

New Honors Thesis Course Offered

HORN 406, SCMNS Honors Thesis Seminar II, was offered for the first time during the spring 2017 semester. The course, the capstone experience of the SCMNS Honors Program, provides a means for an independent research experience for all SCMNS Honors students. Students work closely with a faculty mentor in their field of interest to write a research-based or literature-based thesis. In addition, an oral presentation, based on the paper, is made to a departmental audience. This course is the fourth in a series of courses designed specifically for the SCMNS Honors Program.



2017 MSU PEARL SUMMER INTERNS: Three Biology Honors students (l. to r. Nikelene McLean, Jai Horsey, and Maya Oliver) spent the summer at the MSU Patuxent Environmental and Aquatic Research Laboratory in St. Leonard, MD. Each of them participated in hands-on field and laboratory activities related to assessment of the health of the Chesapeake Bay.



Amanda Fowler, sophomore Biology major, won Best Poster Presentation in the Biology Poster category at the 24th Annual Undergraduate and Graduate Research Symposium. April 13, 2017.



Morgan Whitaker, freshmen computer science major, won top Honors at the Annual Power Live Awards Ceremony sponsored by the Office of Residential Life and Housing. March 10, 2017.



Michael Guy, freshmen physics major, won top Honors at the Annual Power Live Awards Ceremony sponsored by the Office of Residential Life and Housing. March 10, 2017.

Summer 2017 Happenings

(Internships and Other Activities)

The following students completed discipline-specific internships/jobs during summer 2017. There are a number of students who obtained their internships after completing their freshmen year! These students are identified with an asterisk (*) after their names.

Adetunji Adeniran-Adetoye*, Chemistry major, VA-NC Alliance Research Program, University of Virginia, Charlottesville, VA

Charlene Bruton, Biology major, Classroom Assistant, SAMS Summer Program, Morgan state University, Baltimore, MD

Dionna Burrell*, Computer Science major, Google Internship, Silicon Valley, CA

Marissa Bush*, Computer Science major, Facebook University for Engineers, Menlo Park, CA

Kiana Bynum, Biology major, ASCEND Summer Research Institute, Morgan State University, Baltimore, MD

Amari Cartwright, Biology major, Central Transporter at Doctor's Community Hospital, Lanham, MD

Ayanna Culmer-Gilbert*, Biology major, CASA Strengths Leader, CASA Academy Summer

Bridge Program, Morgan State University, Baltimore, MD

Amanda Fowler, Biology major, Summer Health Professional Education Program, University of Alabama, Birmingham, AL

Amanda Fowler, Biology major, Johns Hopkins School of Medicine, Baltimore, MD

Benjamin Frey, Biology major, Long Beach Center for Clinical Research, Long Beach, CA

Michael Guy*, Physics major, Naval Research Laboratory, Washington, DC

Tiara Hinton, Chemistry major, SROP Program, Michigan State University, East Lansing, MI

Jai Horsey, Biology major, Morgan State University Patuxent Environmental & Aquatic Research Laboratory, St. Leonard, MD

Khalil Makins-Dennis, Biology major, NIGMS RISE Program, Morgan State University, Baltimore, MD

Nikelene McLean, Biology major, Morgan State University Patuxent Environmental & Aquatic Research Laboratory, St. Leonard, MD

Akunna Mezu, Biology major, Computational Medicine Program, Johns Hopkins University, Baltimore, MD

Chevane Minto, Computer Science major, Facebook University for Engineers, Menlo Park, CA

Khaliyah Moody, Biology major, Early Medical School Selection Program, Boston University, Boston, MA

Emma Murray*, Biology major, Chesapeake Environmental Laboratory, Centreville, MD

Joyce Ndukwe, Biology major, Lehigh University, Bethlehem, PA

Maya Oliver, Biology major, Morgan State University Patuxent Environmental & Aquatic Research Laboratory, St. Leonard, MD

