu/~sday/>
<http://wmpeople.wm.edu/site/page/jjberwald/home>
Developing topological algorithms to detect senescent red blood cells. This research, undertaken with medical researchers at Harvard, investigates the aging process undergone by cellular membranes, and can be used to improve the effectiveness of blood transfusions.

Tanujit Dey

<http://tdey.people.wm.edu/>
1 – Prostate cancer: Currently working on predictive model based on PSA level for prostate cancer survival
2 – Childhood obesity: Using the cohort of birth to 2 years-of-age children, we are working on building predictive model for early detection of obesity.

PHYSICS

John Delos

We study heart rates and respiration of infants in neonatal intensive care units. The infants are vulnerable to a

host of problems, including sepsis, apnea and other difficulties. We have developed a new method of monitoring changes in the heart rate that gives warning of bacterial infection up to

24 hours before any other clinical signs become evident. Also we have developed a state-of-the-art algorithm for apnea detection, which is far more reliable than the monitors that are currently in use.

Bill Cooke and Gene Tracy

Our work is developing new methods to identify cancer in its early stages by examining how the proteins in the body have changed as the disease progresses. In collaboration with John Semmes' group at EVMS, we have examined the proteins in tissue and blood and we have developed new methods of identifying the important disease-induced changes.

PSYCHOLOGY

Josh Burk, Psychology Department and Neuroscience Program. My research investigates the neural basis of attention and impulsivity, with implications for treatments for Alzheimer's Disease, schizophrenia and attention deficit/hyperactivity disorder.

Catherine Forestell

My research program focuses on the analyses of food and flavor preferences in children as well as eating patterns and food-choice motivations in adults. Current research studies focus on the following areas: 1) how early flavor experiences affect taste, odor, and flavor preferences during weaning and throughout childhood; 2) development of strategies to promote acceptance of fruits and vegetables in infants and children; 3) analyses of the mechanisms involved in food choice in dieting adults. More insight into the "flavor world" of children and eating patterns of adults will aid in the development of evidence-based strategies for developing healthier eating behaviors throughout the lifespan.

Danielle Dallaire (PI, Psychology) and **Catherine Forestell** (Co-PI, Psychology & Neuroscience), along with senior staff **Professor Ickes** (Kinesiology & HS) and **Dr. Buchanan** (adjunct, Kinesiology & HS) are working with local jails to identify pregnant women and provide them with prenatal vitamins, nutritional counseling, and information about services in their area to utilize upon their release. By identifying pregnancy early in this population and providing support and nutritional education and supplements we hope to improve birth outcomes in this high-risk demographic.



Some of the William & Mary faculty engaging in medically related research gather for a group photo on Oct. 5, 2012.

Catherine A. Forestell and Cheryl L. Dickter

<http://wmpeople.wm.edu/site/page/flavor> . Behavioral and psychophysiological analysis of the factors involved in the development of nicotine addiction in children and young adults. Results have implications for developing evidence-based strategies to prevent smoking initiation and improve smoking cessation programs.

Robert Barnet, Josh Burk, Pam Hunt, Cathy Forestell, and Cheryl Dickter (Department of Psychology). Analysis of how exposure to nicotine during adolescence affects brain systems important to memory, and examining early risk factors in nicotine dependence. Long-term goal to inform pharmacological and behavioral smoking cessation therapies.

Paul Kieffaber

<http://wmpeople.wm.edu/site/page/pdkieffaber>, Developing procedures using electroencephalography (EEG) for the early assessment of cognitive decline associated with disorders of aging like Alzheimer's disease.

SOCIOLOGY

Amy Quark

<http://wmpeople.wm.edu/aaquark> Studying the effect of the World Trade Organization and international standardization organizations on domestic health policies.





**Financial Report on
Fiscal Year 2012**

William & Mary's Financial Performance



STEPHEN SALPUKAS

Sam Jones '75, M.B.A. '80

Fiscal Year 2012 allowed William & Mary to stabilize its budgets after the disruption associated with the Great Recession and the resulting reduction in state funding support.

Having made expenditure reductions during the past several years in order to maintain balanced budgets, the university again was able to move forward, implementing selected aspects of its strategic plan.

While Fiscal Year 2012 saw some renewed state investment in William & Mary and its programs, state funding as a percentage of the university's overall operating budget continued its decline — falling to 12.8 percent. Revenue from tuition and fees; self-supporting auxiliary enterprise activities (residence halls, food service, etc.); grants and contracts; and private giving provided the diversity of funding support critical to the university's overall financial health. At the same time, William & Mary reaffirmed its commitment to reallocating funds to its highest priority needs, including salary support for faculty and staff.

Expenditures reflected William & Mary's priorities in maintaining the quality of its academic programs and supporting additional enrollment. Significant funds remain invested in student financial aid, recognizing that increases in tuition and fees, coupled with changes in the financial situation of individual families, have a direct impact on students with demonstrated need.

The university continued to see growth in the value of its consolidated endowment — endowments held by the various entities supporting William & Mary and its programs. At June 30, 2012, the consolidated value of the university's endowment totaled \$644.2 million, an increase of 3.1 percent. While investment performance reflected the challenge of investing in sometimes turbulent national and global markets, strong gift flow and significant growth in assets held in external trusts more than compensated. The

William & Mary Investment Trust, the largest of the university's investment portfolios, remains highly diversified across asset classes. A more detailed discussion of investment performance follows.

