MEMORANDUM

TO: President's Council

FROM: John McCall, Dean of College of Natural Sciences and Mathematics

DATE: February 15, 2016

RE: Executive Summary of Planning and Assessment Documents and Priorities for College of Natural Sciences and Mathematics

Accomplishments for 2014-2015

Publications:


Broecker, C., Martin, A.J., & Rindsberg, A.K., 2015, Ichnodiversity vs. species diversity: variability in trace fossils of the Pennington Formation (Lower Carboniferous), northwest


Presentations:

Burnes, Brian S. 2015. Sources of E.coli in Lake Martin. Middle Tallapoosa River Basin Clean Water Partnership Board, Alexander City, Alabama.


Jing Chen. Presented with Dr. Hazel Truelove Saturday, Feb. 21, a series of math based card tricks in “Learn Mathematical Card Tricks”. 
Jing Chen. “Most Likely Path to the Shortfall Risk Under the Optimal Hedging at the 92nd Annual Meeting of the Alabama Academy of Science, Livingston, AL.


Yun Ho Kim. “Thinking outside the Box: The Effect of an informal setting on student” at AAS (Alabama Academy of Science Conference) at UWA on March 11-13, 2015

Yun Ho Kim. “Synthesis of Tooth Anesthetic: (E)-N-(4-methoxyphenethyl)-N-methylcinnamamide” at the Twelfth International Symposium on Recent Advances in Environmental Health Research, Jackson State University, MS on Sept 15, 2015

McDonald, Heather. Co-presented with Dr. Nicole Farris “Narrowing the pipeline? An ethnographic approach to studying the underrepresentation of women in STEM.” presented in April at the Southwestern Social Science Association annual meeting in Denver, Colorado.

Fatimah Alhassan, Janis Beaird and Jeffery Merida, The Effects of Omega-3 Fatty Acids on the Growth of Murine Tramp-C Prostate Epithelial Cancer Cells. University of West Alabama Undergraduate Research Symposium at the College of Natural Sciences and Mathematics (URS@NSM), March 10, 2015

Laila Alonazi, Janis Beaird and Jeffery Merida, The Effects of Orange Extract on the Growth of Murine Tramp-C Prostate Epithelial Cancer Cells. University of West Alabama Undergraduate Research Symposium at the College of Natural Sciences and Mathematics (URS@NSM), March 10, 2015

Laila Ghazwani, Janis Beaird and Jeffery Merida, The Effects of Ganoderma Mushroom Extract on the Growth of Murine Tramp-C Prostate Epithelial Cancer Cells. University of West Alabama Undergraduate Research Symposium at the College of Natural Sciences and Mathematics (URS@NSM), March 10, 2015

Tamara Smoot, Janis Beaird and Jeffery Merida, The Effects of Pomegranate Extract on the Growth of Murine Tramp-C Prostate Epithelial Cancer Cells. University of West Alabama Undergraduate Research Symposium at the College of Natural Sciences and Mathematics (URS@NSM), March 10, 2015


Fatimah Alhassan, Janis Beaird and Jeffery Merida, The Effects of Omega-3 Fatty Acids on the Growth of Murine Tramp-C Prostate Epithelial Cancer Cells. Alabama Academy of Science (AAS) Annual Meeting, March 11-12, 2015, University of West Alabama

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Sandel, Michael. Invited seminar (1-hr), Georgia Southern University, Statesboro, Georgia. “Causes and consequences of mtDNA convergence: Teleost fishes as a case study”

Stanton, Lee. Invited speaker at the East Gulf Coastal Plain Joint Venture Board Meeting, December 9-10, Mississippi State University, Starkville, MS. Presentation entitled: “The Black Land Prairie Restoration Initiative and the Center for the Study of the Black Belt”

Hazel Truelove. “A Qualitative Study of Mathematical Practice by Pre-Service Mathematics Teachers” at the 92nd Annual Meeting of the Alabama Academy of Science,
Livingston, AL.

Hazel Truelove. “A Qualitative Study of the Mathematical Practices of Pre-Service Mathematics Teachers” at the Kennesaw Mountain Undergraduate Mathematics Conference, Kennesaw, GA.

Hazel Truelove. Presented with Dr. Jing Chen Saturday, Feb. 21, a series of math based card tricks in “Learn Mathematical Card Tricks”.

Grants:

Liu, Chengke. Awarded Pyramid Grant by UWA Office of Sponsored Programs.

McDonald, Heather. Co-PI on grant submitted to the National Science Foundation ADVANCE program November 2 with Dr. Nicole Farris (PI) entitled, Sparking Progress: Attracting, Advancing, and Retaining Women in STEM at UWA.

Merida, Jeffery. Reawarded $40,000 Grant for PBI Bloom Project.

Morse, Kevin. Jefferson County Professional Services Contract for 3-Year Benthic Macroinvertebrate Study of the Cahaba River for $110,000

Morse, Kevin. Submitted white paper for UWA OSP Pyramid Grant Incentive Program. White paper accepted into program (2/9/15)

Morsy, Mustafa. Bio-BOOM: A Closer Step to a Natural Biofertilizer. The United States Department of Agriculture Specialty Crop Block Grant – Farm Bill Program, October, 2015; $25,000. (New award)

Morsy, Mustafa. “Release the Writer” Incentive Program for Grant Proposals, The Office of Sponsored Programs, 2015; ($4000) (New award)

Morsy, Mustafa. Confirmation of the roles of fungal genes in plant stress tolerance. The National Science Foundation, June 2014, $548,000. (Continuing award)

Morsy, Mustafa, John McCall, Lee Stanton. Biology Opportunities and Scholarships for Success (BOSS). The National Science Foundation S- STEM, June 2014, $609,000. (Continuing award)

Morsy, Mustafa. Bio-BOOM: Boosting Crop Production using Alabama-specific Symbionts. USDA Specialty Crop Block Grant – Farm Bill Program, May 2014; $23,000. (Continuing award)

Morsy, Mustafa, Brian Burnes, J.J. Wedgworth. UWA iLOVE Biology Research (Improving Learning Outcomes Via Enhancement of Biology Research). National Science Foundation. Amount requested $300,000 (pending).

