EDUCATION

2002-2006 PhD Physiology, University of Georgia, Athens, GA, USA

1993-1996 MSc Pharmacology, University of Bradford, UK 1990-1993 BSc Hons Physiology, University of Liverpool, UK

PROFESSIONAL EXPERIENCE

2016-2019 Section Editor

Encyclopedia of Renewable and Sustainable Materials

Publisher: Elsevier

2014-June 2018 Associate Professor,

Department of Biology, University of Wisconsin-Stout

Menomonie, WI 54751

2008-2014 Assistant Professor

Department of Biology

University of Wisconsin-Stout

Menomonie, WI 54751

2006-2007 Postdoctoral Fellow

Department of Cell and Regenerative Biology

University of Wisconsin-Madison, School of Medicine and Public Health

Madison, WI, USA

TEACHING

As an accomplished educator, my course evaluations reflect my success and love for teaching. I continue to pursue teaching excellence and I have incorporated many innovative teaching techniques into my pedagogy, all of which were designed to increase student engagement. For example, I developed or significantly revised (in terms of delivery and technique) eight courses over the last ten years, which significantly contributed towards building the Health Science offerings of the Applied Science Program. I also successfully developed a popular Human Physiology minor, and an Environmental Health concentration within the Environmental Science program

My commitment to excellence in teaching was recognized by the UW-System through my appointment as a Wisconsin Teaching Fellow. I have embraced and contributed to SoTL research, with projects ranging from lesson study, teaching critical thinking, illustrated novels, question asking, and service learning. I have provided over 400 Advanced Physiology students with the opportunity to gain significant real-life clinical experience through a student-run health clinic service-learning initiative. My commitment and outstanding scholarship regarding the services provided at the health clinic, and its impact on my students and the community have been formally recognized by the UW System with an Outstanding Women of Color in Education Award. I successfully integrated research into the classroom with results that positively impacted the local community.

New Courses Developed/Significantly Revised in Chronological Order (Date course first taught in parentheses)

- **BIO132 Human Biology (S2008):** I developed this course upon arrival at UW-Stout, developing new labs, collaborating with colleagues by implementing the illustrated novel project and incorporating a new teaching method of question-asking. I also developed an online version of the course complete with online virtual labs.
- BIO362 Advanced Physiology (F2008): I developed this course, and also incorporated case studies, and a major health clinic service-learning initiative. Soon after I developed an online version of this course to accommodate distance learners.
- **BIO 358 Introductory Pharmacology (SUM2010)** I developed an exclusively online version of this course which covered Pharmacological concepts for healthcare professionals.
- APSC311 Ethics for Science Professionals (S2012): I significantly revised this course with incorporation of discussion and case studies, presentation/communication skills and peer-review.
- **BIO 234 Anatomy & Physiology (S2015):** I significantly revised this course and developed a new online version with online labs incorporating the use of medical apps, simulation exercises and virtual labs.
- **BIO400 Special Topics in Physiology (S2012):** I developed a discussion-based class. Students read, discussed and critiqued peer-reviewed scientific articles in a collaborative group environment.
- BIO490 Histotechnician Laboratory Practicum I (F2011), BIO491 Histotechnician Laboratory Practicum II (S2012) and BIO492 Histotechnician Laboratory Practicum III (S2012): I developed all three sequential courses housed at UW-Stout but taught at Marshfield Clinic, Marshfield, WI.
- **BIO462 Environmental Toxicology:** I developed this course which was required for accreditation of the Environmental Health concentration of the Environmental Science program.

Teaching Experience

Courses taught at UW Stout:

- APSC 101 Applied Science Profession I (face to face)
- APSC 311 Ethics for Science Professionals (face to face and online)
- BIO 132 Human Biology (face to face and online)
- BIO 234 Anatomy & Physiology (face to face and online)
- BIO 362 Advanced Physiology (face to face and online)
- BIO 358 Introductory Pharmacology (online)
- BIO 400 Special Topics in Physiology (face to face)
- BIO 562 Advanced Physiology (post-graduate course, face to face and online)
- BIO 489 Research Experience (lab-based, survey-based)
- BIO 470 Research Capstone Project (lab-based, survey-based)

Courses taught at UGA:

- VPHY 6090 Comparative Mammalian Physiology (post-graduate course)
- VPHY 8000 Cardiovascular Physiology (post-graduate course)

ONLINE TEACHING

I have ten years of online teaching experience. I have used Desire2Learn (D2L)-similar to Blackboard, Moodle, an integrated learning platform designed to create a single place online for students and instructors to interact. Using a combination of several programs to deliver online content such as Microsoft PowerPoint, Camtasia and most recently, VoiceThread, I have provided students with interactive and narrated lectures/labs. Voice Thread replaces text-only discussions with interactive lectures, thus allowing students to communicate in real time with professors. I offer all my online teaching materials in multiple modes (video, text, narration) using Universal Design for Learning (UDL) principles to accommodate for varied learning styles.

RESEARCH

I played an important role in establishing a research program involving rodents (rats and mice) at UW-Stout. With colleagues, I established an animal research facility and secured federal certification for it. I also wrote its standard operating procedures (SOPs) and I was the only faculty on campus to hold a DEA license for the use of controlled substances in my research. Establishment of the animal facility was essential for the growth of the Applied Science and Environmental Science Programs amongst others and provided novel research experiences for UW-Stout students.

In addition to SOTL research, my lab research program centered on the etiology of hypertension, other cardiovascular related issues (using rodent models). My students investigated original research questions in the field of cardiovascular physiology and have been trained in sophisticated techniques. My students and I have collaborated with colleagues in Biology as well as other institutions. Over the last ten years, I personally mentored 20 undergraduate students in my research lab, and we have presented our research on campus, locally, nationally and internationally.

Bench Skills

- Histology, frozen and paraffin sections
- Immunohistochemistry, sectional and whole mount
- Immunoprecipitation assays
- Western Blotting
- Transmission Electron Microscopy
- Immuno Electron Microscopy
- PCR
- In vivo surgery, catheterization, micro-dissection

SERVICE

My service contributions to my department, the university and the local community have enriched my life, both professionally and personally. Within my department I held the following additional positions: Environmental Health concentration coordinator of the Environmental Science program, the Pre-Med advisor and the lead faculty for BIO 132 (Human Biology) and BIO 234 (Anatomy & Physiology), Academic Advisor for the Marshfield Clinic Histotechnician program, the Human Physiology minor and the coordinator for the Summer/Winter Marshfield Clinic Pre-Med shadowing program. Every semester, I lead mass-advising sessions, advised individual students and developed materials for Medical School applications. I was the Academic Advisor for the Stout Pre-Health Society (SPHS) student organization. Under my leadership SPHS students volunteered their time and service to the community, held MCAT study sessions, organized Wellness Events and mock Medical School interviews. SPHS students won an award from UW-Stout for Service Organization of the Year in the service category "for their work in volunteering their time and expertise at the student-led health clinic at Stepping Stones in Menomonie".

Curriculum Vitae

At the university level, I participated in university governance through the Educational Activities Committee (Chair), Faculty Senate Executive Committee, the Chancellor's Coalition on Alcohol, Institutional Review Board (IRB) and Institutional Animal Care and Use Committee (IACUC). I participated in recruiting events such as the Wisconsin State Science Olympiad by serving as a State Event Supervisor for five years.

My service to the community consists of a major service-learning project that has literally saved lives! With the help of a Learn & Serve America grant, I established a student run health clinic at Stepping Stones Food Pantry (Menomonie, WI, USA) in 2011. It served to provide free preventative health screenings to patrons of the food pantry who had inadequate or no health insurance.

Service to: Programs, Biology Department and UW-Stout

- Advisor for: Human Physiology minor (2013-2018), Marshfield Clinic Histotechnology program (2011-2018), Environmental Health concentration coordinator (2012-2018), Stout Pre-Health Society (2010-2018), advisory committee member for the Marshfield Histotechnician program (2010-2018), coordinator for The Winter Marshfield Clinic Pre-med Shadowing Program (2009-2018), Pre-Med advisor (2008-2018), I have advised 50+ students per semester, (Applied Science and Environmental Science Majors, 2008-2018)
- Campus committees: Institutional Review Board (IRB, 2012-2018), Chancellor's Coalition for Alcohol (2011-2012), Institutional Animal Care and Use Committee (IACUC, 2009-2018), Faculty Senate Executive Committee (2009-2011), STEM College Level Promotions Committee (2009, 2014), Educational Activities Committee 2008-2011, 2014-2017 (Chair 2009-2011, 2015-2017),.
- Departmental committees: Departmental By-laws revision committee (2014-2016), Health Science committee (2008-2018), BIO 132 Human Biology curriculum committee (2008-2018), The Biotechnology concentration committee (2008-2018), Search committee member for Medical Biotech position (2008), Animal/Biotech Technician (2009), Cell Molecular Biologist, (2012, 2017)