With the opening of the School of Education building and the Sherman and Gloria Cohen Career Center, the facilities focus shifted to planning for the third and final phase of the Integrated Science Center (ISC) and the renovation of both Tucker and Tyler halls. Since the ISC 3 and Tucker Hall projects previously had been authorized by the state, William & Mary requested and received permission to move forward with Tyler Hall planning. On the non-academic side, the William & Mary Real Estate Foundation opened Tribe Square. Located on Richmond Road, just across from campus, Tribe Square provides 56 apartment-style beds, as well as four commercial spaces. On campus, construction of the new fraternity houses is underway. When complete in summer 2013, these houses will not only dramatically improve fraternity housing, but add an additional 187 beds to our on-campus inventory, reaffirming once again the university's residential commitment.

OUR FUTURE

Fiscal Year 2013 budgets continue our progress. Within available resources, the budgets reflect priorities included in William & Mary's Strategic Plan and the Six-Year Plan approved by the Board of Visitors in response to the recently passed Virginia Higher Education Opportunity Act. This act reaffirmed "the Commonwealth's commitment ... to having a distinctive 'public ivy' at William & Mary."

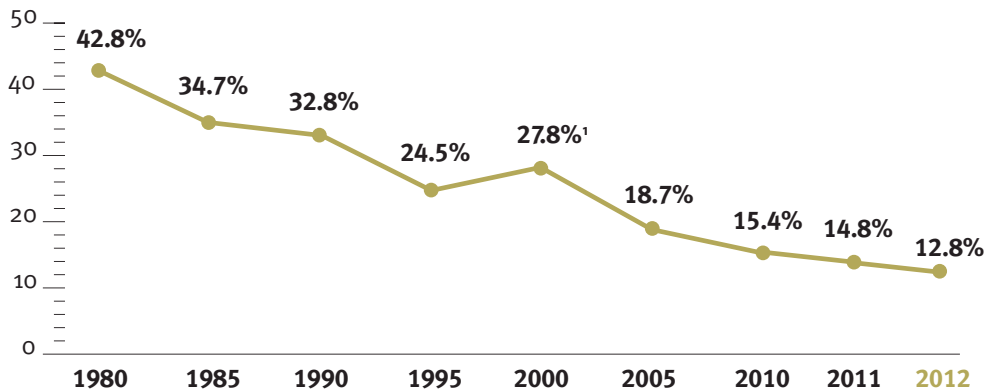
The Board of Visitors and the administration are focused on how best to attract and retain the very best students, faculty and staff while enhancing quality, affordability and access. Well into its strategic planning process, William & Mary this year will assess progress to date and identify more intentional investments to move the university forward. Under the general theme of "Breaking Boundaries," possible initiatives include enhancing the "360 degree" nature of a

STATE SUPPORT FOR OPERATIONS

The College of William & Mary

Fiscal years, which end on June 30

Percentage of operating budget constituted of state support



1. Reflects a state-mandated 20 percent reduction in in-state undergraduate tuition offset dollar for dollar with state general funds.

William & Mary education, leadership development, expanding technology-based instructional methods, interdisciplinary opportunities, applied learning, and global education and awareness. These investments will occur even as the university continues to address the six original “grand challenges” that have driven recent funding decisions.

All the university’s constituencies will need to contribute to this effort. While we do not expect the state to restore those funds lost since 2008, the Commonwealth will continue to play an important role in William & Mary’s future, providing both operating and facilities support. We can expect state resources to be targeted to support the various initiatives highlighted in the Higher Education Opportunity Act. Internally, William & Mary’s deans and vice presidents remain focused on ways to improve the efficiency and effectiveness of program delivery, allowing for the reallocation of funds to higher priority needs. Tuition and fees remain a part of the funding solution, recognizing that any action increasing the cost to students must address access and affordability issues. Finally, private fundraising, both annual giving and endowment, remains crucial to both the short-

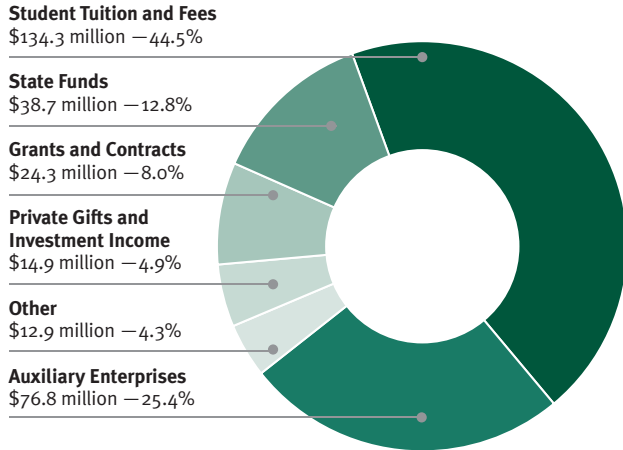
and long-term financial health of the institution. The Board of Visitors, in partnership with The College of William & Mary Foundation, the William & Mary Alumni Association, and the various other foundations and boards supporting the university, continues to invest those resources necessary to grow William & Mary’s giving profile and endowment.