Mustapha Olokun, Computer Science major, REU Program, Rutgers University, Camden, NJ

Joshua Olumese*, Computer Science major, Facebook University for Engineers, Menlo Park, CA

Mopeninu Jesu Oluyinka, Biology major, National Association of Health Services, Washington, DC

Henry Onyedum, Biology major, ASCEND Summer Research Institute, Morgan State University, Baltimore, MD

Sabreea Parnell, Chemistry major, Early Medical School Selection Program, Boston University, Boston, MA

Summer 2017 Happenings (Internships and Other Activities) Continued

Pierce Perkins, Biology major, Johns Hopkins University, Baltimore, MD
Joshua Ross, Biology major, REU Program, Case Western Reserve University, Cleveland, OH
Stephen-Michael Thompson*, Computer Science major, Army Research Laboratory, Aberdeen, MD

Demetrius Robinson, Computer Science major, Technology Analyst, JP Morgan Chase, Wilmington, DE
Tariq Shaheed, Mathematics major, Summer Program on Research & Learning, Morgan State University, Baltimore, MD
Morgan Whitaker*, Computer Science major, Carnegie Mellon Software Engineering Institute, Arlington, VA

Jeffon Stubbs*, Biology major, Lehigh University, Bethlehem, PA

Student Presentations

Afua Adusei. (Mentor- Viji Sitther, PhD) Maximizing Lipid Production in *Fremyella diplosiphon* via Nitrogen Starvation. 19th Annual Research Symposium in the Chemical and Biological Sciences, UMBC, Baltimore, MD. October 2016. (2nd place poster winner)

Osaretin Aimfua. (Mentor- Viji Sitther, PhD) Impact of Sulfate Stress on Growth Rate and Total Lipid Production in *Fremyella diplosiphon*. 24th Annual Undergraduate and Graduate Research Symposium, Morgan State University, Baltimore, MD. April 2017. (poster award winner)

Osaretin Aimfua. (Mentor- Viji Sitther, PhD) Impact of Sulfate Stress on Growth Rate and Total Lipid Production in *Fremyella diplosiphon*. 18th Annual Plant Biology Minisymposium, University of Maryland, College Park, MD. May 2017. (1st place undergrad poster award).

Blessing Akobundu. (Mentor- Simon Nyaga, PhD) IGFBP-5 and CEACAM-6 are over-expressed in BXP-3 Pancreatic Cell line. ABRCMS Conference, Tampa, FL. November 2016.

Blessing Akobundu. (Mentor- Simon Nyaga, PhD) Differential Protein Expression in Pancreatic Cancer Cells. Penn Honors Diversity Symposium, Philadelphia, PA. September 2016.

Blessing Akobundu. (Mentor- Simon Nyaga, PhD) Over-expression of Specific Proteins in a Pancreatic Cancer Cell Line. 19th Annual Research Symposium in the Chemical and Biological Sciences, UMBC, Baltimore, MD. October 2016. (1st place poster award)

Blessing Akobundu. (Mentor- Simon Nyaga, PhD) Over-expression of CEACAM-6 and IGFBP-5 in BxPC-3 Pancreatic Cancer Cell Line. 24th Annual Undergraduate and Graduate Research Symposium, Morgan State University, Baltimore, MD. April 2017.

Jahnn Drigo. (Mentor- Angela Winstead, PhD) Organic Synthesis of heptamethine cyanine dyes and their salt precursors. 19th Annual Research Symposium in the Chemical and Biological Sciences, UMBC, Baltimore, MD. October 2016.

Student Presentations (continued)

Jahnn Drigo. (Mentor- Angela Winstead, PhD) Synthesis and Characterization of Heptamethine Cyanine Dyes and their Precursors. Northeast/Midwest NOBCChE Regional Meeting, Pittsburgh, PA. March 2017.

Jahnn Drigo. (Mentor- Angela Winstead, PhD) Microwave Assisted Organic Synthesis of Heptamethine Cyanine Dyes. Penn Diversity Symposium. Philadelphia, PA. September 2016.