Service to the Community (local, state and national)

- Reviewer for: Journal of the Scholarship of Teaching and Learning (2013-2018), Human Biology by Mader & Windelspecht. 12th Ed, McGraw-Hill Publishing, (2011) & Biology of Humans: Concepts, Applications, and Issues by Judith Goodenough and Betty McGuire, Pearson Education, (2009)
- Free health screenings to Menomonie residents via student health clinic (2011-2018)
- Science Olympiad State Event Supervisor (2008-2009, 2012-2013, 2016)

<u>AWARDS</u>

- Ranked #1 in STEM College and University-wide for Promotion to Associate Professor in 2014
- Outstanding Emerging Researcher Award 2012 (nominated)
- Outstanding Woman of Color in Education Award 2013
- Ernest A. Lynton Award for the Scholarship of Engagement for Early Career Faculty 2012, 2013 (nominated by the Provost)
- University of Wisconsin Teaching Fellow 2012
- UW-Stout Library Research Fellow 2012

GRANTS

- Carlson, KM & Hashmi, MP (2014) Implementing and Assessing the Impact of iPads in the STEM Laboratory. OPID Teaching and Learning Grant. \$8440
- **Hashmi, MP**. (2014) *Local Food Security Through College-Based Service Learning*. UW-Stout STEM College Small Grant, US-Stout. \$3000.
- **Hashmi, M.P**. (2013). *Cellular S-nitrosothiol Signaling in Respiratory Biology*. NIH NHLBI Subaward. \$24,000
- Carlson, KM & **Hashmi, MP**. (2012). Professional Development grant. Professional Development: Establishing a Sustainability Science Funding Network. \$1000
- Wisconsin Teaching Fellow Award. 2012. \$5700
- Shapaker, T. & **Hashmi, MP**. (2012). Comparing Nitric Oxide Synthase Distribution between Spontaneously Hypertensive Rats and Wistar Kyoto Rats. \$1863
- Carlson, KM, **Hashmi, MP**, Vande Linde, AQ, Kirk, J & Little, AM. (2012). Learning on a Mission (LOAM). NSF TUES Proposal \$590,362 (Not Funded)
- Hashmi, MP. 2011. Infusing diversity across the UW-Stout curriculum institute. \$1800
- Hashmi, MP. 2011. Learning Community Summer Planning Workshop; Setting the PACE for Success, \$300
- Nelson, M., Smith, K., & **Hashmi, MP**, 2011. Investigation of Aspergillus Migration into Blood Vessels. \$1863
- Pickart, M, **Hashmi, MP** and Burritt, J, 2010. Health Sciences Education Collaborative Project: Marshfield Clinic, UW-River Falls, and UW-Stout. UW-Stout Curriculum Incubation Center Grant. \$8960
- Burritt, J, Pickart, M and Hashmi, MP, 2010. Animal and Tissue Procurement for Instruction.
 UW-Stout Curriculum Incubation Center Grant. \$8698
- Demuth, B., & **Hashmi, MP**. 2010. Down-Regulation of A2A Receptor via Continuous Antagonism as a Possible Treatment for Parkinson's Disease. \$936
- **Hashmi, MP** and White, T, 2010. Service Learning STEMS into Community Action. Corporation for National and Community Service through the Learn and Serve America Program. Grant distributed by Midwest Campus Compact. \$25,000
- **Hashmi, MP**, Little, AM, and Grant, JE. 2010. NTLC Lesson Study Community of Practice: Plants, Drugs, and Depression. \$2000.
- Grant, JE, Parsons, A, **Hashmi, MP**. "Biocircle" NSF TUES Proposal \$186,640. (Not funded)
- Boone, J. & **Hashmi,** MP 2009. Student Grant Assessment of Endothelial Cell Response to Medicinal Plant Compounds, UW Stout. Grant awarded March \$1975
- Fagan, M. & **Hashmi,** MP Student Grant 2009 Quantification of Proteins Involved in the Etiology of Hypertension Using Western Blotting Techniques. UW Stout. \$1945
- **Hashmi, MP.** 2008 Faculty Research Initiative Grant. Development of Hypertension and Screening of Medicinal Plant Extracts Using Endothelial Cell Culture, UW Stout. \$8000

