

Padmamalini Baskaran, M. Pharm., Ph. D.,

Howard University College of Pharmacy

Department of Pharmaceutical Sciences

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Education

Doctor of Natural Sciences (Ph. D.) August 1999 to August 2002

Pharmacy (Molecular Pharmacology and Physiology)

University of Graz, Austria

Research Thesis: Effect of Phorbol esters and DMSO on megakaryocytic differentiation of CMK and MEG-01 cells

Master of Pharmacy (M. Pharm) August 1994 to July 1996

Quality Assurance

S.N.D.T. Women's University, Mumbai, India

Research Thesis: Analytical method development and validation of Trisulfas (Sulfonamides) by HPLC

Bachelor of Pharmacy (B. Pharm) October 1989 to March 1994

Pharmaceutical Sciences

Madras Medical College - Chennai, India

Research Thesis: Toxicological Aspects of Clinical Pharmacology

Professional Experience

Assistant Professor of Pharmacology (Tenure track) Aug 2021 - Present

Howard University College of Pharmacy, Washington, D.C.

Research Scientist and Lecturer Nov 2011 to April 2021

Molecular Signaling Laboratory

School of Pharmacy, University of Wyoming, Laramie, WY

Research Assistant Professor Nov 2010 to July 2011

Aab Cardiovascular Research Center, University of Rochester School of Medicine, Rochester, NY

Research Teaching Specialist Nov 2005 to Oct 2010

Rutgers New Jersey Medical School, Newark, NJ

Project Manager Jan 2004 to July 2005

Eastern Medikit Ltd, Gurgaon, India

Part-Time Positions Held

Chief Executive Officer

Medicine Bow Pharmaceuticals LLC, Laramie, WY

May 2015 - June 2021

Principal Scientist

Ion Channel Pharmacology, LLC, Springfield, Illinois

May 2018 – June 2019

Awards and Honors

- Faculty of the year award 2025. Presented by Howard University College of Pharmacy Student Council (CPSC) during the HUCOP Apothecary Brunch.
- Faculty of the year award 2024. Presented by Howard University College of Pharmacy Student Council (CPSC) during the HUCOP Apothecary Brunch.
- Excellence in Teaching Award for 2024 - 2025. Presented by the Dean of the Howard University College of Pharmacy
- Excellence in Teaching Award for 2023- 2024. Presented by the Dean of the Howard University College of Pharmacy
- Teacher of the year award 2022 – 2023. Presented by the Dean of the Howard University College of Pharmacy
- Special invitee to Governor Mead's Technology Summit held in Jackson Hole, WY in Sept. 2017
- Austrian Academic Exchange Scholarship for Ph. D., a research study in Austria (1999-2002)

Training (Professional Development)

- Collaborative Institutional Training Initiative (CITI) program training courses
 - Social
 - Bench Researchers and Research Staff; Students in Biological Sciences
 - Translational Scientists and Laboratory Staff (if any)
 - Reducing Pain and Distress in Laboratory Mice and Rats
 - Remote Contact Tracing
 - Researchers
 - Working with Mice in Research
 - Working with the IACUC
 - Biomedical responsible Conduct of research
 - Export Controls
 - Clinician Scientist
 - Conflicts of Interest
 - GCP for Clinical Trials with Investigational Drugs and Medical Devices (U.S. FDA Focus)
 - Biomedica
- Nov 20, 2025 – R01, R21, and R03 NIH funding opportunities: pros and Cons, SuRE Resource Center, University of Kentucky Webinar
- Nov 14, 2025 - NIH Grants Process Primer: Application to Award – NIH webinar series
- Oct 04, 2025 – TandE Spend Authorization – Training by Mr. Howard Rawles – Assistant Vice President, Procurement, Howard University

- Sep 25, 2025 – Dr. Robert Langer – Professor, MIT – “An Enterprise Approach to Biotech and Medicine”
- Aug 20 and 21, 2025 – BisonHub Faculty Refresher/ New Content training
- March 04, 2025 – Super charges lab success – seven habits of highly effective trainees – University of Kentucky webinar
- Feb 04, 2025 – Own your interviews – power moves for next steps career advancement, SuRE Resource Center, University of Kentucky webinar
- Feb 26, 2025 – Are Your Students Pre-APPE Ready? A blueprint for success. McGraw-Hill Professional webinar
- Jan 15, 2025 – Diversity in Cancer Research Seminar – Enhancing Research Productivity – Facilitator – Dr. Carla Williams – Associate Professor of Medicine and Public Health, Interim Director of Cancer Center, Howard University
- Finding and evaluating Funding opportunities, Mar 25, 2024 – University of Kentucky
- The Cultural Humility and Bias Training by Dr. Nicole Avant on May 16, 2024
- Improving Affective Domain by Dr. James Culhane on May 15, 2024
- Teaching and Learning Excellence – Considerations for active learning, CANVAS, and artificial Intelligence by Dr. Thomas and Ms. Philpot on May 15, 2024
- How to prepare your NIH progress report – University of Kentucky – April 23, 2024
- Webinar – booth camp- SuRER16 grant -University of Kentucky, April 1 and 2, 2024.
- Preparing figures for publication and grant applications – Jan 25, 2024 – Univ of Kentucky
- How to Manage Emotions Under Pressure” organized by Pryor Learning Solutions on Nov 29, 2023
- iMERS Grant writing workshop– workshop on Grant writing –July 10 and 11, 2023
- Webinar, "How to Write a Standout Letter of Intent and Application," PhRMA on March 21, 2023
- “Unconscious Bias Training for College of Pharmacy decanal search team members in July 2022

Task Force and Committee Membership

- **Task Force**
 - 2022- NAPLEX Task Force Committee
 - 2024 – Affective Domain Task Force
- **Search Committee (Department of Pharmaceutical Sciences)**
 - 2024 – Pharm Biotech Staff Search Committee
 - 2024 – Pharm Chem Search Committee
 - 2024 – Compounding Lab Technician Search Committee
 - 2022 – Pharmaceutics Faculty Search Committee
 - 2023 – Curriculum Committee
- **Search Committee (College of Pharmacy)**
 - 2025 - Search Committee for Assistant Dean for Student Affairs
 - 2022 - Search Committee for permanent HUCOP Assistant Dean for Student Affairs position

- 2022 - Distance Pathway-Self Study
- **Search Committee (University)**
 - 2022 - College of Pharmacy Decanal Search Committee
- **Standing Committee**
 - Research Development & Graduate Programs Committee
 - Academic Progression & Retention Committee
 - Professional Identity Formation and Cultivation Committee (PIFCC)
- **Adhoc Committee**
 - 2024 – Peer Evaluation
 - 2024 – Judiciary Committee (Chair)
 - 2022 - Ad-hoc Committee to Align HUCOP FPES with University FPES

