THE MAGAZINE OF BELLARMINE UNIVERSITY

Summer 2010

DR. AKHTAR MAHMOOD

Bellarmine joins the world's largest physics experiment

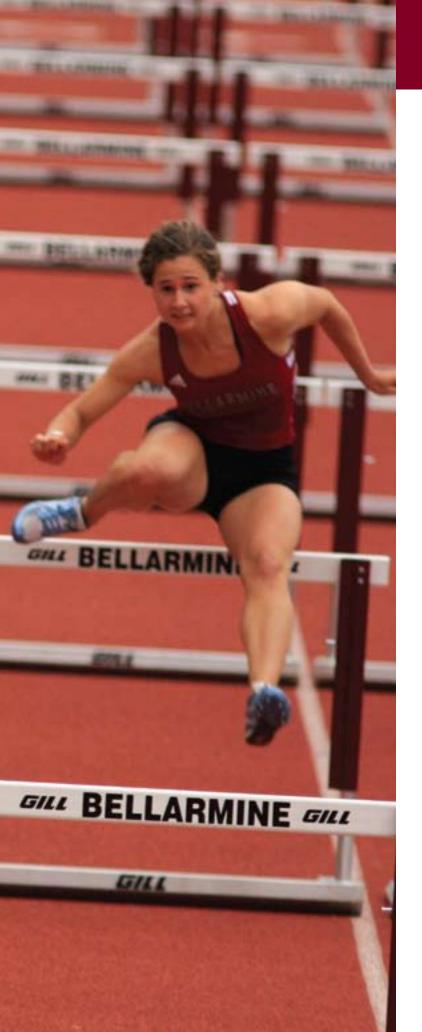
# No Small Matter

MARITIME HISTORY

**Q&A WITH DR. COOTER** 

WHO'S HILARY?





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ON THE COVER

Dr. Akhtar Mahmood leads the Bellarmine team that will study data generated by the Large Hadron Collider in Geneva, Switzerland. See story, Page 24. *Photo by Geoff Oliver Bugbee* 

#### LEFT

Amanda Schoenfelder, left, Nora Bowe and Camila Aramburu compete in the first track and field meet held at Bellarmine in 45 years. See story, Page 20.

Photo by Brian Tirpak

#### FROM THE EDITOR

## **Attention: Seventh-Grade Boys**

**I'd like to address the seventh-grade boys in the audience, if I may**. Ahem. Testes, one, two, three. Akootie sezwot. Is this on? OK.

Boys, I just want to caution you not to make a mistake I made when I was your age. Sometime around seventh grade, I decided science wasn't cool. Maybe I had a boring teacher that year. Maybe I was preoccupied with the hilarious topic of bodily emissions or the fascinating subject of girls. Maybe I was just lazy.

But whatever the reason, I stopped paying attention in science class. HUGE mistake. I spent the next several years catching up. To this day I still sometimes get my neurons mixed up with my synapses.

Turns out, science is insanely cool. Without it we wouldn't have video games or smart phones or computers or space travel or the Internet or Pop Rocks or snowboards or heavy metal. Before long, you're going to be in college, and if you want to get an idea of the awesomely cool things college students can work on, check out this magazine. You'll find Bellarmine students working on everything from particle physics to cancer research to understanding the ramifications of mountaintop removal mining. You'll also find Bellarmine faculty working on maritime history and economics education, two topics that couldn't go far without science.

I hate to admit it, but I had to strain my brain to understand some of the work our physics students are doing on the CERN collider. Fortunately, Bellarmine alumna Emily Ruppel made it clear to even a science dummy like me. Emily, a frequent contributor to this magazine, is a talented writer and a cartoonist, and has just won a scholarship to MIT. So don't let anybody tell you science isn't cool.

By the way, I might have been wrong about science, but I was totally right about bodily emissions. They are still hilarious. Here's something else worth noting: I'm not sure how it happened, but nowadays girls like nerds. Just a heads-up. Study hard.

Your pal,

Jim Welp '81, Editor-in-Chief jwelp@bellarmine.edu



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# FROM THE PRESIDENT Mapping the Future



With a nod to Diana Ross, do you know where you're going to? The answer might surprise you. In a recent article on Slate.com, writer Tom Vanderbilt discussed the myriad problems that many of us have with navigation. We distort geography, believing that San Diego is west of Reno, Nevada, for example, when the opposite is true. We think a trip down a street with lots of intersections will take longer than one with fewer intersections. We invariably overestimate the length of a walking trip while underestimating trips by car.

And when asked to gauge the travel time for a northbound versus a southbound bird, most subjects in a research study said traveling north would take longer – no doubt, the study's authors speculated, because a lifetime of looking at maps caused them to equate northbound travel with going "uphill."

Our "mental maps," built from our personal forays, also color our perception of reality, causing further confusion, Vanderbilt says: "It's no surprise our experience of travel is, well, all over the place."

#### "A liberal education imbues students with critical-thinking and communication skills that make them eminently employable."

Likewise, many people have a wrong impression of the liberal arts. Some think the liberal arts are just about the performing or visual arts, for example. Some get stuck on the word "liberal" and think there's some connection to the political spectrum. And still others think that while all that liberal arts stuff might be nice, surely it can't prepare students to find actual jobs, especially in this economy.

None of that could be further from the truth, of course.

"Liberal" in this case means "broad" and "far-reaching," and while a strong liberal arts education does include music and art, the liberal arts curriculum also covers the humanities and the sciences – including some fairly amazing science here at Bellarmine, as you'll see in this issue of Bellarmine Magazine. And, it includes focused expertise in a chosen field.

Narrow training alone, designed just for employment, is not going to be a useful education when that job disappears in a fast-changing world, or evolves into a different job entirely.

A liberal education, on the other hand, imbues students with critical-thinking and communication skills that make them eminently employable – resilient, ethical problemsolvers who can adapt to whatever the real world throws at them. Surveys of business executives show that the majority prefer to hire graduates who have a well-rounded, broad education, as well as skills in a specific area.

Not only that, a grounding in the liberal arts produces graduates who have a sophisticated and empathetic world view, who take responsibility for making the world a better place, both by their work and by the example of the lives they lead.

This is nothing new at Bellarmine. Our mission is rooted in the Catholic educational tradition, the oldest and best in the Western World, which created the liberal arts. They are the "center of our center." And they will remain at the center as we look forward, with Vision 2020 reaffirming and deepening our commitment to the liberal arts.

Historically, the liberal arts have been the foundation for great professions – medicine, law – and for great cities. And as our world becomes ever more fast-paced, ever more scattered and uncertain, never have they been more to the point.

At Bellarmine University, the liberal arts will prepare our graduates for excellent lives of leadership and service to others. And no matter where they may go – from San Diego to Reno and beyond – they will never lose their way.

Dr. Joseph J. McGowan president@bellarmine.edu

#### THE READERS WRITE

#### A memorable hole in one

I read with great interest the stories of the Bellarmine golf course (Winter 2010 Bellarmine Magazine). When I was a teenager in the 1960s, just taking up the game of golf, I was introduced to Bellarmine's par 3 course. My aunt, Eleanor Campbell, who lived on Bonny-castle Avenue, and my uncle, Henry Campbell, who lived in Audubon Park, used to play the Bellarmine course to keep their iron game in shape. One Sunday afternoon they invited me to play with them.I had never been on a par-3 course before, and needless to say I was all over the place, hitting the ball too hard or too soft, but I was hooked nonetheless. Our Sunday outings became a monthly event that I looked forward to, and many times just my aunt and I would play a twosome on a Saturday or during the week when time allowed.

As the years rolled past, I would go over to the course and play when I had an hour or so to relax. The last time I played, I was with one of my best friends, Richard Roehrs, and his son Chris. When we got to the ninth hole, Richard hit a perfect shot to the green, but we lost sight of his ball. Chris and I both hit the green, but were a long way from the hole. When we got to the "dance floor," we discovered that Richard had made a hole-in-one. Chris and I both putted out for pars.

That was in 1996. Chris married my daughter Lisain 1997. Unfortunately, one year later, in 1998, my best friend Richard died. But his hole-in-one at the ninth hole will live in my memory forever.

### CARRY ON THE CONVERSATION

Get your Bellarmine fix on Facebook! Keep up with university news, events, sports and blogs, and share your comments at www.facebook. com/BellarmineU

facebook

Michael J. Quirk, MAT '08 Louisville



#### Stylish students

My family, my Bellarmine friends and I enjoyed the back cover of the Spring Bellarmine Magazine. I'm sure the photo has generated a few Bellarmine trivia contests. The photo was taken somewhere in the lower level of the Administration Building.

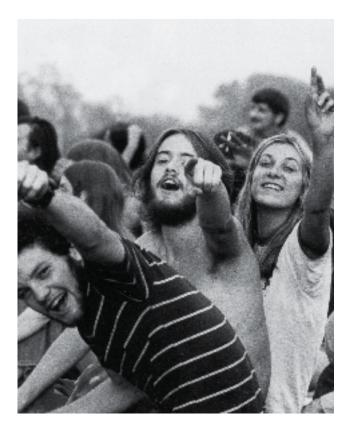
The guy in the sport coat and tie is me. The blonde woman in the fashionable belted coat is Marilyn Staples, then assistant director of student activities. The woman immediately to my left with the afro is Linda Sims, and the woman smiling and leaning against the wall is Molly McGrath (I think).

I'm thankful that the photo wasn't taken a year later, when extra wide bell bottoms and shirt collars were in vogue, or later still when we probably started the slide into slovenly dress on campus.

Sincerely and with a smile,

David X. Thurmond Student Body President, 1971

#### THE READERS WRITE



#### Icebreaker concert?

I was one of the seminarians at Bellarmine from 1965 to 1969. In fact, we are among the few who graduated officially from Bellarmine-Ursuline College!

On page 7 of the Spring issue of Bellarmine Magazine there is a picture with three young people. I have no idea what concert it was but the young man in the center surely does and his name is Bill Butler, from Louisville's St. Agnes Parish. His parents are Bill and Mary Lou Butler – great folks. Bill, I think, was in sociology, doing social work possibly. Anyway, there is no mistaking it. He is a Butler and would definitely know when and where the photo was taken.

God bless you all at my alma mater. I am currently director of the Mater Dolorosa Passionist Retreat Center in Sierra Madre, Calif., just above L.A. and a bit northeast of Pasadena.I live in a real paradise but am always happy to hear about my college days in Louisville.

God bless you and your good ministry to our young people.

Rev. Patrick Brennan, CP '69 Sierra Madre, Calif.

#### Sound advice from Nurse Alice

Ten years ago this fall I matriculated into Bellarmine as a wide-eyed and eager first-year student. Like most newly enrolled college students I was given a wide range of advice on how to achieve success in college which ran the spectrum from "for every hour you are in class you should study three hours outside of class" to simply "plastics." The best piece of advice I received, however, came a few days after moving into Newman Hall as my upper-class roommate, Dominic Catalano, informed me that if I ever needed anything that Nurse Alice was the person to go to.

A few days after receiving Dominic's advice, a crisis that now seems trivial occurred that left me shell-shocked. As a new student I had no idea where to go or whom to turn to. That's when I remembered that Nurse Alice was someone who could provide help. Boy, was Dominic right. What began that afternoon when I stopped by Alice's office in Miles Hall was the first of countless experiences where Alice Kimble and the rest of the Bellarmine community were there for my classmates and me when we needed them most.

I cannot imagine how many students, faculty and staff Alice has helped "nurse" through the years, whether it's been through dispensing medicine to cure our bronchitis or sound advice to cure our broken hearts. Here's to Alice and the rest of our outstanding faculty and staff for helping all of our students to live *InVeritatis Amore* yesterday, today, and tomorrow.

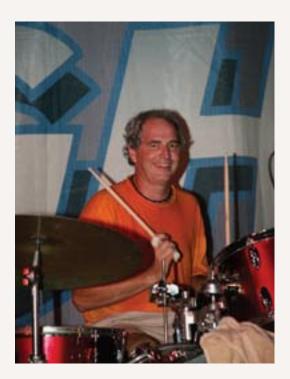
Marc Ebelhar, '04 Miami, Florida

#### LETTERS TO THE EDITOR

Bellarmine Magazine 2001 Newburg Road Louisville, KY 40205, or jwelp@bellarmine.edu.

