

The Vibe @

Summer 2011

The Graduate School of Biomedical Science

Greetings and welcome to the Summer issue of *The Vibe*! Our academic year has come full circle and we are pleased to share with you some of the striking achievements, memorable moments and upcoming events that reflect the experience, values and mission of the students, faculty and alumni of UMass Medical School.

If you have news you'd like to share or have suggestions for future issues of *The Vibe*, drop us a note at alumni@umassmed.edu or call the Office of Alumni Relations at 508-856-8300. We look forward to hearing from you!

My best wishes for a relaxing and enjoyable summer!

Anthony Carruthers, PhD

Dean, Graduate School of
Biomedical Sciences



Long-Term Institutional Investments Paying Off for GSBS

THE GSBS IS REAPING THE REWARDS of the UMass system's long-term institutional investments in attracting internationally renowned faculty, building state-of-the-art facilities and boosting the financial underpinnings of UMass Medical School as a research enterprise.

The results of efforts to create a deeply rooted faculty of acclaimed scientists are becoming evident, not only in the school's increasing international stature and the type of students drawn to the GSBS, but also in the fresh ideas that faculty and students together can bring to biomedical research. "We are on the international radar!" said Dean

Anthony Carruthers. "Our standing as a research institution is really becoming recognized, not just among the world's scientists, but it's trickling down to exemplary students looking for a great place to launch their careers."

GSBS students fill pivotal roles in each PI's lab, while gaining their training and contributing to cutting-edge investigations. "The students are the most essential workforce in the research enterprise," said Ken Knight, PhD, associate dean and director of recruitment & admissions. "We teach them how to work in a lab and structure

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GSBS By Today's Numbers

A statistical snapshot of GSBS as it grows in depth and international reputation:

- Graduated 500th student in 2011
- Current GSBS class is largest in school's history
- Application pool for 2011/2012 academic year is largest in history

THE POWER OF PARTICIPATION

We appreciate you...

our alumni for your thoughtful contributions to the alumni annual funds. Alumni support allows us to continue offering a high quality education that tuition and state funding alone cannot sustain. We are honored and grateful to count you among our donors.

On behalf of all the students who benefit from your annual support, thank you! We encourage you to continue your commitment to our mission at UMass Medical School—to advance the health and well-being of the people of the commonwealth and the world through pioneering education, research and health care delivery with our partner, UMass Memorial Health Care.

You may make a gift online at: <http://w3.umassmed.edu/OnlineDonation/> or send your contribution to UMass Medical School Development Office, 333 South Street, Shrewsbury, MA 01545. ■

Governor Paul Cellucci Announces Endowment for ALS Research

After revealing in January that he had amyotrophic lateral sclerosis (ALS), former Governor Paul Cellucci announced in May that he is raising money for an endowment at UMass Medical School that will fund ALS research led by Robert H. Brown Jr., DPhil, MD, chair of neurology and Governor Cellucci's physician. An internationally known researcher and physician leading the quest to cure neurodegenerative and neuromuscular diseases like ALS, Dr. Brown's 1993 discovery of the first ALS-related gene was the seed from which most current ALS research has grown.

Recognizing the need for scientists to have the ability to pursue new ideas quickly and continue promising research, the School has created the UMass ALS Champion Fund to support ALS research. Visit the UMass ALS Champion Fund website at www.umassals.com for more information and to contribute to the fund. ■



Student mentors provide peer support

“Voices of Experience” Keep Students on Track

FIRST-YEAR STUDENTS at GSBS facing new challenges as they start their research studies are finding guidance and structure in a supportive mentoring program led by more experienced students. “We offer ourselves up to help any students with whatever they need, but it can be embarrassing for students to come to us for help,” says Ken Knight, PhD, associate dean and director of recruitment & admissions.

The practical solution of mentoring benefits not only the first-year students but the senior students who become their mentors. Mentors work in pairs and run study sessions with small groups of nine or ten students and also tutor individual students as needed. Study groups meet

weekly for approximately two hours and more frequently as exam time approaches. Mentors track whether or not students are attending study sessions. “When someone isn’t doing well, we insist they go to meetings,” Dr. Knight explained. “We don’t want students falling through the cracks.”

Dean Carruthers and Dr. Knight identify potential mentors based not only on their curricular performance but also on their ability to manage various personalities. “They may need to exercise some ‘tough love,’ so it can be hard,” Dr. Knight said. “But universally, they love being mentors. They tell me years later what a great experience it was.” ■

Long-Term Institutional Investments *Continued from page 1*

their day, but we work the way the best programs out there operate—in an environment where we allow these new biomedical minds to think, to help them generate new ideas. As PIs, we depend on the students’ perspective of what the current scientific problems are because they view them differently.”

Students are working in labs among high-profile faculty who were recruited from prestigious research institutions and who have made a commitment to UMMS, which has transformed the university. “The leadership has gone out of its way to be sure scientists like Craig Mello and Phil Zamore remain at UMass,” Dr. Knight said. “They are committed to growing the research enterprise here, and scientists throughout the U.S. and around the world take note of that. Students know it, too, and they want to be here to learn alongside these amazing researchers.”