Reviewer For Scientific Journals

- 2025 - Journal – Metabolism (impact factor – 13.3)
- 2025 - Journal of Physiology and Biochemistry – Springer Nature Publications
- 2024 - Journal of Food and Function – Clarivate
- 2024 - Journal RSC Medicinal Chemistry – Clarivate
- 2023 - Journal Phytomedicine plus -Elsevier
- 2022 - Journal Ultrasonics Sonochemistry – Elsevier
- 2022 – Journal Frontiers in Clinical Drug Research – Diabetes and Obesity -Bentham

Guest Editor Appointment

2025 - to date - Guest Editor of a Special Issue of Current Issues in Molecular Biology (Impact Factor- 3) published by Multidisciplinary Digital Publishing Institute (MDPI). The Special Issue is titled “Mechanisms and Pathophysiology of Obesity”.
https://www.mdpi.com/journal/cimb/special_issues/7F1B80MHQ0

Courses Developed:

Course Name	Years Taught	University	Number of Students	Role
Pharmaceutical Calculations	3	Wyoming	35-50 (PharmD)	Course Coordinator
Physiology	3	WWAMI (Wyoming)	10 – 20 (MD)	Instructor
Structure and Functions in Therapeutics	3 (2021-2023)	Howard University	30 – 55 (PharmD)	Course coordinator
Pharmacological Therapeutics I	5 (2021 – 2026)	Howard University	30 -55 (PharmD)	Course Coordinator
Pharmacological Therapeutics II	5 (2021 – 2026)	Howard University	30 – 55 (PharmD)	Course Coordinator
Applications for Pharmacy Practice V / Applications for	4 (2022 -2026)	Howard University	30 – 55 (PharmD)	Course Coordinator

Pharmacy Practice A				
Research Elective (Fall)	4 (2022 – 2026)	Howard University	Upto 11 (PharmD)	Course Coordinator
Research Elective (Spring)	4 (2022 – 2026)	Howard University	Upto 11 (PharmD)	Course Coordinator

Dissertation Committee Member

- Member of dissertation committee for Oluwabukunmi Olajubutu in the Department of Pharmaceutical Sciences, Howard University (Ph.D. Pharmaceutical Sciences; Graduate student)
- Member of dissertation committee for Amirah Alqahtani in the Department of Pharmaceutical Sciences, Howard University (Ph.D. Pharmaceutical Chemistry; Graduate student)

Student/PGY1 resident Mentoring Activities

1. Jordan Louis (2021-2022) – AACP NIA
2. Ugochukwu Kas Osaka (2021 – 2022) – AACP NIA
3. Dennis Means (2022) – HU CWGGL
4. Kwinci Britt (2024 – 2026) – COE and RCMI CC grant
5. Absalom Bolling (2024 – 2026) – RCMI CC grant
6. Olufemi Faleye (2025 -2026) – COE
7. Sommore Robinson (2025)
8. Adedolapo Akintola (2023) – Clinical Pharmacist specialist, Ambulatory Care – Inflammatory and Autoimmune Diseases – Temple University Hospital, Philadelphia, Pennsylvania
9. Anahita Asadi – (2023 – 2024) – HUCOP seed grant
10. Emmanuel King – (2023 – 2024) – HUCOP Seed Grant

Invited Speaker

1. **Baskaran, Padmamalini, April 2022 - UTRGV: The University of Texas Rio Grande Valley – Biology Seminar Series** – Targeting Transient Receptor Potential Vanilloid Subfamily 1 protein to mitigate obesity
2. Padmamalini Baskaran, 2022, “ My career path in Howard University – A continuum of exciting experience”, Howard University Center for Women Gender and Global leadership, Faculty Round Table, Louis Stokes Library, Oct 26, 2022.
3. **Baskaran, Padmamalini, March 2023 – HUCOP Graduate Seminar Series** – My Research Path. The central theme of these projects is: Targeting redox signaling and TRPV1-mediated metabolic pathways to treat cardiovascular and metabolic diseases.
4. **Baskaran, Padmamalini, March 2024 – HUCOP Seed Grant 2023 report** - To evaluate the efficacy of combination therapy (Empagliflozin and Hydralazine/ISDN) vs monotherapy of Empagliflozin or Hydralazine/ISDN in HFrEF in African American Population
5. **Baskaran, Padmamalini, March 2025 - HUCOP Graduate Seminar Series** - "Unlocking Success: Deciphering Reviewer Feedback for Grant Proposal” – **Mechanisms** of transient receptor potential vanilloid subfamily 1 signaling in Metabolically Dysfunctional-

Associated Steatotic Liver Disease (MASLD) – Support for Research Excellence (SuRE) Award (R16)

6. **Baskaran Padmamalini**, Lightning talk and paper contribution abstract submitted for the Open Education Conference **2026** powered by Oxford -"Boosting PharmD Engagement via autonomy-driven, purpose-oriented teaching".

Presentations (National and International Abstracts)

1. Absalom Bolling, **Padmamalini Baskaran**, Mohammed Aldhaeefi, Morgan Jones, Emmanuel King, Dhakrit Rungkitwattanukul, la'Marcus Wingate., Targeting Multiple Pathways: Benefits of Empagliflozin and Hydralazine–Isosorbide Dinitrate in Black Patients with Heart Failure. 2026 ACCP Annual Meeting in Bethesda, Maryland, September 27-29, 2026. **Abstract Submitted.**
2. Sommore Robinson, Absalom Bolling, **Padmamalini Baskaran.**, Enhancing Engagement and Retention through Autonomy-Based Teaching in PharmD Curriculum. ASHP Pharmacy Futures **2026**, June 13 - 17, St. Louis, MO.
3. Alanna Mears, Elsie Fuakye, Vincent Taah, Oluwatosin Bakare, **Padmamalini, Baskaran.**, Geriatric Sepsis: Pharmacist-Led Strategies to Reduce Risk and Improve Outcomes. 2026 Howard University Research Month. The Armour J. Blackburn University Center, Washington (April 29 – May 01, **2026**).
4. Régine Powell, Pricilla Shinaba, Baskaran, Padmamalini. 2026 Howard University Research Month. Optimizing Alzheimer's Prevention in Women with Diabetes: A PharmD Perspective. The Armour J. Blackburn University Center, Washington (April 29 – May 01, 2026).
5. Naalomoley, Lomotey, Padmamalini Baskaran. 2026 Howard University Research Month. From Nuclear Receptor Biology to FDA Approval: The Translational Journey of Resmetirom. The Armour J. Blackburn University Center, Washington (April 29 – May 01, 2026).
6. Aijha Liggins, Padmamalini Baskaran. 2026 Howard University Research Month. 3D Bioprinted Tumor Models for Drug Testing and Personalized Oncology: A Pharmacist's Perspective. The Armour J. Blackburn University Center, Washington (April 29 – May 01, 2026).
7. Absalom Bolling, Kwinci Britt, Navoda Arumadura, Olufemi Faleye, Nur Mita, Jay Babu Ramapuram, Padmamalini Baskaran. 2026 Howard University Research Month. Targeted Capsaicin Delivery Promotes Thermogenic Browning and Weight Control. The Armour J. Blackburn University Center, Washington (April 29 – May 01, 2026).
8. Kwinci Britt, Fritz Acquah, Padmamalini Baskaran. Molecular and Clinical Perspectives on GIST in Older Adults: Enhancing Detection and Treatment through Pharmacist Engagement. 2026 Howard University Research Month. The Armour J. Blackburn University Center, Washington (April 29 – May 01, 2026).
9. Sommore, R., Padmamalini Baskaran, Bisrat Hailemeskel, 2025 ASHP Midyear, "Bridging the gap: Counseling patients on Metabolic risks of Olanzapine", Mandalay Bay Convention Center, Las Vegas (Dec 7-10)
10. Rebecca, B., Cheung, T., Sara, T., 2025 Howard University Research Month, "The Evolution of GLP-1: A Journey from Basic Science to Clinical Impact", The Armour J. Blackburn