Please include your full name, address and a phone number. We may edit letters for clarity, length and accuracy.

#### WHAT'S ON?



## Tony Schnell

In this recurring feature, Bellarmine Magazine gets inside the heads of university faculty, staff and students. This time, we chat with Tony Schnell. As a groundskeeper for 11 years, his duties include mowing grass, trimming trees and clearing snow on the main campus, as well as maintaining landscaping at the President's House in Glenview. He's also a drummer in three bands: R.U.O.K?, a fixture on the Louisville music scene since the mid-1980s (singer Tommy Miller works in maintenance); KATE, composed of three members from R.U.O.K? and Kate Everette, a Bellarmine master's alum; and Doc Rock and the Test Tubes, featuring Jimmy Ford, former alumni director, on vocals. All three play Shenanigans on Norris periodically throughout the year.

YOUR BOOKSHELF? Recently I have been reading some older novels, one being The Razor's Edge by W. Somerset Maugham. A couple of others I read in sequence were The Dharma Bums and Big Sur by Jack Kerouak. My intention was to read only Big Sur because now there is a documentary film about it and I wanted to read the book before I see the film. But the library did not have a copy of it so I read The Dharma Bums while I waited for Big Sur (thanks to the library staff for ordering it for me!). The Rum Diary by Hunter S. Thompson. The Replacements: All Over But the Shouting, An Oral History by Jim Walsh. This book is about one of my favorite bands. Several people contribute firsthand stories that document the lifespan of the band.

YOUR IPOD? The Beatles, Rolling Stones, Replacements, Paul Westerberg, Radiohead, My Morning Jacket. These are all older collections of songs, but a couple more recent discs I am listening to are *Monsters of Folk* (Jim James of My Morning Jacket is in this band) and *One Fast Move Or I'm Gone* by Jay Farrar & Benjamin Gibbard. This is the soundtrack from the documentary Kerouac's *Big Sur*, which I have yet to see.

YOUR DVR? I do not see too many current movies, although I did see *Crazy Heart* and enjoyed it. I have a collection of old classic horror movies, the black-and-white Bela Lugosi and Vincent Price stuff. I do not like the realistic-type horror movies; they are too disturbing for me.



**Jack Kerouac** by photographer Tom Palumbo, circa 1956

YOUR ALL-TIME GREATEST HITS LIST?

High and Dry, Radiohead; Love Untold, Paul Westerberg; Wonderful Lie, Paul Westerberg; Do You Realize? The Flaming Lips; Lowdown, My Morning Jacket; I'm So Lonesome I Could Cry, Hank Williams Sr.; Helpless, Neil Young; Born to Run, Bruce Springsteen; Skyway, Replacements; Like a Rolling Stone, Bob Dylan; Kentucky Rain, Elvis. This is tough for me; I like so many, I could go on and on. But for my all-time favorite song I will settle on a toss up between Swingin' Party by the Replacements and Wichita Lineman by Glen Campbell.

YOUR TO-DO LIST? I guess the main thing on my to-do list is to finally get a degree from Bellarmine. I am at senior level now but that has been on hold for a couple of years. I hope to find the time to finish up one day.

YOUR MIND? Time. There is never enough to do everything I want to. I enjoy my busy life, but I'm looking forward to being able to relax and spend more time with my wife, Cindy, and our dog, Snoopy.

#### NAMEDROPPING: HILARY'S

#### Another look behind the names on Bellarmine's campus



By Jim Welp jwelp@bellarmine.edu

**If you're a relative newcomer to Bellarmine**, you might've had some questions the first time you visited Hilary's, the lecture hall/recording studio/banquet room nestled deep inside Horrigan Hall. Two of your questions might have been 1.) Where in blazes is it? And 2.) Who is Hilary?

Although Hilary's is a popular destination – the site of many visiting lectures, radio broadcasts and banquets – your navigation skills couldn't be criticized if you had trouble finding it. The room is somewhat hidden behind the new food court in Horrigan Hall. (Translation for my fellow old-timers: It's where the old library was in the Administration Building.)

You might have been further flummoxed by the fact that Hilary's was previously the name of a popular café, coffee house, exercise room and small concert space attached to Newman Hall during the '90s. (Rumor has it that My Morning Jacket rocked Hilary's on their way to the cover of the Rolling Stone.)

That other Hilary's became obsolete with so many new student spaces on the ever-growing campus, so "Hilary's" became the name of the new state-of-the-art venue where so many politicians, journalists, activists and other visiting dignitaries have brought their ideas to the Bellarmine community. NPR affiliate WFPL's "State of Affairs" frequently broadcasts from Hilary's, and too many finger sandwiches and chocolate chip cookies have been consumed to count.

So who is Hilary, and what did she do to get such important spaces named after her? Well, Hilary was actually a beloved priest and Bellarmine's first dean of students: Father Hilary H. Gottbrath. After earning a master of arts in math from DePaul University in Chicago, Fr. Hilary joined the Bellarmine College faculty in 1951. Like so many faculty and administrators in those early days, he wore many hats, according to the university's historian, Fr. Clyde Crews. "Besides serving as dean of students and teaching math, Fr. Hilary also at times served as director of athletics, organized and led the pep band, and directed both the dance band 'Bellaires' and the NUB (Nazareth-Ursuline-Bellarmine) variety shows," said Fr. Crews.

Bellarmine yearbooks are festooned with action shots of Fr. Hilary: teaching, coaching, counseling and looking on in admiration as his students demonstrate their talents. After 21 years of service to Bellarmine College, Fr. Hilary became pastor of St. Anthony's parish in Clarksville, Ind., then pastor of St. Paul's on Dixie Highway.

Fr. Hilary Gottbrath died in 1997, but his legacy lives on in the countless smiling yearbook photos of his former students and the extraordinary lectures, concerts and parties that routinely take place in his namesake space.

Do you have memories of Fr. Hilary? Please write to jwelp@bellarmine.edu

# **Congratulations, Class of 2010!**

We welcome our newest alumni readers, the 407 graduates who collected their diplomas in Knights Hall on May 8. Among them:

- Andrew Parks of Corbin, who played forward on the Bellarmine basketball team that won the GLVC Championship and made it to the NCAA Division II Midwest Regional Semifinals and graduated *magna cum laude* with three majors – biology, business administration and economics. Andrew plans to go to medical school and possibly open a clinic in his home region of southeastern Kentucky.
- Keisuke Kawaguchi of Japan, who moved to the United States at the age of 12 with his family for his father's job, learned English and decided to stay in the States to complete his degree after his parents moved on to China. He graduated with a bachelor's degree in accounting and a minor in economics.
- The first group of graduates from the new master of arts in communication program, including Sherry Flood, director of nursing for Sts. Mary and Elizabeth Hospital, who received her master's on the same day that her daughter, Sarah Flood, received her undergraduate communications degree, *cum laude*.
- Emily O'Bryan, a softball player who graduated with a degree in accounting and who won't soon forget her last at-bat for the Knights. With the bases loaded, Emily patiently took a called strike on the first pitch, then blasted a grand-slam home run on the second that won the game 7-4.



The walk into Knights Hall.



The breeze was a challenge as soon-to-be graduates Andrew Patterson and Emily O'Bryan, above, and Katrice Maycock, opposite page, walk to commencement exercises.

The Class of 2010 was urged by President Joseph J. McGowan to maintain a sense of perspective. "In my experience at Bellarmine, yours is a class distinguished in its sense of balance, proportion, priorities, and integration – all signs of your intelligence and wisdom," he said. "So my charge to you as you go forward is simply, but not exclusively, to nurture that balance and integration in your heart, mind, soul, and spirit."

Honorary degrees were given to education-reform leader Robert F. Sexton, executive director of the Prichard Committee for Academic Excellence, who also delivered the commencement address; and Lee B. Thomas Jr., executive-in-residence in the Rubel School and chairman of Universal Woods Inc. in Louisville, who has devoted his life to diversity and ethics issues.

#### **CLASS OF 2010 HONORS**

Archbishop's Medal of Scholastic Excellence (highest cumulative GPA): **Robert Clark Blankenbaker** 4.0, bachelor's degree in business administration **Rachel Staub** 4.0, bachelor's degree in psychology

In Veritatis Amore Award (best all-around male and female students): Catherine M. Brumm bachelor's degree in biology (summa cum laude) Andrew Parks triple major of biology, business administration and economics (magna cum laude)

#### CELEBRATING A SUCCESSFUL RELAY FOR LIFE

Bellarmine students, alumni, faculty and staff raised just over \$19,500 to help find a cure for cancer as part of the American Cancer Society Relay for Life on April 10. Approximately 280 people participated in the relay event. Twenty-four cancer survivors took the ceremonial first lap. This is Bellarmine's seventh year taking part in the event.

#### BELOW

The SGA environmental committee recruited a steady supply of farmhands to prep garden beds on the Bellarmine Farm for summer planting. The students also organized a Beargrass Creek clean-up as part of National Environmental Education Week April 11-17.

#### HONORING THE BEST STUDENT EMPLOYERS

Intern employers play an important role in preparing students for post-grad life. In recognition of the companies who provide outstanding support and learning opportunities, the Bellarmine Career Development office presented awards for the 2010 Best Student Employers at a luncheon on April 23. Rob Wileman, Ted Veterano and Bruce Lukat, project managers in information systems at Kindred Healthcare, earned the top nod based on a nomination by Bellarmine junior Aaron Yocum, a business major.

Other business nominees granted certificates of gratitude included the Brown-Forman Management Center of Excellence, CED/E&H Electrical, Clear Channel Communications and Texas Roadhouse.

# HEY, WE MADE THE HONOR ROLL

Bellarmine earned a spot on the 2009 President's Higher Education Community Service Honor Roll, the highest federal recognition a college or university can receive for its commitment to volunteering, service-learning and civic engagement.

"We are honored to receive this national recognition," said President Joseph J. McGowan. "In addition to mastering the academic disciplines, Bellarmine students develop a strong sense of personal and social responsibility, for decisions and judgments that will affect the decency, integrity and even the sustainability of our shared future."





#### ALUMNUS WINS POETRY PRIZE

John James '09 of Louisville has been awarded an Academy of American Poets University and College Poetry Prize for 2010 for his poem *The Black Widow Spiders of Southern California*.

James, an English major and Honors student while at Bellarmine, is now enrolled in the graduate creative writing program at Columbia University in New York City. An earlier form of his winning poem appeared in *Ariel XXI*, Bellarmine's annual literary journal.

Many esteemed American poets won their first recognition through an Academy College Prize, including Diane Ackerman, Louise Glück, Robert Pinsky, Sylvia Plath and Mark Strand.

"Pieces," *left*, by Sarah Beveridge, a senior art major from Sacramento, Calif., was one of 104 works of art by 55 artists in the **2010 annual Student Art Exhibition** in the McGrath Art Gallery.

To view a gallery of award winners, visit www.bellarmine.edu/ about/photos/

#### Faculty, Student and Staff Accomplishments

**Fong Choo**, adjunct professor of art, had several new ceramic pieces in the 28th annual Smithsonian Craft Show, April 22-25 in the National Building Museum in Washington, D.C. The show, widely regarded as the country's most prestigious juried exhibition and sale of fine American craft, featured 120 craft artists selected from more than 1,300 applicants.

#### Winnie Spitza, an

instructor in the School of Communication, helped to organize the inaugural "Speak Up Kentuckiana," a multiuniversity public speaking competition on April 23 that was funded in part by the Institute for Media, Culture and Ethics. Bellarmine freshman **Natalie Smith** defeated 11 other students with her speech, "The Green Illusion." Other participating universities included the University of Louisville, Jefferson Community and Technical College and Spalding University.

On May 23, two of **Richard Burchard's** newest compositions received their world premiere in a concert performed by the Louisville choral group *Voces Novae*, for whom Burchard, chair of Bellarmine's Music Department, has been composer-inresidence this academic year. The works were choral settings of two poems by **Frederick Smock**, chair of Bellarmine's English Department: *The Grasses* and *Contact*. The concert was conducted by **William Plummer**, adjunct faculty of music at Bellarmine University, in the University of Louisville School of Music's Comstock Concert Hall.