PUBLICATIONS

- Hashmi MP, Koester TM, Droege HR, Best PD & Loughrin MR (2018). A Review of Bio-Processing
 of Blood Vessels Using Natural and Synthetic Materials; Reference Module in Materials Science
 and Materials Engineering, publisher, Elsevier. https://doi.org/10.1016/B978-0-12-803581-8.10257-7
- Hashmi MP & Koester TM (2018). Applications of Synthetically Produced Materials in Clinical Medicine; Reference Module in Materials Science and Materials Engineering, publisher, Elsevier, in press. https://doi.org/10.1016/B978-0-12-803581-8.10258-9

Curriculum Vitae

- Hashmi MP & Koester TM. (2018). Synthesis of Artificial Muscle Materials for Environmentally Sustainable Food Source; Reference Module in Materials Science and Materials Engineering, publisher, Elsevier. https://doi.org/10.1016/B978-0-12-803581-8.10259-0
- Rodriguez, AM, Jin, DX, Wolfe, AD, Mikedis, MM, Wierenga, L, Hashmi, MP, Viebahn, C & Downs, KM, (2017). Brachyury drives formation of a distinct vascular branchpoint critical for fetal-placental arterial union in the mouse gastrula. Developmental Biology Volume 42: 2, 208-222.
- **Hashmi, MP**, & Carlson, KM, (2012). Interdisciplinary model for infusing food security into STEM curriculum. Journal of Agriculture, Food Systems, and Community Development, 3:1, 129-141.
- Hashmi, MP, Grant, JE. & Suilmann, D, (2012). Inspiring Non-Science Students in STEM Courses: Illustrated Novels in Two Linked Learning Communities: in Advancing the STEM Agenda: Quality Improvement Support STEM. ASQ Quality Press, Milwaukee.
- **Hashmi, MP** & Carlson, KM, (2012). Interdisciplinary Service Learning: Two approaches to solving one problem. Proceedings of the ASQ STEM Agenda Conference, Menomonie, WI.
- **Hashmi, MP**, Little, AM & Grant, J, (2011). Interdisciplinary lesson study: Using case studies to build graph interpretation and web evaluation skills, and student enthusiasm. Proceedings of the ASQ STEM Agenda Conference, Menomonie, WI.
- Hashmi, MP, Grant, J & Suilmann, D, (201)1. Inspiring Non-Science Students in STEM Courses:
 The Illustrated Novel Project. Proceedings of the ASQ STEM Agenda Conference, Menomonie,
 WI.
- Hashmi-Hill MP*, Graves JE, Sandock K, Bates JN, Robertson TP & Lewis SJ, (2007).
 Hemodynamic responses elicited by systemic injections of flavin adenine dinucleotide. Journal of Cardiovascular Pharmacology, 50: 94-102.
- Hashmi-Hill MP*, Sandock K, Bates JN, Robertson TP & Lewis SJ, (2007). Flavin adenine dinucleotide may release preformed stores of nitrosyl factors from vascular endothelial cells in conscious rats. Journal of Cardiovascular Pharmacology, 50: 142-154.
- Lewis SJ, **Hashmi-Hill MP***, Owen JR, Sandock K, Robertson TP & Bates JN, (2006). The vasodilator potency of the endothelium-derived relaxing factor, L-S-nitrosocysteine, is impaired in Spontaneously Hypertensive rats. Vascular Pharmacology, 44: 476-490.
- Lewis SJ, Hashmi-Hill MP*, Owen JR, Sandock K, Robertson TP & Bates JN, (2006). ACE
 inhibition restores the vasodilator potency of the endothelium-derived relaxing factor, L-Snitroso-cysteine, in Spontaneously Hypertensive rats. Vascular Pharmacology, 44: 491-507.
- Lewis SJ, Travis MD, Hashmi-Hill MP*, Sandock K, Robertson TP & Bates JN, (2006). Differential
 effects of ouabain on the vasodilator actions of nitric oxide and S-nitrosothiols in vivo. Vascular
 Pharmacology, 45: 383-394.

