TuftsMedicine
Tufts Medical Center

Mother Infant Research Institute Annual Report 2023-24

Letter from Director

Dear fellow MIRI members and friends of MIRI,

As I read through this year's Annual Report, I'm so proud to see all we've achieved in the face of the fiscal challenges felt by academic health systems across the country. We stayed true to our mission—continuing to "enhance the lifelong health of mothers and babies"—while increasing our funding portfolio, growing our team, and having a good time doing it! Highlights that stood out to me include:

- Growing our leadership team: In January 2024, we appointed **Dr. Elizabeth Yen** as Associate Director of MIRI.
- New Grants and Collaborations: **Dr. Michael House** was awarded two large grants to support his innovative research into prevention of preterm birth.
- New MIRI PIs: We welcomed **Dr. Sebastian Ramos** as a MIRI PI in February 2024, and celebrated the news that **Dr. Rebecca Perkins** will join MIRI in early 2025!
- Engagement: One of the highlights I'm most proud of this year is the continued improvement in our Employee Engagement (EE) scores. MIRI had a 90% response rate and an overall EE score of 4.20 (+0.36 vs Overall EE at TMC), a further 7% increase over our 2023 scores. This was driven by the incredible team we have and how we work together—a feeling of safety when reporting issues, commitment to our fellow team members, and feeling valued for who you are.

2024 was a year of laying down the foundations for the future of our institute. With our growing team of incredible investigators, new interdisciplinary programs, and stronger infrastructure, the future is very bright.

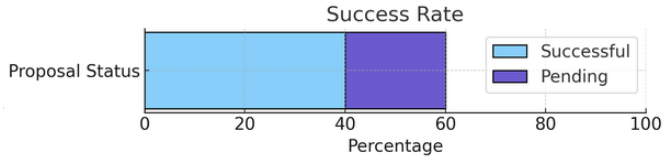
Looking forward to 2025, I am excited to welcome Dr. Perkins to our group. Her work opens new research areas for the MIRI, encouraging a more integrative view of women's health across the lifespan. The year will bring new challenges to be sure, but I am optimistic that we will rise to meet them with creativity, persistence, and teamwork.

I hope you enjoy this year's Annual Report. An enormous thanks to Gautami Kotasthane who assembled the report—tremendous work! As always, a heartfelt thanks to our MIRI members—your successes and dedication are what define us.

Sincerely,

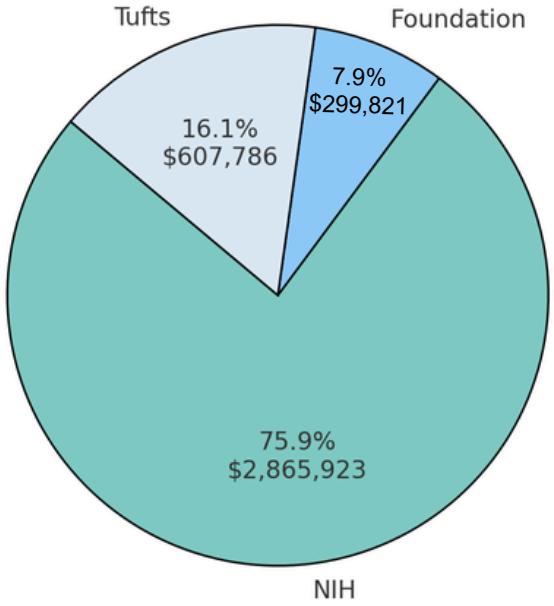
Perrie O'Tierney-Ginn
Executive Director, Mother Infant Research Institute

FY2024 Research Funding and Awards Overview



MIRI PIs have achieved a commendable 40% success rate for submitted proposals.

Current Awards

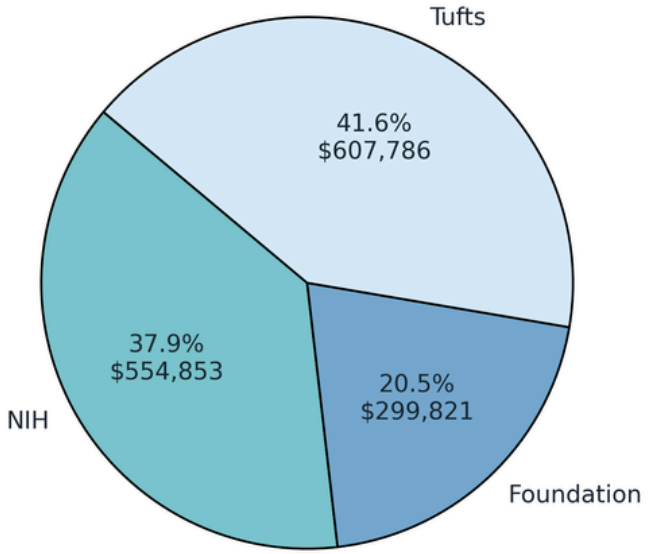


In FY2024, MIRI secured $3,773,182 in research funding, highlighting our commitment to scientific discovery. This funding spans three main categories: NIH, Foundation support, and Tufts University programs.

