

IN THIS ISSUE

TONY COLES, MD, MPH

16TH ANNUAL NEW ENGLAND SCIENCE SYMPOSIUM

IMPACT: NEW OPPORTUNITY TO SHARPEN
RESEARCH AND CAREER FOCUS

MONICA GREWAL, JD

BSCP

BIOMEDICAL SCIENCE
CAREERS PROGRAM

Speaker Profile

Tony Coles, MD, MPH

TONY COLES, MD, MPH, co-founder, chairman and CEO of Yumanity Therapeutics in Cambridge, Massachusetts, will be the keynote speaker at the New England Science Symposium on March 25, 2017. From the time he was nine, he says, he “was interested in living things and science,” and wanted to become a physician. From his days as a pre-med undergraduate at Johns Hopkins University, through medical school at Duke University and medical training at Massachusetts General Hospital (MGH), the Washington, DC, native single-mindedly pursued that goal. But an opportunity during a research fellowship at Harvard Medical School to study public health at Harvard T.H. Chan School of Public Health (HSPH), followed by an invitation to join a major pharmaceutical company, led Coles to contribute to medicine in ways he had never imagined as a child.

Training in cardiology and internal medicine at MGH, Coles planned on a career in academic medicine in which he would see patients and teach. During his fellowship, he explains, he had an opportunity to take master’s-level courses at HSPH, where he was exposed for the first time to population-based medicine. “I was fascinated with the practice of delivering health care to large populations,” he says. While completing his fellowship, focused on clinical effectiveness, he enrolled in the master’s

program and received his degree in public health.

As he was planning to focus on population-based medicine, Coles’ career once again took a turn. When he was at MGH he ran the minority recruitment program, which was funded by Merck. The company’s CEO at the time, Roy Vagelos, “believed physicians could become good business people with experience and training,” Coles explains, and recruited the former MGH resident.

Coles’ first assignment with the pharmaceutical company, in 1992, was in the marketing department. “It was a stretch,” he says. “I basically had to start all over and learn a new language.” Although he had no business degree, Coles says his public health studies had equipped him with solid analytical skills that served him well in the job. He built a successful career in sales and marketing at Merck, then moved to Bristol-Myers Squibb. After he had worked in the pharmaceutical industry for about 10 years, “It became clear that a lot was happening in biotech.”

In 2002, Coles went to work at Vertex, the first of several biotech firms, ultimately landing as CEO at Onyx Pharmaceuticals, which he led to become one of the most successful cancer companies in recent years. He founded Yumanity in 2014 with Susan Lindquist, PhD, an expert on protein folding (see *In*



TONY COLES, MD, MPH

Touch with BSCP, January 2016). The company is dedicated to finding treatments for neurodegenerative diseases that are caused by protein misfolding, focusing initially on Alzheimer’s and Parkinson’s diseases and ALS.

“This is now a golden era of science,” says the entrepreneur. “We have to translate science from the bench to the patient, and industry is the best vehicle to do this.” Among the leading issues in the biotech field, he continues, is “the challenge to demonstrate the value it brings, in saving and improving lives. We have to find a

CONTINUED ON PAGE 4

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SPECIAL THANKS TO

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16th Annual New England Science Symposium

THE 16TH ANNUAL NEW ENGLAND Science Symposium (NESS) will take place on Saturday, March 25, 2017, at the Joseph B. Martin Conference Center, Harvard Medical School, in Boston. Established in 2002 to promote careers in biomedical sciences, NESS provides a forum for postdocs (research and clinical); medical, dental and graduate students; post-baccalaureates; college and community college students (particularly African-American, Hispanic/Latino and Native American/Alaska Native individuals) to share their biomedical and health-related research activities through oral or poster presentations, engage in discussions related to career development in the sciences, exchange ideas and expand their professional networks. It is sponsored by the Harvard Medical School Minority Faculty Development Program and Biomedical Science Careers Program (BSCP).

Awards for oral and poster presentations in several categories are given out at the symposium:

- **Ruth and William Silen, MD Awards**, for outstanding oral presentations and exceptional scientific posters.
- **Dana-Farber/Harvard Cancer Center Awards**, for outstanding cancer-related oral and poster presentations.