PRESENTATIONS

- 90 student presentations at STEM Expo, UW Stout (2011-2018)
- Hashmi, MP & Carlson,KM (2015) Implementing iPads into the STEM Lab. UW System Women & Science Program Opening Workshop for New STEM Educator. Oct 1-2
- Carlson, KM & Hashmi, MP (2015) Implementing and Assessing the Impact of iPads in the STEM Laboratory. UW System Women & Science Program, Spring Conference, May 18 –19
- **Hashmi, MP.** (2015) Mind Games: Producing reflective, critical thinkers in the classroom. Invited Speaker for UW-Stout's First Year Faculty Program.

^{*} same as Hashmi, MP

Curriculum Vitae

- **Hashmi, M.P.** (2013) Wisconsin Teaching Fellows and Scholars Alumni Presentation at the UW System's Annual Summer Institute sponsored by OPID. June 20th, Madison, WI.
- **Hashmi, M.P.**, Hopp, J. & Schmidt, L. (2013). Wisconsin Teaching Fellows and Scholar News. Mayday presentation sponsored by NTLC at UW-Stout.
- **Hashmi, MP**, (2012) Service Learning in Action: Student-run health clinic at Stepping Stones. The Applied Science Speaker Series.
- Carlson, K.M., Dutton, K. & **Hashmi, M.P**. (2012). Three Parties, Two Projects, One Goal. Co-keynote speaker for Regional Civic Engagement Practitioners Conference at UW-Stout.
- **Hashmi, M.P.** (2012) Service Learning in Action: Student-run health clinic at Stepping Stones. The Applied Science Speaker Series. UW-Stout
- Carlson, KM, Hashmi, MP, Vande Linde, AQM, Little, AM & Kirk, J, (2012). Improving on Student-Community Learning: Strategically aligning student-learning outcomes with community needs to develop a more sustainable, intentional, and cohesive curriculum. Pre-conference workshop for ASQ STEM Agenda Conference, Menomonie, WI
- **Hashmi, MP**. & Carlson, KM, (2012). Interdisciplinary Service Learning: Two approaches to solving one problem. ASQ STEM Agenda Conference, Menomonie, WI.
- Lea, V., Weiss, T., Little, A. & **Hashmi, MP**, (May 2012). Infusing Diversity across the Curriculum (panel discussion), UW-Stout
- Howarton, R & Hashmi, MP, (2012). Infusing Diversity across the Curriculum, 9th Annual International Society for the Scholarship of Teaching & Learning Conference (ISSOTL), Hamilton, Ontario, Canada.
- Hashmi, MP & Carlson, KM, (2012). Radical Curriculum: Making Meaningful Changes in the Classroom and Community, 9th Annual International Society for the Scholarship of Teaching & Learning Conference (ISSOTL), Hamilton, Ontario, Canada.
- Carlson, KM, Dutton, K & **Hashmi, MP**, (2012). Three Parties, Two Projects, One Goal. Cokeynote speaker for Regional Civic Engagement Practitioners Conference at UW-Stout.
- Hashmi, MP & Little, MA, (2012). Infusing Diversity Into The Sciences: Two Case Studies. 9th Annual International Society for the Scholarship of Teaching & Learning Conference (ISSOTL), Hamilton, Ontario, Canada
- Basu, L., Stary, W., Rodriguez, G. & **Hashmi, M.P.** (2011). Mothers and Academic: Balancing the Shifts of Work, Motherhood and Me. Mayday Conference sponsored by NTLC at UW-Stout
- Grant, J.E. & **Hashmi, M.P.** (2011). Illustrated Novels: A Multidisciplinary Mastery Projects for Students. UW-Stout Professional Development Week.
- Hashmi, M.P. & Grant J.E. (2011). An Innovative Teaching Tool for STEM Disciplines: the
 Illustrated Novel. Opening Workshop for New STEM Educators 2011: Inclusive Teaching
 Methods. Sponsored by UW System Women & Science Program. Marshfield, WI, September 30.
- Little, A, **Hashmi, MP** & Grant, J, (2011). Interdisciplinary lesson study: Using case studies to build graph interpretation and web evaluation skills, and student enthusiasm. . ISSOTL11: "Transforming the Academy Through the Theory and Practice of SOTL"Milwaukee, WI, October 20-23.
- Grant, J & **Hashmi, MP**, (2011). Inspiring NonMajor Students in STEM Courses: The Illustrated Novel Mastery Project. ISSOTL11: "Transforming the Academy Through the Theory and Practice of SOTL" Milwaukee, WI. October 20-23.
- Hashmi, MP & Grant JE, (2011). An Innovative Teaching Tool for STEM Disciplines: the
 Illustrated Novel. Opening Workshop for New STEM Educators 2011: Inclusive Teaching
 Methods. Sponsored by UW System Women & Science Program. Marshfield, WI, September 30.