The funding distribution reflects our diverse research efforts, with NIH leading and strong contributions from Foundation and Tufts programs. The accompanying chart showcases the allocation, emphasizing the breadth and impact of our work.

These awards affirm our success in attracting competitive funding and driving research that advances knowledge and public health.

FY2024 New Awards



The institute secured $1,462,460 in new grants from diverse sponsors in fiscal year 2024, categorized as follows:

- NIH (54% | $554,853): Major contributions from CFD-NIH and UTSMC support groundbreaking research.
- Foundation (21% | $299,821): Funding from MLSC advances life sciences innovation.
- Tufts University (25% | $607,786): Springboard and BIRCWH programs showcase Tufts' commitment to innovation and collaboration.

Principal Investigator Highlights

Dr. Michael House, MD
Professor of OBGYN, Tufts University School of Medicine

In FY24, Dr. House was awarded two significant grants—a Phase 2 SBIR grant from the NIH and the Women's Health Innovation grant from the Massachusetts Life Sciences Center—for his groundbreaking work on developing a novel medical device to reduce preterm birth and improve outcomes for pregnant women with cervical insufficiency. These awards underscore his dedication to advancing maternal health through innovative research and medical technology development.

Dr. Elizabeth Yen, MD
Associate Professor of Pediatrics, Tufts University School of Medicine
Associate Director, Mother Infant Research Institute
Director of Newborn Medicine Research, Tufts Medicine Pediatrics

In FY24, Dr. Yen was honored with the New England Perinatal Society Mentor Award for her outstanding contributions to mentoring trainees in neonatal and perinatal research.

She was appointed Associate Director of the Mother Infant Research Institute in April 2024, recognizing her leadership and dedication to advancing maternal and infant health research. Additionally, she assumed the role of Director of Newborn Medicine Research in July 2024, solidifying her impact on translational research and clinical care in neonatology.

Dr. Perrie O'Tierney-Ginn, PhD
Executive Director of the MIRI, Research Associate Professor of OBGYN at Tufts University School of Medicine

In 2024, Dr. O'Tierney-Ginn received a Tufts University Springboard grant to support a groundbreaking collaboration with Tufts Medicine researchers on the role of paternal stress in placental function and neonatal fat accrual.

She was also the keynote speaker for the Leaders in Bioenergetics and Exercise Science Annual Lecture at East Carolina University, reflecting her prominence in maternal health. Additionally, she was appointed as a standing member of the NIH Pregnancy & Neonatology Study Section (2024–2028), recognizing her exceptional contributions to perinatal research and her dedication to advancing maternal and infant health.

New Faculty Alert!!

Dr Sebastian Ramos, MD
Assistant Professor of OBGYN, Tufts University School of Medicine

Dr. Ramos joined us in March 2024, bringing his expertise in maternal-fetal medicine and a commitment to advancing health equity through his leadership roles and research.

He is a member of the Technical Expert Panel for the PCORI-funded project on the impact of doula support during pregnancy and childbirth and serves on the Society for Maternal-Fetal Medicine's DEI National Committee. Recently, Dr. Ramos was invited to join the Editorial Board of Women's Health Issues. These accomplishments highlight his dedication to advancing maternal-fetal health and promoting equity in healthcare.

Dr. Rebecca Perkins, MD, MSc

COMING 2025

We are thrilled to welcome Dr. Rebecca Perkins, MD, MSc, to the Department of Obstetrics and Gynecology and the MIRI in January 2025. Dr. Perkins researches cervical cancer disparities, focusing on HPV vaccination and screening.

Associate Principal Investigator Highlights

> *"Now more than ever, studying how to improve disparities in maternal healthcare is paramount to advancing care for all. As researchers in this space, we strive not just to move the needle forward for all pregnant people but also advocate to invest in research that helps us close the gap in outcomes experienced by our minoritized patients"*
> *- Dr Sebastian Ramos*

New Faculty Alert!!