University Center, Washington (April 24, 2025)

11. Nebyat, Y., Adeyinka, K., Najat, H, Padmamalini, B., 2025 Howard University Research Month, “Spicing Up Medicine: A Comprehensive Survey of Capsaicin's Multifaceted Roles in Modern Medicine”, The Armour J. Blackburn University Center, Washington (April 24, 2025)
12. Jones Morgan, Emmanuel King, Anahita Asadi, Padmamalini Baskaran, Kwinci Britt, Mohammed Aldhaeefi. To evaluate the efficacy of combination therapy (empagliflozin and Hydralazine/ISDN) vs monotherapy of Empagliflozin or Hydralazine/ISDN in HFrEF in the African American Population, Howard University Research Month, April 25 - 26, 2024, page 33.
13. Kwinci Britt, Anahita Asadi, Allan Ajuk, Manjusha Annaji, Jayachandra Ramapuram, Padmamalini Baskaran, Characterization of Capsaicin Implant for Countering Obesity, Howard University Research Month, April 25 - 26, 2024, page 12.
14. Baskara, P., (Presenting Author), 2024 Obesity Week – The Obesity Society Annual Meeting, “TRPV1- Activation Enhances Exercise Endurance in Obese Mice via PRDM-16”, San Antonio, TX (Nov 03 – 06, 2024)
15. Baskaran, P. (Presenting Author), Louis, j., Simmons, D., Asadi, A., Karla, P., AACP Annual meeting - Pharmacy Education 2023, "Mitochondrial Quality Control and Fatty Liver Disease, “American Association of Colleges of Pharmacy, Gaylord Rockies Resort and Convention Center, Aurora, United States. (July 23, 2023).
16. Baskaran, P.(Presenting Author), 30th Annual Meeting, "Activation of TRP Proteins enhances metabolic activity without modifying energy intake," Society for the Study of Ingestive Behavior, Hilton Portland, Portland, OR, United States. (July 14, 2023).
17. Baskaran, P.(Presenting Author), HUCOP Research Seminar Series, "My Research Path," HUCOP Research Development & Graduate Programs Committee, HUCOP CCH 207, Washington, DC, United States. (March 22, 2023).
18. Akintola, A. (Author), Baskaran, P. (Author), Weaver, S. (Author), Louis, J. (Author), Evans, E. (Author), ASHP Midyear Clinical Meeting and Exhibition, "Evaluation of the Effect of metabolic Syndrome in the Cause of Breast Cancer in a Minority Population - Data Analysis on Patients in Ambulatory Clinics.," ASHP, Las Vegas, Las Vegas, NV, United States. (December 4, 2022).
19. Baskaran, P., AAPS PharmSci360, "Preparation and Evaluation of 3D Printed Capsaicin-loaded Rod-shaped Implants for treating Obesity and Hyperlipidemia," AAPS, Orange County Convention Center, Orlando, FL, United States. (October 23, 2022).
20. Baskaran, P., Auburn University – Harrison College of Pharmacy – research showcase – April 2022, "Preparation and Evaluation of 3D Printed Capsaicin-loaded Rod-shaped Implants for treating Obesity and Hyperlipidemia," Auburn University – Harrison College of Pharmacy, Auburn University – Harrison College of Pharmacy, Auburn, AL, United States. (April 2022).
21. (Data based) **Padmamalini Baskaran**, Jane Bennis, Adithya Mohandass, Brenda Alexander, Mikhail I. Nemenov, Baskaran Thyagarajan and Louis S. Premkumar. A cream formulation of TRPV1 agonist resiniferatoxin for the treatment of painful diabetic peripheral neuropathy. Neurodiab. Group of European Association of Study of Diabetes EASD. Sitges, Barcelona. September 13 - 16, 2019.

22. (Data based) **Padmamalini Baskaran**, Menglan Wang, Louis Premkumar and Baskaran Thyagarajan. Botulinum neurotoxin A magnetic nanoparticles suppress TRPA1 and inhibit mechanical allodynia in mice. Chemistry and Pharmacology of Drug Abuse, Northeastern University, MA. Aug 2-3, 2018.
23. (Data based) Heather Townsend, Vivek Krishnan, Enette Larsen-Meyer, **Padmamalini Baskaran**, and Baskaran Thyagarajan. Analysis of synergism between exercise and TRPV1 activation to enhance metabolic activity. Society for the Study of Ingestive Behavior, 26th Annual Meeting, Porto, Bonita Spring, July 17 - 21, 2018.
24. (Data-based) Baskaran Thyagarajan, Laurel Markert, Jane Bennis, Liesl Zimmermann, Jonathan Fox, and **Padmamalini Baskaran**. Pharmacological and safety analysis of subchronic oral MetabocinTM feeding in mice. Society for the Study of Ingestive Behavior, 26th Annual Meeting, Porto, Bonita Spring, July 17 - 21, 2018.
25. (Data based) **Padmamalini Baskaran** and Baskaran Thyagarajan. Role of BMP8b in TRPV1-mediated thermogenic mechanisms. Society for the Study of Ingestive Behavior, 26th Annual Meeting, Porto, Bonita Spring, July 17 - 21, 2018.
26. (Data based) Baskaran Thyagarajan, Louis Premkumar and **Padmamalini Baskaran**. Mechanisms by which Botulinum Neurotoxin A Suppresses Pain. 62nd Annual Meeting of Biophysical Society, San Francisco, CA, Feb 2-7, 2018.
27. (Data based) **Padmamalini Baskaran**, Laurel Markert, Liesl Zimmerman, Jane Bennis, Baskaran Thyagarajan. Sub-Chronic Oral Safety Analysis of MetabocinTM. 62nd Annual Meeting of Biophysical Society, San Francisco, CA, Feb 2-7, 2018.
28. (Data based) **Padmamalini Baskaran** and Baskaran Thyagarajan. Regulation of TRPV1 Expression in Non-Neuronal Tissues by BDNF, Sp1, and Sp4. 62nd Annual Meeting of Biophysical Society, San Francisco, CA, Feb 2-7, 2018.
29. (Data based) Baskaran Thyagarajan and **Padmamalini Baskaran**. TRPV1 expression in adipose tissues determine metabolic activity and energy expenditure to counter diet-induced obesity. 61st Annual Meeting of Biophysical Society, New Orleans, LA; Feb 11 – 15, 2017.
30. (Data based) **Baskaran, P**, ZJ Zhang, B Thyagarajan. TRPV1 activation stimulates brown adipose tissue activation and enhances mitochondrial biogenesis to counter diet-induced obesity. 61st Annual Meeting of Biophysical Society, New Orleans, LA; Feb 11 – 15, 2017.
31. (Data based) Krishnan, V, **P Baskaran** and B Thyagarajan. Analysis of the role of TRPV1 exercise, energy intake, and obesity. 61st Annual Meeting of Biophysical Society, New Orleans, LA; Feb 11 – 15, 2017.
32. (Data based) Thyagarajan, B, B. Kimberley, R. H. Eckel, and **P Baskaran**. Transient Receptor Potential Vanilloid subfamily 1 (TRPV1) activation stimulates SiRT-1PPAR α interaction and PGC-1 α upregulation in the liver and counters NAFLD. Kern Lipid Conference 2017, Vail, CO.
33. (Data based) Thyagarajan, B and **P Baskaran**. TRPV1 activation restore mitochondrial quality control to counter non-alcoholic fatty liver disease. Gordon Research Conference on Organellar Channels & Transporters meeting held in Mount Snow, Vermont in July 2017.
34. (Data based; Community College Students and University of WY undergraduate students' joint presentation) TRPV1 activation counters vascular dysfunctions by increasing PPARs, SiRT-1, PGC-1 α , and UCP-1 expression in the thoracic aorta. Schilling, K, L Markert,