As noted above, recent state funding action has cleared a variety of capital needs. As a result, the university is able to shift its facility focus to the programmatic and space needs of its various arts programs. Prior studies have more than adequately documented the condition and space needs in theatre, speech, dance, music, art and art history, and the Muscarelle Museum of Art. Funded with both state and private funds, planning is underway for an “Arts Quarter” that will provide quality instructional, performance, and exhibition space for our students, faculty, and visitors.

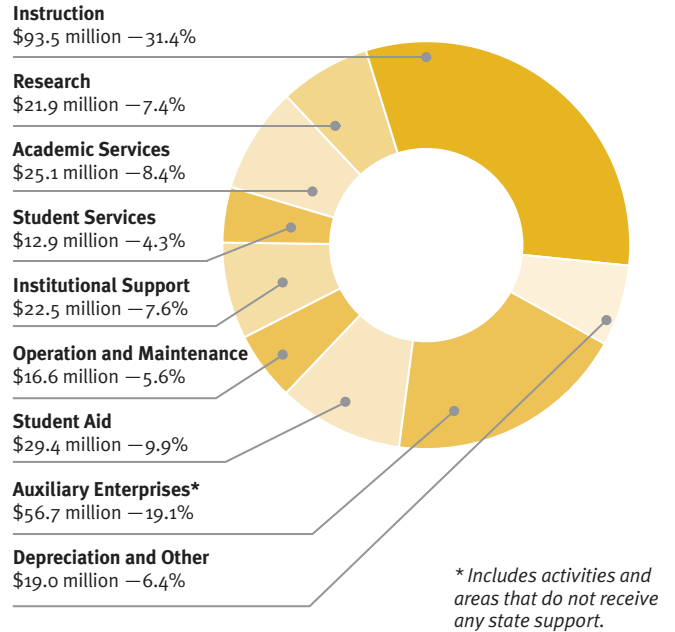
Samuel E. Jones '75, M.B.A. '80
Vice President for Finance

Operating Revenue and Expenses

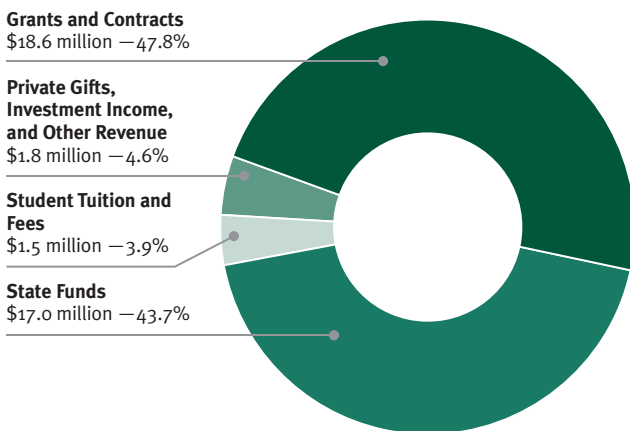
THE COLLEGE OF WILLIAM & MARY
Operating Revenue — \$301.9 million (unaudited)
 Fiscal year 2012



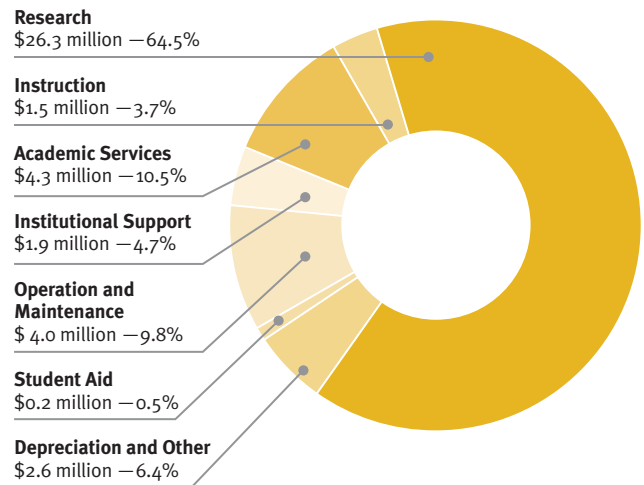
THE COLLEGE OF WILLIAM & MARY
Operating Expenses — \$297.6 million (unaudited)
 Fiscal year 2012



VIRGINIA INSTITUTE OF MARINE SCIENCE
Operating Revenue — \$38.9 million (unaudited)
 Fiscal year 2012



VIRGINIA INSTITUTE OF MARINE SCIENCE
Operating Expenses — \$40.8 million (unaudited)
 Fiscal year 2012



William & Mary Tops \$40 Million for Fourth Consecutive Year

A record number of donors contribute to fundraising success for Fiscal Year 2012

Supporters of William & Mary gave \$43.7 million during Fiscal Year 2012. The effort represents a 6.5 percent increase from Fiscal Year 2011, which was \$41 million. For the first time in the university's history, William & Mary has topped \$40 million in private gifts for each of four consecutive years.

