A logo of a medical college

AI-generated content may be incorrect.**MEGAN P. DARRELL**

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**EDUCATION**

**Albert Einstein College of Medicine (Bronx, NY)** *June 2022 – Expected 2030*

*Medical Scientist Training Program, MD-PhD*

**Wheaton College (Norton, MA)** *August 2017 – May 2020*

*Bachelor of Arts, Magna Cum Laude*

Bioinformatics Major, Chemistry Minor

**CLINICAL EXPERIENCE**

**MSTP Continuity Clinic (Bronx, NY)** *April 2025 – Present*

*Clinical Trainee*

* Coordinate patient care at weekly student-run outpatient clinic to continue developing clinical acumen during research years
* Focus on history-taking, physical exams, patient presentations, laboratory testing, and treatment management.

**ECHO Clinic (Bronx, NY)** *September 2022 – October 2023*

*Patient Advocate and Community Outreach*

* Communicated directly with patients to facilitate interactions with medical professionals
* Directed educational sessions to provide community outreach and tutoring for children at Bronx Public Schools

**The National Institutes of Health (Bethesda, MD)** *August 2020 – June 2022*

*Patient Rounds*

* Shadowed several physicians in NIAMS to observe patient rounds
* Observed leading medical scientists at the George Washington Myositis Clinic, which includes physician

consults for disease diagnostics and clinical trial testing

**Sturdy Memorial Hospital (Attleboro, MA)** *August 2019 – March 2020*

*Emergency Room Patient Care Liaison*

* Assisted patients and families in the ER and waiting area to provide care and comfort during a time of medical distress
* Served as a liaison between patients and medical staff

**Connecticut Children’s Medical Center (Hartford, CT)**  *2019 – 2020*

*Physician Shadowing*

* Pediatric Hematology and Oncology (Michael Isakoff, MD) *March 2019, January 2020*
* Behavioral Health Unit of the Emergency Room (Robert Sahl, MD) *January 2020*
* Behavioral Health Transitions Clinic (Kashmeer Zablan, MD)  *January 2020*

**RESEARCH EXPERIENCE**

**Cognitive Neurophysiology Lab (Bronx, NY)** *March 2024 – Present*

*Thesis Research*

* Processing and analyzing EEG data to elucidate endophenotypic changes in individuals with autism spectrum disorder
* Utilizing machine learning to identify autism subgroups and novel EEG biomarkers across multiple behavioral paradigms

**Mill Etienne Diversity and Inclusion Lab (New York Medical College)** *October 2022 – Present*

*Statistical Analyst*

* Collaborated with clinicians and students to perform statistical analyses (R) that assess health disparities in clinical trials
* Projects include: A) meta-analyses that evaluate race and gender representation in clinical trials compared to population disease prevalence of: *amyotrophic lateral sclerosis, Alzheimer’s disease, epilepsy, heart transplant, lung transplant, stroke,*

*Parkinson’s disease, fracture*; B) evaluation of race and gender disparities in medical training by specialty and sub-specialty

**Tim Duong MRI Lab (Bronx, NY)** *June 2022 – January 2024*

*Research Rotation*

* Performed biostatistical analyses to evaluate a longitudinal COVID-19 patient population compared to healthy controls (R),

leading to the identification of novel findings regarding neurological and pulmonary dysfunction in COVID-19

**The National Institutes of Health (Bethesda, MD)** *August 2020 – June 2022*

*Postbaccalaureate Researcher, Dr. Hanna Kim’s Juvenile Dermatomyositis (JDM) Laboratory*

* Performed bioinformatics and statistical analyses, including machine learning classification (Python)
* Performed bulk and single cell RNA-sequencing analysis (Seurat, R) to better understand JDM pathogenesis and establish novel treatment based on varying levels of disease activity and myosin-specific autoantibody (MSA) classification
* Wet-lab techniques: PBMC isolation, RNA isolation, flow cytometry, bulk and single-cell RNA sequencing

**The Jackson Laboratory (Bar Harbor, ME)** *June 2019 – August 2019*

*Summer Student Program, Dr. Vivek Kumar’s Genomics, Behavioral Disorders, and Addiction Laboratory*

* Refined a neural network (Python) that can produce 2-dimensional pose estimation used for mouse tracking and gait analysis
* Applied the neural network to video data from Collaborative Cross F1 generations to analyze gait and social interaction patterns, establishing heritability across a panel of diverse mice
* Trained in mouse handling, high performance computing, and RStudio

**PUBLICATIONS** [*Google Scholar*](https://scholar.google.com/citations?user=sAsGznkAAAAJ&hl=en)

Choi J, **Darrell M** et. al. (2025). Laser hair removal in patients with polycystic ovarian syndrome and *April 2025*

darker skin: A case-control study. *Under review* in *Journal of the American Academy of Dermatology.* 2025, April.

