



February 2016 Edition

The Women in Engineering, Science, Technology and Math (WESTM) initiative at School of Engineering consist of administrators and faculty members at NYU Tandon School of Engineering committed to the advancement of women in STEM. The goal of WESTM is to: increase recruitment, retention, and success of women through a wide range of programs, services and activities geared towards building a supportive environment of and for women; and cultivate and showcase women to be leaders in the transformation of Science, Technology, Engineering and Math locally and globally.

To date, WESTM has spearheaded many new initiatives including the Women in Engineering, Science, Technology, and Math Explorations Community, the WoMentorship Program and the Women to Women Newsletter. To find out more about SOE's efforts to attract a new generation of bright, curious women to the vital, life-changing field of science, technology, engineering, and math (STEM) and end the gender gap in STEM studies, visit the NYU Tandon School of Engineering [Women in Engineering](#) site.

Upcoming Events: Current Students

Spring 2016 Empower Hour Kickoff

Thursday, February 18, 2016, 12:30PM-2:00PM

RH 425

Titled *Empowering Women in STEM: Spring 2016 Checklist*, this kickoff to the dialogue series will include reviewing the various ways in which we all can continue to empower women in STEM, taking a variety of *Implicit Bias* tests to analyze the biases we hold and how we can work to eliminate them, learning how Title IX spans more than just athletics, and concluding the event with brainstorming additional ways to empower women in STEM (a flipchart and markers will be provided).

Computer Science Women's Group

Tuesday, Feb 16: 12:30pm-2:30pm

All are welcome and encouraged to attend for as long as you can within the set meeting time. All meetings will be held in the CSE small conference room (10th floor, 2 metro tech).

New York Celebration of Women in Computing Conference 2016:

<http://nycwic.acm.org/> (Regional)

Career Discovery in Cyber Security: A Women's Symposium

Career Discovery in Cyber Security is an annual Symposium for women, presented by the Computer Science and Engineering Department, overseen by Department Head Nasir Memon.

It's part of a year-round initiative to improve the pipeline for women into the industry. Our audience includes established professionals who want to switch tracks, college graduates just starting out, and students at both the university and high school levels who are exploring their career options.

At the Symposium, attendees participate in a full day of industry talks from female leaders in the field, "day in the life" sessions, hands-on exercises, speed-mentoring and networking opportunities.

Find out more at cybersymposium.engineering.nyu.edu

Community Updates



Integrated Digital Media News

Integrated Digital Media (IDM) MS Alumnae, **Nina Freeman**, made Forbes' 30 under 30 list in games <http://www.forbes.com/30-under-30-2016/games/>

IDM Co-Director, **De Angela L. Duff**, will be speaking at the Black Portraiture[s] II: Revisited Conference, <http://www.blackportraiture.info>, on February 20, 2016, 11-12:30pm, NYU, Washington Square, Vanderbilt Hall - Tishman Auditorium. To register for the conference, visit <https://www.eventbrite.com/e/black-portraiture-ii-revisited-tickets-19847959782>.

Visiting faculty member, **Katherine Bennett**, will be exhibiting her work, *Transmissions From the System*, and presenting a paper on the topic, at Open All Ports: 15th Biennial Symposium on Arts and Technology, <https://www.conncoll.edu/cat/symposia2016/#.VqEXTIMrIUE>, at Ammerman Center for Arts and Technology at Connecticut College on February 25, 26 and 27, 2016 .

Visiting IDM faculty member, **Katherine Bennett**, presented at a 2-day conference, *Learning to Teach, Teaching to Learn*, <http://blog.sfpc.io/post/136291823596/learning-to-teach-teaching-to-learn-is-2-day>

Catt Small (IDM MS student) just won 'Technologist of the Year' for the [Brooklyn Innovation Awards](#).

Leslie Martinez (IDM MS student), Claire Kearney-Volpe (Ability Lab fellow) and Allison Parrish (IDM Adjunct Faculty) all won fellowship support from the [Processing Foundation](#).

Undergraduate Summer Research Information Session a Big Success!

A Tandon School of Engineering Undergraduate Summer Research Program Information Session for Women was held on Thursday, January 28th from 12:30PM-2:00PM in LC433. The workshop focused on providing students with information regarding the summer research opportunities available, program components, expectations, and the application process.