K Nazminia, J Bennis, S McAllister, **P Baskaran**, and B Thyagarajan. Undergraduate Research Day, April 29, 2017.

35. (Data based; Graduate student presentation) Exercise and Dietary Capsaicin – Two-Prong Approach to Combat Obesity. Krishnan, V, A Hoover, Y Limon, **P Baskaran**, and B Thyagarajan. College of Health Sciences Annual Research Day April 14, 2017.
36. (Data based; Graduate student presentation) TRPV1 activation induces mitophagy to prevent non-alcoholic fatty liver disease in high-fat diet-induced obese mice. Chakraborty, S, **P Baskaran** and B Thyagarajan. College of Health Sciences Annual Research Day April 14, 2017.
37. (Data-based; undergraduate student presentation). Oral Sub-chronic Safety Studies of Capsaicin. Markert, L, L Zimmerman, J Bennis, J Frantz, P Baskaran, and B Thyagarajan. College of Health Sciences Annual Research Day April 14, 2017.
38. (Data based; Graduate student presentation) TRPV1 Protein Expression in Adipose Tissues Determines Metabolic Activity and Energy Expenditure. Krishnan, V, **P Baskaran** and B Thyagarajan. College of Health Sciences Annual Research Day April 14, 2017.
39. (Data based) Thyagarajan, B and **P Baskaran**. TRPV1 expression in adipose tissues determine metabolic activity and energy expenditure to counter diet-induced obesity. 61st Annual Meeting of Biophysical Society, New Orleans, LA; Feb 11 – 15, 2017.
40. (Data based) **Baskaran, P**, ZJ Zhang, B Thyagarajan. TRPV1 activation stimulates brown adipose tissue activation and enhances mitochondrial biogenesis to counter diet-induced obesity. 61st Annual Meeting of Biophysical Society, New Orleans, LA; Feb 11 – 15, 2017.
41. (Data based) Krishnan, V, **P Baskaran** and B Thyagarajan. Analysis of the role of TRPV1 exercise, energy intake, and obesity. 61st Annual Meeting of Biophysical Society, New Orleans, LA; Feb 11 – 15, 2017.
42. (Data based) Thyagarajan, B, V Krishnan, J Ren, and **P Baskaran**. TRPV1 activation triggers browning of white adipose tissue and counters obesity. Society for the Study of Ingestive Behavior, 24th Annual Meeting, Porto, Portugal, July 12-17, 2016.
43. (Data based) Thyagarajan B, Cook R and **Baskaran P**. MetabolcinTM increase lipolytic pathways to counter high fat-induced non-alcoholic fatty liver disease. ATVB Annual Meeting, Nashville, Tennessee, May 5-7, 2016.
44. (Data based) Thyagarajan B, Krishnan V, Ren J, and **Baskaran P**. Capsaicin activates the TRPV1-CaMKII-AMPK-SiRT-1-dependent mechanism to trigger the browning of white adipocytes to antagonize diet-induced obesity. American Heart Association Conference, Orlando, FL, November 2015.
45. (Data based; Undergraduate student author) Cisneros S, Cook R, **Baskaran P** and Thyagarajan B. TRPV1 emerges as a novel target to prevent hepatic steatosis. Wyoming INBRE Research Network Retreat, Sept. 10-12, 2015, Grand Teton National Park, WY.
46. (Data based; Graduate student author) Krishnan V, **Baskaran P**, and Thyagarajan B. Exercise prevent diet-induced obesity via mechanisms regulated by transient receptor potential vanilloid 1 protein. Wyoming INBRE Research Network Retreat, Sept. 10-12, 2015, Grand Teton National Park, WY.
47. (Data based; Undergraduate student author) Favela F, Watkins J, Schilling K, Williams A, Graham R, Hepp A, Tighe R, Horyza E, McAllister S, **Baskaran P** and Thyagarajan B.

Investigating the role of SiRT-1 in hepatocyte lipoautophagy. Wyoming INBRE Research Network Retreat, Sept. 10-12, 2015, Grand Teton National Park, WY.