Wang B, Bashier M, Fagan M, **Darrell M**, Horan D, Mehraban Alvandi L, Horn W, Kahn M. (2025). *March 2025*

The Implications of Language Barriers on Postoperative Outcomes Among Older Adults with Hip Fracture. *Under*

*review* in *Journal of Orthopaedic Trauma*. 2025, March.

Jain A, Vazquez M**, Darrell M,** Ogarro M, Salik I, Pisapia J. Gender Disparities in Neurosurgical *December 2024*

Training: Evaluation of the Impact of Gender from Residency to Academic Leadership. (2024). *Under review*

in *Journal of Neurosurgery*; 2024, December.

**Darrell M**, Williams DKA, Smith C, Faasuamalie P, Jerome W, Murray K, Etienne M. (2024). *October 2024*

Gender Disparities in Graduate Medical Education from 2012 to 2022: Creating a Pipeline Through the Glass

Ceiling in Medicine. *Under review* in *Academic Medicine*, October 2024*.*

Axler E, Lu A, **Darrell M,** Vielemeyer O, Lipner S. (2024). *May 2024*

Surgical Site Infections Are Uncommon Following Nail Biopsies in a Single Center Case-Control

Study of 502 Patients. *Journal of the American Academy of Dermatology.* <https://doi.org/10.1016/j.jaad.2024.05.017>

Eligulashvili A\*, **Darrell M**\*, Gordon M, Jerome W, Fiori K, Congdon S, Duong T. (2024). *April 2024*

Patients with unmet social needs are at higher risks of developing severe long COVID-19 symptoms

and neuropsychiatric sequela. *Science Reports, 14*. <https://doi.org/10.1038/s41598-024-58430-y>

\* *equal contribution, co-first author*

Eligulashvili A\*, **Darrell M**\*, Miller C, Lee J, Congdon S, Lee J, Hsu K, Yee J, Hou W, Islam M, Duong T. (2022). *December 2022*

COVID-19 Patients in the COVID-19 Recovery and Engagement (CORE) Clinics in the Bronx.

*MDPI, 13* (1). <https://doi.org/10.3390/diagnostics13010119>

\* *equal contribution, co-first author*

Sheppard K, Gardin J, Sabnis G, Peer A, **Darrell M,** Deats S, Geuther B, Lutz C, Kumar V. (2022). *January 2022*

Stride-level analysis of mouse open field behavior using deep-learning-based pose estimation.

*Cell Reports*, *38* (2). <https://doi.org/10.1016/j.celrep.2021.110231>.

**SELECTED PRESENTATIONS & ABSTRACTS** [*Google Scholar*](https://scholar.google.com/citations?user=sAsGznkAAAAJ&hl=en)

Zajmi U, **Darrell M,** Chin A, de Jesus AA, Brooks S, Goldbach-Mansky R, Rider LG, Kim H. *November 2024*

Top Peripheral Blood Transcriptomic Gene Modules Reveal Functional Annotation and Correlation

with Clinical Traits in Juvenile Dermatomyositis (JDM) and Myositis-Specific Autoantibody (MSA) Groups.

Poster Presentation at: American College of Rheumatology; 2024, November 18. Washington, DC.

Kaneshiro A, Chin A, **Darrell M,** Biancotto A, Cheung F, Miller F, Rider L, Kim H. *November 2024*

Broad Proteomic Analysis Reveals Top Differential Protein Modules and Functional Annotations with

Clinical Traits in Juvenile Dermatomyositis (JDM) and Myositis-Specific Autoantibody (MSA) Groups.

Poster Presentation at: American College of Rheumatology; 2024, November 18. Washington, DC.

**Darrell M,** Vanneau T, Cregin D, Lecaj T, Foxe J, Molholm S. *October 2024*

27- & 40-Hz Auditory Entrainment Delay in Children with Autism Spectrum Disorder.

Poster Presentation at: Intellectual and Developmental Disabilities Research Center (IDDRC) Annual Leadership Meeting;

2024, October 10. Madison, WI.

**Darrell M,** Vanneau T, Cregin D, Lecaj T, Foxe J, Molholm S. *October 2024*

27- & 40-Hz Auditory Entrainment Delay in Children with Autism Spectrum Disorder.

Poster Presentation at: Society for Neuroscience; 2024, October 5-9. Chicago, IL.

You M, Dyce C, Vazquez M, **Darrell M**, Etienne M. Analysis of Disparities in Racial and Ethnic *September 2024*

Diversity in the Pipeline to Neurology Fellowships from 2012-2022. Poster Presentation at:

Annual Meeting of the American Neurological Association; 2024, September 14-17. Orlando, FL.