Total giving to William & Mary during the fiscal year, including gifts and commitments, was \$80.1 million. More than 30,300 individuals, corporations and foundations gave to the university during Fiscal Year 2012, breaking a record set last year, when more than 28,600 individuals, corporations and foundations made gifts. William & Mary also reached new highs in alumni giving. Nearly 18,000 alumni gave gifts last year, including 13,884 undergraduate alumni, or 23.6 percent of the overall undergraduate alumni population. William & Mary has one of the very highest undergraduate alumni participation rates among public universities.

"We continue to press forward strongly on the philanthropic front," said William & Mary President

Taylor Reveley. "W&M is grateful to all those who contributed during the fiscal year that ended June 30. As financial pressures continue to grow on American higher education, especially state schools, the university depends increasingly on support from alumni and friends to sustain its excellence as a public ivy. Indeed, the abiding loyalty and commitment of W&M people to the university will be absolutely central to its future."

Gifts to William & Mary's various annual funds increased 8.3 percent in Fiscal Year 2012. Annual or unrestricted gifts provide the university with the greatest flexibility to meet its most pressing needs.

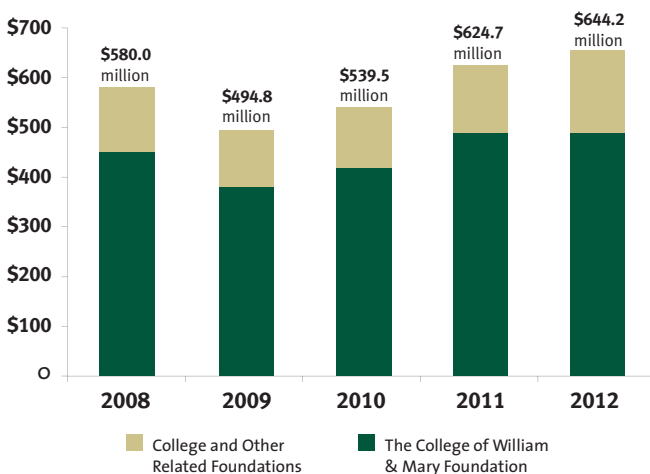
The continued growth in giving to the university is encouraging, officials said. Gifts to William & Mary demonstrate the increasing awareness among alumni and friends of the impact and importance of their giving, according to Sean Pieri, former vice president for University Development.

"These gifts provide direct support for priorities that make William & Mary great, including small class sizes, outstanding faculty, student research and need- and merit-based scholarships," he said. "We are working hard to improve the already exceptional William & Mary experience, and generous alumni and friends will continue to play a leading role in those efforts."

CHANGE IN ENDOWMENT OVER TIME The College of William & Mary and Related Foundations

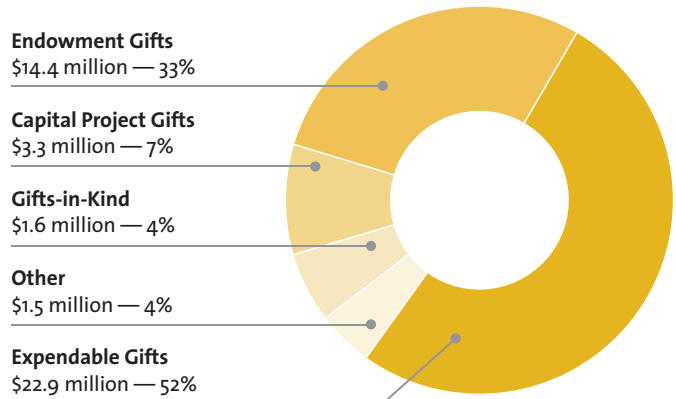
Fiscal years, which end June 30

In millions of dollars



GIFTS BY TYPE The College of William & Mary and Related Foundations

Fiscal year 2012



Investments

As of June 30, 2012, the consolidated endowment for William & Mary totaled \$644.2 million — another new high watermark! Compared to the previous year’s total of \$624.7 million, the endowment increased by \$19.5 million, or 3.1 percent. Strong gift flow and substantial increases in the value of assets held in external trusts were main drivers of asset growth. While matching its blended benchmark, investment performance limited overall growth as the William & Mary Investment Trust (“WAMIT”), the largest of the investment portfolios, earned a -1.4 percent rate of return for the fiscal year ending June 30, 2012. This performance reflected the present difficulties of investing in the challenging, at times turbulent, environment of today’s inter-connected global economies.

The composition of WAMIT’s policy benchmark is reflective of the broadly diversified investment opportunity set in which WAMIT invests. As a result, the blended policy benchmark is comprised of a 56 percent weighting to the MSCI All Country World Index, a 24 percent weighting to the Barclays Capital U.S. Aggregate Bond Index, a 2 percent weighting to the Barclays Capital U.S. Credit Index, an 8 percent weighting to the Barclays Capital U.S. High Yield Index, and a 10 percent weighting to the Dow Jones-UBS Commodity Index.

Domestic stocks, representing all cap sizes, make up an approximate 19.9 percent weighting in the portfolio — up 1.5 percent from last year’s June 30 weighting of 18.4 percent. WAMIT’s domestic equity managers

returned a composite of 4.1 percent for the year, outperforming the broad Russell 3000 Index which returned 3.8 percent. Comparatively, the large cap S&P 500 Index returned 5.5 percent for the fiscal year.

