

Fikru B. Bedada, PhD, MSc, BSc (MLS, ASCP), Assistant Professor

College of Nursing and Allied Health Sciences (CNAHS)
Department of Clinical Laboratory Science, Howard University
Office location: Howard university hospital, 6W-room 6W22
2041 Georgia avenue NW, Washington, DC 20060
Phone: 202-865-2613
Email: Fikru.bedada@howard.edu

Education:

PhD, 2006, Martin Luther University at Halle (Saale), Germany, in Cellular and Molecular Biology. PhD thesis: Plasticity of murine Bone Marrow-Derived Adult Stem Cells: acquisition of specialized properties and contribution to embryonic development. PhD awarded with magna cum laude.

MSc, 2001, Free University of Brussels (VUB), Belgium, in Molecular Biology and Human Health, awarded with grade of great distinction. Master's thesis: In vitro differentiation and maturation of human myeloid dendritic cells from CD14+ precursors cells in peripheral and cord blood cells. MSC awarded with grade of great distinction.

BSc, 1998, Jimma Institute of Health Sciences (JIHS), Jimma University (JU), Ethiopia in Medical Laboratory Technology also called clinical laboratory science. BSc awarded with cumulative GPA of 3.53

Professional Certification:

American Society for Clinical Pathology (ASCP) Board of Certification (BOC) certified MLS (ASCPi)

Research and Professional Experience:

9/12/2016 to present, Assistant professor, Howard University

8/25/2014–8/31/2016, Research Associate/Research assistant professor, University of Minnesota, Minneapolis, Minnesota

8/4/2008-8/24/2014, Post-Doctoral Associate, University of Minnesota, Minneapolis, Minnesota

6/4/2007-7/31/2008, Postdoctoral Fellow, University of Michigan, Ann Arbor, Michigan

11/1/2006-5/31/2007, Postdoctoral Fellow, Max Planck Institute (MPI) for heart and lung research, Bad Nauheim, Germany

1999-2001 MSc Scholar of Flemish Interuniversity Council awarded by Belgium government for MSc study in molecular biology at free university of Brussels (VUB)

1998-1999, Assistant lecturer of medical laboratory technology (MLT), Jimma University, Jimma, Ethiopia. During this time, I taught Immunohaematology (blood banking), clinical chemistry, laboratory methods, Instrumentation, urinalysis, as well as practical laboratory courses on microbiology, parasitology and clinical chemistry.

Professional Certification:

1. American Society for Clinical Pathology (ASCP) Board of Certification (BOC) certified MLS (ASCPi)

Professional Membership:

1. American Society for Clinical Pathology (ASCP)

Research Techniques Experience:

1. Molecular Biology Techniques:

DNA isolation and manipulation, DNA cloning and sub-cloning, Total RNA isolation and quantitative RT-PCR, SDS-PAGE, Transfection, Infection or transduction of primary cells, Western Blotting, Northern blotting, Southern blotting, Genetic engineering techniques such as TALEN, Zink finger nuclease and CRISPR-Cas9 and CRISPR interference technologies.

2. Cellular Biology Techniques:

Culture and maintenance of embryonic stem cells (ES cells), mouse and human induced pluripotent stem cells (hiPSCs) and adult stem cells (ASCs) and their differentiation primarily into cardiac myocytes. Tail vein injection of stem cells into mice, isolation of cells from different tissues and their characterization, Flow cytometry (FACS), immunohistochemistry, stable gene expression using retroviruses, lenti-viruses and the non-viral sleeping beauty transposon transposase system. Experience in TALEN and Zink finger nuclease (ZFN), CRISPR/Cas9 based genome editing in human induced pluripotent stem cells (hiPSC). Experience in Adenoviral and recombinant adeno associated virus (rAAV) gene delivery system. Adult and neonatal Myocyte isolation, cardiac Matrix preparation and repopulation. Calcium imaging, contractility and relaxation measurements of adult and neonatal cardiac myocytes using IONOPTIX. Subcutaneous transplantation of cardiac patches and Xenogen imaging.

