Vol. 2 Issue 2

Program Message

A Few words from Michael Goodwyn, Coordinator, Selection Process - Meyerhoff Scholars Program at UMBC.

In my 13 years with the Meyerhoff Scholars Program, I have been blessed to witness and to participate in the transformation of lives through the Meyerhoff Program. I have watched many of you grow from high school adolescents to inspirational adults. The aspect that has impressed me most is how you remain steadfast to your dreams and on your academic careers. You are oblivious at times to the eyes that are watching you, studying you, and learning from you. Many of you may not realize what an inspiration you are and can be to those who follow in your footsteps.

I have the pleasure of talking to many students embarking on their undergraduate careers who are so afraid to fail and yet more frightened to succeed. There is strength in numbers and as Meyerhoff alumni, you are the strongest testament to the mission of the program and to our mantra "Hold Fast To Dreams." As your careers and families grow, always remember that the commitment to your dreams, to the Program, and to UMBC is having a profound impact on those that follow after you. "If it appears that I see farther, it is because I stand on the shoulders of giants." I am extremely proud to be a part of your lives.

Regards,

Michael Goodwyn

Stay connected...

Facebook: Meyerhoff Scholarship Alumni Linkedin: Meyerhoff Alumni, UMBC Google Groups: Meyerhoff Alumni, UMBC Website: www.umbc.edu/meyerhoff/alumni

Newsletter brought to you by the Communications Committee:

Editor: Stephanie Bates (M4)

Staff: Christopher Aberg (M11), Vondell Coleman (M4), Michael Haywood (M1), Nwokedi Idika (M13) and Jattu Senesie (M4)

Questions, comments and corrections can be addressed to the staff at maabcomm@gmail.com.

Officer's Corner

A few words from Kamili Jackson, recently elected President of the Meyerhoff Alumni Association.

I've led before. I have assumed the president or vicepresident role in Sisters Seeking Excellence, Delta Sigma Theta Sorority Inc, Lambda Kappa Chapter and UMBC Student Government in college and more recently, NSBE Greenbelt Space Alumni Chapter. However, I have never been as excited for any leadership role as I am right now to be president of the Meyerhoff Alumni Advisory Board. The Meyerhoff Program had a huge influence on my life from where I attended college to my friends to graduate school. Whether I was marching in step or rebelling, that influence was always there, like a good upbringing, to challenge me to be my better self. Now I find myself in the unique position of being able to give back talents to institution that was instrumental in cultivating them in the first place.

Thankfully, the rest of the board and I don't need to start from scratch. We can plant our feet firmly on a foundation that started about 3 years ago with a group of alumni sitting around the conference table in the alumni house imagining an organization that would support what we love, seek to maintain a family that we cherish and aim toward amassing our talents someday for a greater good. It was a deeply satisfying time of being able to connect and reconnect with older and younger alums and once again have that feeling of being in exactly the right place at the right time.

Thanks to the efforts of the previous board under the leadership of Ray Onley, M4, the fruits of that labor are just starting to show. We are an official alumni organization of UMBC. We started the only publication written by alumni at UMBC. Now for the best, most exciting news (drum roll please!): The Meyerhoff Program has begun this year to issue hardship scholarships to students in need with funds contributed by alumni. What a fantastic beginning to the new board's term!

Meanwhile, the most immediate goal is mentoring. We are working toward establishing, by the end of the school year, the framework for an alumni-to-current-student Meyerhoff mentoring program. This has been a goal of the board from the beginning and I believe this year we are in a position to execute it. I hope I can count on your support.

I am extremely excited about the next two years and I look forward to interacting with all of you as we make this organization even better and stronger. All the best. Kamili

2011-2012 Alumni Board Members

President

Kamili Jackson, M4 Vice-President Tiffani Bright, M11 Secretary Shawnielle, Predoux M4 Treasurer Torria Ellis-Dugar, M4 Parliamentarian Jason Lee, M3 Historian Ahmad Ridley, M1

Representatives

- M1 Michael Haywood
- M2 Vacant Representative Needed!
- M3 Angelique Bla**n**ding
- M4 Jattu Senesie
- M5 Jason McCullers
- M6 Jonta Williams
- M7 Camelia Owens
- M8 Alexandra Harryman
- M9 Raj Stewart
- M10 Sabrina Johnson Turner
- M11 Aolat "Abi" Chike
- M12 Erica Reaves
- M13 Nwokedi Idika
- M14 Donel Sequea
- M15 Tiffany Williams
- M16 Stephen Mobley
- M17 Nancy Chiles
- M18 Natee Johnson
- M19 Lydia Grmai

Graduate Fellow – Joe Washington

Cohort Giving Challenge Results

Congratulations to the M4s!! They won the Cohort Giving Challenge with 36% participation. The M6s and M17s tied for 2nd place with 32% participation from their respective cohorts. Thanks to all who participated!



Upcoming Fundraiser!!