Foreign equity invested in developed regions of Europe, Asia and the Far East had a portfolio representation of approximately 10.3 percent at June 30, reduced slightly from last year’s weighting at 10.5 percent. Despite investment performance of -7.9 percent, our participation in developed foreign markets was significantly better than the -13.8 percent benchmark return of the MSCI EAFE Index. During the course of the year, investments in the emerging markets decreased from about 8 percent to 6.2 percent of the portfolio. Plagued by uncertainties in the global markets and accompanying negative sentiment, the emerging markets felt the brunt of investors’ nervousness and compelling need to decrease risk. WAMIT’s exposure to the emerging markets produced our largest disappointment with a return of -17.1 percent, trailing the benchmark return of the MSCI Emerging Markets Index of -15.7 percent by some 1.4 percent.

WAMIT’s exposure to Marketable Alternatives comes in two component asset classes: Absolute Return and Special Situations. Generally, investments in Absolute Return are those designed to consistently produce a positive return that would at a minimum equate to the yield of inflation plus spending (typically high single digits). Investments in Special Situations are opportu-

INVESTMENT RESULTS

As of June 30, 2012 — Net of fees

	1 YEAR	3 YEARS	5 YEARS
The William & Mary Investment Trust (WAMIT)	-1.4%	8.9%	1.2%
Blended Benchmark	-1.4%	12.0%	0.3%
Value Added	0.0%	-3.1%	+0.9%

Policy Benchmark: 56% MSCI All Country World Index, 24% Barclays Capital U.S. Aggregate Bond Index, 2% Barclays Capital U.S. Credit Index, 8% Barclays Capital U.S. High Yield Index, 10% Dow Jones-UBS Commodity Index

nistic in nature and consequently reflect strategies that seek to maximize returns from situations perceived to be temporary aberrations in market pricing or where specific financing can measurably improve asset quality and a company's balance sheet. Together, Absolute Return and Special Situations comprised approximately 33.1 percent of the WAMIT portfolio as of June 30, 2012, down slightly from a 36.1 percent allocation the year before, and returned -0.9 percent. Individually, managers in our Absolute Return category had a tough year navigating the choppy waters in the alternative space, generating a -2.9 percent return. However the category fared better than the collective aggregate that comprise the benchmark HFR Fund of Funds Composite, which returned -4.4 percent. Managers in Special Situations, predominantly those engaged in credit and restructuring strategies, produced a 2.5 percent return, well exceeding the HFR Distressed Securities benchmark which returned -3.4 percent.

Private Equity constituted approximately 9.3 percent of total assets at June 30, 2012, up from 6.6 percent at the end of the prior year. With WAMIT's targeted policy allocation at 12 percent, the private equity portion of the portfolio remains conspicuously beneath our preferred exposure level. However some newer commitments are now beginning to call capital and other opportunities continue to be examined with careful due diligence. Private equity had a 3.1 percent return in 2012. The benchmark used for private equity is the Russell 3000 Index, reflecting what we perceive to be the opportunity cost in deviating from the broad public market. This benchmark returned 3.8 percent for the year.

The fixed income portion of the portfolio returned 7 percent for the fiscal year. This compares to the 7.5 percent return of the Barclays Capital U.S. Aggregate Bond Index. In Real Assets, an asset class comprised of investments in commodities, natural resources (oil, gas, and timber) and equity real estate, WAMIT's blended exposures had a combined return of 2.7 percent, outperforming the Dow Jones-UBS Commodity Index of

THE WILLIAM & MARY INVESTMENT TRUST: ASSET ALLOCATION OF POLICY PORTFOLIO

Fiscal year 2012	JUNE 30, 2012 ALLOCATION
Domestic Equities	19.9%
Foreign Equities	10.3%
Emerging Market Equities	6.2%
Fixed Income	8.7%
Special Situations	11.4%
Absolute Return	21.7%
Real Assets	9.0%
Private Equity	9.3%
Cash	3.3%
Distributed Securities	0.2%

-14.3 percent by an impressive 17 percent. At June 30, 2012, fixed income carried an 8.7 percent weight in the portfolio, real assets a 9.0 percent weight, and cash a 3.3 percent weight with a corresponding amount slightly in excess of \$13.6 million.

As of June 30, 2012, the Investments Committee had oversight responsibility of approximately \$417 million in investable assets contained within WAMIT. At that time, representative ownership in WAMIT consisted of 87.4 percent belonging to The College of William & Mary Foundation (CWMF), 5.9 percent belonging to the Marshall-Wythe School of Law Foundation, 4.7 percent belonging to the William & Mary School of Business Foundation, and 2 percent belonging to the VIMS Foundation. Collectively, WAMIT investments represent approximately 64.7 percent of the \$644.2 million in total endowment resources that benefit William & Mary.

This year, 11 CWMF trustees served on the Investments Committee, all of whom are highly experienced investment management practitioners who volunteer their time and expertise to assist Investment Administration staff in making strategic decisions about asset allocation, investments and managers.