During the event there was also a student panel of former Summer Undergraduate Research Program women who talked about their experiences and answered attendee questions. Students left with the information needed to make an informed decision regarding applying for the Undergraduate Summer Research Program!



GenCyber CS4CS News

The [GenCyber CS4CS](#) Cyber Security summer program for girls at NYU Tandon School of Engineering is contributing to closing the gender gap in computer science and technology fields. In Summer 2015, 68 high school women from New York City and surrounding areas participated in a two week full-day program taught by faculty and students. NYU's GenCyber program was one of a number of summer programs in the U.S. supported by the National Science Foundation and National Security Agency providing an introduction on the fundamentals of cyber security and

computer science. A highlight of the program for many of the participants was a trip to Google headquarters where they met with women working in the field. Approximately half of the students had no prior background or experience in cyber security or computer programming. Introduction to female industry role models and hands-on learning in programming, virtuous hacking, and digital forensics exposed participants to new educational and career paths. The free program was supported by the [National Science Foundation](#) the [National Security Agency](#), and the [Alfred P. Sloan Foundation](#) and was led by Professor [Nasir Memon](#), head of the [Department of Computer Science and Engineering](#) and the [Information Systems and Internet Security Lab](#) in partnership with the [Center for K12 STEM Education](#). Of the 44 young women who were high school juniors while participating, twelve have submitted applications to NYU Tandon School of Engineering.

Wasserman Center for Career Development Updates

More Details & RSVP on the below events and upcoming Employer Information Sessions on campus available on [NYU CareerNet](#)

Engineering & Technology Spring Fair - TWO DAYS!

Thursday, February 4 and Friday, February 5, 2016 11am - 3pm, NYU Brooklyn Campus, Jacobs Gymnasium

Explore full-time, part-time, and internship opportunities in fields like engineering, computer hardware/software, technology, science, management, digital media, etc. Check out career fair details and pre-registration locations/times.

Attire for Successful Hire-Sponsored by Macy's

February 9, 5:00pm-7:00 pm, Wasserman Center-Presentation Room A

Join our Wasserman Career Ambassadors and representatives from Macy's as they offer fashion advice and showcase clothing trends that will help inspire the confidence you need to land that job or internship. All attendees will be entered into a FREE raffle and the first 50 attendees will receive a Macy's Gift Bag!

Wasserman Center Internship Grant

Apply for a \$1,000 grant! DEADLINE: February 23rd, [Job ID 1008477](#)

Pursuing a non-paying internship at a not-for-profit organization or within an industry that

does not traditionally pay interns (arts, entertainment, media, nonprofit, education, etc.) this spring?

First Class: Professional Development and Mentorship Program for First Generation College Students

Deadline to apply: Wednesday, February 10th, Job ID 1011297

First and second year undergraduates are invited to participate in professional development workshops, meet industry leaders, and connect with a professional mentor and career coach to help explore academic areas of interest, internships, and careers.

Facebook "Crush Your Coding Interview" in Brooklyn

Thursday, February 11, 12:30 pm-2:00 pm, Brooklyn I Pfizer Auditorium

Join Facebook Engineers to prepare for technical interviews by learning about the common pitfalls and tips to help you crush your next coding interview! Pizza will be provided.

Women's Foreign Policy Group Mentor Fair

Thursday, February 25, 6:30 pm-9:00 pm, Kimmel Rosenthal (10th floor)

Get advice and learn the skills required in the global job market by networking with professionals. Featuring International Development, NGOs, United Nations, Human Rights, Foreign Service, Communications and International Law, Health, Business.

Diversity in STEM: Wasserman Employer Meet Up with National Grid @ Brooklyn

Friday, February 26, 3:00-5:00 pm, Brooklyn I Outside of the Cafeteria

Join us for this informal gathering on campus with National Grid. Ask about job searching, explore potential opportunities, and learn more about your career options at this unique professional development event.

Paid Internship Opportunity!

STEM From Dance influences girls of color to pursue STEM by using dance to attract and prepare them. Our founder, Yamilee Toussaint, is an MIT alum who is passionate about increasing diversity in tech. Our work with STEM From Dance has been acknowledged by Teach For America, Essence magazine, L'Oreal, NSBE, and NY1.

Our spring/summer interns become a STEM instructor for our program ([link to job description](#)). It is a great experience for those who...