Current Teaching Experience:

Currently I am teaching the following major courses

1. Clinical Biochemistry and Instrumentation CLLS 309,
2. Clinical Chemistry II CLLS 410
3. Chemistry Practicum CLLS 408 and
4. Molecular Diagnostics CLLS 400

Awards:

1. Academic award for student of the year **1996/1997** Jimma University, Ethiopia
2. Flemish Interuniversity council prestigious scholarship award by Belgium Government for two years **(10/1999-09/2001)**
3. Travel Award by Cambridge Healthtech Institute and the Ohio state University for Biomems and biomedical nanotechnology world **2001** meetings
4. Outstanding poster presentation at cardiovascular research retreat organized by Integrative Biology and Physiology and The Lillehei Heart Institute, hosted on the St. John's University campus **June 26-28, 2009**
5. The Maurice B. Visscher Symposium Young Investigators Competition award organized by Integrative Biology and Physiology hosted on the University of Minnesota campus **June 3, 2010**
6. Outstanding poster presentation at Lillehei heart institute symposium: Success in heart failure **October 27, 2010**, University of Minnesota
7. Prize award for work on acquisition of rod shaped, mature gene expression in hiPSC-CMs cultured in Laminin/Fibronectin coated cover slips at 7th Annual PCBC Meeting Houston Methodist Research Institute, Houston, Texas, **2015**.
8. Certificate for presentation of poster at moderated poster session organized by Research Centers in Minority Institutions, RCMI on **October 29 – November 1, 2017** Title: Maturation of hiPSC-CMs using ECM proteins and genome editing"
9. Certificate for presentation of poster at moderated poster session organized by Howard University Research Symposium on **April 12, 2018**
10. Certificate of Black board training at the CETLA, Howard University on **3/29/2019**
11. Certificate for Oral presentation of research work organized by Howard University Research Symposium on **April 12, 2019**. Tittle: *FBXO32* and *FOXO1* are Coordinately Expressed in a One-to-One Stoichiometric Pattern at Baseline, with Exercise, and in Both Genders in Mild Cognitively Impaired African American
12. Certificate for presentation of poster at moderated poster session organized by *The Alzheimer's Association International Conference® (2019)* **July 14-18, 2019** – AAIC 2019 Annual Conference Angeles Convention Center, Los Angeles, CA.

Title: *FBXO32* and *FOXO1* are Coordinately Expressed in a One-to-One Stoichiometric Pattern at Baseline, with Exercise, and in Both Genders in Mild Cognitively Impaired African American

13. Certificate of participation at the Maryland department of health, office of preparedness and response, us public health service commissioned corps, food and drug administration opioid overdose skills station training on **09/06/2019**
14. Certificate of Distance learning and best practice course training at the CETLA, Howard University on **6/1/2020**

Peer-reviewed Publications:

1. Wheelwright M, Mikkila J, **Bedada FB**, Mandegar MA, Thompson BR, Metzger JM. Advancing physiological maturation in human induced pluripotent stem cell-derived cardiac muscle by gene editing an inducible adult troponin isoform switch. *Stem Cells* **2020** Jun 04;10.1002/stem.3235.
2. **Bedada FB**, Martindale JJ, Arden E, Metzger JM. Molecular inotropy mediated by cardiac miR-based PDE4D/PRKAR1alpha/phosphoprotein signaling. *Sci Rep* **2016**;6:36803.
3. Martire A, **Bedada FB**, Uchida S, et al. Mesenchymal stem cells attenuate inflammatory processes in the heart and lung via inhibition of TNF signaling. *Basic Res Cardiol* **2016**;111:54.
4. **Bedada FB**, Wheelwright M, Metzger JM. Maturation status of sarcomere structure and function in human iPSC-derived cardiac myocytes. *Biochim Biophys Acta* **2015**;1863:1829-38.
5. Barnabei MS, Sjaastad FV, Townsend D, **Bedada FB**, Metzger JM. Severe dystrophic cardiomyopathy caused by the enteroviral protease 2A-mediated C-terminal dystrophin cleavage fragment. *Sci Transl Med* **2015**;7:294ra106.
6. **Bedada FB**, Chan SS, Metzger SK, et al. Acquisition of a quantitative, stoichiometrically conserved ratiometric marker of maturation status in stem cell-derived cardiac myocytes. *Stem Cell Reports* **2014**;3:594-605.
7. Rasmussen TL, Kweon J, Diekmann MA, **Bedada FB**, et al. ER71 directs mesodermal fate decisions during embryogenesis. *Development* **2011**;138:4801-12.
8. Palpant NJ, **Bedada FB**, Peacock B, Blazar BR, Metzger JM, Tolar J. Cardiac disease in mucopolysaccharidosis type I attributed to catecholaminergic and hemodynamic deficiencies. *Am J Physiol Heart Circ Physiol* **2010**;300:H356-65.
9. Palpant NJ, Szatkowski ML, Wang W, **Bedada FB**, et al. Artificial selection for whole animal low intrinsic aerobic capacity co-segregates with hypoxia-induced cardiac pump failure. *PLoS One* **2009**;4:e6117.
10. Turner I, **Belema-Bedada F**, Martindale J, et al. Molecular cardiology in translation: gene, cell and chemical-based experimental therapeutics for the failing heart. *J Cardiovasc Transl Res* **2008**;1:317-27.