Curriculum Vitae

- Hashmi, MP, Little, A & Grant, J, (2011). Interdisciplinary Lesson Study: Building Graph
 Interpretation, Web Evaluation Skills and Enthusiasm. 1st annual conference addressing STEM
 education. Advancing the STEM Agenda for Education, the Workplace and Society, sponsored by
 ASQ Education Division and UW-Stout. July 19-20.
- Hashmi, MP & Grant, J, (2011). Inspiring Non-Science Students in STEM Courses: The Illustrated Novel Project. 1st annual conference addressing STEM education. Advancing the STEM Agenda for Education, the Workplace and Society, sponsored by ASQ Education Division and UW-Stout. July 19-20.
- Basu, L, Stary, W, Rodriguez, G & **Hashmi, MP**, (2011). Mothers and Academic: Balancing the Shifts of Work, Motherhood and Me. Mayday presentation sponsored by NTLC at UW-Stout
- Becker, J, Deacon, A, Anheier, P, Navarre, J, Grant, J, Hashmi, MP & Little, M, (2011). Improving Instruction and Student Learning Through Lesson Study: A Tale of Two Disciplines. Mayday presentation sponsored by NTLC at UW-Stout
- Grant, J & **Hashmi**, **MP**, (2011). Illustrated Novels: Creativity Meshing With Human Biology. Mayday presentation sponsored by NTLC at UW-Stout
- DeMuth, B & **Hashmi, MP**, (2011). Down-Regulation of A2A Receptor via Continuous Antagonism as a Possible Treatment for Parkinson's Disease. NCUR, Ithaca, NY
- Hashmi, MP, Grant, J & Little, A, (2011). Interdisciplinary Lesson Study: Plants, Drugs and Depression. President's Summit on Excellence in Teaching and Learning. April 14-15, Madison, WI.
- Grant, J & Hashmi, MP, (2011). Illustrated Novels: A Multidisciplinary Mastery Projects for Students. UW-Stout Professional Development Week
- Demuth, B. & **Hashmi, MP**. (2011). Down-Regulation of A2A Receptor via Continuous Antagonism as a Possible Treatment for Parkinson's Disease, Stout Research Day, UW-Stout.
- Nelson, M., Smith, K., & **Hashmi, MP**. (2011). Investigation of Aspergillus Migration into Blood Vessel. Stout Research Day, UW-Stout.
- DeMuth, B, Nelson, M and **Hashmi, MP**, (2010). A study to Elucidate the Best Method for Physical Removal of Cholesterol from Blood. National Conference for Undergraduate Research. Missoula, MT
- Fagan, M, Boone, J & Hashmi, MP, (2010). Quantification of Proteins Involved in the Etiology of Hypertension Using Western Blotting Techniques National Conference for Undergraduate Research. Missoula, MT.
- Koenig,B, Gaffney, C, Boone, J, Carlson, K, Pickart, M & Hashmi, MP, (2009). Screening of Hmong Medicinal Plants for Bioactive Compounds. National Conference for Undergraduate Research. UW-LaCrosse, WI.
- Hashmi, MP, (2009). How to Get into Medical School. Applied Science Speaker Series. UW-Stout.