Jahnn Drigo. (Mentor- Angela Winstead, PhD) Organic Synthesis of Heptamethine Cyanine Dyes and their Salt Precursors. 43rd Annual NOBCChE National Conference, Tampa, FL. November 2016.

Amanda Fowler. (Mentor-Gloria Hoffman, PhD) Analysis of Neuroglia in the Hippocampus of a Mouse Model of Rett Syndrome 24th Annual Undergraduate and Graduate Research Symposium, Morgan State University, Baltimore, MD. April 2017. (poster award winner)

Benjamin Frey. (Mentor-Robert Javonillo, PhD) Determining the Elasticity of Clofazimine Crystals. 19th Annual Research Symposium in the Chemical and Biological Sciences, UMBC, Baltimore, MD. October 2016. (1st place poster award)

Benjamin Frey. (Mentor-Robert JAVonillo, PhD) Determining the Elasticity of Clofazimine Crystals. 24th Annual Undergraduate and Graduate Research Symposium, Morgan State University, Baltimore, MD. April 2017.

Tiara Hinton. (Mentor-Santosh Mandal, PhD) Anticancer Properties of Organorhenium Mefenamato and Tolfenamato Complexes. 24th Annual Undergraduate and Graduate Research Symposium, Morgan State University, Baltimore, MD. April 2017.

Tiara Hinton. (Mentor-Santosh Mandal, PhD) Synthesis, Characterization, DNA-binding, and Cytotoxicity Studies of Tricarbonylrhenium(I)-diimine Complexes with Mefenamamic Acid. ABRCMS Conference, Tampa, FL. November 2016.

Tiara Hinton. (Mentor-Santosh Mandal, PhD) Synthesis, Stability, and DNA-binding and Cytotoxicity Studies of Organorhenium Complexes of Mefenamamic Acid. Northeast/Midwest NOBCChE Regional Meeting, Pittsburgh, PA. March 2017.

Tiara Hinton. (Mentor-Angela Winstead, PhD) Anticancer Properties of Organorhenium Mefenamato and Tolfenamato Complexes. American Chemical Society National meeting. San Fransisco, CA. April 2017.

Chikaodi Nwanegwo. (Mentor-Pumtiwitt McCarthy, PhD) Modification of Neisseria Meningitidis Serogroup W135 Carbohydrate with DMB Fluorescent Dye. 19th Annual Research Symposium in the Chemical and Biological Sciences, UMBC, Baltimore, MD. October 2016.

Chikaodi Nwanegwo. (Mentor-Pumtiwitt McCarthy, PhD) Modification of Neisseria Meningitidis Serogroup W135 Carbohydrate with DMB Fluorescent Dye. 43rd Annual NOBCChE National Conference, November 2016.

Chikaodi Nwanegwo. (Mentor-Pumtiwitt McCarthy, PhD) Modification of Neisseria Meningitidis Serogroup W135 Carbohydrate with DMB Fluorescent Dye. Penn Diversity Symposium, September 2016.

Ibukunoluwa Oladunjoye. (Mentor-Mahmudur Rahman, PhD) A Crowd Sourcing Based Annotation Tool for Medical Image Annotation by Using Amazon Mechanical Turk (MTURK). 24th Annual Undergraduate and Graduate Research Symposium, Morgan State University, Baltimore, MD. April 2017.

Student Presentations (continued)

Mopeninu Jesu Oluyinka. (Mentor- Roosevelt Shaw, PhD) Computational Studies of N-Monobutyl Analogs of Oxaliplatin: Structure-Activity Relationship (SAR) Between Antitumor Activity and Drug Toxicity. 24th Annual Undergraduate and Graduate Research Symposium, Morgan State University, Baltimore, MD. April 2017.