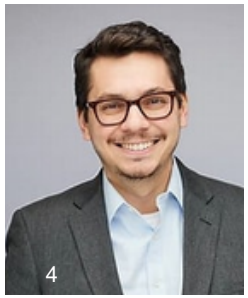
MyDzung Chu, PhD
Assistant Professor, Institute for Clinical Research and Health Policy Studies, Tufts Medical Center

Dr. MyDzung Chu, an environmental epidemiologist, joined MIRI in July 2024, focusing on social and environmental determinants of health in underserved communities.

Named one of Popular Science's 10 Emerging Leaders for 2023, Dr. Chu co-leads the Tufts Springboard 2024 Award-winning project on Reggie Wong Park in Boston's Chinatown. As Director of the ADAPT Coalition at Tufts CTSI, she also led the 8th Asian Health Symposium, uniting over 100 attendees to tackle health disparities through innovative, community-driven research.

Dr. Emmanuel Pothos, PhD
Associate Professor, Immunology, Tufts University

Dr. Emmanuel N. Pothos, Associate Professor at Tufts University School of Medicine and Director of the Graduate Program in Pharmacology, is a leading researcher in neurobiology. His 2024 publication in Molecular Psychiatry explores astrocytic nucleotide transporters' role in anxiety and motivation. As Course Director for Principles of Addiction Medicine, he integrates his expertise into educating future leaders in science and medicine.



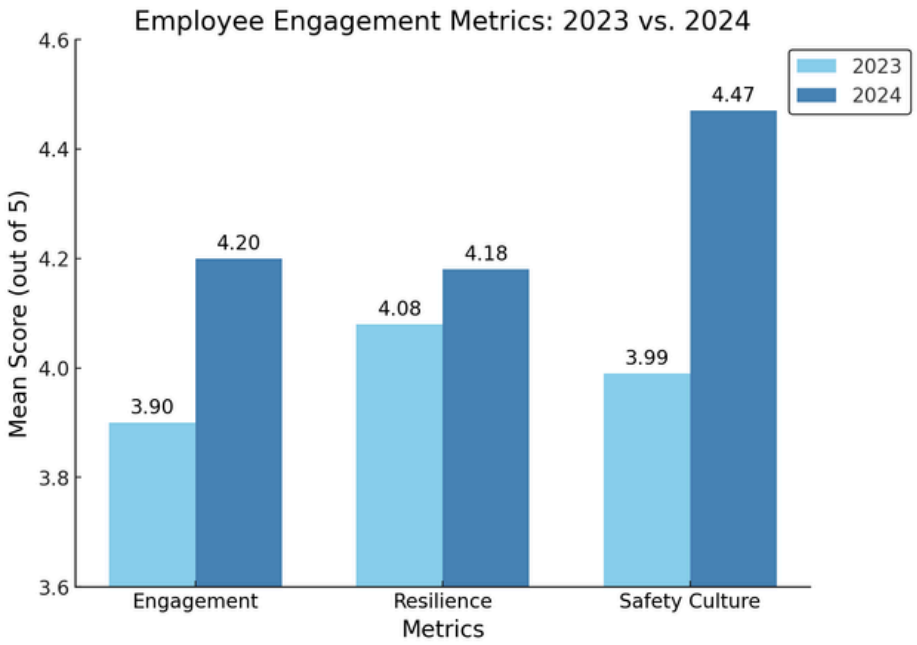
Dr. Juan Gnecco, PhD
Assistant Professor, Biomedical Engineering, Tufts University

Dr. Juan Gnecco, a key MIRI researcher, received a Tufts Springboard Award for his innovative project on endometrial tissue morphogenesis. He presented groundbreaking work on biomaterials and reproductive health at the Society of Reproductive Investigation and the World Biomaterial Congress. His research emphasizes cutting-edge tissue engineering and microscopy technologies.

Dr. Erika Werner, MD, MS
Professor of OBGYN, Tufts University School of Medicine
Chair of OBGYN Tufts Medicine

Dr. Erika Werner was appointed President of the Tufts Medical Center Physicians Organization in 2024. She is a key investigator in the groundbreaking DECIDE trial, the largest U.S.-based study comparing metformin and insulin for managing gestational diabetes, aiming to improve maternal and neonatal outcomes.