#### David Dominé, an

instructor of global languages and cultures, has had two books published recently: *Insider's Guide to Louisville* (Globe Pequot Press), a comprehensive travel guide with tips on the area's top attractions, hotels, restaurants, nightlife, festivals and more that was timed to coincide with the 2010 Kentucky Derby; and *Splash of Bourbon, Kentucky's Spirit: A Cookbook* (McClanahan Publishing House), a coffee table volume that promotes tourism along the Kentucky Bourbon Trail while using a wide variety of brands to highlight the versatile side of America's native spirit in the kitchen.

Joyce S. Hagen, a member of the Bellarmine University Board of Trustees since 2004, has accepted a position as chief marketing and development officer for the AmeriHealth Mercy Family of Companies, the largest organization of Medicaid-managed care plans and related businesses in the United States. She will oversee strategy and execution, market expansion, sales and marketing, communications and product development for the company.

Graphic Design USA, a publication for design professionals, has honored Bellarmine University for its in-house creative efforts for two original publications from the past year: the admissions viewbook and a calendar celebrating the university's 60th anniversary. The creative team behind the designs includes: **Brad Craig ('01), Amber Dunlap** and **Katie Kelty ('07)**.

#### THREE FULBRIGHTS FOR BELLARMINE

Bellarmine has three Fulbright award winners for 2010-11, a record number for one year. They are:

**DR. ELIZABETH HINSON-HASTY**, associate professor of theology, who will head to Hungary this fall to lecture at Debrecen Reformed Theological University in Debrecen, Hungary. Hinson-Hasty's project is entitled "Religion in the Public Forum."

**DR. MICHAEL LUTHY**, a professor of marketing, who will serve as the University of Ottawa's Fulbright Enders Visiting Chair in Canada-U.S. Relations. While in Ontario he will interview government officials and ambassadors stationed in Canada about the role of embassies in fostering investment, trade and entrepreneurship in their home countries. In addition, Luthy has been selected for a threeyear term as a specialist reviewer in business administration for the Council for the International Exchange of Scholars (CIES), which administers the Fulbright Scholar Program, beginning this fall.

**LAUREN KLEINERT** of Lexington, who won a Fulbright award to be an English-speaking teaching assistant in Spain through the Fulbright U.S. Student Program. Following her academic year abroad, Lauren, who graduated May 8 with a major of Foreign Languages & International Studies-Spanish, plans to attend the University of Florida to earn a master's degree in Spanish and Portuguese studies.



# 'Anything Galileo'

As part of Bellarmine's celebration of the Year of Galileo, the Theatre Department held its first-ever 10-minute play competition with the theme "Anything Galileo." From the 267 submissions – which came from as far away as Italy, Spain and Germany – seven plays were selected for full production on March 19-21:

Galileo and the vonGoodnesses by Dr. David W. Overbey of Louisville (assistant professor of English); *Falling Bodies* by Thomas J. Misuraca of Tarzana, Calif.; *Galileo Fail* by Haley Rice of Columbus, Ga.; *Can't Recant the Cant* by Arthur M. Jolly of Marina del Rey, Calif.; *The Galileo Factor* by Eoin Carney of Pittsburgh; *Jupiter's Moons* by Brian Walker of Louisville (overall winner, \$100 prize); and *The Galileo Defense* by Lex Mitchell and Benjamin Unwin of Louisville.

The audience favorite award (\$50) was a three-way tie: *Jupiter's Moons, Falling Bodies* and *The Galileo Factor.* 

Encouraged by the great response to this play competition, the Theatre Department plans another festival, said Carlos Chavarría, director of the Theatre Program. The call for entries will go out next spring with a deadline in October 2011, and the festival will take place in March 2012. The theme will be "24." ABOVE Dr. David W. Overbey and cast members from "Anything Galileo"

# Here's an excerpt from **The Galileo Factor**

SCENE: LIGHTS UP on a TALK SHOW HOST on set together with tonight's guest, scientific sensation GALILEO GALILEI.

HOST (to AUDIENCE): Our next guest is someone you've all heard of unless you've been living under a rock since the advent of the Gregorian Calendar. Please join me in welcoming astronomer, physicist, and courter-of-controversy, Galileo Galilei, who's here promoting his new book "Dialogue Concerning the Two Chief World Systems," that's been ruffling more than a few feathers recently, including those of some in our audience.

HOST (to GALILEO): "Dialogue Concerning the Two Chief World Systems" – that's quite a mouthful, Professor.

GALILEO: Yes, I guess it is. I chose it because it accurately conveys the dialectic nature of the work, which compares the Copernican and Ptolemaic worldviews through the prism of—

**HOST:** Fascinating. Now I haven't read your book, but I have had the chance to—

GALILEO: You haven't read it?

HOST: I skimmed it.

**GALILEO:** How can we even begin to have a meaningful discussion?

HOST: Let's start with your upcoming trial in Rome. What are you planning to say? Before you answer, I should warn you that our show is very popular with members of the Inquisition.

GALILEO: I intend to give a full account of observations made using my telescope, and to then explain how the retrograde motions of the planets are best described by a heliocentric model in which ...

(The HOST is feigning a yawn.)

GALILEO (cont'd):Is something wrong?

**HOST:** I was right there with you up until "account."

#### The world comes to Bellarmine

Several international leaders have visited campus in recent months, discussing topics ranging from Iraq reconstruction to the future of Haiti.On April 20, the university welcomed Jacques Edouard Alexis, the former prime minister of Haiti (1990-2001 and 2006-2008), who talked about how Haiti will move forward following the devastating magnitude-7.0 earthquake of Jan. 12.

Former president of Ecuador and 1999 Nobel Peace Prize nominee Jamil Mahuad spoke about Latin American politics and U.S.-Latin American relations on March 30. Mahuad was president when Ecuador and Peru signed a historic peace accord in 1998, ending a decades-long border conflict between the two countries.

On March 11, Feisal Amin Rasoul Istrabadi, former Iraqi ambassador to the United Nations, came to Bellarmine to discuss his research on government transitions from dictatorship to democracy. Istrabadi, currently a visiting law professor at Indiana University in Bloomington, was the principal legal drafter of Iraq's interim constitution and principal author of its Bill of Fundamental Rights.

A partnership with the World Affairs Council of Kentucky and Southern Indiana has enabled this excellent roster of speakers in support of Bellarmine's Quality Enhancement Plan to internationalize the campus.



Jacques Edouard Alexis, the former prime minister of Haiti

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Dr. Sinski says the method he describes could be used to identify the source of pollution at sites like this lagoon in Havre, Montana.

#### **Fingerprinting pollutants**

A group of researchers in China has incorporated findings from the Bellarmine University Chemistry Department to develop a new method to distinguish between petroleum types from different sources.

The development benefits workers in the field by providing a "single, accurate way to discern between even the closest of petroleum types," says Dr. Joseph Sinski, Bellarmine chemistry professor. Using an effect dubbed the "Red-Shift Cascade" that the Sinski group discovered in 1999, "these researchers were able to successfully incorporate a full 4-D fluorescence fingerprint of different crude oil samples from fields in China." Certain natural molecules in petroleum absorb and emit light at different energies unique to each sample's molecular composition.

Sinski says researchers can use the technique to match different sources with samples taken from contaminated sites to determine the responsible party. "It is extremely gratifying to see the work of many past and present Bellarmine undergraduate researchers both recognized and indeed leading to cutting-edge approaches to our world's pollution problems," says Sinski. Current Bellarmine research group members, including senior Ben Draper, say they plan to build upon the latest developments.

The Chinese research appeared in the April 2010 issue of the analytical chemistry journal Talanta.

# Of Many Devices

By Brandon Kenney

It did me good to hear the ammunition fire years after the yard burned the grass flaring yellow-brown, lighting the sky in hues of plastics and alloys —

As green sank and rose in fumes only to descend, I, ditched and sepulchered, viewed the barrels that made this young body old, thrown early into the fire, and plagued

By the fusion of skin collapsing into skin – the smelting of layers. The now lame child, once the poet of industry, the mover of forms –

Fifteen as the munitions were undone, or rather done, by a stray shot, aimed for the barn side, that sent me tumbling these forty—five years back onto a bathroom floor, and days later

Into a hospital bed. Undone again. Undone, it seems, not by a fire, but by memory, and how its permeations can be carried by only so many – an old man and not his son.



**BRANDON KENNEY**, a senior English major from Louisville, was the Lansing School of Nursing and Health Sciences' artist-in-residence for 2009-10. Brandon spent the academic year living, working and studying among the faculty, staff and students in the Lansing School and produced a small book of poetry largely focused, he says, "on the ideas of identity and memory and the difficulty of confronting both in patients."

# QUESTION & ANSWER Dr. Kathy Cooter

BELLA

By Tabatha T. Thompson *tthompson@bellarmine.edu* 

Dr. Kathleen Cooter is on a mission to help people get smart about money. The professor of special education is a former credit interviewer for Habitat for Humanity and a former high school economics teacher. As director of the Center for Economic Education in the Annsley Frazier Thornton School of Education at Bellarmine, she aims to reach the next generation by helping current and future classroom teachers learn the ins and outs of financial education.

She recently spoke with Bellarmine Magazine about the center, her top money advice for new grads and the benefits of delayed gratification.

Your research focus is special education, but you're the director of the Center for Economic Education. How did that happen? During my high school teaching, I was asked to teach economics due to the sudden illness of an economics teacher and fell in love with the topic. But frankly my interest in financial literacy came about when I volunteered for Habitat for Humanity as a credit counselor. People were not able to realize their dreams because of poor financial choices.

We created the center with the mission of outreach to the community. At Bellarmine, we speak about being Life Outfitters. A critical piece of that outfit is the ability to use resources well. I see that as an issue in university students and young adults around the country.

#### This issue comes out in the summer, so it's the first one some of our students will receive as alumni. What are the top three pieces of advice you'd offer them?

 Track yourself for a month. Write it all down in a diary and see where the money goes, and you'll say, "I spent, in this month alone, \$100 of my hardearned money on coffee. Do I really want to spend 100 of my hard-earned dollars on coffee, or some other liquid?"
 Really create a budget plan. Think about how much of your income goes to housing. It should be between 20 and 25 percent. 3.) Be inquisitive. Don't be afraid to ask questions when you get your first paycheck. When you see FICA and some of the deductions and make a health-care choice or choose a retirement plan, ask questions. You're not supposed to know everything yet.

#### I'll give you one more.

4.) Know your credit score. I've yet to meet a college student here who knows their credit score. It's just something they've never considered, and yet it affects their buying power for a car, for a home, for any big-ticket item.

# Have you seen attitudes change as a result of the recession?

This generation is looking at this recession and what it has done to their families. I think they're more curious about the stock market, and warier, which I think is wise. I don't think they'll be as prone to some of the speculative moves of the past decade. I think it has some positive aspects, not painless learning, but still learning from watching the people around them.

What were some financial goals you set for yourself early on? I came from a large, very working-class

#### CHECK OUT BELLARMINE'S YOUTUBE CHANNEL FOR A NEW FINANCIAL LITERACY SERIES WITH DR. COOTER www.youtube.com/bellarmineuniversity

family. Some would say "manurepoor." My goals for myself were always based on education. As we look at this current recession, what we're seeing is the unemployment rate for collegeeducated people is less than 5 percent. If you were to look at a good measure to insulate yourself in a recession, it's certainly education.

#### Name one way you would never waste your money.

I would never waste my money on designer clothing, but that's my cultural background. I wouldn't buy an ultra-expensive car. I don't value the car; I want transportation.

Tell me something that's worth the splurge. I will spend money on vacations. I will travel. For me, that's not so beyond my belief system. Other people don't travel and they get great cars. That's the hard part, when you talk to someone and think, "Hey, wait a minute. You're carrying a Prada bag, but you can't pay your rent?" It's very difficult not to let those values come in.

Who balances the budget at your house, you or the other Dr. Cooter? (Dr. Robert Cooter is the Ursuline Endowed Chair of Teacher Education in the Annsley Frazier Thornton School of Education.) I do all the finances at my house, all the investments and our retirement savings. It's all me.

What's your favorite money-saving trick? To go to the grocery store on Wednesday, when they change the meat at the store where I shop. Just two weeks ago, I saved \$16 on steaks.