Sabreea Parnell. (Mentor- Santosh Mandal, PhD) Synthesis, Characterizations, and DNA-binding and Cytotoxicity Studies of Tricarbonylrhenium(I)-diimine Complexes of Ibuprofen. Northeast/Midwest NOBCChE Regional Meeting, Pittsburgh, PA. March 2017.

Sabreea Parnell. (Mentor- Santosh Mandal, PhD) Synthesis, Characterizations, and DNA-binding and Cytotoxicity Studies of Tricarbonylrhenium(I)-diimine Complexes of Ibuprofen. 43rd Annual NOBCChE National Conference, Tampa, FL. November 2016.

Pierce Perkins. (Mentor- Fasil Abebe, PhD) Rhodamine-Based Fluorescent and Colorimetric Chemo-Sensor for Metals in Aqueous Media. Northeast/Midwest NOBCChE Regional Meeting, Pittsburgh, PA. March 2017.

Pierce Perkins. (Mentor- Fasil Abebe, PhD) Rhodamine-Based Fluorescent and Colorimetric Chemo-Sensor for Metals in Aqueous Media. 19th Annual Research Symposium in the Chemical and Biological Sciences, UMBC, Baltimore, MD. October 2016.

Pierce Perkins. (Mentor- Fasil Abebe, PhD) Rhodamine-Based Fluorescent and Colorimetric Chemo-Sensor for Metals in Aqueous Media. 43rd Annual NOBCChE National Conference, Tampa, FL. November 2016.

Joshua Ross (Mentor- Gloria Hoffman, PhD) Analysis of Tyrosine Hydroxylase Expression in PINNK 1 Knockout Rats of the Substantia Nigra and Striatum. ABRCMS Conference, Tampa, FL. November 2016.

Joshua Ross. (Mentor- Gloria Hoffman, PhD) Tyrosine Hydroxylase Expression in PINK 1 knockout rats of the Substantia Nigra and Striatum. 19th Annual Research Symposium in the Chemical and Biological Sciences, UMBC, Baltimore, MD. October 2016. (2nd place poster award)

Joshua Ross. (Mentor- Gloria Hoffman, PhD) Analysis of Tyrosine Hydroxylase Expression in PINNK 1 Knockout Rats of the Substantia Nigra and Striatum. 24th Annual Undergraduate and Graduate Research Symposium, Morgan State University, Baltimore, MD. April 2017.

Treshaun Sutton. (Mentor- Fasil Abebe, PhD) Rhodamine-Based Fluorescent and Colorimetric Chemosensor for Metal in Aqueous Media. 24th Annual Undergraduate and Graduate Research Symposium, Morgan State University, Baltimore, MD. April 2017.

Treshaun Sutton. (Mentor- Fasil Abebe, PhD) Rhodamine-Based Fluorescent and Colorimetric Chemo-Sensor for Copper Ion in Aqueous Media. 19th Annual Research Symposium in the Chemical and Biological Sciences, UMBC, Baltimore, MD. October 2016.

Treshaun Sutton. (Mentor- Fasil Abebe, PhD) Rhodamine-Based Fluorescent and Colorimetric Chemo-Sensor for Copper Ion in Aqueous Media. 43rd Annual NOBCChE National Conference, Tampa, FL. November 2016.

Nishone Thompson. (Mentor- Kadir Aslan, PhD) Alternative Treatment of Gout Using the Metal-Assisted and Microwave-Accelerated Decrystallization (MAMAD) Technique. Annual Emory University-Laney Graduate School STEM Research and Career Symposium, Atlanta, GA. November 2016.