2024 Employee Engagement Survey: Key Highlights



- **Engagement** increased to a mean score of 4.20 (from 3.90 in 2023), placing MIRI in the **83rd** percentile compared to the AHA-1 Employee benchmark. Employees report feeling more valued, connected to their work, and supported in their professional growth.
- **Resilience** improved to a mean score of 4.18 (from 4.08 in 2023), with Resilience Activation scoring 4.83, reflecting employees' ability to find meaning in their work and stay motivated even in challenging circumstances. Additionally, Resilience Decompression scored 3.53, indicating that employees are maintaining their energy and focus while balancing their work commitments.
- **Safety Culture** saw the most substantial improvement, reaching a mean score of 4.47 (from 3.99 in 2023). The Prevention & Reporting score of 4.79 indicates high confidence in workplace safety measures, while Pride & Reputation (4.56) reflects a strong sense of commitment to safety and excellence

MIRI's mission

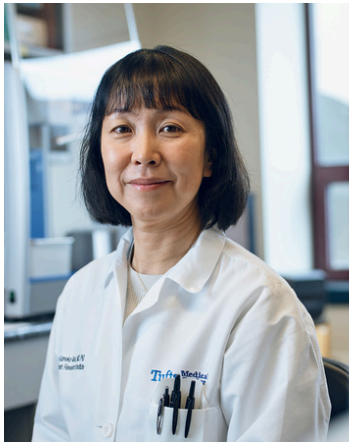
Tufts Medical Center's Mother Infant Research Institute (MIRI) aims to enhance the lifelong health of mothers and babies by building, growing and training a community of collaborative researchers with a multidisciplinary perspective. Our holistic view of patients, their families and communities uniquely positions us to reduce inequities and improve health outcomes across generations.

MIRI's vision

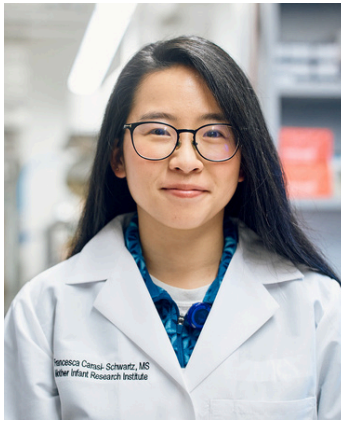
We believe in a future where every parent can make informed decisions for their and their children's long-term health through advanced diagnostics and personalized treatments.

MIRI
Lab Highlights

This year, the MIRI Lab acquired QIAGEN's aLF reader, designed for use with the ImplantSafeDR Immuno-Assay, facilitating rapid IGF-1 measurement.



Dr. Tomoko Kaneko-Tarui,
MIRI Lab Director



Francesca Carasi-Schwartz
Research Assistant

Under the leadership of Lab Director Dr. Tomoko Kaneko-Tarui, MD, PhD, the MIRI Lab including Research Assistant Ms. Francesca Carasi-Schwartz, MS has consistently provided comprehensive support throughout the year. This support encompasses education, mentorship, and the execution of research activities, ensuring that all principal investigators (PIs), associate PIs, collaborators, fellows, and students affiliated with MIRI effectively advance their research endeavors.

Activities Supported by the MIRI Lab
The MIRI Lab was actively engaged in supporting a range of principal investigators (PIs), associate PIs, collaborators, and students throughout the year, contributing to numerous NIH-funded and other studies, clinical trials, and collaborative initiatives.

The MIRI Lab continues to drive impactful research, contributing to multiple funded studies aimed at advancing maternal and infant health

Key Highlights:
6 NIH-Funded Studies:
Focus areas include placenta, neonatal abstinence syndrome, and maternal health.

1 Springboard-Funded Study:
Examines parental stress and its impact on placental biology.

2 Collaborative Pre-Award Studies:
Topics include metformin's effects and NAS-related microbiome research.

Sample Collection and Processing
In 2024, the lab collected and processed 29 placentas, as well as various biological samples, including peripheral blood, cord blood, feces, umbilical cords, saliva, urine, and primary human trophoblast cells.

Clinical Trials
MIRI Lab contributed to five clinical trials, some of which overlap with NIH-funded projects

Biorepository Engagement
The lab assumed roles within the Tufts Medical Center Biorepository starting in November 2024.