11. **Belema-Bedada F**, Uchida S, Martire A, Kostin S, Braun T. Efficient homing of multipotent adult mesenchymal stem cells depends on FROUNT-mediated clustering of CCR2. *Cell Stem Cell* **2008**;2:566-75.
12. **Bedada FB**, Braun T. Partial induction of the myogenic program in noncommitted adult stem cells. *Cells Tissues Organs* **2008**;188:189-201.
13. **Bedada FB**, Gunther S, Kubin T, Braun T. Differentiation versus plasticity: fixing the fate of undetermined adult stem cells. *Cell Cycle* **2006**;5:223-6.
14. **Belema Bedada F**, Technau A, Ebelt H, Schulze M, Braun T. Activation of myogenic differentiation pathways in adult bone marrow-derived stem cells. *Mol Cell Biol* **2005**;25:9509-19.
15. Schulze M, **Belema-Bedada F**, Technau A, Braun T. Mesenchymal stem cells are recruited to striated muscle by NFAT/IL-4-mediated cell fusion. *Genes Dev* **2005**;19:1787-98.

Manuscript Submitted:

1. **Fikru B. Bedada**, Ntekim Oyonumo, Nwulia, Evaristus O, Fungwe, Thomas V, Nadarajah, Sheeba, Thomas Obisesan **(2020)**. Exercise intervention increase FBXO32 and FOXO1 in gender dependent manner in Mild Cognitively Impaired African American (Manuscript submitted to Journal of Aging and Disease)
2. Oyonumo E. Ntekim, Julius S. Ngwa, **Fikru B. Bedada**, Thomas Fungwe, Steven Johnson, Lennox Graham, Chimene Castor, Sheeba Nadarajah, Thomas O. Obisesan. **(2020)**. Exercise Training-Induced Changes in Plasma Nitrite/Nitrate Levels, and Nitric Oxide Synthase Activity in Mild Cognitively Impaired Elderly African Americans. (Manuscript submitted to Nitric oxide Journal)
3. Julius S Ngwa, Evaristus Nwulia, Oyonumo Ntekim, **Fikru B. Bedada**, Bernard Kwabi-Addo, Sheeba Nadarajah, Steven Johnson, William M. Southerland, John Kwagyan, Thomas O. Obisesan. **(2019)**. Aerobic Exercise Training-Induced Changes on DNA Methylation in Mild Cognitively Impaired Elderly African Americans: GEMS Study (Manuscript under revision BMC Genomics).

Manuscript In preparation

4. **Fikru B. Bedada**, Jennifer Mikkila, Sunny SK. Chan and Joseph M. Metzger **(2020)**. Inducing cardiac α -myosin isoform expression by gene editing enhances contractility of human iPSC-derived cardiac muscle (Manuscript in preparation).
5. **Fikru B. Bedada** and Metzger, J. M. **(2020)** MiR-208a suppresses GATA4/calcieneurin and prevent cardiac remodeling and functional deficit induced by phenylephrine (PE), Ad-GATA-4 and Ad-Calcieneurin in ventricular myocytes (Manuscript in preparation).

6. **Fikru B. Bedada** Daniel F. Carlson and Joseph M. Metzger **(2020)**. Structural organization and mature gene expression in transplanted reconstituted-cardiac constructs expressing bioluminescence reporter by SB transposase (Manuscript in preparation).

Abstract publication:

1. **Fikru B. Bedada**, Ntekim Oyonumo, Nwulia, Evaristus O, Fungwe, Thomas V, Nadarajah, Sheeba, Thomas Obisesan **(2019)**. FBXO32 and FOXO1 are coordinately expressed in a one-to-one stoichiometric pattern at baseline, during exercise and in both sexes in elderly MCI African American. AandD Journal (2019)
2. **Bedada, FB.**, Metzger, JM. **(2012)**. MiR-208A Targeted Suppression of PDE4D Directly Enhances Myocyte Contractile Function via PKA-Mediated Phosphorylation of cTnl and PLN. Biophysical Journal, 102(3) 31 January 2012.
3. Martire A., **Bedada FB.**, Uchida S., Pöling J., Wietelmann A., Krueger M., Kubin T., Szibor M., Warnecke H., Braun T. **(2011)** Mesenchymal Stem Cells Modulate Inflammatory Responses in Murine Heart by Inhibition of the TNF System. *Circulation*. 2011;124: A9673
4. Martire, A., **Bedada, FB.**, Wietelmann, A and Braun, T. **(2006)**. Peripheral injection of mesenchymal adult stem cells prevents left atrial dilatation and improves cardiac function in MCP-1-induced cardiomyopathy. Journal of Molecular and Cellular Cardiology 6, 942-943.