Meyerhoff Alumni Fundraiser & Social

December 14, 2011 5 p.m. Happy Hour at the Green Turtle, Hanover, MD

7 p.m. Men's Basketball game vs. Morgan State, UMBC RAC Arena

Please join the Meyerhoff Alumni Advisory Board (MAAB) as we support the Men's Basketball team who will take on Morgan State at UMBC. We will meet at 5 p.m. for a pre-game happy hour at the Green Turtle located at Arundel Mills for food and fellowship, and continue on to the UMBC RAC Arena. The Green Turtle will offer happy hour specials and is located at 7556 Teague Rd., Suite 100 Hanover, MD 21076, phone: <u>410-799-5001</u>. Men's basketball tickets will be distributed free of charge.

Donations to support the Meyerhoff Scholars Program will be accepted at both the Green Turtle and at the RAC Arena, should you choose to give. If you are unable to join us as we re-connect with old friends, donations can also be given by using the link below:

http://www.umbc.edu/meyerhoff/alumni/cohort_givin g_challenge.html

Questions? contact Mawuli Dzirasa (M7) at mawuli.dzirasa@gmail.com



Alumni On The Move

Meyerhoffs are going places and reaching new heights in their careers and personal lives! Let's see what some of the Meyerhoffs have accomplished recently.

Crystal Watkins (M3) was recently included in the Hopkins Medical Magazine.

http://www.hopkinsmedicine.org/news/publications/hopkins_medicine_ma gazine/hopkins_medicine_magazine_spring_summer_2011/passionate_s cientist

Chris Morris (M3) and his wife, Lisette, welcomed the birth of Kaden George Morris on November 26, 2010. They along with their daughter, Ada Ray Morris, currently reside in Columbia, Maryland. Ada and George are pictured below.



Federick Scott (M4) is married to Mina Garrett-Scott, MD. The couple has two children – Frederick D. Scott, III and Marie Alice Scott.

Lekelia (Kiki) Jenkins (M5) became a tenure-track Assistant Professor at the University of Washington, School of Marine and Environmental Affairs in September. <u>http://www.depts.washington.edu/omad/media/e-newsletters/fall-</u>

2011/new-and-recently-tenured-faculty/

She was also just honored as a Woman of Power in the Environment.

www.nwasianweekly.com/2011/09/eco-women-make-their-footprint-inthe-environment

Adedeji (Abi) Chike (M11) scored a 100% on an IBM Cognos 10 BI Author Professional Certification Exam.

Alex Dummett (M12) has been busy! He is 3 months into his Chief Resident year at the Kaiser Santa Clara Internal Medicine Program. He was also an Innovation Finalist at Kaiser Santa Clara for his project that substantially increased blood donation and conservation simultaneously using technology and educational incentives. The project is being replicated region wide. He has also been married for 3 years.

UMBC Alumni Magazine

We appreciate and love hearing all of your great news! But why not share all this exciting news with the entire UMBC alumni community? When submitting your news to us, please also consider submitting it to the UMBC Alumni Magazine. It's pretty simple, just go to <u>www.umbc.edu/magazine</u> and fill out a class note.

More Alumni News!

Jennifer L. Greene (M12) is moving to Baltimore from Philadelphia this Thanksgiving. She defended her thesis on November 7, 2011 in Biochemistry and Molecular Biophysics at the University of Pennsylvania. The title of her dissertation is "The Structural Proteomics of S-nitrosylation: from Global Identification to Elucidating Protein Function through Structural Bioinformatics". She is also am engaged to Ebenezer Botchway, a 2002 UMBC alum.

Richard Shoge (M12) finished his post-doctoral fellowship at Walter Reed Army Institute of Research in Silver Spring. He recently started a new position as a portfolio manager for the Military Operational Medicine Command of the US ARMY at Ft. Detrick, MD. He coordinates and directs research involved in traumatic brain injury, vision, hearing, and vestibular injury that affect our warfighters. Richard encourages anyone who is involved in preventative research that could potentially help the warfighter to contact him for opportunities that might be available.

Angelique Johnson (M12) and her new company, MEMStim, took top honors and prize money in the 2011 Michigan Business Challenge and Eugene Applebaum Dare to Dream Grant program for U-M startups.

www.eecs.umich.edu/eecs/about/articles/2011/memstim.html

Paz (PJ) Luncsford (M13) successfully defended her Ph.D. in Biochemistry in September. PJ is currently completing the MD portion of the MD/PhD at UMB.

Isaac Kinde (M13) has a recent publication in the Proceedings of the National Academy of Sciences.

Kinde I, Wu J, Papadopoulos N, Kinzler KW, Vogelstein B. Detection and quantification of rare mutations with massively parallel sequencing. Proc Natl Acad Sci U S A. 2011 Jun 7;108(23):9530-5

Kenny Gibbs (M13) moved to Washington, DC in August to start the AAAS Science & Technology Policy Fellowship after 6 years at Stanford (as a grad student and then postdoc), He is working at the NSF in the Directorate for Education & Human Resources on strategies to broaden participation of women, underrepresented minorities, and persons with disabilities in the STEM disciplines. He is enjoying his work quite a bit and says it has been a much needed respite from the grind of big time academia.