The College of William & Mary and Related Foundations

Private Gifts in Fiscal Year 2012

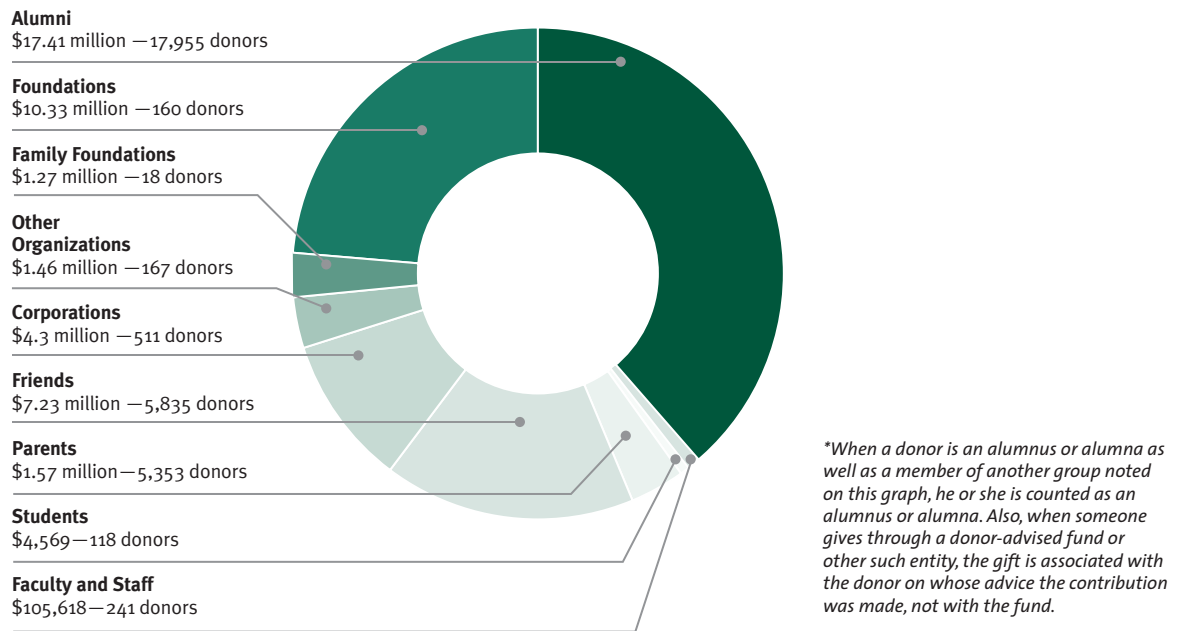
GIFTS BY AREA

The following chart shows gifts made to all areas of the College of William & Mary and its related foundations between July 1, 2011, and June 30, 2012.

Area	Type of Gift				All Gift Types
	Expendable Gifts	Endowment Gifts	Facilities Support	Gifts-in-Kind/ Other	
Schools					
Faculty of Arts & Sciences	\$ 4,883,984	\$ 7,402,737	\$ 20	\$ 171,069	\$ 12,457,810
Mason School of Business	\$ 1,976,967	\$ 932,275	\$ 1,855,882	\$ 0	\$ 4,765,124
School of Education	\$ 841,706	\$ 152,423	\$ 0	\$ 2,777	\$ 996,906
William & Mary Law School	\$ 1,914,818	\$ 513,065	\$ 142,996	\$ 241,679	\$ 2,812,558
Virginia Institute of Marine Science	\$ 593,339	\$ 1,132,249	\$ 0	\$ 100,650	\$ 1,826,238
Programs and College-wide Support					
Fund for William & Mary	\$ 5,512,166	\$ 0	\$ 0	\$ 0	\$ 5,512,166
Other College-wide Funding (including faculty support, student aid and other areas)	\$ 1,369,865	\$ 2,358,582	\$ 1,201,987	\$ 2,215,516	\$ 7,145,950
Alumni Association and Order of the White Jacket	\$ 249,992	\$ 154,264	\$ 19,375	\$ 42,469	\$ 466,100
Tribe Athletics	\$ 3,481,853	\$ 893,563	\$ 43,037	\$ 132,898	\$ 4,551,351
Earl Gregg Swem Library	\$ 384,588	\$ 730,962	\$ 0	\$ 76,056	\$ 1,191,606
Muscarella Museum of Art	\$ 1,399,517	\$ 81,300	\$ 0	\$ 208,456	\$ 1,689,273
Omohundro Institute of Early American History and Culture	\$ 252,247	\$ 13,179	\$ 0	\$ 0	\$ 265,426
GIFTS TO ALL AREAS	\$ 22,861,042	\$ 14,364,599	\$ 3,263,297	\$ 3,191,570	\$ 43,680,508