Conference, Workshop, Seminar and Webinar Participation:

1. Creating and Developing an Active Online Space that Creates Interactivity between Faculty and Students. We are All in this Together! on **July 9, 2020**.
2. Webinar on a model of soliciting student feedback in real-time to help shape the class experience and content delivery in a meaningful way in a virtual course on Tuesday, **June 30, 2020**
3. Webinar on How to Teach a Large Class Online, Challenges and Opportunities -- Grandma's Recipe is the Key! What's Metacognition Got to Do with It? On **June 25, 2020**
4. Webinar on "Developing Online Instruction, i.e., What's Pedagogy Got to Do with It! We will discuss, how to think about developing (and implementing) learning objectives for your online courses, and the why? On **Jun 11, 2020**
5. Webinar on "Copyright and Fair Use - What Every Faculty Member Needs to Know" on **Jun 10, 2020**

6. Distance Learning and best practice certification course organized by the Center for Excellence in Teaching, Learning, and Assessment (CETLA). From **June 1- June 6, 2020**
7. Webinar on "Epidemiology, virology, and clinical testing strategies for COVID-19." On May 28, 2020
8. NIH intramural TB Research initiative Seminar on Infection biology: from Bench to computer and bedside by Professor Stefan H.E. Kaufman max Planck institute for infection biology **February 18, 2020** at the NIH, Bethesda
9. Interdepartmental collaboration with Geriatrics Research Unit Meeting, GRUM research center, **February 14, 2020** Howard university. Tittle: Interplay between intestinal alkaline phosphatase (IAP), Immunity, Gut Microbes, Diet and Blood group
10. Research Centers in Minority Institutions (RCMI) meeting RCMI Translational Science 2019: **December 15 – 17, 2019** in Bethesda, MD. Tittle: FBXO32 and FOXO are coordinately expressed in MCI African American
11. Workshop participation at the Maryland department of health, office of preparedness and response, us public health service commissioned corps, food and drug administration opioid overdose skills station training on **September 6, 2019.**
12. Howard university opioid symposium and naloxone administration training. On **September 6, 2019**, Cramton Auditorium, Hoard university
13. RCMI grantsmanship workshop Gust speaker: **August 28, 2019**, IRB, Howard university
14. *The Alzheimer's Association International Conference® (2019)* **July 14-18, 2019** – AAIC 2019 Annual Conference Los Angeles Convention Center, Los Angeles, CA. Title: *FBXO32 and FOXO1 are Coordinately Expressed in a One-to-One Stoichiometric Pattern at Baseline, with Exercise, and in Both Genders in Mild Cognitively Impaired African American.*
15. Interdepartmental collaboration with Geriatrics Research Unit Meeting, GRUM research center, **May 3, 2019** Howard university. Tittle: *FBXO32 and FOXO1 are Coordinately Expressed in a One-to-One Stoichiometric Pattern at Baseline, with Exercise, and in Both Genders in Mild Cognitively Impaired African American*
16. National Medical Laboratory Week 2019 Tittle: *"Making Your Lives Easier with Laboratory Informatics"* guest lecturer, Joseph M. Campos, Ph.D., D(ABMM), FAAM, Director of the Microbiology Laboratory, the Molecular Diagnostics Laboratory and the Section of Laboratory Informatics at Children's National Medical Center. On **April 23, 2019**, Howard University
17. Howard University Research Symposium on **April 12, 2019.** Tittle: *FBXO32 and FOXO1 are Coordinately Expressed in a One-to-One Stoichiometric Pattern at Baseline, with Exercise, and in Both Genders in Mild Cognitively Impaired African American*
18. NIH 101: An Introduction to the NIH and Grant Writing Best Practices. Guest Speaker: Timothy A Gondré-Lewis, Ph.D. Program Officer/ Training Officer, National Institute of Allergy and Infectious Diseases (NIAID), NIH, HHS. On **April 8, 2019**, IRB, Howard university