OK, one more parting piece of advice. Don't spend more than you make. It's something we work with little children on, but we lose that over time, that sense of, "I can only spend what I have." Put money aside for things that gratify us. We can delay it until we have enough money.

# Spring Sports Round-Up

**NOTE:** Some teams' seasons hadn't ended as Bellarmine Magazine went to press, and many postseason awards were presented after our deadlines. For complete results, visit www.bellarmine.edu/athletics.



LACROSSE: The Knights had their best season since competing in an all-Division II schedule, finishing 9-6 overall and 3-4 in their first season in the Eastern College Athletic Conference. Bellarmine capped the season in style with an exciting 14-13 overtime win over Ohio State at the famed "Horseshoe" stadium at OSU. The Knights also recorded a win over a top 20 team when they made a strong fourth-quarter comeback to defeat Robert Morris 18-15. Senior Chase Williams garnered national attention following that game by being named the Nike/Inside Lacrosse National Player of the Week. Other honors received by Knights this year included ECAC Co-Offensive Player of the Week honors, won once by Williams and again by Sean Doyle. Freshman goalkeeper Dillon Ward was named ECAC Rookie of the Week once during the season and also earned Co-Defensive Player of the Week honors. A feature story about the lacrosse family tribe begins on Page 44.

#### MEN'S AND WOMEN'S TRACK

**AND FIELD:** In April, Bellarmine hosted its first track and field meet in 45 years in Owsley Brown Frazier Stadium. As the host school, Bellarmine entered the most athletes and won 23 of the 38 events. The men's and women's teams compete in the same meets throughout the year and have competed in 13 events this year, including both the indoor and outdoor track seasons. The Knights have broken 39 school records (20 women's, 19 men's) heading into the conference championships. The track teams were still competing at press time.

**BASEBALL:** The Bellarmine baseball team finished the 2010 regular season with a 31-23 (18-12 GLVC) record and qualified for the Great Lakes Valley Conference tournament. They were led by Patrick Brady, a Lexington native who hit .379 with 11 home runs and was voted GLVC player of the week during the season. Freshman relief pitcher Cory Thomas led the conference and was fourth in the nation for most saves (13).

**SOFTBALL:** BU ended with a 22-32 (12-16 GLVC) record to finish 10th in the league standings. Sophomore Lauren Summe led Bellarmine offensively, hitting .366, and sophomore catcher Jordan Basham set a school record for most home runs in a season with 11.

MEN'S GOLF: The Knights finished in the top 10 in four of their six tournaments this spring. They had their best finish at the NKU Spring Invitational, finishing third. The Knights finished sixth in at the Great Lakes Valley Championship and earned a bid to the NCAA Super Regional.

**WOMEN'S GOLF:** Bellarmine finished in the top 10 in four of their five tournaments. The Knights' best finish was second place at the Transylvania Invitational in Paris, Ky. Bellarmine finished ninth in the Great Lakes Valley Conference Championship. Senior Sarah DuPlessis was selected to participate in the NCAA Super Regional.

**WOMEN'S TENNIS:** The tennis team finished the season with a 12-6 record and qualified for the 8-team GLVC postseason tournament. Sophomore Rebecca Porter was named the GLVC Player of the Year after going 6-0 in regular season conference singles matches. Joining her on the All-GLVC team was senior Sarah Roebker.

**MEN'S TENNIS:** The men finished the season 8-6 overall and made the conference postseason tournament. Senior Nate Matthews, who played No. 1 for the Knights all season, was named to the All-Great Lakes Valley Conference team.



THE 2010 BELLARMINE TRACK MEET



# My summer of reading Proust

By Frederick Smock fsmock@bellarmine.edu

**One of the most famous symbols in all of literature** is the *petite madeleine* dipped into a cup of hot tea – the fragrant scent of which sent French author Marcel Proust tumbling back into his childhood, and opening up a floodgate of prose. The magisterial novel that resulted, *Remembrance of Things Past* (sometimes translated as *In Search of Lost Time*), runs to 4,300 pages spread across eight volumes.

Like any number of people, I have long harbored the desire to read this epic tome. But I had never felt an overwhelming urge to do so until this summer. Finally, I had to know: What is it about Proust? Many scholars have written about him, and about the novel that consumed his life; but I wanted a firsthand experience. The answer to my question had to be an individual one, as with any book. The strongest identification with art can come only in quiet, private moments.

I bought the first volume, *Swann's Way*, in a new translation by Lydia Davis. I decided to avoid, for now, Alain de Botton's *How Proust Can Change Your Life*, and Phyllis Rose's *My Year of Reading Proust* – these I will read later, after my own impressions have been formed. However, I did buy Edmund White's brief biography, *Marcel Proust*, and Samuel Beckett's monograph *Proust*, written in the 1930s, and read them first, for context, mostly.

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Suddenly I was relishing this new project. I had a month off from teaching, and the leisure for some deep reading. When the weather turns nice, my wife and I read on our second-floor porch, which we have arrayed with rugs and furniture and lamps so that it functions in the summertime as a kind of outdoor living room. It was here, with our dog at my feet, that I delved into this great and majestic and *long* novel.

(Proust can go on and on. One French publisher who rejected the manuscript complained, "Why must it take thirty pages to describe a man turning over in bed?" One sympathizes.)

Proust was fortunate in that he lived at one of the high points of civilization, *fin de siècle* Paris. His novel, however, is largely provincial, set in the narrator's childhood environs, the little village of Combray, and it concerns itself with the quotidian details of village life. It is, in short (!), a coming-of-age tale, the story of a young man questing for the secret of literature, all told in a lush yet straightforward prose. The first reason one reads, of course, is for beauty. I quickly found that I had to slow down my inner desire to "get through" the book, as though it were assigned reading. I had to learn how to sink – or relax – into the pages, as into a hammock. Proust's language is lavish and evocative; the long sentences require a sustained attention; the scenes unfold with a precise level of observation that is remarkably detailed. All of this requires a studied and gentle patience, in order to allow the beauty to unfold. This book cannot be speed-read.

Therein lay one of the first revelations of this novel: that I should not be in such a great hurry, because then it will all be over too quickly; instead, I should tarry, for as long as possible, both to enjoy the book's sensual particulars and also to stretch out my time here on this earth. An eight-volume novel seems just the thing to slow my life down.

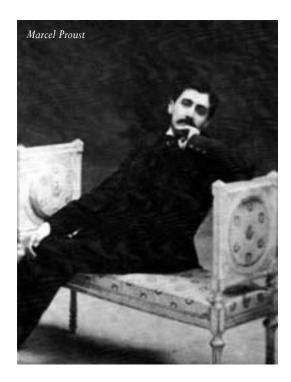
One also reads for pleasure. No point in going forward if the reading is painful. So I had to identify the pleasures that the book could provide and dedicate myself to enjoying them, a little like working at a marriage, perhaps.

As well, something that Proust's young narrator says of a book that he is reading, in his garden under a chestnut tree, applied to this reader: "...my belief in the philosophical richness and the beauty of the book I was reading, and my desire to appropriate them for myself."

In the first section of *Swann's Way*, the narrator-as-adult bites into the tea-soaked *petite madeleine* and all of a sudden involuntary memories of his childhood come rushing over him. "The whole of Proust's world comes out of a teacup," Beckett wrote. In my mind, I liken it to walking once again down the city street where I lived with my grandmother when I was a child. A rush of memories always comes over me, rich and sensual – worn, sun-warmed red-brick pavement, the sweet perfume of magnolia blossoms, and, yes, pungent automobile exhaust.

A whole world opens up in these pages. The world here is France in the 19th century, yet it is also a world that belongs to anyone who possesses an imagination and some empathetic equipment. Proust's village of Combray can be any childhood home, complete with cranky relatives, youthful lusts and sleepless reveries.

One fine evening I finished the first volume just as a pink cloud, underlit by the setting sun, floated across the horizon. I picked up the second volume, *In the Shadow of Young Girls in Flower*, in James Grieve's translation, and started in again. (Few translators have made it through the entire corpus: Scott Moncrief died midway through his translations, about which Nabokov remarked, "Small wonder.") The Penguin press has asked eight translators to do one volume each – a much more survivable task, it would seem.



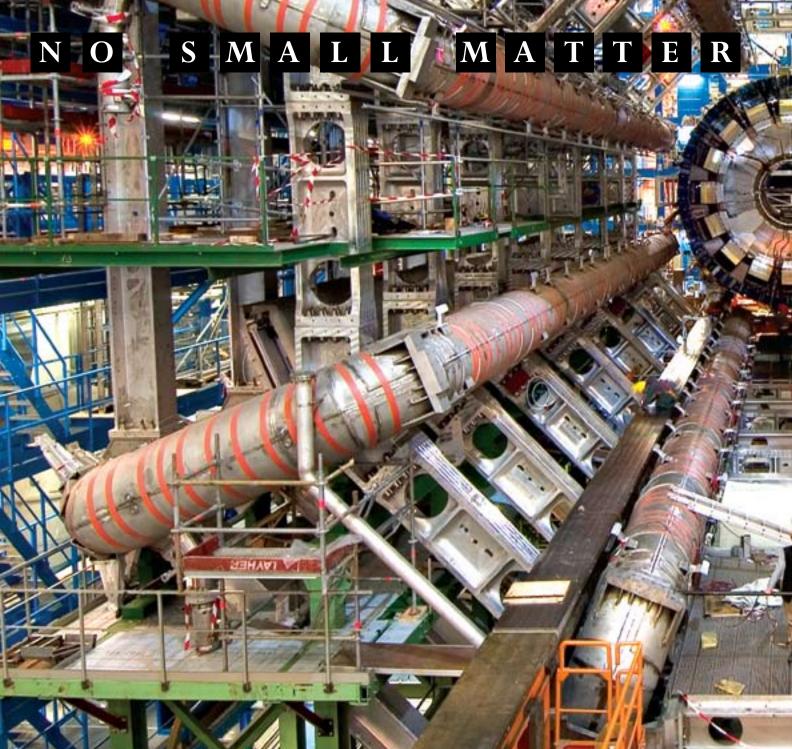
It is all here – everything one would hope to know about life: youth and love, social mores, the aged and the servile, music and literature and architecture, et cetera and et cetera, all written out in a copious prose that runs on and on like a river to the sea. One sentence will perhaps suffice for communicating the flavor of the books:

"Thus I would often lie until morning thinking back to the time at Combray, to my sad sleepless evenings, to the many days, too, whose image had been restored to me more recently by the taste – what they would have called at Combray the 'fragrance' – of a cup of tea, and, by an association of memories, to what, many years after leaving that little town, I had learned, about a love affair Swann had had before I was born, with that precision of detail which is sometimes easier to obtain for the lives of people who died centuries ago than for the lives of our best friends, and which seems as impossible as it once seemed impossible to speak from one town to another – as long as we do not know about the expedient by which that impossibility was circumvented."

A colleague of mine, Tony O'Keeffe, says that reading Proust is his non-IRA retirement plan. So, certainly, I am being overly ambitious. It is already clear to me that it is going to take more than one summer to finish this novel.

In any case, these lovely hours on the porch reading Proust have been a great gift – of learning, of introspection, of leisure – for which I thank author and translators all. As of this writing, I have completed the first two volumes. The other six await. And I am in no hurry to get through them.

FREDERICK SMOCK is chairman of the English department at Bellarmine University. His new book of poems is The Blue Hour (Larkspur Press).



#### Bellarmine building supercomputer to join the hunt for Higgs

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By Emily Ruppel emily.ruppel@gmail.com

#### In one of the oldest classrooms on Bellarmine's campus, Dr. Akhtar Mahmood and his students may soon help to make history.

Funded by one of the largest federal research grants ever received at Bellarmine, they are building a supercomputer in Pasteur 113 to assist CERN (the European Organization for Nuclear Research) in studying the Big Bang. More specifically, they'll be helping to search for the Higgs boson, an elusive particle sometimes called "the God particle," the discovery of which might change the course of modern physics.

"The discoveries made in high energy physics help us to understand not just the physical world around us, but also the origin and the ultimate fate of the universe," says Mahmood, associate professor of physics. "I believe that within the next two decades, research in high energy physics will provide new discoveries that will revolutionize our understanding of the universe and the fundamental structure of matter."