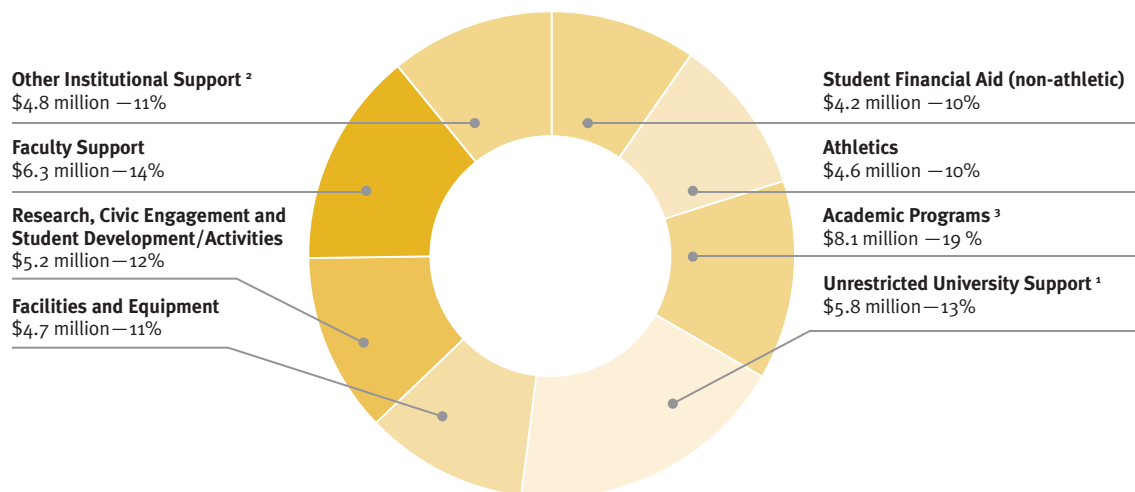
GIFTS BY SOURCE

The following graph shows the sources of the \$43.7 million raised for William & Mary and its related foundations between July 1, 2011, and June 30, 2012.



GIFTS BY PURPOSE

This graph shows for what purposes the \$43.7 million in private gifts to William & Mary and its related foundations during fiscal year 2012 was designated.



1. Unrestricted expendable and endowment gifts benefiting various areas of the College, including gifts to the Fund for William & Mary; does not include contributions to annual funds specific to a school or area.

2. Gifts to campus-wide areas or initiatives that do not fall under any of the other categories.

3. Support for schools, departments and academic programs, as well as University Libraries and the Muscarelle Museum.

The College of William & Mary Foundation

Financial Summary

SUMMARY STATEMENT OF FINANCIAL POSITION — CONSOLIDATED *

Assets	JUNE 30, 2012
Cash	\$ 6,392,446
Pledges and other receivables	14,193,053
Investments	380,873,364
Funds held in trust by others	129,562,321
Property and other assets	18,910,837
Total Assets	\$549,932,021
Liabilities and Net Assets	
LIABILITIES:	
Accounts, notes and bonds payable	\$ 15,077,708
Funds held for others	13,610,310
Other liabilities	5,105,987
TOTAL LIABILITIES	33,794,005
NET ASSETS:	
Unrestricted	14,765,913
Temporarily Restricted	156,112,956
Permanently Restricted	345,259,147
TOTAL NET ASSETS	516,138,016
Total Liabilities and Net Assets	\$549,932,021

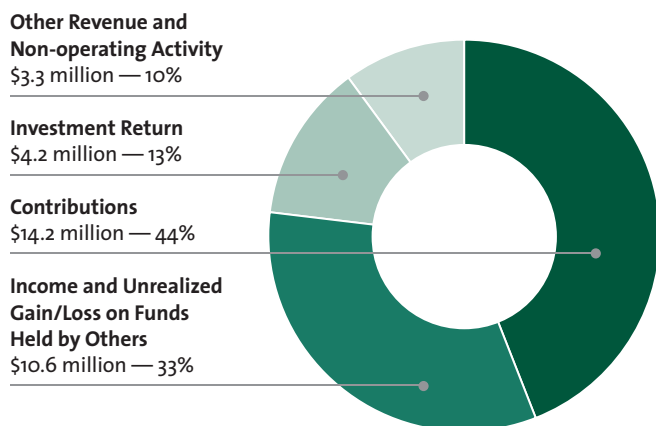
* Includes four subsidiaries.

SUMMARY STATEMENT OF ACTIVITIES*

Revenues and Non-operating Activity	JUNE 30, 2012
Contributions	\$ 17,738,759
Income on funds held by others	3,159,988
Operating and non-operating investment return	(4,535,571)
Unrealized gains on funds held in trust by others	16,636,261
Other revenue & non-operating activity	2,449,347
TOTAL REVENUES AND NON-OPERATING ACTIVITY	35,448,784
Expenses	
Program expenses	16,534,527
Fundraising	3,271,734
Administrative and other	1,115,273
TOTAL EXPENSES	20,921,534
Change in Net Assets	14,527,250
Net Assets — Beginning of year	501,610,766
Net Assets — End of year	\$516,138,016