19. Workshop on Black board training at the CETLA, Howard University from **March 25- 29, 2019**
20. National Medical Laboratory Week 2018 Title: 'Future of Clinical Microbiology: Clinical Microbiology in the 21st Century'. 'Guest Speaker: Karen Carroll, MD, Director of Medical Microbiology, Professor of pathology, Johns Hopkins School of Medicine. On **April 26, 2018**, Howard University
21. Annual National Cancer Institute (NCI) Center to Reduce Cancer Health Disparities (CRCHD) Professional Development and Mock Review Workshop. This year, the Workshop will be on **June 28-29, 2018**, at the NCI Shady Grove Campus, Rockville, MD
22. The Greater Washington Infectious Diseases Society Annual Spring Symposium. At the Georgetown University Hospital Goldberg Auditorium on Saturday, March 24, 2018. Presenters Dr. Anthony S. Fauci, Director, National Institute of Allergy and Infectious Diseases, NIH "Chasing Influenza—The Need for a Universal Influenza Vaccine". Dr. Anne Rompalo, Professor of Medicine and Medical Director of the STD/HIV Prevention Training Center at Johns Hopkins University "STI Update: What's Old is New Again". Dr. Emily Blumberg Professor of Medicine and Director of Transplant Infectious Diseases at the University of Pennsylvania. "Update on Infections in Transplant Recipients: Confronting the Past, Welcoming the Future."
23. Howard University and University of Kentucky Grant writing Workshop. At the Howard university on **May 17-18, 2017**
24. Town hall meeting, presented by the HU *Research Centers in Minority Institutions (RCMI) Program on opportunities for R-Type project funding* **May 16, 2017**
25. The Role of MALDI-TOF MS (Matrix-Assisted Laser Desorption Ionization-Time of Flight Mass Spectrometry) in the Clinical Microbiology Laboratory". Speaker: Dr. Anna Lua, from the Department of Laboratory Medicine at NIH Clinical Center. On **April 25, 2017** hosted by department of Clinical Laboratory Science at Howard University
26. Detection of antibiotic resistance in the clinical microbiology laboratory. Speaker: Jamie Lemon, PhD NIH Clinical Center. On **March 30, 2017** hosted by department of Clinical Laboratory Science, Howard University
27. Global Neglected Infectious Diseases Presents A One Day Symposium, On **March 7, 2017** at National Institute of Health (NIH)
28. Writing the Specific Aims Section for a national institute of health (NIH) Grant. Speaker: Dr. Thomas A. Mellman, Howard University, at the Interdisciplinary Research Building, Howard University, On **January 26, 2017**
29. Grant writers' seminars and workshops in association with the Howard University: How to write winning grant proposals. Speaker: Lauren Broyles, PhD on **October 6, 2016** at Howard University
30. Biomems and biomedical nanotechnology world 2001 organized by Cambridge Healthtech Institute and the Ohio state University from **September 22-25, 2001**.

Oral Presentations:

1. Interplay between intestinal alkaline phosphatase (IAP), Immunity, Gut Microbes, Diet and Blood group. Oral presentation at Interdepartmental collaboration with Geriatrics Research Unit Meeting, GRUM research center, **February 14, 2020** Howard university.
2. **Bedada FB**, Ntekim Oyonumo, Nwulia, Evaristus O, Fungwe, Thomas V, Nadarajah, Sheeba, Thomas Obisesan **(2019)**. *FBXO32* and *FOXO1* are Coordinately Expressed in a One-to-One Stoichiometric Pattern at Baseline, with Exercise, and in Both Genders in Mild Cognitively Impaired African American. At Interdepartmental collaboration with Geriatrics Research Unit Meeting, GRUM research center, **May 3, 2019** Howard university.
3. **Bedada FB**, Ntekim Oyonumo, Nwulia, Evaristus O, Fungwe, Thomas V, Nadarajah, Sheeba, Thomas Obisesan **(2019)**. *FBXO32* and *FOXO1* are Coordinately Expressed in a One-to-One Stoichiometric Pattern at Baseline, with Exercise, and in Both Genders in Mild Cognitively Impaired African American. At Howard University Research Symposium on **April 12, 2019**.
4. Mitochondria-targeted hydrogen sulfide attenuates endothelial senescence by selective induction of splicing factors *HNRNPD* and *SRSF2*. At Interdepartmental collaboration with Geriatrics Research Unit Meeting, GRUM research center, **October 5, 2018** Howard university
5. Circulating brain-enriched microRNAs as novel biomarkers for detection and differentiation of neurodegenerative diseases (NDs). At Interdepartmental collaboration with Geriatrics Research Unit Meeting, GRUM research center, **August 3, 2018** Howard university
6. Plasma microRNA biomarkers for detection of mild cognitive impairment: biomarker validation study. At Interdepartmental collaboration with Geriatrics Research Unit Meeting, GRUM research center, **July 27, 2018** Howard university
7. **Bedada FB (2017)**. Research grant concept presentation. Title: Investigation of Molecular and Cellular Pathways Regulating Skeletal Muscle Atrophy in African Americans during Aging and Exercise at Geriatrics Research Unit Meeting (GRUM) Scientific Section on **November 29, 2017**, Howard university
8. **Bedada FB (2017)**. Title: From adult stem cells to induced pluripotent stem cells: Molecular, cellular and whole animal-based analysis. At the Geriatrics Research Unit Meeting (GRUM) on **October 06, 2017**, Howard university
9. **Bedada FB (2017)**. Research grant concept presentation Title: Precision Medicine and Patient Specific hiPSCs in African American: Molecular Investigation of Polymorphic Genes Implicated in Pharmacogenetics and Nutrigenetics. At Howard university annual faculty retreat from **July 10-12, 2017** at the Wintergreen Resort in Wintergreen, VA.
10. **Bedada FB**, Chan SK, Kyba M and Metzger JM **(2015)**. Morphological and molecular maturation of hiPSC-CMs using ECM proteins and genome editing. At the 7th annual Progenitor Cell Biology Consortium (PCBC) hub meeting from **October 13-14, 2015** at Houston Methodist Research Institute, Houston, Texas