Morsy, Mustafa. Building a hoop house to extend the growing season of tomato. USDA Natural Resources Conservation Service. Amount requested $6,000
Rogers, Frank. Participated in the NSF LSAMP proposal

Micky Smith. Secured $4000 grant for the Sumter/Marengo Water Festival

Sandel, Michael. Four federal preliminary proposals submitted in January, 2015. Three federal preliminary proposals were invited for full submission. One federal grant proposal was successful, resulting in a $455,000 grant from the National Science Foundation (begin date 1 March, 2016)
Sandel, Michael. One pilot grant preliminary proposal was invited for submission of full proposal (due 16 January, 2016)

Shumaker, Ketia. Funding extended by the National Science Foundation to support Ketia Shumaker and two UWA undergraduates as summer research interns at Pennsylvania State University (awarded in 2014 for summer 2015)

Shumaker, Ketia. Continued funding on a consulting project to fund two more UWA undergraduates as summer interns at Pennsylvania State University through a grant funded by the Apes Valentes Undergraduate Research Program at PSU and funded by PSU’s Center for Pollinator Research


Shumaker, Ketia. Submitted a Louis Stokes Alliance for Minority Participation collaborative grant proposal to the National Science Foundation with five other Alabama universities in the role of a co-principal investigator (Fall 2015)

Shumaker, Ketia. Submitted the UWA Advance Catalyst for Institutional Transformation grant proposal to the National Science Foundation in the role of a co-principal investigator (Fall 2015)

Shumaker, Ketia. Co-principal investigator of the newly funded United States Department of Agriculture (USDA) Interdisciplinary Climate Education grant. In collaboration with Virginia Tech University’s project director, Dr. Carlyn Copenheaver, a three-year research project entitled, “Forest Resilience to Climate Change: A Dendroclimatic Assessment of Trees with Commercial and Conservation Value” will be conducted. ($445,000)

Stanton, Lee. Partnered with Auburn University and AL Cooperative Extension Service and was awarded an EPA Environmental Education Local Grant for “Increasing Environmental Literacy and Watershed Stewardship through Youth-Focused Citizen Science”. $4500 and will coordinate a three-day environmental education workshop in July 2016.

University Service:

Beaird, Janis. Chair, West Alabama Elementary Science Olympiad.

Beaird, Janis. Faculty Advisor, Alpha Epsilon Delta Premedical Honor Society.
Campbell, Roger. Served as director of the 2015 West Alabama Regional Science Fair.

Keener, Brian. Director and Curator of The University of West Alabama Herbarium (UWAL).


Kim, Yun Ho. Traveled to Korea in May 2015 to conduct meetings with numerous universities and high schools to work toward and exchange program with UWA.

McCall, John. Faculty Advisor, Beta Beta Beta Biological Honor Society.

Morsy, Mustafa. Chair, Undergraduate Research Symposium Committee.

Stanton, Lee. Director, Black Belt Conservation and Restoration Institute:

Stanton, Lee. UWA Liaison Officer, Marine Environmental Sciences Consortium, Dauphin Island Sea Lab (2015-present)


Other Significant Outreach and Service:

Keener, Brian. Served as Chair of the Alabama Wildflower Society Scholarship Committee, 2015.


Keener, Brian. Gave presentation to the Sumter County DAR club, Livingston, 14 Apr 2015

Keener, Brian. Gave presentation to the Tuscaloosa Master Gardener Club, Tuscaloosa, 7 Jul 2015

Keener, Brian. Gave presentation to the Fleur de Lis Garden Club, Camden, 5 Oct 2015

Keener, Brian. Gave presentation to the Blountsville Cosmos Club, Blountsville, 8 Oct 2015

Keener, Brian. Gave presentation to the Blount County Wildflower Society, Oneonta, 12 Nov 2015


Morse, Kevin. Alabama Academy of Science (Secretary, 2013-14 & 2014-15)

Tom Ratkovich, Rita Bonner, Kim Giles, Jay Smith. Recruiting Trip, Marengo County High School, 2/4/15
Recruiting Trip, Sweet Water High School, 2/4/15
Sandel, Michael. Treasurer of the Southeastern Fishes Council

Shumaker, Ketia. 2nd Vice President, Alabama Academy of Sciences.

**College and Departmental Accomplishments**

**Physical Sciences:**

Purchased and installed the new Shimadzu HPLC in the instrumental lab.

Presented Master of Science in Conservation Biology – Approved by Alabama Commission on Higher Education.

Hosted 2015 Meeting of Alabama Academy of Science.
Items Needing Action (Listed in Order of Priority) for 2016-2017

College of Natural Sciences and Mathematics:

1. Upgrade BG 110 Computer Lab $47,952
2. Replace Stools in Physics Lab $6,000
3. Complete renovation of genomics lab. $35,000
3 Create Position for Pre-Health Advisor $8,000
4. Math (NSM) Recruitment Initiative $10,000
5. Biology (NSM) Student Travel for Research $10,000
6. Hire Additional Faculty Member in Chemistry $65,645
7. Replace Chairs in WH 401 $2,000
8. Specimen Photo Station Table $3,000
9. Complete Student Resource Room (BG 226) $12,000

TOTAL: $199,597