GRADUATES 2017

AYOMIKUN ADEBAYO
(MEDICAL
TECHNOLOGY)

**BLESSING
AKOBUNDU**
(BIOLOGY)

OLUSEYI DAODU
(BIOLOGY)

JAHNN DRIGO
(CHEMISTRY)

BRITTNEY GORDON
(BIOLOGY)

BRIDGIT KIOKO
(CHEMISTRY)

CARISSE LANSIQUOT
(CHEMISTRY)

JOSHUA SAMBA
(PHYSICS)

**NISHONE
THOMPSON**
(BIOLOGY)

TURAYO TIJANI
(ACTUARIAL SCIENCE)

AISHA TORRES
(ACTUARIAL SCIENCE)

DEASIA WINSLOW
(BIOLOGY)

SCMNS Honors Students Earn Top Awards at the UMBC Undergraduate Research Symposium

The 19th Undergraduate Research Symposium in the Chemical and Biological Sciences at the University of Maryland, Baltimore County was held on October 22, 2016. The following SCMNS Honors students earned first place poster presentations: Blessing Akobundu (Biology), Benjamin Frey (Biology), and Jahnn Drigo (Chemistry). Afua Adusei (Biology) and Joshua Ross (Biology) earned second place for their poster presentations. Also presenting their research were Tiara Hinton (Chemistry), Chikaodi Nwanegwo (Chemistry), Pierce Perkins (Chemistry), and Treshaun Sutton (Chemistry).

Nishone Thompson Receives 1st place Award in Annual Emory University STEM Symposium

Nishone Thompson, senior Biology major competed in the annual Emory University-Laney Graduate School STEM Research and Career Symposium held in Atlanta, GA in November 2016. Of the 150 students from all over the U.S. who participated, Nishone won first place in the undergraduate poster session category. Her presentation focussed on the Metal-Assisted and Microwave-Accelerated Decrystallization technique. This technique could potentially be used to break down the crystals that are deposited in the joints of gout sufferers.

Honors Students Present at the Annual Biomedical Research Conference for Minority Students (ABRCMS)

The Annual Biomedical Research Conference for Minority Students was held in Tampa, Florida in November 2016. It is one of the largest communities of underrepresented minorities in science, technology, engineering, and mathematics. The conference allow students to present their research, network with peers and explore numerous graduate school programs. Several SCMNS Honors students presented their research in poster or oral presentations amongst over 1,800 students from over 350 colleges and universities. Participating students included: Blessing Akobundu (Biology), Tiara Hinton (Chemistry), and Joshua Ross (Chemistry).

SCMNS Honors Students Receive \$1000 Health-Research Concept Awards from the ASCEND Student Research Center

The Health-Research Concept this award and will receive Dr. Gloria Hoffman, PhD. is her Awards were developed to \$1000 each to develop their mentor. Raquel Shortt, a promote undergraduate research projects. Amanda, senior Biology major, proposed research activities and faculty Fowler, a sophomore biology a project entitled, "How research mentoring. Ms. major, proposed a project Amygdalin Could Save Lives". Amanda Fowler and Ms. entitled, "Analysis of Neuroglia Dr. Kadir Aslan is her mentor. Raquel Shortt, both Biology in the Hippocampus of a Mouse majors, were the winners of Model of Rett Syndrome".

Senior Graduate Placements

Ayomikun Adebayo,

Johns, Hopkins
Hospital, Medical
Laboratory
Technologist in The
Microbiology
Laboratory.

Joshua Samba, MS
Program in Physics,
Morgan State
University,
Baltimore, MD.

Blessing Akobundu,

PhD Program, Brown
Univ., Providence, RI.

Turayo Tijano,
Actuary at Willis,
Towers, Watson
Consulting Firm,
Arlington, VA.

Jahnn Drigo, PhD

Program, Carnegie
Mellon Univ.
Pittsburgh, PA.

Nishone Thompson,
MD/PhD Program,
Emory University,
Atlanta, GA.

Brittney Gordon, MD

Program, George
Washington Univ.
Washington, DC.

SPRING 2017 GRADUATION HIGHLIGHTS



*Brittney Gordon,
Biology major and
recipient of the
President's Award for
Exceptional Creative
Achievement.*



*Nishone Thompson,
Biology major and
recipient of the
President's Award for
Exceptional Creative
Achievement.*



School of Computer, Mathematical and Natural Sciences Honors Program
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