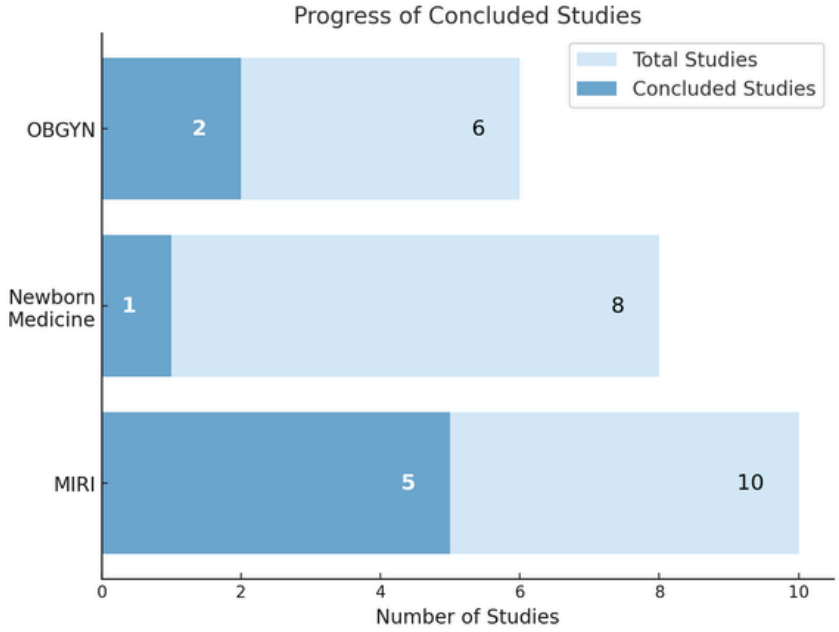
The lab supported a total of **17 students and fellows**, including 1 clinical fellow, 2 postdoctoral fellows, 4 medical students, 1 master's student, and 9 undergraduate students, showcasing its commitment to mentoring and training the next generation of researchers in maternal and infant health.

Sample Types Processed:
- RNA, cDNA, mRNA, miRNA, protein, lipid

Technologies Supported
The lab employed a variety of technologies throughout the year, including:
- RNA extraction
- cDNA synthesis
- Reverse transcription
- Pre-amplification
- Quantitative PCR
- Protein extraction
- ELISA
- WES capillary western blotting
- Frozen block preparation from human specimens
- Nano String sample preparation and data analysis
- Glucose measurement (YSI)
- Cell culture and primary cell isolation
- Cell culture on microfluidic devices
- Radioisotope usage
- Fast IGF-1 measurement

Clinical and Translational Research

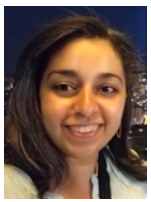
"To expand our research reach, we are collaborating with clinics and units across Tufts Medicine. This initiative makes research more accessible to patients at satellite clinics and partner hospitals, including Tufts Medicine OBGYN – Braintree, Circle Health GYN Care – Chelmsford, and Lowell General Hospital."



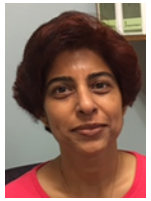
- Led by Taysir Mahmoud Supervisor of Clinical and Translational Research, a team of 7 Clinical Research Coordinators oversaw a total of 24 studies with a wide range of skills and expertise spanning 3 Departments: MIRI, OBGYN, Newborn Medicine.
- Various projects have yielded 9 abstracts, presentations, or papers in the last year including some to be presented at the 2025 Society for Maternal Fetal Medicine meeting.
- MIRI members will be presenting abstracts and oral presentation in at least 4 academic conferences in 2025.

2024 Department Enrollment Progress

Department	Enrolled Patients	Total Target Enrollment	Percentage of Target Enrollment
MIRI	184	525	35.0
Newborn Medicine	27	94	28.7
OBGYN	112	199	56.3



Taysir Mahmoud
Supervisor
Clinical Trials



Kiran Singh
Clinical Research Coordinator III

Marissa Chow
Clinical Research Coordinator I

Afshin Azimirad
Clinical Research Associate I

Faizah Wulandana
Clinical Research Coordinator II

Tejasvi Aryaputra
Clinical Research Coordinator I

Alysa St. Charles
Research Assistant III

Devika Lekshmi
Senior Statistician Associate

2024 Talks and Presentations

Society of Reproductive Investigation (SRI) Annual Meeting – Vancouver, BC
MIRI researchers had a strong presence at the SRI Annual Meeting in Vancouver. Dr. Tomoko Kaneko-Tarui presented her research on maternal obesity's effects on mesenchymal stem cell miRNA pathways, and Taysir Mahmoud delivered findings on metabolic flexibility during gestation. Dr. Juan Gnecco gave a talk at the "Next Generation Biomaterials for Reproductive Research" mini-symposium, while Dr. Perrie O'Tierney-Ginn moderated a session on fetal physiology and mentored junior scientists during the Connection Corners event.

New England Perinatal Society (NEPS) Meeting – Newport, RI
At the NEPS Annual Meeting, Dr. Perrie O'Tierney-Ginn gave a talk titled "The Placenta-Brain Lipid Axis: Did eating fish make us human?" and Dr. Elizabeth Yen received the NEPS Mentoring Award. Dr. Tomoko Kaneko-Tarui presented a poster on maternal obesity and uMSC miRNA expression. Oral presentations included collaborative work by Francesca Carasi-Schwartz, Marissa Chow, and Kiran Singh on prenatal opioid exposure and its effects on autonomic nervous system function, sex-specific molecular impacts, and developmental trajectories in children.