48. (Data based; Undergraduate student author) Favela F, Schilling K, Williams A, Graham R, Tighe R, Watkins J, Hepp A, McAllister S, **Baskaran P** and Thyagarajan B. Analysis of the effect of TRPV1 activation on triglyceride and cholesterol levels in an obese mouse model. UW Undergraduate Research Day. April 30, 2016.
49. (Data based) Analysis of Mechanisms by which Marine Toxin Modulates TRPV1. **Padmamalini Baskaran** and Baskaran Thyagarajan. Annual Meeting of the Rocky Mountain Regional Neuroscience Group. Anschutz Medical Campus, UCD, May 15, 2015 (Third best poster award)
50. (Data based; Pharm D student author) TRPV1 Activation Suppresses High Fat Diet-Induced Non-Alcoholic Fatty Liver Disease. Justine Frantz, Yair Limon, Sara Cisneros, **Padmamalini Baskaran**, Steven McAllister and Baskaran Thyagarajan. UWyo Undergraduate Research Day, May 02, 2015.
51. (Data based; Undergraduate student author) Haploinsufficiency of Synajtpjanin-1 Exacerbates Metabolic Syndrome. Wyatt Fabrizio, **Padmamalini Baskaran** and Baskaran Thyagarajan. UWyo Undergraduate Research Day, May 02, 2015.
52. (Data based) The BRITE side of TRPV1: Novel Role in Browning of White Adipocytes. **Padmamalini Baskaran**, Vivek Krishnan, Kevin Fettel and Baskaran Thyagarajan. 59th Annual Meeting of Biophysical Society, Baltimore, MD Feb 07-12, 2015.
53. (Data based) TRPV1 activation modulates acetylcholine release at the myoneural junctions. Baskaran Thyagarajan, Joseph Potian, Joseph McArdle, **Padmamalini Baskaran**. 59th Annual Meeting of Biophysical Society, Baltimore, MD Feb 07-12, 2015.
54. (Data based) Capsaicin Antagonizes Botulinum Neurotoxin A at the Motor Nerve Terminals. Baskaran Thyagarajan, Charlotte A Nutt and **Padmamalini Baskaran**. American Association of Colleges of Pharmacy Annual Meeting, July 26-30, 2014, Grapevine, TX.
55. (Data based) Dietary Capsaicin Triggers Browning of White Adipocytes: A novel mechanism to antagonize obesity. **Padmamalini Baskaran** and Baskaran Thyagarajan. College of Health Sciences Research Day April 11, 2014.
56. (Data based) Capsaicin combats obesity by increasing energy homeostasis and locomotor activity. **Padmamalini Baskaran**, Jun Ren and Baskaran Thyagarajan. College of Health Sciences Research Day April 11, 2014.
57. (Data based; Graduate student author) Analysis of Role of TRPV1 in Kainic Acid Mediated Toxicities: Evidence for a Novel Therapeutic Intervention against Epilepsy. Bayasgalan Thyagarajan, **Padmamalini Baskaran** and Baskaran Thyagarajan. College of Health Sciences Research Day April 11, 2014.
58. (Data based; Graduate student author) TRPV1 transcriptionally regulates adipogenesis and obesity. Vivek Krishnan, **Padmamalini Baskaran**, Kevin Fettel and Baskaran Thyagarajan. College of Health Sciences Research Day April 11, 2014.
59. (Data based) Evidence for the role of CaMKinase II and Synapsin I in the restoration of neurotransmission in botulinum neurotoxin A intoxicated nerve terminals. Baskaran Thyagarajan and **Padmamalini Baskaran**. Biophysical Society 58th Annual Meeting, San Francisco, CA February 2014.

60. (Data based; Graduate student author) Kainic acid activates TRPV1 via PLC-dependent mechanisms. Bayasgalan Surenkhuu, **Padmamalini Baskaran** and Baskaran Thyagarajan. Biophysical Society 58th Annual Meeting, San Francisco, CA February 2014.
61. (Data based; Graduate student author) TRPV1 is a novel target for Ca²⁺-mediated toxicities of kainic acid. Surenkhuu B, **P Baskaran** and B Thyagarajan. Front Range Neuroscience Group Annual Meeting, Dec. 04, 2013, Fort Collins, CO.
62. (Data based) Cholesterol depletion differentially regulates heat and cold-activated TRP channels. Baskaran Thyagarajan, Bayasgalan Surenkhuu and **Padmamalini Baskaran**. Rocky Mountain Regional Neuroscience Group Annual Meeting, Aurora CO, May 16, 2013.
63. (Data based; Graduate student author) Cholesterol-rich lipid microdomains modulate the activation of TRP channel proteins. Bayasgalan Surenkhuu, **Padmamalini Baskaran** and Baskaran Thyagarajan. College of Health Sciences, 19th Annual Research Day, April 12, 2013.
64. (Data based) Toxicity profiles of deactivated recombinant botulinum neurotoxin at the mammalian neuromuscular junction. Baskaran Thyagarajan, Teresa Lehmann, Elena Topchiy, Nagarajan Thirunavukkarasu, Sharad Deshpande, Shuowei Cai, Bal Ram Singh and **Padmamalini Baskaran**. College of Health Sciences, 19th Annual Research Day, April 12, 2013.
65. (Data based) Capsaicin – A novel therapeutic drug to counteract obesity. **Padmamalini Baskaran**, Kormakur Hognason, Jun Ren and Baskaran Thyagarajan. College of Health Sciences, 19th Annual Research Day, April 12, 2013.
66. (Data based; Undergraduate student author) Botulinum neurotoxin A inhibits pain via TRPV1-Protein kinase C-dependent mechanisms. Kenneth Brenneman, **Padmamalini Baskaran**, and Baskaran Thyagarajan Biophysical Society 57th Annual Meeting, Philadelphia, PA Feb 2013.
67. (Data based) Cholesterol depletion differentially regulates heat and cold-activated TRP channels. Baskaran Thyagarajan, Bayasgalan Surenkhuu and **Padmamalini Baskaran**. Biophysical Society 57th Annual Meeting, Philadelphia, PA Feb 2013.
68. (Data based) Effects of enzymatically inactive recombinant botulinum neurotoxin type A at the mouse neuromuscular junctions. **Padmamalini Baskaran**, Teresa Lehmann, Elena Topchiy, Nagarajan Thirunavukkarasu, Sharad Deshpande, Shuowei Cai, Bal Ram Singh and Baskaran Thyagarajan. Front Range Neuroscience Group Annual Meeting, Nov. 28, 2012, Fort Collins, CO.
69. (Data based; Graduate student author) Cholesterol depletion activates TRPV1. Bayasgalan Surenkhuu, **Padmamalini Baskaran**, Suzanne Clark, Bruce Culver and Baskaran Thyagarajan. Front Range Neuroscience Group Annual Meeting, Nov. 28, 2012, Fort Collins, CO.
70. (Data based) Lipid microdomains regulate neuronal endocytic mechanisms during development. **Padmamalini Baskaran**, Xianshi Tang, Joseph Potian, Joseph McArdle, and Baskaran Thyagarajan. Front Range Neuroscience Group Annual Meeting, Nov. 28, 2012, Fort Collins, CO.
71. Cyclophilin A Regulates Hemostasis by Affecting Multiple Platelet Functions. Lian Wang; **Padmamalini Baskaran**; Mark Sowden; Craig N Morrell; Bradford C Berk. Arteriosclerosis, thrombosis and Vascular Biology, poster session, May 2012. Chicago, IL