Scientists postulate the Higgs boson can be observed only under high-energy conditions like those fractions-of-fractions of a second after the Big Bang. With a massive machine near Geneva, Switzerland, CERN began just months ago colliding protons at high energies in order to recreate those conditions.

The construction and daily operation of CERN's Large Hadron Collider is an astounding international achievement. What more than 8,000 of the world's brightest minds have put together near Geneva is worth upwards of \$10 billion and has taken 20 years to build. Writers describe it as being "near" Geneva because it's so big, you'd actually need a passport to travel from one side of it to the other.

Each detector and corresponding experiment at the LHC has its own array of tasks. ATLAS, of which Bellarmine will be a part, is attempting to shed light on some of physics' most stimulating questions, including whether space has extra dimensions, what unifies the fundamental forces of nature, and whether the Higgs boson exists.

It's the latter that the center at Bellarmine will primarily be concerned with, and if an anomaly is noticed by the team using the supercomputer in Pasteur, their efforts could help decipher how particles acquire mass.

In a metaphorical way, the Large Hadron Collider is like the Super-Olympics of particle physics, where the athletes are made to obliterate each other, while their captive, white-coated audience members, some watching from computer screens a thousand miles away, are looking for something even better than the gold: answers.

To enrich this illustration, picture a huge, cylindrical track six stories beneath the earth with a circumference of 17 miles. (That's over two-thirds of a marathon.) Two teams of 300 billion protons each are taking their marks. At "Go!" they'll start speeding in opposite directions around the track, gaining energy with every mile. Both groups of protons are truly elite: They race through the 17-mile loop 11,000 times a second (very near the speed of light). Hundreds of 35-ton super-conducting magnets all along the track make sure not a single proton slacks by "kicking" the positively charged particles every time they pass by.

At this Olympics, the über marathon eventually fuses with sumo wrestling: After enough energizing laps, those big, proton-bullying magnets direct the two teams to crash headfirst at a combined energy of 14 Tetra-electron Volts (TeV). Every successful collision creates a tiny show of fireworks in four magnetic chambers as big as cathedrals, which are evenly spaced around the 17-mile circle, and where finely tuned detectors record pictures of each small fire.

The white-coated spectators cheer, then get to work.

The biggest of CERN's sub-atomic Super-Olympics is still a few years off, because the Large Hadron Collider's city-sized system isn't quite ready to host it. For now, the protons are running heats. But they're already doing so at world records – in December, the LHC collided particles at 1.2 TeV per beam, 20 percent higher than the highest

#### RIGHT

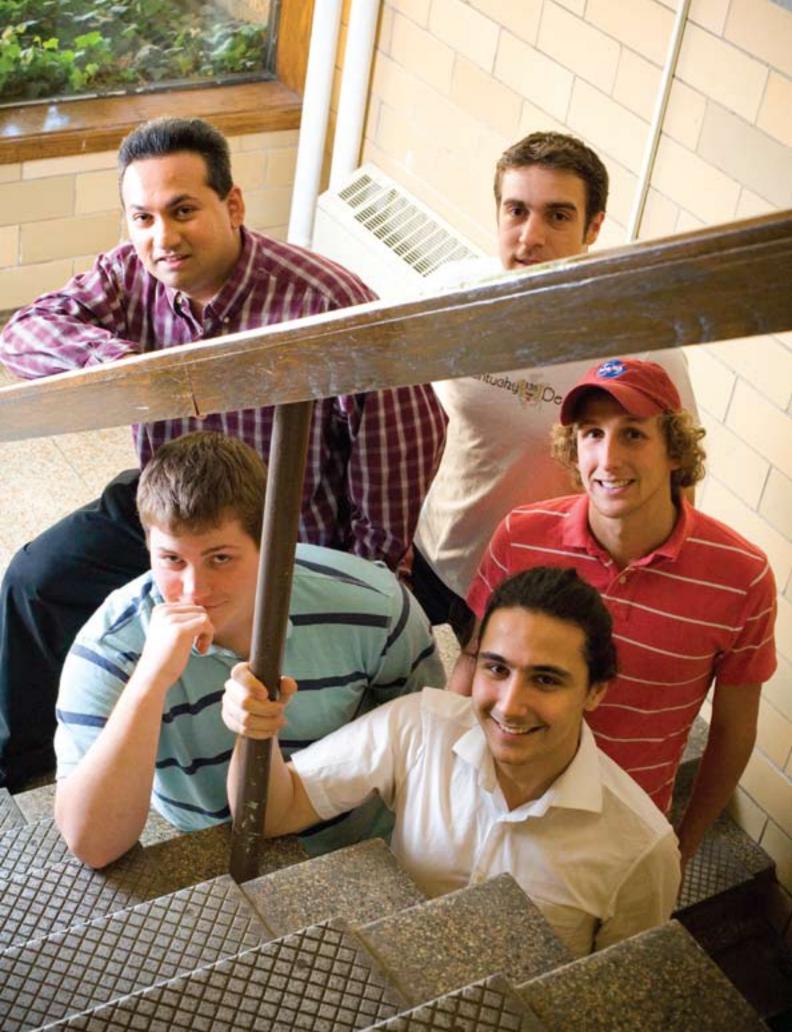
Dr. Akhtar Mahmood and, clockwise from top right, students Antonio Castineira, Benjamin Draper, Dzmitry Miranovich and Drew Miles. (Not pictured: Richard Jelsma.)

Photo by Geoff Oliver Bugbee

#### PREVIOUS PAGE

Workers install the ATLAS calorimeter in this photo from November 2005. The calorimeter will measure the energies of particles produced when protons collide in the center of the detector.

Photo courtesy of The ATLAS Experiment at CERN, http://atlas.ch





energy reached at the Fermi National Accelerator Laboratory (Fermilab) in Illinois, and in March, the LHC created a 7-TeV collision.

Many finger-crossing physicists are currently assembling computers and writing codes to analyze the miniature fireworks shows in Geneva. At each level of the tiered network, unwanted smoke from the data pictures will be cleared, and as more refined images emerge through the fog, the likelier it will become for discovery to take place.

By September, Bellarmine will be a functioning member of that scientific body. A \$200,273 grant from the National Science Foundation to Bellarmine's Physics Department is funding the building of the supercomputer needed to receive, store and run code on data sent from CERN. When it is completed, Pasteur Hall – the oldest building on Bellarmine's campus – will be home to the third-largest supercomputing facility in Kentucky. And unlike those at UK and U of L, which their science/medical communities must share for all substantial processing needs, Bellarmine's computer will be dedicated to studying information from ATLAS, the biggest of the LHC's experiments.

"With this physics investigation supported by a NSF grant, Bellarmine comes closer to realizing Vision 2020 and our goal of solving problems through cuttingedge discovery and research," says Dr. Doris Tegart, senior vice president for academic affairs.

"We are very fortunate to have received this type of grant," says Dr. Mahmood, who wrote the proposal and whose membership in the elite ATLAS experiment is what pushed the bid from our small, non-Ph.D.-granting institution to the top of the pile. Mahmood's more than 14 years of research experience in experimental ABOVE

A worker inside the tunnel of the Large Hadron Collider near Geneva, Switzerland, 2006 Photo Courtesy of CERN

Learn more about ATLAS: Visit http://atlas.ch/ or The ATLAS Experiment Channel on YouTube. high energy physics include work with SUNY-Albany's High Energy Physics Research Group, a member of the ATLAS experiment.

Before coming to Bellarmine, Mahmood was involved with CERN's ATLAS pixel detector hardware project. The main task of the pixel detector is particle detection, especially the identification of the Higgs boson.

Bellarmine will be one of only 27 Tier-3 institutions in the U.S. conducting research as part of CERN's International Virtual Data Grid Laboratory project, the first worldwide attempt to link scientists in "collaboratories" where they will perform their research activities regardless of geographic location. It's the only way to get the job done.

"The computational requirements (of the LHC) will be enormous," says Mahmood. "Five petabytes of data will be generated each year per experiment; the analysis will require some 20 petabytes of disk storage per year and the equivalent of 500,000 of today's fastest PC processors."

## "Physics explains what happened in the aftermath of the Big Bang, but that is not enough."

DR. AKHTAR MAHMOOD

The supercomputer that he and his students are building this summer will go on-line in September. It will be connected to the national computing grid cyberinfrastructure, called the Open Science Grid (OSG). This supercomputer will have 64 dual-core processors (512 cores in total, all linked in parallel), 1.5 terabytes of distributed memory and more than 400 terabytes of disk space. It will perform computations 500 times faster than the average desktop computer, with about 1,500 times more memory. Once fully configured, this super-computing system will be a 10 Tera-flops machine, capable of performing about 10 trillion floating-point operations per second.

Earl Foskett of Bellarmine's Computer Science Department will be the systems manager for the supercomputer under Mahmood's supervision. "Students will also be trained, as time permits, to operate and maintain the cluster, so they'll get valuable IT and systems administration training and experience," says Mahmood, who has extensive Linux systems experience and years ago wrote a successful "Do It Yourself" manual on building a Beowulf Cluster. They'll also learn how to work on a team and complete and present research results.



This illustration shows the area under which the tunnel for CERN's LHC can be found.

Photo Courtesy of CERN

"Eventually, they will indeed appreciate to learn what it takes to discover new physics."

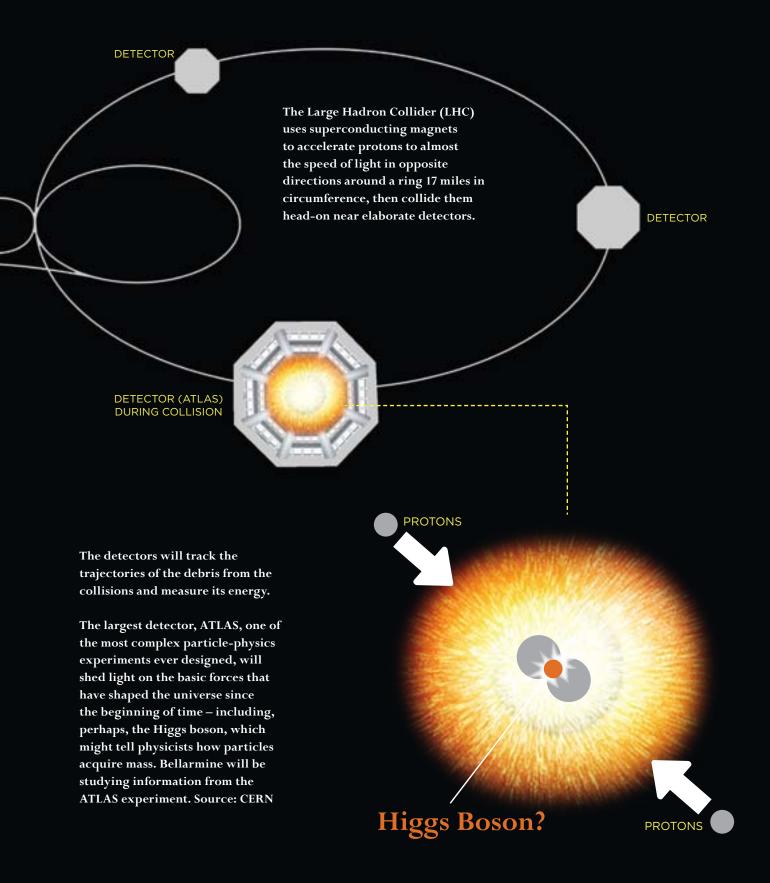
In his detailed proposal, Mahmood factored in the extra tons of air conditioning needed to keep the supercomputer functioning, as temperatures in the 220-square-foot room will rise when the whirring community of engines is awake around the clock. Until Bellarmine has access to the higherspeed Internet 2, from Kentucky Regional Optical Network (KyRON), some of the computer's most active hours will be when the rest of campus is fast asleep. Because so much bandwidth is needed to transport CERN's hefty loads of data over Bellarmine's Internet connection, most electronic deliveries will be between 2 and 7 a.m.

Results from an experiment CERN runs on one day won't actually be ready for pick-up at Bellarmine until months later, when they've passed through the larger Tier-I and Tier-2 processing facilities. But that's a good thing, Mahmood says. "High-energy physics experiments generate large amounts of experimental data. The actual data are taken at the experimental site, and then filtered to reduce the background noise. At Tier-3, you get the cream, the final stage of analysis. Significant discoveries will be made at Tier-3," he says.