- have experience computer coding or are eager to learn
- enjoy working with young people
- want to be a teacher or enjoy teaching
- are in any year of the schooling - from frosh to grad to alum
- want to join a young startup in our journey to impact the next generation!

Faculty & Staff

Weight Watchers at Work Program

Get started on a New You! Ring out the old and start anew! Come to a meeting and learn about the newest Weight Watcher program. Select one of the four locations to learn about the Weight Watchers at Work program.

A. 105 East 17th St, Room 191

B.345 East 24th Street, 6th Floor

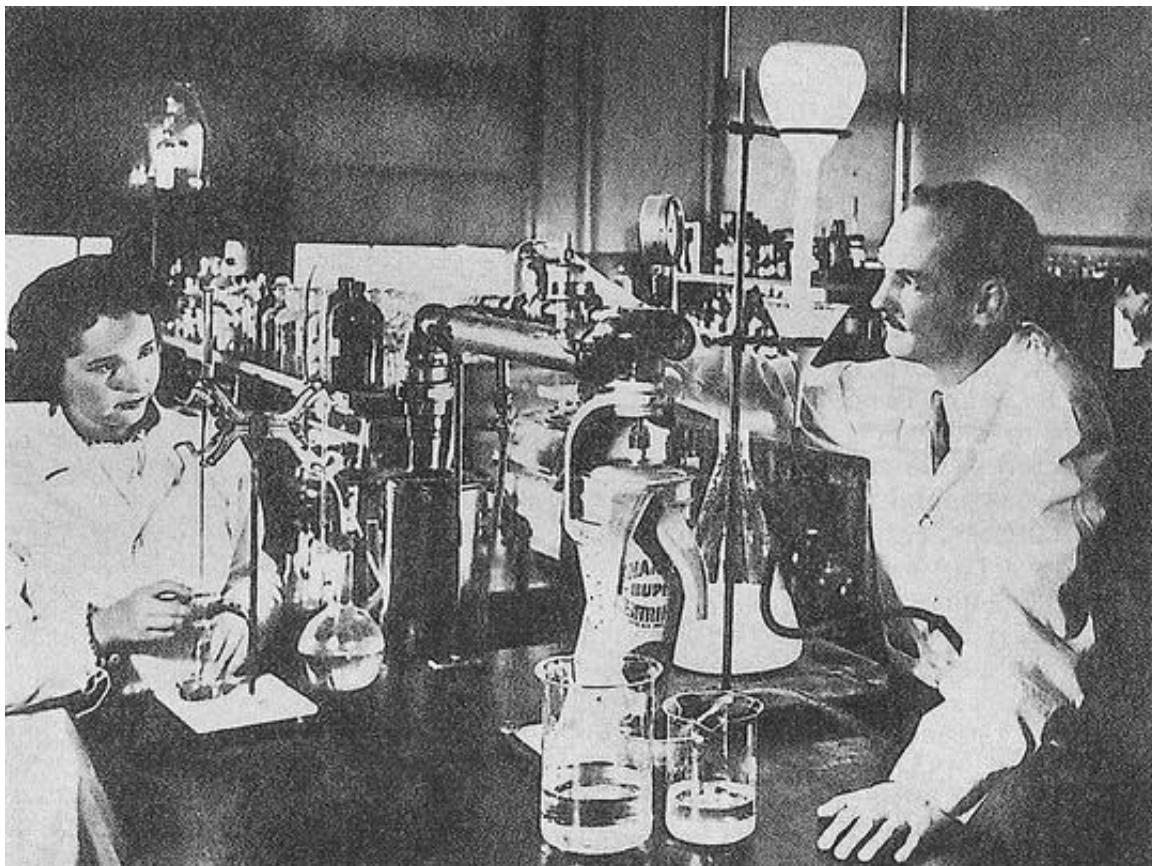
C.194 Mercer Street, 4th flr.

D.1 Metrotech Ctr, 19th flr, Jacobs Seminar Room(beginning Feb. 2)

TIAA-CREF NYU Retirement Plan

TIAA-CREF offers a website dedicated to the NYU Retirement Plan. To register and log into secure access, enroll in the plans, access important plan details such as investments options, prospectuses and fees, review performance information and tools to help you get smarter about investing and saving can be found on the website. To access the website, go to www.tiaa-cref.org/nyu.