72. Botulinum Neurotoxin a Inhibits Acetylcholine Exocytosis Independent of Snap-25 Cleavage. **Padmamalini Baskaran**, JG Potian, JJ McArdle, and B Thyagarajan. 7th International Conference on Basic and Therapeutic Aspects of Botulinum and Tetanus Toxins (TOXINS 2011), Santa Fe, NM, October 2011
73. Inhibition of Nitric Oxide–Stimulated Vasorelaxation by Carbon Monoxide-Releasing Molecules. Antonia Marazioti, Mariarosaria Bucci, Ciro Coletta, Valentina Vellecco, **Padmamalini Baskaran**, CsabaSzabó, Giuseppe Cirino, Ana Rita Marques, Bruno Guerreiro, Ana M.L. Gonçalves, João D. Seixas, Annie Beuve, Carlos C. Romão, and Andreas Papapetropoulos. Arterioscler Thromb Vasc Biol. 2011, Ann Arbor, MI.
74. NO Resistance in Angiotensin II Induced Hypertension Is Associated with Soluble Guanylyl Cyclase Desensitization Via Cysteine Oxidation. Crassous PA, Couloubaly S, Fioramonti X, Kim DD, **Padmamalini Baskaran**, Durán WN, Beuve A. AHA, Chicago, Nov 2010
75. Role of Redox Sensor sGC And PDI – Potential Interaction to Combat Redox Stress. Erin Heckler, **Padmamalini Baskaran**, NazishSayed, Annie Beuve. Gordon Research Conference on Thiol-based redox regulation and signaling. Lucca (Barga), Italy. 09-14 May 2010
76. Effects of Carbon Monoxide-Releasing Molecules on cGMP Levels and Soluble Guanylyl Cyclase Activity. Antonia Marazioti, **Padmamalini Baskaran**, Annie Beuve, Carlos Romao, Anastasia Pyriochou, Andreas Papapetropoulos. 4th International Conference of cGMP Generators, Effectors and Therapeutic Implications. Regensburg, Germany. 19–21 June 2009
77. S-Nitrosylation of Soluble GuanylylCyclase: Role in NO and Nitrate Tolerance. **Padmamalini Baskaran**, Samba Couloubaly, Jamila Hedhli, Xavier Fioramonti, Toru Iwahashi, David Kim, Walter Duran, Annie Beuve. Gordon Research Conferences on NO. Lucca (Barga), Italy. 01-06 March 2009
78. Activity of Soluble Guanylyl Cyclase, The Nitric Oxide Receptor, Is Modulated by Cysteines Redox. Samba Couloubaly; Nazish Sayed; Jamila Hedhli; **Padmamalini Baskaran**; Annie Beuve. AHA, New Orleans, Nov 2007
79. Desensitization of Soluble GuanylylCyclase, the No-Receptor by S- Nitrosylation. Nazish Sayed, **Padmamalini Baskaran**, Focco van den Akker, and Annie Beuve. 3rd International Conference on cGMP Generators, Effectors and Therapeutic Implications, Dresden, Germany. 15–17, June 2007
80. Ace Inhibitors-Market Survey and Performance. **Padmamalini Baskaran**, Mittal, S., and B. Thyagarajan. Joint congress of Federation of Asian Pharmaceutical Association and Indian Pharmaceutical Association (1998) – Received the best poster award during the conference.

Publications (Peer-Reviewed Journal Articles)

Complete list of publications

<https://www.ncbi.nlm.nih.gov/myncbi/101FmwiTHolAi/bibliography/public/>

1. Evans, E., Weaver, S., Akintola, A., Baskaran, P., & Louis, J. (2025). Retrospective Evaluation of Metabolic Syndrome's Role in Breast Cancer Outcomes in Black

Women. *Journal of Advanced Pharmacy Research*, 9(4), 344-353. doi: 10.21608/aprh.2025.399413.1326

2. Johnson-Moore T, Simmons D, Okafor A, Washington D, Baskaran P. Resmetirom and beyond: A new era in MASLD therapeutics. *Liver Res.* 2025 Dec;9(4):362-364. doi: 10.1016/j.livres.2025.10.004. eCollection 2025 Dec. PubMed PMID: 41602128; PubMed Central PMCID: PMC12833569.
3. Baskaran P, Aldhaeefi M, Asaadi A, Jones M, King E, Rungkitwattanakul D, Wingate L. Empagliflozin and hydralazine-isosorbide dinitrate combination therapy improves outcomes in Black patients with heart failure. *Int J Clin Pharmacol Ther.* 2025
4. Baskaran P, Christensen R, Bruce KD, Eckel RH. Obesity-Induced MASLD Is Reversed by Capsaicin via Hepatic TRPV1 Activation. *Curr Issues Mol Biol.* 2025
5. Baskaran P, Gustafson N, Chavez N. TRPV1 Activation Antagonizes High-Fat Diet-Induced Obesity at Thermoneutrality and Enhances UCP-1 Transcription via PRDM-16. *Pharmaceuticals (Basel).* 2024.
6. (Data Based) Manjusha Annaji, Nur Mita Jessica Heard, Xuejia Kang, Ishwor Poudel, Oladiran Fasina, **Padmamalini Baskaran**, Sai H S Boddu, Amit K Tiwari, Pengyu Chen, Candace C Lyman, R Jayachandra Babu(2023). 3D-Printed Capsaicin-Loaded Injectable Implants for targeted delivery in obese patients. *AAPS PharmSciTech.* 2023.
7. (Data Based) Evaluation of a polymer coated nanoparticle cream formulation of resiniferatoxin for the treatment of painful diabetic peripheral neuropathy. **Baskaran P**, Adithya Mohandass Noah Gustafson Jane Bennis, Somaja Louis, Brenda Alexander, Mikhail I Nemenov, Baskaran Thyagarajan, Louis S Premkumar. *Pain*, Aug 24, 2022.
8. (Data Based) Mice lacking endogenous TRPV1 express reduced levels of thermogenic proteins and are susceptible to diet-induced obesity and metabolic dysfunction. **Baskaran P**, Kara Nazminia, Justine Frantz, Jessica O'Neal, Baskaran Thyagarajan. *FEBS Letter Communication*, May 11, 2021.
9. (Data Based) Kainic Acid Activates TRPV1 via a Phospholipase C/PIP2-Dependent Mechanism in Vitro. Mohandas A, Surenkhuu B, Covington K, **Baskaran P**, Lehmann T, Thyagarajan B. *ACS Chem Neurosci.* 2020 Oct 7;11(19):2999-3007
10. (Data Based) TRPM8 as the rapid testosterone signaling receptor: Implications in the regulation of dimorphic sexual and social behaviors. Mohandas A, Krishnan V, Gribkova ED, Asuthkar S, **Baskaran P**, Nersesyan Y, Hussain Z, Wise LM, George RE, Stokes N, Alexander BM, Cohen AM, Pavlov EV, Llano DA, Zhu MX, Thyagarajan B, Zakharian E. *FASEB J.* 2020 Aug;34(8):10887-10906
11. (Data Based) **Baskaran P**, Markert L, Bennis J, Zimmerman L, Fox J, Thyagarajan B. Assessment of Pharmacology, Safety, and Metabolic activity of Capsaicin Feeding in Mice. *Sci Rep.* 2019 Jun 13; 9(1):8588.
12. (Data based) **Baskaran, P**, K Covington, J Bennis, a Mohandas, T E Lehmann, and B Thyagarajan. Binding Efficacy and Thermogenic Efficiency of Pungent and Nonpungent Analogs of Capsaicin. *Molecules* 2018, 23 (12), 3199.
13. (Data based) Krishnan, V, **Baskaran, P** and B Thyagarajan. Troglitazone activates TRPV1 and causes deacetylation of PPAR gamma in 3T3-L1 cells. *Biochimica et Biophysica Acta - Molecular Basis of Disease*, 2019, 1865 (2), 445-453