Leaders in Bioenergetics and Exercise Science Seminar – Greenville, NC
Dr. Perrie O'Tierney-Ginn delivered the keynote lecture at East Carolina University's Leaders in Bioenergetics and Exercise Science Seminar. She presented her research on placental bioenergetics and engaged with faculty and graduate students during her visit.

World Biomaterial Congress – Daegu, South Korea
Dr. Juan Gnecco was invited to present his innovative research on tissue-engineered models for endometrial disorders at the World Biomaterial Congress, highlighting MIRI's leadership in reproductive research.

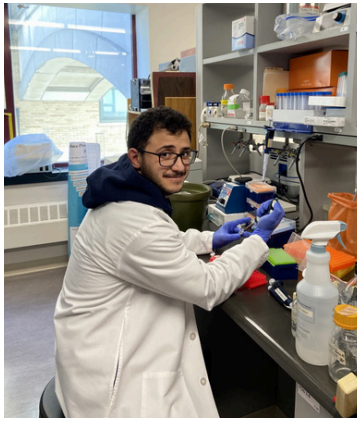
Holy Family Pediatric Grand Rounds- Virtual
Dr. Elizabeth Yen gave an invited talk titled "The Impact of Prenatal Opioid Exposure on Growth and Development," focusing on neonatal health and opioid-related research.

NIDA Genetics and Epigenetics Cross-Cutting Research Meeting- Bethesda, MD
The Yen Lab presented two posters at the NIDA Research Meeting. Francesca Carasi-Schwartz and Kiran Singh contributed to the studies titled "Molecular Evidence of Sex-Specific Effects in Neonates with Prenatal Opioid Exposure" and "Insulin Sensitivity and Body Composition Effects of Prenatal Opioid Exposure."

Engineer Research Visioning Alliance (erVa) Conference – Columbus, OH.
Dr. Michael House participated in the NSF-sponsored erVa Conference, contributing to discussions on transforming women's health outcomes through engineering.

American Public Health Association (APHA) Conference – Boston, MA
Dr. MyDzung Chu and her team, presented three studies at the APHA Conference. These addressed disparities in heavy metal exposure, climate-resilient urban spaces, and culturally responsive mental health training programs for Asian communities, highlighting MIRI's commitment to addressing social and environmental determinants of health.

MIRI Postdoctoral Fellows



Imad Soukar, PhD
Postdoctoral Fellow, MIRI

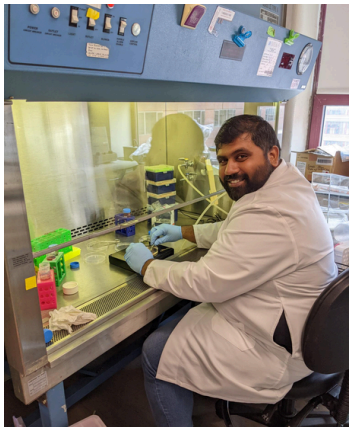
Dr. Imad Soukar is a postdoctoral fellow in the Dr. Perrie O'Tierney-Ginn lab at MIRI. He earned his PhD in Molecular Biology from Wayne State University in 2023, where he investigated the role of the SIN3 complex in metabolic sensing within Drosophila melanogaster. His research contributed to a deeper understanding of metabolic regulation at the molecular level.

Following his PhD, Dr. Soukar completed a short postdoctoral fellowship in the Department of Dermatology at Boston University, where he studied the effects of epigenetic inhibitors on malignant peripheral nerve sheath tumors. This work further strengthened his expertise in cancer biology and molecular therapeutics.

In 2024, Dr. Soukar joined MIRI, where he applies his background in metabolism and molecular biology to study the endocrine functions of placental-derived miRNAs. His research aims to enhance our understanding of placental biology and its role in maternal and fetal health.

His recent work led to the submission of a research article titled "The CoREST Complex is a Therapeutic Vulnerability in Malignant Peripheral Nerve Sheath Tumors," which has been shared as a preprint. This study explores how targeting the LSD1-HDAC1-CoREST complex could serve as a novel therapeutic approach for this aggressive malignancy.

Outside of research, Dr. Soukar is a dedicated purple belt in Brazilian Jiu Jitsu and an enthusiastic Detroit Lions fan, embodying resilience and determination both in and out of the lab.