11. Bedada FB, Sunny S.-K. Chan, Stefania K. Metzger, Liyang Zhang, Jianyi Zhang, Daniel J. Garry, Timothy J. Kamp, Michael Kyba and Joseph M Metzger **(2014)**. Acquisition of a quantitative, stoichiometrically conserved irreversible adult maturation signature in stem cell-derived cardiac myocytes. At the 6th annual Progenitor Cell Biology Consortium (PCBC) Hub Meeting, from **september 28-30, 2014** at University of Stanford, Palo Alto, California.
12. Bedada FB, Sunny S.-K. Chan, Stefania K. Metzger, Liyang Zhang, Jianyi Zhang, Daniel J. Garry, Timothy J. Kamp, Michael Kyba and Joseph M Metzger **(2014)**. Acquisition of a quantitative, stoichiometrically conserved irreversible adult maturation signature in stem cell-derived cardiac myocytes. At the Midwestern Progenitor Cell Consortium Annual UO1 Hub Meeting, **July 8-9, 2014** University of Minnesota.
13. Bedada FB, Stefania K. Metzger and Metzger., JM **(2013)**. Acquisition of the adult sarcomere protein profile by α -MyHC gene transfer into β -MyHC dominant human iPSC-CMs. At the 5th Annual NHLBI Progenitor Cell Biology Consortium (PCBC) Meeting **October 1-2, 2013**
14. Bedada FB, Stefania K. Metzger and Metzger., JM **(2013)**. Acquisition of the adult sarcomere protein profile by α -MyHC gene transfer into β -MyHC dominant human iPSC-CMs. At the Midwestern Progenitor Cell Consortium Annual UO1 Hub Meeting, **July 11-12, 2013** University of Wisconsin Madison.
15. Bedada, FB., and Metzger, JM **(2010)**. MiR208a prevents phenylephrine, GATA4 and calcineurin induced hypertrophy and improves function in adult rat cardiac myocytes. At the Maurice B. Visscher Symposium Young Investigators Competition **June 3, 2010** University of Minnesota.
16. Bedada, FB., Arden, E. Metzger, JM **(2009)**. MiR208 Prevents Phenylephrine Induced Hypertrophy in Adult Rat Cardiac Myocytes. At common mechanisms in arrhythmias and heart failure, from **April 2-7, 2009** keystone, Colorado, USA.
17. Bedada, FB., Braun, T. **(2006)**. Activation of myogenic differentiation in adult stem cells (mBM-MASCs) by different signalling molecules and epigenetic reprogramming. At 5th International Ascona Workshop on cardiomyocyte cell biology, Differentiation, stability of cytoarchitecture and therapeutic potential of heart muscle cells, Monte Verita, Ascona, Switzerland, **April 2-6, 2006**
18. Bedada, FB., Technau, A., Ebelt, H., Schulze, M., and Braun, T. **(2005)**. Molecular cues guided specification and maintenance of myogenic program in non-committed adult stem cells (mBM-MASCs). At 6th annual meeting of the DFG priority program 1109 Embryonic and somatic stem cells together with the Priority program 1129 Epigenetics in Dresden, **October 27-30, 2005**. Max-Planck-Institute of Molecular Cell Biology and genetics