"Physics explains what happened in the aftermath of the Big Bang, but that's not enough. We know about stars, galaxies, all of that. But the standard model (of physics) cannot explain why any particle has a certain mass. The question is, why are W and Z bosons, the carriers of the weak force, so heavy, while photons, the carrier of the electro-magnetic force, massless?"

All arrows point to the Higgs field, which scientists think came into existence in the early, early universe, and whose corresponding particle, or boson, reacts with other particles to give them mass. This explanation, put forth by theorists Peter Higgs, Robert Brout and François Englert in 1964, may be correct, but it has never been observed, and thus confirmed, in any experiment.

#### THE LARGE HADRON COLLIDER



Here's something scientists do know (for now, at least): E=mc<sup>2</sup>. Most often associated with its dire consequences, other applications for Albert Einstein's elegant equivalency are what allow modern physicists to dream up these huge experiments and build violent-sounding proton bashers deep beneath one of the world's most peaceful countries.

If  $E=mc^2$  (E being energy, m being mass, and  $c^2$  being the speed of light), then the higher the number on one side of the equation (meaning, the more times and over the greatest distance scientists can sling those billions of protons so that they attain the maximum amount of energy), then the higher the number on the other side – that is, m, the mass created when two particles collide at (almost) the speed of light.

When two particles meet head-on at a lower energy, like those at colliders such as Fermilab, their combined power produces other particles, which is how we know about quarks, leptons, and bosons, the elementary particles inside the protons, neutrons and electrons that make up what was formerly thought to be the smallest unit of matter, the atom. With higher and higher energies being reached every day, the more massive the particles that can be observed. The ones physicists really want to find, like the Higgs boson, should be a product of collisions at 14 TeV. "The technical problem is that we do not know the mass of the Higgs boson itself. If it does exist, it must be observable at the energies achievable at the Large Hadron Collider," says Mahmood. Even so, the Higgs particle won't stick around for close, glassed-in observation. In our low-energy universe, high-energy particles decay very quickly into other, more recognizable ones. Products of their short-lived quarry make tracks that physicists see in the many layers of their magnetically charged detectors. Each collision produces almost 500 different kinds of footprints, which scientists can analyze to see what might have made them.

"It's like looking for something very, very small in a very, very big field of very, very high grass," says Mahmood. "At Tier-I and Tier-2, they are cutting the grass shorter and shorter. Over time, we may get the level of the grass down to three inches. That's when we will see it."

Finding the Higgs boson might take years. Physicists require much convincing to say they know something, but the fact that they even *think* they know should send prickles down the spine.

"We don't just live in the universe; we are a part of it. Therefore, we need to understand how it works," Mahmood says. "We are certainly on the threshold of another new era of discoveries as we step into the 21st century."

# **Practical Matters**

The Large Hadron Collider experiment is designed to answer huge questions about the origin of the universe, but along the way it may also lead to technological advances with practical applications.

That was the case with the quantum revolution in the 20th century, which led to our computer-based information age, says Dr. Akhtar Mahmood. The discovery of the electron, a subatomic particle, triggered the 20th century revolutions of electronics and computing. And the need for rapid and effective communication among experimental high energy physicists led to the invention of the tool known as the World Wide Web in the early 1990s at CERN.

In the medical field, accelerators designed for research to collide subatomic particles have now become instruments for diagnosis and treatment. Particle accelerators are used to treat cancerous tumors that

"All these spinoff applications have greatly benefited society." are inoperable or resistant to traditional radiation therapies. Particle beams and detectors used in high energy physics research have also led to the development of new proton and neutron cancer therapies. And the research and development of superconducting magnet designs used in accelerators has substantially improved the sensitivity, speed and resolution of MRI machines.

"All these spin-off applications have greatly benefited society," Mahmood says. "High energy physics today is an exciting and vibrant field that is poised to make new discoveries in the next two decades and beyond."



# Hot Topic

#### DAVID HUMPHREY SPICES UP UNDERGRADUATE RESEARCH WEEK

By Jim Welp jwelp@bellarmine.edu **Fiery-hot peppers inspire a strange and powerful** reaction in those of us crazy enough to imbibe. They can spice up almost any type of cuisine, from the delicacies of Asia to the gumbos of N'awlins to the mighty wings of the buffalo. They trigger a pleasant endorphin buzz, make grown men cry and make beer more delicious than ever. So, yes. They are awesome. But can they cure cancer?

That's what recently minted Bellarmine alum David M. Humphrey '10 explored last year. He presented his research, with the sexy title "Antiproliferative Effect of Capsaicin on the Human Non-Small Cell Adenocarcinoma Cell Line NCI -H1793," at Undergraduate Research Week in April.

Each spring, Bellarmine undergrads come together to exhibit their research for the community. An impressive number of students from an ever-growing range of disciplines participate, providing an exciting array of presentations. This year's 10th Annual Celebration of Undergraduate Research included presentations, poster sessions, concerts and more.

It's remarkable how much research is being done at Bellarmine at the undergraduate level and how quickly our world is changing. Indeed, some of the topics would have sounded like science fiction just a few short years ago. Examples: "Genetically Modified Foods and Potential Effects on Health Status;" "The Association Between Personality, Social Networking Sites and the Preference of Having an Offline or Online Relationship;" and "Bellarmine University's Ecological Footprint."

As you might have guessed, Humphrey – a biochemistry and molecular biology major from Louisville – didn't do his research using the hot wings at Shenanigan's. "My studies were on the effect capsaicin has on cancer cells, specifically focusing on human lung cancer," he said.

Capsaicin is the stuff that makes hot peppers hot. And although it does come from the white piths surrounding pepper seeds, both Humphrey's capsaicin and the lung cancer cell line he worked with came from a chemical company. "I treated the cells by putting in capsaicin with the media that's usually used as their diet. I then watched how the cells would die based on concentration or how long they were exposed to the capsaicin." Through several repeated experiments, he determined that... well, let's let Humphrey's research brief do the explaining:

"After 4 days of treatment, cellular growth was reduced to 60% at 100  $\mu$ M concentration. Higher concentrations resulted in 80% inhibition of cell growth. Based on these results, the IC50 for day 1, 2, and 4 were determined to be 351.9  $\mu$ M, 338.5  $\mu$ M and 262.4  $\mu$ M, respectively. These results indicate that capsaicin inhibits cell growth in a time-and concentration-dependent manner."

So, does that mean we should all dollop a hearty helping of Armageddon Hot Sauce onto our Cheerios for breakfast? "I don't think we can take the huge leap that people need to add peppers to their diet," said Humphrey. "Capsaicin is already used medicinally for pain relief and it's common in cuisine, so it's known to be safe for humans. My studies have shown that there's a pretty good chance that capsaicin kills lung cancer. Other than the proliferation assay, there would have to be more studies.

"There are other scientists who are studying it. I found research articles showing promising results for prostate cancer and leukemia. Those studies had results where they shrank tumors to one-third of their original size," he said. But "even if capsaicin could lower lung cancer, there is some concern that eating large amounts could increase the risk of stomach cancer, perhaps by overacting the stomach acids," he cautioned.

Still, Humphrey is no party pooper. "I prefer to eat what I like and die a happy man," he said with a laugh. And how does he prefer to ingest his capsaicin? "Cajun, Mexican or hot wings. I don't like my skin to burn, so I tend to avoid the blazing wings. I did that challenge once and I don't feel like I have to do it again."

Humphrey was just one of several undergraduate students researching lung cancer cells. "There have been quite a few cancer studies at Bellarmine this year," he said. "Niloufar Ehsani did a study on the same cell line using tea extracts. Daniel Eschenbach used Venus flytrap. Stephanie Kortyka tested papaw." "The common theme is that most of these students have read about natural remedies that are touted to have anticancer effects, so they decided to test them..." DR. MARY HUFF, HUMPHREY'S FACULTY ADVISOR

All biochemistry and biology seniors are encouraged to develop their own research projects, explained Dr. Mary Huff, Humphrey's faculty advisor. "In biochemistry, we spend a semester at the end of their junior year developing a project. Most students have an interest in cancer and since my research is related to lung cancer, I have cells on hand that they can use. Dr. Joann Lau (a biology professor) also picked up on this area of research and started some other projects like Dan and Stephanie's work.

"The common theme is that most of these students have read about natural remedies that are touted to have anticancer effects, so they decided to test them... They then go to the scientific literature and usually they find that there are published studies on different cancer lines that have been tested to support this idea. In many cases, it hasn't been done in lung cancer cell lines so they develop their proposal to see if these same anticancer effects hold up for lung cancer.

"These students really are proud of their work," she said.

Now that he's graduated, David Humphrey says his ultimate plan is to be a doctor, but he might study biostatistics and perhaps work for the Centers for Disease Control. He hasn't ruled out his childhood dream to become a magician, either. "That one's still in the back of my head, but they usually don't make as much money as doctors," he said.



#### ulation and Testbed Studies Aimed at Detecting Earth-Like Planets with ASA's Next-Generation Space-based SIM-Lite Astrometric Observatory



Benjamin Draper, Richard Jelsma, Dr. Ahktar Materood-Bellarmine University and Dr. Bijan Nemati-Jet Propulsion Laboratory

HODOLOGY



To see summaries of all the research Bellarmine students did in 2009-10, visit http://tinyurl.com/BUresearch10



# SURFACE NINING'S

# An examination by a Bellarmine Contemporary Issues class

By Jacob Allgeier, Lindsay Batts, Brad Bush, Karrissa Dilger, Bridget Finkell, Melinda Kelly, Remsing King, Justin Klenke, Will Maddox, Laura Martinez, Ashley Murr, Natalie Rose Perry, Oliver Rios, Aaron Searcy and Ashlie Stevens.

Photos by Geoff Oliver Bugbee

**EDITOR'S NOTE:** This piece, originally published on the op-ed page of The Courier-Journal on April 16, was written by the 15 freshmen in "Contemporary Issues," an IDC course at Bellarmine that focuses on writing and critical thinking skills and news literacy. The article is a culmination of the students' examination during the spring semester of the environmental and health aspects of surface coal mining in Eastern Kentucky and Central Appalachia. Their instructor, Stanley K. Macdonald, is the former director of special projects for The Courier-Journal.

**As 15 college freshmen,** we support the U.S. Environmental Protection Agency's new regulations to sharply limit the environmental damage caused by surface coal mining in Eastern Kentucky and other parts of central Appalachia.

Before EPA's April 1 action, our "contemporary issues" class at Bellarmine University in Louisville had examined the heated controversy over this mining. We weighed the views of environmentalists, coal industry representatives, scientists, government officials and citizens. We concluded that surface mining's economic benefits come with a very steep cost to environmental and human health, a cost that can and should be reduced by stronger safeguards.

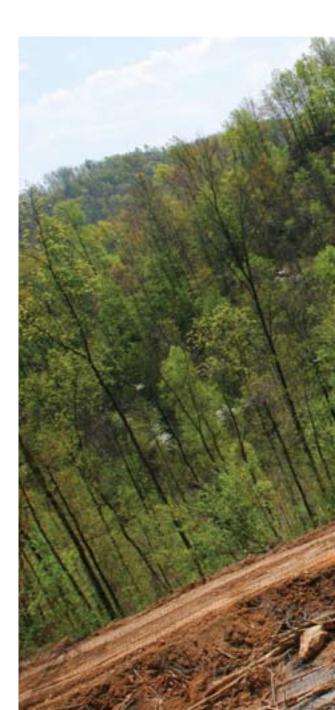
Scientific studies document mining's harm to water and air quality and the life of plants, trees and animals, and alarming new research has found that residents in mining areas suffer higher incidences of cardiovascular and other chronic diseases.

Our judgment, however, isn't based solely on a cost-benefit approach. It also has to do with how we treat what we've been given. As Wendell Berry, the world-famous Kentucky author, has written, ecosystems are not products. They are communities of living things and belong "to the mystery that everywhere surrounds us."

Public debate has centered on a surface mining method often called mountaintop removal where trees are clear-cut and huge machines and explosives remove layers of rock and dirt in the upper part of a mountain, ridge or hill to reach the coal seam or seams below. Leftover rubble is then placed in adjacent valleys. It is these "valley fills," the EPA says, that have buried mountain streams and polluted rivers below them.