14. (Data based) **Baskaran, P** and B Thyagarajan. Measurement of Basal and Forskolin-simulated Lipolysis in Inguinal Adipose Fat Pads. *J. Vis. Exp.* 2017 Jul 21; 125.
15. (Data based) Thyagarajan, B, JG Potian, JJ McArdle, and **Baskaran P**. Perturbation to Cholesterol at the Neuromuscular Junction confers botulinum neurotoxin a sensitivity to neonatal mice. *Toxicol. Sci.* 2017 Sep 1; 159 (1):179-188.
16. (Data based) Baskaran, M, **Baskaran P**, N Arulsamy and B Thyagarajan. Preparation and Evaluation of PLGA-Coated Capsaicin Magnetic Nanoparticles. *Pharm. Res.* 2017 Jun; 34(6):1255-1263.
17. (Data based) **Baskaran, P**, V Krishnan, K Fettel, P, GAO, Z Ahu, J Ren, and B Thyagarajan. TRPV1 activation counters diet-induced obesity through sirtuin-1 activation and PRDM-16 deacetylation in brown adipose tissue. *Int. J Obes (Lond).* 2017 May 41(5):739-749.
18. (Data based) Capsaicin induces the browning of white adipose tissue to Prevent Obesity. **Baskaran, P**, V Krishnan, J Ren, and B Thyagarajan. *Br. J. Pharmacol.* 2016 Aug; 173(15):2369-89.
19. **Baskaran P**, Krishnan V, and Thyagarajan, B. Implications of Obesity on Neuromuscular Functions-The Known and Unknown BAOJ Obe Weight Manage 2015, 1:1 1: 003.
20. (Data based) The TRPM8 Protein is a Testosterone Receptor. Part II: Functional Evidence for an Ionotropic Effect of Testosterone on TRPM8. Asuthkar S, Demirkhanyan L, Sun X, Elustondo P, Krishnan V, **Baskaran P**, Velpula KK, Thyagarajan B, Pavlov E, Zakharian E. *J Biol Chem.* 2015 Jan 30; 290 (5):2670-88. DOI: 10. 1074/jbc.M114.610873.
21. (Data based) The TRPM8 Protein is a Testosterone Receptor. Part I: Biochemical Evidence for Direct TRPM8-Testosterone Interactions. Asuthkar S, Elustondo PA, Demirkhanyan L, Sun X, **Baskaran P**, Velpula KK, Thyagarajan B, Pavlov E, Zakharian E. *J Biol Chem.* 2015. Jan 30; 290 (5): 2659-69. DOI: 10. 1016/jbc.M114.610824.
22. (Data based) Capsaicin modulates acetylcholine release at the myoneural junction. Thyagarajan, B, JG Potian, **Baskaran P** and JJ McArdle. *Eur. J. Pharmacol.* 2014 Dec 5; 744:211-9. doi: 10.1016/j.ejphar.2014.09.044. Epub 2014 Oct 23.
23. (Data based) Acute and chronic effects of botulinum neurotoxin A in B Thyagarajan mammalian neuromuscular junction. **Baskaran P** and Baskaran Thyagarajan. *Muscle and Nerve.* 2013 Nov 12.
24. (Data based) Lian Wang, NweNwe Soe, Mark Sowden, Yingqian Xu, Kristina Modjeski, **Baskaran P**, Yeonghwan Kim, Elaine Smolock, Craig Morrell, and Bradford Berk. Cyclophilin A is an important mediator of platelet function by regulating integrin $\alpha\text{IIb}\beta 3$ bidirectional signaling. *Thrombosis and Haemostasis*, 2013, Accepted.
25. (Data based) **Baskaran P** and B Thyagarajan. Acute and chronic effects of botulinum neurotoxin A in mammalian neuromuscular junctions. *Muscle and Nerve* 2013.Nov 12.
26. (Data based) Soe NN, Sowden M, **Baskaran P**, Smolock EM, Kim Y, Nigro P, Berk BC. Cyclophilin A is required for angiotensin II-induced p47phox translocation to caveolae in vascular smooth muscle cells. *Arterioscler Thromb Vasc Biol.* 2013 Sep;33(9):2147-53
27. (Data based) **Baskaran, P**, TE Lehmann, E Topchiiy, N Thirunavukkarasu, S Cai, B R Singh, S Deshpande, and B Thyagarajan. Effects of Enzymatically Inactive Recombinant Botulinum Neurotoxin Type A at the Mouse Neuromuscular Junctions. *Toxicon.* 2013 Sep; 72:71-80

28. (Data based) Protein disulfide-isomerase interacts with soluble guanylyl cyclase via a redox-based mechanism and modulates its activity. Heckler EJ, Crassous PA, **Baskaran P**, Beuve A. *Biochem J*. 2013 May 15;452(1):161-9. DOI: 10.1042/BJ20130298.PMID:2347735.
29. (Data based) Thyagarajan, B., S Schreiner, and **Baskaran P**. Capsaicin: A novel antidote against botulinum neurotoxin A. *Toxicon* 60 (2) 2012- Special Issue for Abstracts
30. (Data based) Crassous PA, Couloubaly S, Huang C, Zhou Z, **Baskaran P**, Kim DD, Papapetropoulos A, Fioramonti X, Durán WN, Beuve A. Soluble guanylyl cyclase is a target of angiotensin II-induced nitrosative stress in a hypertensive rat model. *Am J Physiol Heart Circ Physiol*. 2012 Sep 1;303(5): H597-604. DOI: 10.1152/ajpheart.00138.2012. Epub 2012 Jun 22
31. (Data based) **Baskaran P**, Heckler EJ, van den Akker F, Beuve A. Identification of residues in the heme domain of soluble guanylyl cyclase that are important for basal and stimulated catalytic activity. *PLoS One*. 2011;6(11): e26976. Epub 2011 Nov 9. PMID:2209651
32. (Data based) Marazioti A, Bucci M, Coletta C, Vellecco V, **Baskaran P**, Szabó C, Cirino G, Marques AR, Guerreiro B, Gonçalves AM, Seixas JD, Beuve A, Romão CC, Papapetropoulos A. Inhibition of nitric oxide-stimulated vasorelaxation by carbon monoxide-releasing molecules. *Arterioscler Thromb Vasc Biol*. 2011 Nov;31(11):2570-6. PMID:21836072
33. (Data based) **Baskaran P**, Heckler EJ, van den Akker F, BeuveA. Aspartate 102 in the heme domain of soluble guanylyl cyclase has a key role in NO activation. *Biochemistry*. 2011 May 24;50(20):4291-7. Epub 2011 May 2. PMID:21491881
34. (Data based) Martin F, **Baskaran P**, Ma X, Dunten PW, Schaefer M, Stasch JP, Beuve A, van den Akker F. Structure of cinaciguat (BAY 58-2667) bound to Nostoc H-NOX domain reveals insights into heme-mimetic activation of the soluble guanylyl cyclase. *J Biol Chem*. 2010 Jul 16;285(29):22651-7. Epub 2010 May 12. PMID:20463019
35. (Data based) Ma X, Sayed N, **Baskaran P**, Beuve A, van den Akker F. PAS-mediated dimerization of soluble guanylyl cyclase revealed by signal transduction histidine kinase domain crystal structure. *J Biol Chem*. 2008 Jan 11;283(2):1167-78. Epub 2007 Nov 15. PMID:18006497
36. (Data based) Sayed N, **Baskaran P**, Ma X, van den Akker F, Beuve A. Desensitization of soluble guanylyl cyclase, the NO receptor, by S-nitrosylation. *ProcNatlAcadSci U S A*. 2007 Jul 24;104(30):12312-7. Epub 2007 Jul 16. PMID:17636120