As the caliber of students has deepened, so too has their individual work. Five GSBS students, for example, have been honored for outstanding achievement with the prestigious Harold M. Weintraub Graduate Student Award since 2001. “That number is disproportionate to the number of eligible research institutions but an international testament to the quality of GSBS’s students and faculty!” said Dean Carruthers. ■

Gates Foundation Funds Innovative Approach to Preeclampsia

THE BILL & MELINDA GATES FOUNDATION has awarded Melissa J. Moore, PhD, a Grand Challenges Explorations grant to pursue an innovative global health and development research project, "siRNA-based Therapeutics for Preeclampsia."

Grand Challenges Explorations (GCE) grants fund scientists and researchers worldwide to explore ideas that can break the mold in how we solve persistent global health and development challenges specifically in the areas of polio eradication, HIV, sanitation and family health technologies and mobile health.

Dr. Moore, Howard Hughes Medical Institute Investigator and professor of biochemistry & molecular pharmacology, is a leading figure in RNA processing and metabolism. Through this grant-funded project, she will explore the potential for a small interfering RNA (siRNA)-



◀ Dr. Moore at work in her lab

to serious — even fatal — complications for both mother and baby. Because siRNAs are inexpensive to produce, stable and have long shelf lives, development of an siRNA-based therapeutic to neutralize the protein responsible for preeclampsia could be cost-effectively and easily administered throughout the world. Dr. Moore will collaborate with Ananth Karumanchi, MD, associate professor of medicine at Beth Israel Deaconess Hospital and Harvard Medical School, on the project.

"GCE winners are expanding the pipeline of ideas for serious global health and development challenges where creative thinking is most urgently needed. These grants are meant to spur on new discoveries that could ultimately save millions of lives," said Chris Wilson, director of Global Health Discovery at the Bill & Melinda Gates Foundation. ■

based therapy to inhibit production of the proteins responsible for causing preeclampsia. Preeclampsia is caused by excess levels of circulating anti-angiogenic proteins secreted into the mother's bloodstream by the placenta. Left untreated, preeclampsia can lead

CALENDAR OF EVENTS

SEPTEMBER

Convocation/Investiture

THURSDAY, SEPTEMBER 15, 2011

4:00 – 6:00 PM

Campus Green

UMass Medical School

13th Annual UMass Medicine Cancer Walk

SUNDAY, SEPTEMBER 25, 2011

10:00 AM

UMass Medical School

DECEMBER

UMass Medicine Winter Ball

FRIDAY, DECEMBER 9, 2011

Mechanics Hall, Worcester, MA

For more information about these events, contact the Office of Alumni Relations at 508-856-8300, or e-mail alumni@umassmed.edu or visit www.NetworkUMass.com/Medical.



Raymond Welsh, PhD, right, hoods Mina Seedhom, GSBS' 500th graduate

GSBS Graduates 500th Student

When Raymond Welsh, PhD, professor of pathology and microbiology & physiological systems, placed the hood over his mentee Mina Seedhom's head on Sunday, June 5, he marked a significant milestone in UMass Worcester's history. Seedhom was the 500th student to receive his PhD from the GSBS. In a pleasing twist of fate, Welsh also had the honor of hooding the very first PhD recipient from the GSBS, Jack Bukowski, in 1984. "...What we were trying to do then is the same," he said. "Helping to produce a scientist is a great feeling."



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Alumni Profile | Richard Melloni, PhD

Program: Cell Biology

Year of Graduation: 1993

UNDERSTANDING the broad perspective of a problem before designing potential solutions is a skill that Richard Melloni, PhD, honed as a GSBS student and today applies to his research, as well as his impassioned volunteer work in his hometown.

Dr. Melloni, associate professor of psychology and behavioral neuroscience at Northeastern University, is beginning his 15th year of NIH-funded research on the neurobiology of aggression by studying the effects of both cocaine and anabolic steroids. "I just love what I do, and I've taken an approach to my professional life that mimics the path I took to get there. It's what

UMass does a fantastic job at. They gave us a foundation of the biomedical sciences and taught us to take a broad scientific approach to understand the question, learn the other disciplines and be able to apply them to whatever you are interested in studying."

Months after earning his doctorate and getting married in 1993, Rich's father, a deputy fire chief, died unexpectedly. His father's legacy of community service and philanthropy had become the backbone of the family. "Starting a foundation in his name kept his memory alive and gave me a way to keep the things he wanted to do moving ahead," he said. Today, the Dick Melloni Youth Foundation raises an average of \$65,000 annually and turns all funds back

into youth programs—from bike helmet give-aways and safety clinics, to Christmas gifts for 600 children in the Wareham, Mass. area, to youth literacy programs and pediatric oncology funding. "Every time I do something, my father comes shining through," Rich says. "It's my second full-time job, and I do it with a lot of passion. I believe the best gift you can receive is to give!" ■

Anyone with news to share is encouraged to send their class notes to alumni@umassmed.edu. You may also submit notes by visiting the UMass Alumni Online Community at www.NetworkUMass.com/Medical and click on "Class Notes."