Deepak Venkataraman, PhD
Postdoctoral Fellow, MIRI

Dr. Deepak Venkataraman is a postdoctoral fellow in the Perrie O'Tierney-Ginn lab at MIRI. He earned his PhD in Cancer Biology from Kalasalingam University, India, where he investigated the effects of bioactive compounds from probiotic bacteria on the expression of angiogenic markers in colon cancer cell lines. His research contributed to the growing understanding of natural compounds in cancer therapeutics.

During his doctoral studies, Dr. Venkataraman developed a keen interest in placental biology while working as a visiting scholar at the Trophoblast Research Centre at Nottingham Trent University, UK. This experience shaped his transition into placental research, leading him to pursue a postdoctoral fellowship at Emory University. There, he studied the mechanisms regulating the expression of sFLT1, an anti-angiogenic molecule implicated in preeclampsia, using primary stromal cells and villous explants.

In 2024, Dr. Venkataraman joined the O'Tierney-Ginn lab at MIRI, where he investigates the role of placental miRNAs in regulating maternal insulin sensitivity. During this time, he also began serving as a reviewer for the Journal of Developmental Origins of Health and Disease and Open Life Sciences, contributing his expertise to the scientific community. His research aims to further our understanding of the placenta's endocrine function and its impact on maternal health.

Beyond the lab, Dr. Venkataraman is a calm yet sociable individual with a passion for travel, impromptu road trips, music, and reading—particularly fiction and history.

Student Researchers 2024

Lema Abuoqab
Lema, a recent graduate of Tufts University, is finalizing her Senior Honors Thesis on placental lipid metabolism in the O'Tierney-Ginn Lab. Her work contributes to understanding placental function during gestation, with a manuscript in progress for publication.

Emma Bussolo
A rising senior at Tufts, Emma is leading participant engagement for the Produce Prescription project. Her research highlights the impact of nutrition and lifestyle on mental health, aligning with MIRI's focus on health outcomes.

Natalie Finton
Natalie, a Tufts senior, is conducting research in Dr. Yen's lab on the effects of maternal cannabis and opioid use on infant nutrition and health. Her work directly supports MIRI's efforts in neonatal health research.

Nina Forrest
Nina, a Clinical Psychology major at Tufts, is contributing to the MAMMA Follow-Up study, investigating intergenerational stress impacts. Her research supports MIRI's mission to improve maternal and child health

Ana Sofia Leonard
A second-year medical student at Tufts, Ana is advancing research on neonatal abstinence syndrome and feeding behavior, focusing on brain MRI analysis. Her work enhances MIRI's understanding of neonatal health challenges.

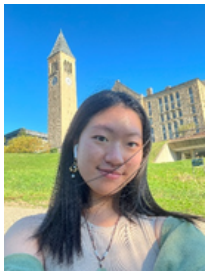
Chelsea Liu
Chelsea, a Community Health major at Tufts, is studying placental miRNA in Dr. O'Tierney-Ginn's lab. Her focus on maternal health advocacy and community engagement aligns with MIRI's research priorities.

Emma Noyes
Emma, a fourth-year medical student, is extending her research on high-risk pregnancies through the Produce Prescription Project. Her work addresses critical areas of maternal and fetal health, a core focus of MIRI.

Malene Nygaard
Malene, a PhD student from the University of Copenhagen, is collaborating with MIRI on maternal and infant health research. Her expertise in Human Nutrition contributes to NIH-funded projects on pregnancy interventions.

Louise Birk Suder
Louise, a PhD student at Aarhus University, is engaging with MIRI's LIPP study to gain insights into lifestyle interventions for pregnancy. Her work enriches MIRI's global collaboration in maternal health research.

Hannah Yen
Hannah, a Northeastern biology major, is researching lipid metabolism genes in placentas under Dr. Perrie's guidance. Her contributions support MIRI's exploration of genetic factors in maternal and neonatal health.



Grace Zhang
Grace, a Cornell senior studying chemistry, is investigating the effects of prenatal opioid exposure on maternal BMI and infant growth. Her research aligns with MIRI's commitment to understanding the impact of substance exposure during pregnancy.

Liam Lin
Liam Lin is a 2nd-year MS student in Biomedical Sciences at Tufts, researching feeding dysregulation in opioid-exposed preterm babies in the Yen Lab; outside the lab, he enjoys weightlifting and cooking, inspired by his family's restaurant.