FEATURED ALUM: Jason Reid (M14) Giving Hope One Step at a Time



Jason is on the left. Austin Whitney is standing.

Article written by Jattu Senesie (M4) after an interview with Jason.

Many Meyerhoff Scholarship students enter the University of Maryland Baltimore County hoping to obtain a science, engineering or math degree with a high enough GPA to get into a competitive graduate program. While toiling through chemistry, calculus, and physics it is sometimes difficult to take time to think of the real-life applications of the theories that we are studying. One graduate of the Meyerhoff program has had the opportunity to apply his engineering knowledge and skills to technology that interests military, medical, and national news organizations alike. Jason Reid, M14, is a mechanical engineering graduate student in Dr. Homayoon Kazarooni's Robotics and Human Engineering Laboratory at the University of California, Berkeley. As such, he is one of a group of three engineering PhD candidates working on the lab's Austin exoskeleton project.

The term exoskeleton is likely most familiar to the majority of us as the hard outer covering of crustaceans such as crabs or of insects like ants. In engineering, robotic exoskeletons are a bit more complicated but no less elegant in their function. They assist with amplifying the musculoskeletal power of the human to which they are attached. The first robotic exoskeletons produced in the Berkeley Robotics and Human Engineering Laboratory helped their pilots such as soldiers and emergency rescuers carry heavy loads for long periods of time. More recently, this technology has been used to help those with paralysis and mobility disorders to ambulate.

The particular exoskeleton project on which Reid has been working is called Austin, named in honor of its main test pilot Austin Whitney. The Austin exoskeleton recently gained fame for its use by Whitney, a paraplegic undergraduate student at UC Berkeley, during his graduation walk in spring 2011. The major difference between the Austin exoskeleton and many of the others in development and on the market is the intent to minimize system complexity while maintaining excellence of function. In the past, robotic exoskeletons employed four to ten motors per device and were engineered in a manner that increased system complexity to achieve better system functionality. However, those robots cost upwards of \$100K. After being involved in the design of some of the most high-tech exoskeletons, Dr. Kazerooni decided to lead a project where his lab changed the paradigm and simplified its robot. He wanted to design a device that worked effectively with the minimum number of motors and actuated degrees of freedom in order to decrease expense. The Austin exoskeleton has only two motors and its cost is less than a quarter of the others. The importance of this price differential is that it will make the technology accessible to a broader, less affluent group of people.

The challenge for Reid in this project was to write the computer software that gave this simplified system intelligence. When Reid started working on the project in early 2009, after completing a Master's degree in mechanical engineering at Stanford University, most of the mechanical design was complete. His job was to analyze the system, ie. the robotic device with its pilot, in order to model a human-machine interface that controlled the exoskeleton from a human-centered perspective. He was also tasked to develop algorithms for controlling the exoskeleton in a manner that produced a natural-appearing walking gait using the minimal number of motors and actuations. This allows the pilot to control the exoskeleton so that the movements look like what we expect to see when we observe walking.

As was demonstrated by Austin Whitney's walk across the stage at Berkeley's commencement ceremony, the innumerable hours of work by Jason Reid and his colleagues in Dr. Kazerooni's lab had a successful outcome. Whitney is a T12 level paraplegic who had not walked upright in public since a car accident in 2007 caused his lower body paralysis. With the assistance of the Austin exoskeleton and a walker he was able to take the steps necessary to cross the stage and get his diploma in May 2011.

The work on the Austin exoskeleton continues. Jason Reid and his fellow graduate students are still at work refining and improving the device. Austin Whitney remains one of two test pilots that assist the lab members with adjustments to the exoskeleton. Just four years removed from getting his undergraduate mechanical engineering degree from UMBC, Reid recognizes what an opportunity it is to be able to work on such an innovative project. He describes working in the Dr. Kazerooni's lab as a great fit for him. Reid expects to complete his PhD in the next year and afterwards he hopes to continue working on exoskeleton technology as a postdoctoral fellow. As a fellow Meyerhoff alum, it makes me proud to think one of our own may have contributed to making wheelchairs obsolete someday, and maybe to making the real Iron Man.

Newsletter Changes Coming Soon!!

We will be instituting a Question and Answer Section of the newsletter. The goal of this is to allow alumni to ask questions of the Meyerhoff Alumni Advisory Board members and current Meyerhoff staff. Please send questions to the Communications committee <u>maabcomm@gmail.com</u>. Also, we are going to be adding a Health and Wellness Section to the newsletter. We want to give people encouragement and tips to maintain healthy lifestyle habits. If there is anything that you want to know more about please e-mail the committee.