The Government Accountability Office reported earlier this year that at least 2,343 valley fills have been "authorized" in central Appalachia since January 2000. (Because of limited data, the GAO couldn't determine how many of these fills were actually constructed.)

The industry says that mining brings economic stability and employment, and it warns that more regulation will mean fewer jobs. Kentucky, the third-largest coal producer in the U.S., has about 200 underground mines and 240 surface mines in Eastern Kentucky, according to the federal government.



# **"WHEN DEBRIS FROM MOUNTAINTOP MINING BURIES THESE HEADWATERS, IT CAN HAVE IRREVERSIBLE CONSEQUENCES."**

It's also true that total coal mining jobs in Kentucky have declined, down from 28,500 in 1990 to an estimated 19,000 last year, the federal government reported. Most of these jobs involve underground mining, which is more labor intensive than surface mining.

The Mountain Association for Community Economic Development said that total mining employment makes up 1 percent of Kentucky's nonfarm employment.

Steve Gardner, the president of a Lexington engineering consulting firm, says mining plays a much bigger economic role than these numbers indicate. Mining jobs, he said, help support the local economies of many mountain communities, and Kentucky as a whole benefits from the low-cost, ready electricity that its coal and coal-fired power plants provide. The low electric rates are a major





reason why automobile and some other manufacturers chose to locate in Kentucky, said Gardner, who has worked with the mining industry for 35 years.

But the toll imposed by surface mining stunned us.

Take headwater streams, for example. These small waterways in the mountains are often dry and easy to miss, but they're the arteries that purify and supply water and nutrients to river systems. When debris from mountaintop mining buries these headwaters, it can have irreversible consequences.

According to Margaret Palmer, laboratory director of the Chesapeake Biological Laboratory and a biology professor at the University of Maryland, headwaters are filled largely by groundwater which is cleansed as it moves through the soil and enriched with nutrients that are necessary for healthy streams. But mountaintop mining, she said, destroys the paths along which groundwater previously flowed, and the mountain summit and its organic-rich layers of soils which harbor ecologically important communities of bacteria, fungi and burrowing insects are no longer intact. The land disturbance also can release toxins.

Surface mining also has cut down sections of Appalachian forests, which support some of the highest biological diversity in the world's temperate regions. And forests can't easily be restored because the ground on many of these sites was so heavily compacted after mining that trees can't grow on it.

The coal industry and some who live in mining areas say that land flattened by mountaintop mining often becomes more valuable because it can be developed into subdivisions,



The aftermath of mountaintop removal efforts. The debris is shoved into the valleys where it pollutes the waterways, putting both wildlife and humans at risk.

## "WE CONCLUDED THAT SURFACE MINING'S ECONOMIC BENEFITS COME WITH A VERY STEEP COST TO ENVIRONMENTAL AND HUMAN HEALTH..."

factories, parks, recreational facilities, hospitals, prisons, schools and shopping centers. This commercial use, however, represents a small fraction of the "reclaimed" land.

Air and water pollution from mining also may contribute to heart, lung and other chronic diseases which afflict residents in coal-mining areas of Appalachia, according to Michael Hendryx, a professor at West Virginia University, and others.

In one study, Hendryx and another researcher found that men and women living in mining areas had a higher incidence of cardiovascular disease than residents in non-mining areas of Appalachia. These differences persisted, Hendryx reported, even after adjusting for age, weight, smoking and drinking habits and other risk factors. He concluded that "environmental pollution" from mining may be a contributing factor but said further study is needed.

We are encouraged that Kentucky earlier this year adopted guidelines that seek to limit the environmental damage from valley fills. This shows that state officials, the coal industry and environmental organizations can reach constructive compromises.

EPA's new regulations apparently go farther. They would prohibit a surface mining operation if it would increase stream pollution beyond strict new water standards. Industry officials argue that the change will make it difficult to start new mining projects.

In the meantime, everyone can help. The Appalachian Regional Reforestation Initiative says there are up to 1 million acres of mined land that could be reforested. The initiative has proposed the Green Forest Works project to plant trees and restore barren lands with diverse hardwood forests that will "sequester carbon, improve water quality and flows, and benefit species of conservation concern that depend on forests." The ARRI needs money and volunteers; its Web site has details.

And just because Kentucky has cheap electricity doesn't mean we should use it wastefully. Relying on compact fluorescent light bulbs and other energy-efficient household products is one way to reduce our voracious appetite for coal and other fossil fuels.

# Sea Change

INTEREST IN MARITIME HISTORY GROWS AS SCHOLARS SEEK TO ENSURE OUR FUTURE

> By Carla Carlton ccarlton@bellarmine.edu

**The sea is in Dr. Eric Roorda's blood.** His great-granddad worked on ferry boats in Holland; his granddad worked on freighters until two ships sank underneath him in World War I and he said "enough of that business" and immigrated to the U.S., where he built boats with Roorda's father in Michigan.

"That's where I grew up, on the shores of Lake Huron," Roorda says. "That was my inland sea. And I read the Hornblower novels and I swayed in trees like they were the topmasts."

Roorda, a professor of history, has remained fascinated by the power of the sea. Its irresistible pull on us has helped to shape our world – yet until recently, maritime history was a dying field of study. "It was really belly-up for a while – there were no jobs at all. People kind of filed it away with military history as kind of passé," says Roorda, who himself referred to maritime history as "extinct" in a 1999 interview with The Chronicle of Higher Education.

Extinct? Not quite. Over the past few years, scholarly interest in the sea has increased dramatically, Roorda says. The reason is simple: The environment.

# "You want to keep species from vanishing, you want to keep communities from vanishing."

"There are all kinds of different scarcities – and not just the ones you think of immediately," he says. "Fish are disappearing at this incredible rate, but then that leads very quickly to a study of the people who are responsible for that, and what that means for the disappearing communities of water people, which are themselves worth protecting... You want to keep species from vanishing, you want to keep communities from vanishing. And they go together, you know? If you are able to manage a fish population sustainably, then the community can exist there as well. Waterquality and water-scarcity issues are incredibly pressing, and not very well-known."

Roorda is doing his part to increase awareness through his affiliation with the Munson Institute, the summer graduate-studies program in American maritime history at Mystic Seaport, the Museum of America and the Sea in Connecticut. He's been director of the program for seven years, and this summer, he's serving as co-director for the institute's third National Endowment for the Humanities-supported summer program for undergraduate faculty, "The American Maritime People." For six weeks ending July 30, 17 junior faculty members and three graduate students will attend seminars, take field trips and enjoy full access to the considerable resources of Mystic Seaport, the largest such museum in the country. Its 17-acre campus holds 60 historic buildings, more than one million manuscripts and artifacts and 500 watercraft, from the Inuit skin boats that navigated the Northwest Passage to the latest models. "If you are interested in researching boats, we got boats," Roorda says.

Attendance at the institute is increasingly multi-disciplinary. "There's been a lot of meeting of the minds between some of the major people in maritime history and those who do environmental research. So you have people who can measure fish, and people who can go back into the documentation and say well, here's how they measured fish in the 1650s. And you find that gosh, they were already worried about scarcities way back then.

"We're learning, for instance, that the reason people went to the sea – to the deep sea – to fish in the first place is because they had fished out the inland lakes and rivers. Arguably the first white people who found their way here were Basque whalers, not Christopher Columbus, and they kept it secret because it was their whaling grounds. They went there because the whales were scarce near their shores. And so goes human exploration of the world – pushing the boundaries, quite literally, in pursuit of fresh stocks to kill."

But what happens when the boundaries have been pushed to the limit? "The more people know about the way these fish stocks are going – man, right before our eyes. There's a huge blind spot in the general public about that," he says. "That's what educators are for, right? After this (institute), there'll be 20 more professors at universities X, Y and Z getting the word out."

Roorda will talk about two topics at the institute: the Cuban boat people and the cruise ship industry as an agent of U.S. foreign relations.

"That's my specialty: U.S. foreign relations, which have so often been carried out through boats. In many cases, through most of our history, naval officers were more important than diplomats. Mariners who didn't have any kind of official status – they had a huge impact on our foreign policy and our foreign relations with other countries. That continues, because last year, even in a bad year, 13 million Americans went on a cruise. That's a lot! That's way more than in the days of sail. And they were in much safer conditions. But still, if they were looking, they could experience a lot of what is sublime about the sea: being out of sight of land, seeing whales, being in a storm.

"It's like the great Samuel Johnson said, 'There is a great comfort to being in a storm at sea when you know there is no danger of sinking."

# Sticking Together

By Carla Carlton ccarlton@bellarmine.edu Photos by Geoff Oliver Bugbee

FAMILIES OF LACROSSE PLAYERS FORM THEIR OWN TRIBE **Lacrosse is all about the tribe.** One of the oldest team sports in the Americas, it originated with native North Americans, who played it to develop strength, resolve conflicts and even heal the sick.

As Bellarmine's only Division I sport, lacrosse brings a certain swagger to the playing field, along with a tribe of student athletes from places as close as Columbus, Ohio, to as far away as Finland, with a healthy contingent from Canada.

And it has created a traveling tribe of lacrosse parents, many of whom attend every single home and away game, from Jacksonville, Fla., to Denver, Colo. They socialize before games, provide meals for the team afterward and stay at the same hotels. They are held together by an unofficial but highly efficient parents' organization begun by Jackie and David Haas of Westerville, Ohio, and now overseen by Chuck and Terri Soeder of South Lyon, Mich.

"There is a camaraderie among parents of lacrosse players," says Chuck Soeder, father of rising senior Drew Soeder, a defender on the team. "We saw that in high school, we see that here – there seems to be some special bond with parents of lacrosse players."

It's the love of the game, they agree – the love of a game they acknowledge can seem bizarre to the uninitiated.



Many lacrosse parents, including Dave Mattingly of Philadelphia, above, tailgate before home games in and around an RV owned by Gary and Julie Andersen of Lakewood, Colo.

"When Drew made that first hit today and I yelled, 'GO, DREW!' I saw this dad looking at me," laughed Terri Soeder, who drives six hours from Michigan with her



husband for home games. "It was like, 'He just clobbered a kid and you're really excited about it! You shouldn't be that excited!'"

The parents have gathered in Horrigan Hall in February to provide a meal for the team following the Knights' home opener against the University of Maryland, just one of the nationally ranked lacrosse programs that have steadily added Bellarmine to their schedules since the university added the sport in 2005. The Knights, the first collegiate lacrosse team in Kentucky, finished this season 9-6.

The Feb. 20 game marked the unveiling of the Jack McGetrick Plaza and Locker Room, an expansion of the Owsley B. Frazier Stadium named in honor of Bellarmine's founding lacrosse coach. "Black Jack," as his fiercely loyal players call him, is the reason many of them came to Bellarmine, their parents say.

"Tyler instantly loved Jack," says Dave Mattingly of his son, rising junior and defender who shares a house off campus with the Soeders' son and two other lacrosse players. Dave Mattingly had driven 11 hours from Philadelphia to attend this game. The previous week, he had flown to Jacksonville to cheer the Knights,

## "It gets expensive, but I think we're all operating under the same thing – we've waited for them to get here and we don't want to miss it, because you blink and it'll be over."

DAVE MATTINGLY

and a week later, he would treat them to cheese steaks at Pat's Steaks when the team traveled to Philly to play St. Joseph's.

Committing to the schedule means making sacrifices – missing some work, putting a lot of miles on the car, paying for hotel rooms and plane tickets.

"I save all year," Mattingly says. "Just put the money aside for the airfares and hotels. This year I gave it to my wife as a Christmas gift. I booked like six trips and just gave her the tickets. But I wouldn't miss it for the world.

"It gets expensive, but I think we're all operating under the same thing – we've waited for them to get here and we don't want to miss it, because you blink and it'll be over. In four years, it's over."

Organized by the Soeders, the parents chip in to provide meals on campus after home games. When the team is on the road, families in the host cities either arrange an outing to a local restaurant or welcome the team into their homes for a

#### **NEW TO LACROSSE?**

#### Learn more at http://tinyurl.com/lacrossehow

meal. Some offer a spare room to other parents to keep down lodging expenses.

"All the parents get along really well," Chuck Soeder says. "It actually starts at the orientation program. You find out who the lacrosse players are at the orientation, and you bond with some of the parents right there.