List of Publications

Dr. Michael House

- Uterus and cervix anatomical changes and cervix stiffness evolution throughout pregnancy. Louwagie EM, Russell SR, Hairston JC, Nottman C, Nhan-Chang CL, Fuchs K, Gyamfi-Bannerman C, Booker W, Andrikopoulou M, Friedman A, Zork N, Wapner R, Vink J, Mourad M, Feltovich HM, **House MD**, Myers KM. bioRxiv [Preprint]. 2024 May 3:2024.05.01.592023. doi: 10.1101/2024.05.01.592023. PMID: 38746471.
- Prenatal aneuploidy screening in a low-risk Hispanic population: price elasticity and cost-effectiveness. Clifford CM, Askew N, Smith D, Iniguez J, Smith A, **House MD**, Leech AA. AJOG Glob Rep. 2023 Nov 18;4(1):100293. doi: 10.1016/j.xagr.2023.100293. eCollection 2024 Feb. PMID: 38205132.
- Cerclage prevents ascending intrauterine infection in pregnant mice. Zhang Y, Edwards SA, **House M**. Am J Obstet Gynecol. 2024 May;230(5):555.e1-555.e8. doi: 10.1016/j.ajog.2023.10.004. Epub 2023 Oct 8. PMID: 37816485.
- Urgent Follow-up after Outpatient Nonstress Tests and the Potential for Fetal Monitoring at Home. Dangel A, Shindgikar P, Polio A, Breeze JL, **House M**. Am J Perinatol. 2024 May;41(S 01):e2978-e2984. doi: 10.1055/a-2184-1294. Epub 2023 Sep 29. PMID: 37774744.

Dr. Elizabeth Yen

- Understanding vision outcomes in children with history of prenatal opioid exposure: a single-center pilot study. Herman C, **Finton N**, Yoo S, **Yen E**. J Perinatol. 2024 May 2. Online ahead of print. PMID: 38698212.
- Sex differences in neonatal outcomes following prenatal opioid exposure. Madurai N, Jantzie L, **Yen E**. Front Pediatr. 2024;12:1357970. PMID: 38577634. PMC10991792.
- Segmenting hypothalamic subunits in human newborn magnetic resonance imaging data. Rasmussen JM, Wang Y, Graham AM, Posner J, O'Connor TG, Simhan HN, **Yen E**, et al. Hum Brain Mapp. 2024;45:e26582. PMID: 38339904. PMCID: PMC10826633.
- Book Chapter: Gigliotti-Manessis A, Rutter TM, Cook K, Fetal, Infant, and Toddler Neuroimaging Group (FIT'NG)*, Bick J (2024). Perinatal risk and later intellectual and development disabilities. In MG Valdovinos (Ed.), Intellectual and developmental disabilities: A dynamic systems approach (2024th ed., pp. 175-208). Springer Nature, Switzerland (*among the listed authors in the Fetal, Infant, Toddler Neuroimaging group). Release date: Oct 5, 2024.

Dr. Emmanuel N. Pothos

- Deletion of murine astrocytic vesicular nucleotide transporter increases anxiety and depressive-like behavior and attenuates motivation for reward. Huang Q, Lee HH, Volpe B, **Pothos EN**, et al. Mol Psychiatry. 2024. https://doi.org/10.1038/s41380-024-02692-5.

Dr. Perrie F O'Tierney-Ginn

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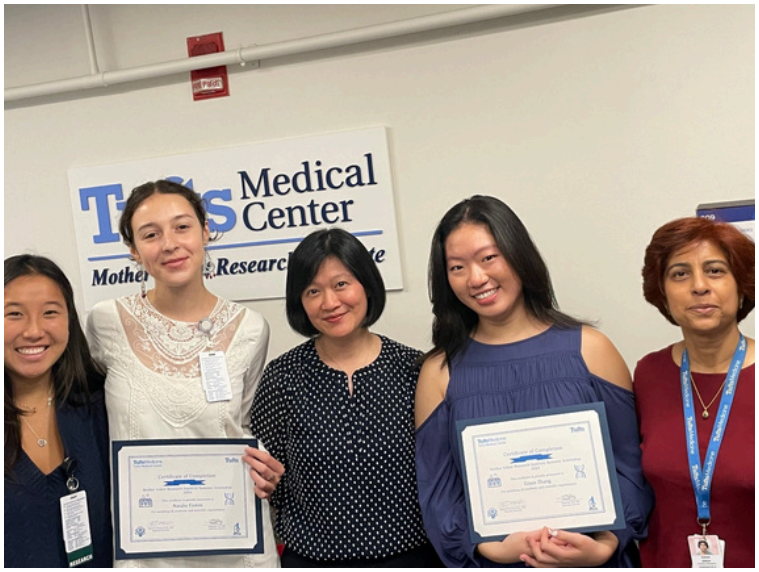
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