- **Novartis Institutes for BioMedical Research Postdoctoral Awards**, for outstanding scientific posters presented by postdoctoral participants.
- **The Beth Israel Deaconess Medical Center Department of Neonatology Award**, for outstanding neonatal-perinatal research poster presentation.
- **Asclepius Laboratories Stem Cell and Regenerative Medicine Award**, for outstanding stem cell and regenerative medicine poster presentation.

Abstracts should be submitted by postdocs (research and clinical); medical, dental and graduate students; post-baccalaureates; college and community college students (particularly African-American, Hispanic/Latino and Native American/Alaska Native individuals) involved in biomedical or health-related scientific research.

The abstract must include:

1. Name of author(s)
2. Suffixes (if a degree is obtained): BS, MS, PharmD, MD, PhD, MD/PhD, DMD/DDS or other
3. Contact information: mailing and email addresses, phone numbers
4. Institution, academic level and expected year of graduation/program completion
5. Funding source(s)/research sponsor(s)

6. Research title
7. The abstract (not to exceed 400 words) must demonstrate the scientific problem **and must contain**:
 - Statement of the problem/background
 - Research question/hypothesis
 - Research design/methods used in the investigation
 - Results/summary of the investigation
 - Interpretation/conclusion of the investigation

Deadline for abstract submission is January 5, 2017. All abstracts will be reviewed and applicants will be notified of their acceptance by the end of February 2017.

Registration to Attend

Pre-registration is required, but there is no registration fee. Please register as early as possible, as seating is limited. For online registration, go to www.NewEnglandScienceSymposium.org

For more information, please contact:

Rodolfo Ramos
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Office for Diversity Inclusion and
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Harvard Medical School
Phone: (617) 432-5580
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Opportunities

IMPACT: New Opportunity to Sharpen Research and Career Focus

By Eric Norman

MANY OF US HAVE ENTERED THE world of research because we seek to have an impact — to create knowledge, social or economic benefit. The IMPACT Program provides supplementary training, supported by MIT and the National Institutes of Health (NIH), for postdoctoral and advanced predoctoral trainees in the greater Boston area, to help them develop the skills and professional networks for successful careers inside and outside of academia.

Through a group mentoring process with a multi-sector faculty base from academia, industry and medicine, IMPACT fellows learn how to identify and articulate the core aspects of their work that will create societal impact, as well as how to communicate with heterogeneous audiences. Their sphere of knowledge is expanded through targeted interviews with stakeholders related to their projects. Finally, fellows are introduced to and meet with professional development

advisors to increase awareness of potential career paths.

Participants in the program represent a wide range of backgrounds and areas of research — such as computational neuroscience, medical device engineering, developmental psychology and epidemiology — and participate in the program while pursuing their work in many institutions, including Brandeis, Tufts, Boston University, MIT, Harvard, University of Massachusetts and

CONTINUED ON PAGE 3

Conversation with the Board

Monica Grewal, JD

MONICA GREWAL, JD, A PARTNER in the Boston office of WilmerHale, who focuses on patent litigation and strategic patent portfolio development, is the newest member of BSCP's Board of Directors. Grewal was nominated by fellow Board member Zoltan Csimma, with whom she serves on the Board of the Directors of the International Institute of New England. It is "one of the oldest organizations in Boston helping refugee resettlement into New England," she explains.

A former engineer who was born to Indian parents in Washington, DC, and grew up in New Delhi, Grewal studied biomedical sciences in India and wanted to be a physician. Political unrest in her native country forced her to leave in the second semester of her freshman year of college. Her grandparents, who were living in Washington when she arrived, provided the impetus to come to the United States to study, though her grandfather passed away within a year. She received a BS in engineering from Trinity College in Hartford in 1987 and was elected to Phi Beta Kappa. She received an MS in electrical engineering from Rensselaer Polytechnic Institute a year later.

For roughly a decade, Grewal worked as an engineer at United Technologies, in its Hamilton Standard division. Her work involved advanced testing of NASA's spacesuit and the shuttle environmental control systems for the Mir space station program. "I never had any notion that I'd

go into the law," she says. "I had a rewarding job working on the U.S. space program."

But while working there, she attended an open house at the University of Connecticut School of Law with a colleague. "I was smitten by the Constitutional law and the rubric that the founding fathers had established. Growing up in India... I had never studied U.S. history," she says, though having been born here she was a citizen. Her employer paid her tuition and she attended law school at UConn while continuing to work. She attended classes at night, completing courses in four-and-a-half-years. "Physically, I was in the Kennedy Space Center, Texas and Moscow for some of the time," she says. She took the bar exam months after delivering her first child, Justin, now 20.