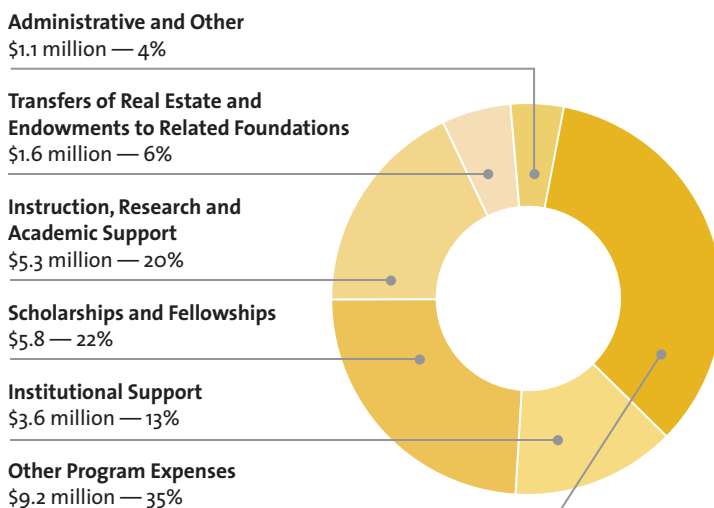
AVERAGE SOURCES OF SUPPORT — \$32.3 MILLION

Fiscal years 2008–2012



AVERAGE USES OF SUPPORT — \$26.6 MILLION

Fiscal years 2008–2012



THE COLLEGE OF WILLIAM & MARY

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Washington, D.C.
RECTOR

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(Honorary Alumnus '05)
Gloucester, Virginia
VICE RECTOR

Dennis H. Liberson '78
Great Falls, Virginia
SECRETARY

Kendrick F. Ashton, Jr. '98
New York, New York

Ann Green Baise
Falls Church, Virginia

Keith S. Fimian '78
Oakton, Virginia

Edward L. Flippen M.B.A. '67, J.D. '74
Richmond, Virginia

Thomas R. Frantz '70, J.D. '73, M.L.T. '81
Virginia Beach, Virginia

John E. Littel
Virginia Beach, Virginia

Leigh A. Pence '00
Great Falls, Virginia

L. Clifford Schroeder, Sr.
(Honorary Alumnus '08)
Richmond, Virginia

Robert E. Scott J.D. '68
New York, New York

Peter A. Snyder '94
Alexandria, Virginia

Todd A. Stottlemeyer '85
Oak Hill, Virginia

Michael Tang '76
Elk Grove Village, Illinois

John C. Thomas
Richmond, Virginia

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FACULTY REPRESENTATIVE,
COLLEGE OF WILLIAM & MARY

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FACULTY REPRESENTATIVE,
RICHARD BLAND COLLEGE

Curtis A. Mills '13
STUDENT REPRESENTATIVE,
COLLEGE OF WILLIAM & MARY

Jessica C. Salazar
STUDENT REPRESENTATIVE,
RICHARD BLAND COLLEGE

Lydia C. Whitaker
STAFF ASSEMBLY REPRESENTATIVE

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Sue H. Gerdelman '76
Williamsburg, Virginia
IMMEDIATE PAST CHAIR

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Lynchburg, Virginia
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TREASURER

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Greenwich, Connecticut

Russell E. Brown, Jr. '74
Hilton Head, South Carolina

Juan F. Conde '85
New Canaan, Connecticut

Patrick S.G. Cousins '86
West Palm Beach, Florida

Scott M. Custer '79
Raleigh, North Carolina

Lynn M. Dillon '75
McLean, Virginia

Jonathan J. Doyle '87
Greenwich, Connecticut

Maryellen Feeley '85
Riverside, Connecticut

Michael P. Foradas '78
Kenilworth, Illinois

Nancy B. Gofus '75
Reston, Virginia

Frederick H. Henritze '75
Atlanta, Georgia

Alan D. Hilliker '80
New York, New York

Elizabeth C. Jennings '85
Richmond, Virginia

Shelley C. Jennings
McLean, Virginia

Audra L. Lalley '90
Santa Monica, California

David C. Larson '75
Moscow, Russia

Sophie K. Lee '90
Gaithersburg, Maryland

Matthew D. Lentz '96
East Hampton, New York

Kathryn B. McQuade '78
Calgary, Alberta, Canada

Devin I. Murphy '82
Southport, Connecticut

John S. Novogratz '96
New York, New York

Cathy G. O'Kelly '75
Oak Park, Illinois

Donald G. Owens '65
Richmond, Virginia

Anne P. Sharp '82
Fairfax Station, Virginia

Craig P. Staub '93
Garden City, New York

Martha F. Tack '78
Williamsburg, Virginia

Donnan C. Wintermute '69
Alexandria, Virginia

Dixie D. Wolf
(Honorary Alumna '10)
Virginia Beach, Virginia



THE COLLEGE OF WILLIAM & MARY

UNIVERSITY ADMINISTRATION

2012-2013

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CHANCELLOR

W. Taylor Reveley, III
PRESIDENT

Michael R. Halleran
PROVOST

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VICE PRESIDENT FOR STUDENT AFFAIRS

Karen Ryan Cottrell '66, M.Ed. '69, Ed.D. '84
EXECUTIVE VICE PRESIDENT, ALUMNI ASSOCIATION

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DIRECTOR OF ATHLETICS

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VICE PRESIDENT FOR STRATEGIC INITIATIVES

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Anna B. Martin
VICE PRESIDENT FOR ADMINISTRATION

Katharine Conley
DEAN, FACULTY OF ARTS & SCIENCES

Carrie L. Cooper
DEAN, UNIVERSITY LIBRARIES

Davison M. Douglas
DEAN, MARSHALL-WYTHE SCHOOL OF LAW

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