"We think it's important for the boys to have the time together, and also for the parents to have the time to get to know each other," Terri says.

"You can put that kid with those parents and that's how you get to know everybody," adds Dave Mattingly. "That's how our kids ended up living together."

The parents often tailgate before home games in and around an RV stored in Louisville by Gary and Julie Andersen of Lakewood, Colo., whose son, attackman Shane Andersen, will graduate in December. The tradition evolved as more families made an effort to attend games, Gary Andersen says.

Jackie Haas, who started the unofficial parents' group, has also watched the lacrosse family grow over the past five years. Her older son David finished his lacrosse eligibility last year; rising sophomore Will is a goalie.

"You had lots of people from Ohio, then more and more places – and then last year, we had this explosion, with freshmen parents and transfer parents coming to all the games. Instead of a core of six to 10 parents, you had 20, 30, 40 family members at home games, and even away games. It's not just our kids happening to play together – it's become very social, where the parents enjoy each other's company," she says.

"But I think it really helps the team, too – it keeps that solidarity. It's not just, 'We play a game, we go off the field and we all scatter.' The boys really appreciate these meals. And they get to visit with the parents and meet other people and it just keeps it all together. And I don't think you find that much" in other sports.

Parents come to games from as far away as California and Puerto Rico, Dave Mattingly notes. "We're starting to get more from the East Coast – New Hampshire, two more from Philly, New Jersey. Kids from everywhere. It's amazing."

He has just been introduced to Nikki Elithorpe, whose son, rising sophomore Lance Robinson, is an attackman on the team. She says she drove about 16 hours from Vermont for the game. "You're from Vermont?" Dave Mattingly says, laughing. "You can pick me up in Pennsylvania. We can work something out."

## THE ALUMNI CORNER

#### FROM YOUR ALUMNI BOARD PRESIDENT

#### It's been a busy and successful year for your Bellarmine Alumni Association and Alumni Board.

A key goal of the board was to provide more – and more meaningful – events for your participation. I'm proud to note that from June 1, 2009, to May 31, 2010, there were 74 alumni events, a new record. We continue to come up with new opportunities for fun and fellowship – be sure to check out the coming events below.

We have placed particular emphasis on adding programs for our young alumni, such as the Young Alumni Service Project, continuing education events and Young Alumni fundraising events. Please send us feedback and suggestions!

In addition, the board has focused on how we as alumni can support current students. We've placed a renewed emphasis on increasing funding for Alumni Legacy Scholarships, for instance. And we've made great progress in developing the fledgling Career Consultant Program: A total of 70 consultants have signed up to help with mentoring and career-development programming.

As I conclude my year as board president, I'd like to give a big "thank you" to all board members for their service and to all Bellarmine alumni for their continued support of the university. Let's make the coming year even better!

#### Regards,

Joseph F. Weingardt MBA '02 | joseph.weingardt@insightbb.com

#### CALENDAR OF EVENTS



#### JULY 20 "Knight to Knight" Networking Event

Meet and network with other alumni at our Alumni "Knight to Knight" Networking Event in the beautiful Piazza Clayton (outside Our Lady of the Woods Chapel). Arrive any time between 8 and 8:30 a.m. to network and enjoy coffee and a continental breakfast. At 8:30, Joe Steier '89, president of Signature Healthcare, will speak about corporate responsibility.

#### AUGUST 5 Bellarmine Alumni Night at the Bats Game

Bring your friends and family and join us for our annual Alumni Night at the Bats Game! This is one of the biggest alumni events of the year, with more than 400 people attending in 2009. Tickets are \$5 per person through the Alumni Office. The game starts at 7:05 p.m., with \$1 Beer Night from 5:30-7 p.m. We'll have a special alumni giveaway in our Bellarmine section during the fourth inning.

#### SEPT. 10, 11, & 12 Reunion Weekend: Classes of '60, '70, '85 & '00

Reunion Classes, don't miss this exciting weekend! Enjoy a Friday evening under the stars at the President's House. Reminisce with your friends at a Reunion Weekend Picnic in the Quad on Saturday afternoon. Join us for the Alumni Awards Dinner on Saturday evening, and finish the weekend with an Alumni Mass at the Chapel on Sunday morning. You'll receive an official invitation soon!

#### SEPTEMBER 11 Alumni Association Awards Dinner

Every year the Alumni Board of Directors selects our most distinguished alumni to be recognized at the annual Awards Dinner. We'll announce our Gallery of Distinguished Graduates, the Scarlet and Silver Society Inductee, the Horrigan Service Award winner and our 2010 Alumnus/a of the Year. All Bellarmine alumni are invited to attend this special evening. \$40 per person

#### SEPTEMBER 23 Accounting Alumni Luncheon

Accounting alumni, be sure to attend the annual Accounting Alumni Luncheon, where Bellarmine will announce the Accounting Alumnus/a of the Year and recognize our accounting scholarship recipients.

GET INVOLVED: To RSVP or find more information on these and other events, please visit the Alumni website at www.bellarmine.edu/alumni and click on "Upcoming Events." Or, call the Alumni Office at 502.452.8333.

Katy Mackin looks at the stars

# CELEBRATING FAITH & REASON IN THE YEAR OF GALILEO



John and Martha Plamp Endowed Scholarship John and Martha, second from left



Dan R. Ison Endowed Communication Scholarship Debbie Holloway and Dan (seated, right)



Bacher-Schaefer Endowed Scholarship Linda and Bernie Bacher (seated, center)



### 2010 Heritage Society & Scholarship Recipient Dinner

"Celebrating faith and reason in the Year of Galileo" was the theme as more than 200 people attended the 2010 Heritage Society & Scholarship Recipient Dinner on April 15. The annual event recognizes Heritage Society members who have made planned or outright endowment gifts to Bellarmine. A new Visionary gift (\$1 million or more) was announced: a \$1 million challenge grant that will fund the Msgr. Raymond J. Treece Endowed Chair of Accounting, the university's first fully funded endowed chair.

Also celebrated were endowed scholarships from Linda and Bernard Bacher; Dan Ison and Debbie Holloway; John and Martha Plamp; Lois and Bonna Taurman; and Sharon Van De Walle. (Read their stories at www.bellarmine.edu/alumni. Choose "Heritage Society Scholarships" from the Quick Links list.)

Nearly 60 scholarship recipients attended the star-filled event, at which members of the Bellarmine Mock Trial team gave a presentation to demonstrate their prowess. Partygoers capped off the evening by viewing the heavens through powerful telescopes provided by Dr. Akhtar Mahmood, an associate professor in the Chemistry & Physics Department.

### CLASS NOTES

#### 1960s

MARTHA LEONARD FONTENOT '63 UC had her book *Grandma Liza's Rainbow Cake* published in October 2009. It is an autobiographical tale of a young girl who visits her grandmother, who makes an angel food cake.

#### 1990s

MISSY G. DEARK '91 has successfully completed the certification process with the National Association of Certified Valuation Analysts to earn the designation of Certified Forensic Financial Analyst, and has been awarded the Certified in Financial Forensics

credential by the American Institute of Certified Public Accountants. DeArk is a financial forensics expert and practice manager for the Litigation Consulting Group at Cotton + Allen.



**SUSANNE HOLDEN '91** was hired as hospice care consultant by the Salina office of Hospice Care of Kansas in March. She is responsible for relationships with health-care professionals in the community. Holden holds a bachelor of arts in communications from Bellarmine and received her M.B.A. from Walden University of Minneapolis.

**SUSAN BATCHELOR '94 MSN** was recently announced as the new dean of nursing at Kaskaskia College in Centralia, Ill.



BRIAN '99 AND RACHEL (LAY-MAN) ARGABRIGHT '99 are proud to announce the birth of their son, Jacob Stephen, on Feb. 6.

DAWN '99 AND COREY SIMMONS '98 recently moved to Belleville, Illinois, after four years in Washington. They have three children – Drew, Shelby Grace and Luke.



#### 2000s

**CAROL FOUT-ZIGNANI '00 MSN** of Norton's Healthcare Office of Continuing Medical Education has been awarded "Accreditation with Commendation" by the Kentucky Medical Association. This is the first accredited provider in Kentucky to receive such a designation.

MICHAEL WIMSATT '02 was ordained into the presbyterate of the Archdiocese of Louisville on May 29 at the Cathedral of the Assumption.

HOLLI KREMER DUKE '05 and husband Jeremy Duke proudly announce the arrival of Lyla Jo Duke on Jan. 6.



J. MICHAEL HIGGS '05 published an article in the journal Advancing Philanthropy titled "A Practical Approach to Donor Affirmation."

SEAN HOBAN '05 earned his Ph.D. in biology, with an emphasis in ecology, from the University of Notre Dame in May. He accepted a postdoctoral research position at the Université Joseph Fourier in Grenoble, France. He will spend a year in Grenoble and will then work for a year at the University of Ferrara, Italy. Sean will be working on current issues in conservation, including habitat fragmentation, translocation and genetic monitoring of rare species.

**EVELYN MARRETT '06**, a graduate of the graduate Family Nurse Practitioner program, has passed the nurse practitioner certification exam.

JONATHAN BEYER '07 received an award from the Mississippi College School of Law during its annual Law Day Ceremony. Beyer was the recipi-

ent of the Mississippi Bankruptcy Conference Award, given to the student with the highest grade in bankruptcy.



MICHELLE (GOSCHKE) HANLEY '08 and her husband, Tim, welcomed twin boys, William and Jason, on May 22, 2009. They currently live in Honolulu, where Tim is stationed with the Navy.

**KATIE KOLKMEIER '08** graduated with her master's of education with specialization in college student personnel administration from James Madison University in Harrisonburg, Va., in May.

**EMILY RUPPEL '08,** a frequent Bellarmine Magazine contributor, has been awarded a scholarship to M.I.T. for graduate work in the M.S. program. This program accepts only four new students per year.

#### **IN MEMORIAM**

**GERALD T. CAMPBELL, CLASS OF '63,** died in Chillicothe, Ohio, on March 27 following a short illness. After serving in the U.S. Army, Gerald graduated from Bellarmine with a degree in accounting and went on to The Ohio State University for his master's degree in hospital administration. Gerald worked for St. Joseph Infirmary in Louisville, where he was chief accountant, and was an administrator for several hospitals during his career. Gerald retired from Ohio Dominican College, where he was a professor and helped to start the Hospital Administration Program.

**BOB STALLINGS, CLASS OF '65,** passed away on March 15. Bob, an attorney at Stallings & Stallings, was the 1993 Bellarmine Alumnus of the Year, a past president of the Alumni Board of Directors and a true supporter of Bellarmine. He was also an avid sportsman and horse lover. He was a partner in the Louisville Bats and a regular at Churchill Downs and frequently represented jockeys and trainers in legal matters. Bob was also a past member of the Kentucky Horse Racing Commission and a member of the Kentucky Equine Drug Research Council. Memorial gifts may go to Trinity High School, the Melanoma Research Foundation or the Retired Thoroughbred Foundation. JOIN US FOR THE BEST NEW GOLF TOURNAMENT IN LOUISVILLE.

# THE NEW ANNUAL BELLARMINE UNIVERSITY CLASSIC

Mark your calendar for the New Annual Bellarmine University Golf Classic! This great day of golf takes place on Monday, **OCTOBER 11, 2010** at historic **BIG SPRINGS COUNTRY CLUB**. The day features an excellent lunch prior to play, golf tips on the driving range, an 18-hole scramble at Big Springs with contest holes and prizes, along with appetizers, drinks, and awards following play. This new Bellarmine Tradition will be the premier golf outing of the year.

The tournament is \$250 per player or \$1,000 for a team of four. All proceeds from the tournament go to aid students at Bellarmine. This new tournament brings the entire Bellarmine Community together including alumni, faculty, staff, fans, parents, and friends of the University.

TO RSVP OR FOR MORE INFORMATION, PLEASE CONTACT PETER KREMER, EXECUTIVE DIRECTOR OF THE ALUMNI ASSOCIATION, AT 502.452.8334.

#### A GOOD WAY TO CAP OFF THE ISSUE

We know these graduates are proud of their Bellarmine education, but we don't know who they are. Do you? Email Jim Welp at jwelp@bellarmine.edu