Poster Presentations:

1. Bedada FB Ntekim Oyonumo, Johnson SP, Turner Jillian, Nadarajah Sheeba, Ngwa Julius, Bond Vernon, Kwagyan John, Obisesan TO **(2020)**. Exercise intervention differentially induce the expression of Cystathionine beta synthase (CBS) in African American with MCI: Implication for endogenous H2S

generation and component of aging pathway. *The Alzheimer's Association International Conference® (2020)* July 27-31, 2020. AAIC 2020 Annual Conference in Amsterdam, Netherlands (became virtual event)

2. **Bedada FB** Ntekim Oyonumo, Nwulia, Evaristus O, Fungwe, Thomas V, Nadarajah, Sheeba, Thomas Obisesan **(2019)**. FBXO32 and FOXO are coordinately expressed in MCI African American. At the Research Centers in Minority Institutions (RCMI) meeting RCMI Translational Science 2019: December 15 – 17, 2019 in Bethesda, MD.
3. **Bedada FB**, Ntekim Oyonumo, Nwulia, Evaristus O, Fungwe, Thomas V, Nadarajah, Sheeba, Thomas Obisesan **(2019)**. FBXO32 and FOXO1 are Coordinately Expressed in a One-to-One Stoichiometric Pattern at Baseline, with Exercise, and in Both Genders in Mild Cognitively Impaired African American. At moderated poster session organized by *The Alzheimer's Association International Conference® (2019)* July 14-18, 2019 – AAIC 2019 Annual Conference Los Angeles Convention Center, Los Angeles, CA.
4. **Bedada FB**, Chan SK, Kyba M and Metzger JM **(2018)**. MATURATION OF HIPSC-CMs USING ECM PROTEINS AND GENOME EDITING. At the “Biological & Biomedical Sciences” category Howard University's Research Symposium 2018 held on Thursday, April 12, 2018
5. **Bedada FB**, Chan SK, Kyba M and Metzger JM **(2017)**. MATURATION OF HIPSC-CMs USING ECM PROTEINS AND GENOME EDITING. At the Research Centers in Minority Institutions (RCMI) meeting RCMI Translational Science 2017: Innovate, Translate, Collaborate, Engage –Community from October 29 – November 1, 2017
6. **Bedada FB**, Chan SK, Kyba M and Metzger JM **(2015)**. Morphological and molecular maturation of hiPSC-CMs using ECM proteins and genome editing. At the Greg Marzolf Jr symposium on November 19, 2015, University of Minnesota, Minneapolis
7. **Bedada FB**, Chan SK, Kyba M and Metzger JM **(2014)**. Morphological and molecular maturation of hiPSC-CMs using ECM proteins and genome editing. At the 7th Annual Cardiovascular Retreat July 31, 2014, University of Minnesota, Minneapolis
8. **Bedada FB**, Sunny S.-K. Chan, Stefania K. Metzger, Liyang Zhang, Jianyi Zhang, Daniel J. Garry, Timothy J. Kamp, Michael Kyba and Joseph M Metzger **(2014)**. Acquisition of a quantitative, stoichiometrically conserved irreversible adult maturation signature in stem cell-derived cardiac myocytes. At the 6th annual Progenitor Cell Biology Consortium (PCBC) Hub Meeting, from September 28-30, 2014 at University of Stanford, Palo Alto, California.
9. **Bedada FB**, Stefania K. Metzger and Metzger, JM **(2013)**. Acquisition of the adult sarcomere protein profile by α -MyHC gene transfer into β -MyHC dominant human iPSC-CMs. At the 6th Annual Cardiovascular Retreat July 31, 2014, University of Minnesota, Minneapolis
10. **Bedada FB**, and Metzger, JM. **(2013)** MiR-208a targeted suppression of PDE4D directly enhances cardiac myocyte contractile function via PKA-mediated phosphorylation of cTnI and PLN. At the 5th Annual Cardiovascular Retreat July 31, 2013, University of Minnesota, Minneapolis