NYU Tandon School of Engineering History



During the 1940s, the Polytechnic Institute of Brooklyn (now Tandon) experienced an unprecedented rise in female students, as women enrolled in science and technology courses to aid the war effort. By 1943, forty-five women were enrolled in evening session classes. One of these students was Gertrude Elion, who attended graduate courses at night, and worked as a lab assistant for Dr. George H. Hitchings at the Burroughs Welcome Company during the day.

Elion, a graduate student in the Chemistry Department, had previously received her BS in biochemistry from Hunter College and her MS in chemistry from NYU in 1941. Eventually, Elion was forced to pick between becoming a full time graduate student, which would require her to let go of her day job at the lab, or to drop out of the PhD program. Elion picked the lab and went on to win the Nobel Prize in Physiology or Medicine, with Hitchings and Sir James Black, in 1988. Their work led to the development of drugs to treat malaria, autoimmune disorders, gout, leukemia, and the prevention of organ rejection.



Polytechnic awarded Elion an honorary PhD in 1989.

Upon learning she'd won the Nobel Prize Elion stated, "The Nobel Prize is fine, but the drugs I've developed are rewards in themselves." Elion died in 1999, but her legacy as one of our Nobel laureates lives on.

Faculty Spotlight



Dr. Mary K. Cowman

Tell us a little about yourself.

I am Associate Dean for Bioengineering, and Professor of Biochemistry and Bioengineering at NYU Tandon School of Engineering. I started my career in chemistry, although my heart has progressively led me toward biology, medicine and engineering. I earned a Ph.D. in Chemistry at Case Western Reserve University, then completed postdoctoral training in Biochemistry at Brandeis University, and in Ophthalmology Research at Columbia University College of Physicians and Surgeons. I came to NYU (then Polytechnic) as an Assistant Professor of Biochemistry in 1982, and have served as Department Head for Chemistry, and Associate Provost for Programs, Planning and Development. As Associate Dean, I am responsible for developing Bioengineering by aiding the recruitment of new faculty, and by building research and educational connections between the Tandon School of Engineering, the School of Medicine, the Faculty of Health, and other parts of NYU. I am also married and have a son.

What are your areas of research?

I am fascinated by advances in medicine and by the structure of cells and their microenvironments, but also by the structures and dynamics of molecules, and by equations describing their interactions. Most of my research concerns the structure, function, and medical applications of the biomatrix surrounding cells. I am particularly focused on the biological roles and medical applications of a polysaccharide called hyaluronan (hyaluronic acid), and recently became President of the International Society for Hyaluronan Sciences. I direct the Biomatrix Research Center, established by a grant from the Endre A. Balazs Foundation. My research group has three main areas of study. Using biophysical chemistry, we study how large macromolecules like hyaluronan crowd each other, and control properties like the osmotic pressure or viscoelasticity of biological fluids and tissues, or the aggregation of proteins in neurodegeneration. Our bioanalytical work is directed toward medical diagnostic assays for the size and content of hyaluronan or hyaluronan fragments in fluids and tissues, as biomarkers of disease progression and prognosis. Our biotherapeutics research efforts are focused on blocking cell signaling by fragments produced during inflammation. That work has led to bioactive materials for regenerative repair of diseased or injured tissues. Our most exciting invention, developed in collaboration with Dr. Thorsten Kirsch in the NYU Department of Orthopaedic Surgery and Dr. Eva Turley at the London Health Sciences Centre in London Ontario, is a biotherapeutic agent to repair cartilage and prevent post-traumatic osteoarthritis.

What do you enjoy most about teaching at NYU Tandon SoE?

I love teaching and was honored to receive the Distinguished Teacher Award from Polytechnic in 2006. I have primarily taught upper level undergraduate and graduate level chemistry courses. I especially enjoy the chance to speak and work with students one-on-one. In my research group, I mentor students in guided studies or research for the MS or PhD. I enjoy hearing from former students, and have even hosted their children in my lab for a summer!

What advice can you offer the women students?

Find your passion and follow it. Learn to learn, and keep doing it. Focus on the important milestones, and don't get sidetracked. Adapt to changing conditions, because nothing stays the same. I am a strong believer in team science. Having work friends with common interests but different skills is a wonderful support mechanism. It allows you to achieve more together than anyone could achieve alone.

18 Inventions By Women That Changed the World

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