Research Grants Funded:

1. Award Number: American Association of Colleges of Pharmacy New Investigator Award (AACP NIA) (*Extramural*)

Title: Mitochondrial Quality Control and Fatty Liver Disease

Sponsor: American Association of Colleges of Pharmacy

Grant Amount: \$8,000

Role: Padmamalini Baskaran (PI)

Year: 2022 – 2023

2. Award Number: Howard University Summer Research Grant by the Center for Women, Gender, and Global Leadership (CWGGL)(*Intramural*)

Title: Analysis of the effect of Non-Alcoholic Fatty Liver Disease in Murine Diet-Induced Obesity Model by Invasive and Non-Invasive diagnostic methods

Sponsor: Howard University Summer Research Grant by the Center for Women, Gender and Global Leadership (CWGGL).

Grant Amount: \$4,000

Role: Padmamalini Baskaran (PI)

Year: June 2022 – August 2022

3. Award Number: College of Pharmacy Research Seed Grant (CPRSG)

Title: Enhanced efficacy of the combination of empagliflozin and hydralazine-isosorbide dinitrate in Heart Failure with reduced ejection fraction in the African American population

Sponsor: The Howard University College of Pharmacy

Grant Amount: \$5000

Role: Padmamalini Baskaran (PI) and Mohammed Aldhaefi (PI)

Year: April 2023 – March 2024

4. Award Number: RCC-002HU-Pilot (extramural)

Title: Analyses of expression and function of TRPV1 & Thermogenic proteins in human fat (*Extramural*)

Sponsor: National Institutes of Minority and Health Disparities – Morehouse School of Medicine

Grant Amount: \$110,000

Role: Padmamalini Baskaran (Subaward - PI)

Year: 2024 – 2025 (NCE – 04/30/2026)

5. Award Number: HU RCMI IDC Grant

Title: Evaluation of the weight loss effect of once-a-day capsaicin (*Intramural*)

Sponsor: Howard University Research Centers in Minority Institutions - 2024 Investigator Development Core

Grant Amount: \$140,000

Role: Padmamalini Baskaran (PI)

Year: 2025 – 2027

6. Award Number: DICRIDG-21-074-01-DICRIDG

Title: TRPV1 Activation Inhibits Triple-Negative Breast Cancer (*Intramural*)

Sponsor: American Cancer Society Grant – Diversity in Cancer Research Institutional Development Grant to Howard University

Grant Amount: \$40,000

Role: Padmamalini Baskaran (PI)

Year: 2026 (Jan 2026 – April 2026)

Research Grants Submitted but not funded:

1. Award Number: Howard University R-Type Research Grant (*Intramural*)

Title: Analysis of Pharmacokinetics, safety, and anti-obesity efficacy of 3D Printed Capsaicin-loaded Rod-shaped Implants

Sponsor: Howard University RCMI Program

Grant Amount: \$ 1,750,000.00

Role: Padmamalini Baskaran (PI)

Year: 2023 – 2028

2. Award Number: Howard University R-Type Research Grant (*Intramural*)

Title: BriTE Nutrient bar for effective weight management

Sponsor: Howard University RCMi Program

Grant Amount: \$ 1,750,000.00

Role: Padmamalini Baskaran (PI)

Year: 2023 - 2028

3. **Award Number:** Sex and Gender in Alzheimer's (SAGA23) Award Program
(Extramural)

Title: Evaluation of vulnerability reasons for AD/ADRD in African Americans

Sponsor: Alzheimer's Association

Grant Amount: \$ 250,000.00

Role: Padmamalini Baskaran (PI)

Year: 2023 – 2026

4. **Award Number:** RFA-DK-23-006 (NIH R01)**(Extramural)**

Title: Treatment of Painful Peripheral Neuropathies with Resiniferatoxin Cream Formulation

Sponsor: National Institutes of Health

Grant Amount: \$ 776,134.00

Role: Padmamalini Baskaran (Subaward - PI)

Year: 2023 – 2028

5. **Award Number:** RFA-NS-23-006. R43/R44 Small Business Innovation Research
(SBIR) Grant - Phase I, Phase II **(Extramural)**

Title: Development and Evaluation of a Polymer-Coated Proprietary Cream Formulation of Resiniferatoxin Nanoparticles for the Treatment of Pain Associated with Diabetic Peripheral Neuropathy

Sponsor: National Institutes of Health

Grant Amount: \$ 589,460.00

Role: Padmamalini Baskaran (Subaward - PI)

Year: 2025 – 2027

6. **Award Number:** PA-24-245. R43/R44 Small Business Innovation Research (SBIR)
Grant - Phase I, Phase II, and Fast-Track **(Extramural)**

Title: Development and Evaluation of a Polymer-Coated Proprietary Cream Formulation of Resiniferatoxin Nanoparticles for the Treatment of Pain Associated with Diabetic Peripheral Neuropathy

Sponsor: National Institutes of Health

Grant Amount: \$ 476,020.00

Role: Padmamalini Baskaran (Subaward - PI)

Year: 2026 – 2028

7. **Award Number:** PAR-24-144 – SuRE Program Grant **(Extramural)**

Title: Mechanisms of transient receptor potential vanilloid subfamily 1 signaling in Metabolically Dysfunctional-Associated Steatotic Liver Disease (MASLD)

Sponsor: National Institutes of Health

Grant Amount: \$ 607,973.00

Role: Padmamalini Baskaran (PI)

Year: 2025 – 2029

Patents

1. Ramapuram J, **Baskaran P**, and Annaji M, inventors. 3D printed capsaicin-loaded rod-shaped implant for treatment of obesity and hyperlipidemia. USA filed provisional patent 2022.

<https://patents.justia.com/inventor/padmamalini-baskaran>

1. Thyagarajan B, and Baskaran P, inventors. Nanoparticle Delivery System for Targeted Anti-Obesity Treatment. USA patent number: 12109268. 2024 October.
2. Thyagarajan B, and Baskaran P, inventors. Nanoparticle Delivery System for Targeted Anti-Obesity Treatment. USA patent number: 11077190. 2021 August. (publication available)
3. Thyagarajan B, and Baskaran P, inventors. Magnetic Nanoparticle Delivery System for Pain Therapy. USA patent number: 11464858. 2019 June.
4. Thyagarajan B, and Baskaran P, inventors. Nanoparticle Delivery System for Targeted Anti-Obesity Treatment. USA patent number: 9782481. 2017 October.
5. Thyagarajan B, and Baskaran P, inventors. Nanoparticle Delivery System for Targeted Anti-Obesity Treatment. USA patent number: 9320749. 2016 April. (Publication available)