11. **Bedada FB.**, and Metzger, JM. **(2012)** MiR-208a targeted suppression of PDE4D directly enhances cardiac myocyte contractile function via PKA-mediated phosphorylation of cTnI and PLN. At the 16th Annual Minnesota Muscle Symposium May 18, 2012 Minneapolis, Minnesota
12. **Bedada FB.**, and Metzger, JM. **(2012)** MiR-208a targeted suppression of PDE4D directly enhances cardiac myocyte contractile function via PKA-mediated phosphorylation of cTnI and PLN. At the biophysical society 56th annual meeting from February 25-29, 2012 San Diego, California
13. Martire A., **Bedada FB.**, Uchida S., Pöling J., Wietelmann A., Krueger M., Kubin T., Szibor M., Warnecke H., Braun T. **(2011)** Mesenchymal Stem Cells Modulate Inflammatory Responses in Murine Heart by Inhibition of the TNF System. Annual meeting of the American Heart Association (AHA) 2011.
14. **Bedada FB.**, and Metzger, JM. **(2011)** Calcium dependent positive inotrope conferred by α -MyHC gene transfer into β -MyHC dominant neonatal ventricular cardiac myocytes (NVCM). At Molecular cardiology: disease mechanisms and experimental therapeutics, from February 22-27, 2011 keystone, Colorado, USA.
15. **Bedada FB.**, and Metzger, JM. **(2010)** Calcium dependent positive inotrope conferred by α -MyHC gene transfer into β -MyHC dominant neonatal ventricular cardiac myocytes (NVCM) Marzolf Muscle Symposium Oct 29, 2010 Minneapolis, University of Minnesota
16. **Bedada FB.**, and Metzger, JM. **(2010)** Calcium dependent positive inotrope conferred by α -MyHC gene transfer into β -MyHC dominant neonatal ventricular cardiac myocytes (NVCM) at Lillehei Heart Institute Symposium Success in heart failure Oct. 27, 2010, Minneapolis, University of Minnesota.
17. **Bedada FB.**, Arden, A. Metzger, JM. **(2009)** MiR208 Prevents Phenylephrine Induced Hypertrophy in Adult Rat Cardiac Myocytes on Second Annual Lillehei Heart Institute Symposium, sponsored jointly by LHI and SCI. Building Muscle and Blood with Stem Cells. Oct. 21-22, 2009, Minneapolis, University of Minnesota
18. **Bedada FB.**, Arden, A. Metzger, JM. **(2009)** MiR208 Prevents Phenylephrine Induced Hypertrophy in Adult Rat Cardiac Myocytes on cardiovascular research retreat organized by Integrative Biology and Physiology and The Lillehei Heart Institute, hosted on the St. John's University campus June 26-28 2009.
19. **Bedada FB.**, Arden, A. Metzger, JM. **(2009)** MiR208 Prevents Phenylephrine Induced Hypertrophy in Adult Rat Cardiac Myocytes. on 13th Annual Minnesota Muscle Symposium, sponsored jointly by the NIH Training Program in Muscle Research and the Paul and Sheila Wellstone Muscular Dystrophy Center. June 9th, 2009 Minneapolis, University of Minnesota
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References:

1. **Margarite Neita, PhD.**

Associate professor

Chairperson and Program Director, Clinical Laboratory Sciences

College of Nursing and Allied Health Sciences

Howard University

Phone: 202-672-3096

Email: Mneita@howard.edu

2. **Thomas O. Obisesan, MD, MPH**

Professor of Medicine

Associate Vice President and Designated Institutional Official (IO)

Research Integrity Officer (RIO)

Office of Regulatory Research Compliance

Director, Clinical Research Unit

Howard University

1840 7th Street, NW

Washington DC 20001

Phone: 202-865-8597

Email: Tobisesan@howard.edu

3. **Joseph M. Metzger, PhD.**

Head and Endowed Chair of Department of Integrative Biology & Physiology

Medical School, University of Minnesota

6-125 Jackson Hall

321 Church Street SE
Minneapolis, MN 55455
Phone: 612.625.5902
Fax: 612.625.5149
Email: metzgerj@umn.edu

4. Thomas Braun, MD, PhD

Director of Max-Planck-Institute for Heart and Lung Research,
Department of Cardiac Development and Remodeling
Ludwigstrasse 43,
61231 Bad Nauheim, Germany
Phone: +49 6032 705-1102
Fax: +49 6032 705-1104
Email: thomas.braun@mpi-bn.mpg.de

5. Daniel J. Garry, MD, PhD

Director of Lillehei Heart Institute and St. Jude Medical Endowed Chair of
Cardiology
Medical School, University of Minnesota
2231 6th St. SE
Room 4-146, CCRB
Minneapolis, MN 55455
Phone: 612-625-8988
Fax: 612-301-8298
Email: garry@umn.edu