Grewal practiced law in-house at Pratt & Whitney, also owned by United Technologies, before moving to the first of three law firms before WilmerHale. These days she represents a large number of clients in the medical and engineering fields. Compared to her previous career, she says, "There's no life and death decisions you have to make. Things don't frazzle me. It's fascinating work."

Co-chair of the Diversity Committee at her firm, the engineer-turned-attorney says, "I'm a little happier about diversity in biomedical sciences [than engineering]. I think it's doing better than engineering and electrical engineering. There are fewer women going into computer engineering than when I was in college in the '80s." Grewal attended her first Evening of Hope



MONICA GREWAL, JD

ceremony in April 2016. "I found it heartening," she says, "a large, diverse group of people getting scholarships, the diversity of jobs. It's not just medical doctors."

"What we need to be doing is creating a platform so everyone rises together. Break down zones of discomfort for people who look different," she continues. "It provides for diversity of thought."

Attending an all girls' school in Delhi, Grewal and her friends felt, "The whole world was available to us." They all, she says, "have made it, with rewarding careers." In addition to her professional and extracurricular activities, Grewal is helping young girls as a Girl Scout leader for her daughter Anika's troop, taking her charges to STEM programs at MIT, Raytheon and encouraging them to join "Girls Who Code" classes at the library.

It's never too early to plant the seeds. ■

OPPORTUNITIES

CONTINUED FROM PAGE 2

others. IMPACT faculty mentors are similarly diverse. (Biographies of the recent fellows and faculty can be found at impactprogram.mit.edu.)

Program alumni say that they have a sharpened focus on their research projects and direction, and feel more confident in

their expanded network and networking abilities. They are very positive about their experience and enjoyed the collegial atmosphere of fellow participants and the faculty mentors.

To be eligible, applicants need to be U.S. citizens or permanent residents, or affiliates

of MIT, and need to be able to attend the sessions at MIT. Cohorts are admitted twice a year, for programs starting in September and February.

For more information, or to subscribe to email updates, please visit the IMPACT website at impactprogram.mit.edu, or email us at impact@mit.edu. ■

SAVE THE DATES

Skills Workshops for College and High School Students

Harvard Medical School,
Daniel C. Tosteson Medical Education
Center

Boston, Massachusetts
Saturday, November 19, 2016
8:00 a.m.–4:30 p.m.

This program, for post-baccalaureates, college students and high school seniors, juniors and sophomores (particularly African American, Hispanic/Latino and Native American/Alaska Native individuals), provides information and guidance in areas such as the application

process for college and medical/graduate/professional schools, interviewing skills, financial planning, resume writing and internship opportunities. A special session will be available for parents and caregivers, offering general information on educational options, the application process and financial aid.

Applications will be mailed by the end of September 2016. If you would like to receive an application and register, please email your postal mailing address to Ahmed Azim at Ahmed_Azim@hms.harvard.edu.

New England Science Symposium

The Joseph B. Martin Conference Center
at Harvard Medical School
77 Avenue Louis Pasteur
Boston, Massachusetts
Saturday, March 25, 2017

For more information, see article, page 2.

Reminder

Please remember to update your contact information at www.bscp.org.

Click on “Contact Information/Submit Resume” and enter your information in the appropriate window.

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TONY COLES, MD, MPH

CONTINUED FROM PAGE 1

compelling way of communicating that.” In addition, he notes, as new concerns, like Zika and Ebola, emerge, “We have to redouble our efforts.”

Coles believes that underrepresented minority students who want to enter biomedical sciences can best be served by a national effort to “create opportunities for STEM education... at earlier levels.” He also feels all students, and students of color in particular, should be encouraged to see that they can choose their area of practice, whether it is patient care, research or industry. “There are so many areas to create an impact and these will only grow,”

he says. When he was at MGH, Coles says, “Dr. John Potts, chief of medicine [at the time and currently a BSCP Board member] was a great mentor of mine. He helped me to understand that I had choices and I could do something novel.”

To students considering careers in biotech or any of the biomedical sciences, Coles says, “The first question is where do you want to serve? How do you want to serve through the expertise you’ll develop as a health professional?”

As you can see from his example, there is no shortage of opportunity. ■