Chao J, Parker-Fong K, Wang B, **Darrell M,** Horan D, Kahn M, Horn W. Comparison of 1-year mortality and *June 2024*

in-hospital ambulation rates in English and Spanish speaking geriatric patients after hip fracture surgery. Poster Presentation at:

American Orthopedic Association; 2024, June 18-22. St Louis, MO.

Olivera J, Hashmi M, **Darrell M,** Faith I, Colon S, Sapin A, Chopra A. Hypercoagulability in Obesity: *June 2024*

Factor VIII Levels Improve after Weight Loss induced by Laporascopic Sleeve Gastrectomy. Poster Presentation at:

American Society for Metabolic and Bariatric Surgery.; 2024, June 11. San Diego, CA.

Rao D, Brabant P, Chau I, **Darrell M,** Yao C, Roth M, Pandit M, Gary M, Etienne M. Racial Disparities Among *June 2024*

Triple Negative Breast Cancer Clinical Trials Enrollees Between 2010 - 2023. Poster Presentation at: American Society

of Clinical Oncology (ASCO); 2024, June 4. Chicago, IL.

Olivera J, Ramesh R, Williams D, **Darrell M,** Pura-Bryant J, Hashmi M, John D, Forest S, Bush E, Kilic A, *April 2024*

Etienne M. Disparities in Cardiothoracic Transplantation: A Metanalysis of Participant Demographics in

US-Based Heart Transplant Clinical Trials. Poster Presentation at: Annual Meeting of the Society of Thoracic Surgeons;

2024, April 27-30. Toronto, Canada.

Steinhart A, Vazquez M, **Darrell M,** Murray K, Etienne M. An Analysis of the Inverted Gender-Gap *April 2024*

from OBGYN resident to OBGYN Department Chair. Poster Presentation at: 2024 Diversity in Medicine

Conference; 2024, April 27. Ann Arbor, MI.

Katz M, Barone N, Vazquez M, **Darrell M,** Etienne M. Gender Equity in Cardiac Subspecialty Fellowships, *April 2024*

2012-2022. Poster Presentation at: American College of Cardiology; 2024, April 6-8. Atlanta, GA.

**Darrell M,** Williams D, Faasuamalie P, Etienne M. Gender Disparities in Graduate Medical Education *March 2024*  
 from 2012 to 2022: Patching the Holes in the Pipeline to Academic Medicine Leadership. Poster Presentation at:

Einstein IMPACT Day; 2024, March 21. Bronx, NY.

Peraza C, Ogarro M, **Darrell M**, Agrawal S, Lartigue S, Etienne M. Dissecting Diversity Trends *October 2023*

Amongst General Surgery Residents. Poster Presentation at: BNGAP National Pre-Faculty Career Development

Conference; 2023 October 14. New York, New York.

Rakolle K, **Darrell M**, Etienne M. From Resident to Chair: Gender Disparities in Child Neurology Pipeline. *September 2023*  
 Poster Presentation at: American Neurological Association; 2023 September 9-12. Philadelphia, PA.

**Darrell M,** Chin A, Kim H. Peripheral Transcriptomic Analysis to Identify *May 2022*

Key Differences in Juvenile Dermatomyositis (JDM) and Myositis-Specific Autoantibody (MSA) Groups.

Poster Presentation at: Rheumatism Society of DC Fellows Forum. 2022 May 20. Washington, DC.

**Darrell M,** Sheppard K, Kumar V. Using a deep learning neural network to analyze mouse *November 2019*

gait and levels of social interaction. Oral Presentation at: Annual Biomedical Research

Conference for Minority Students; 2019 Nov 13-16. Anaheim, CA.

**COMMUNITY SERVICE**

**Mount Eden Children’s Academy Afterschool Program (Bronx, NY)** *August 2023 – Present*

*Bronx Soccer & Science Program, Founder & Volunteer Coach*

* Founded an afterschool program for children (grades K-5) to participate in structured sports and science experiments
* Formed collaboration with the Cognitive Neurophysiology Laboratory to involve students in scientific research

**NICU Development (Bronx, NY)** *March 2023 – Present*

*NICU Cuddling Volunteer*

* Worked directly with infants in the NICU to provide human contact essential for sensory development

**Project Sunshine (Washington, DC)** *August 2021 – May 2022*

*Washington, DC Chapter Leader*

* Organized Teleplay sessions for pediatric patients, providing clinical service in a safe, virtual setting
* Managed a large group of clinical volunteers, which includes volunteer on-boarding and leading practice sessions

**TEACHING & MENTORSHIP**

**Polygence (Menlo Park, CA)** *September 2023 – Present*

*High School Research Mentor*

* Worked directly with high school students to facilitate and develop independent research projects as pre-college experience

**Albert Einstein Anatomy & Physiology (Bronx, NY)**

*Chief Peer Assistant July 2024 – Present*

*Peer Assistant May 2023 – July 2024*

* Collaborated with course directors to develop and lead tutoring sessions for Medical Anatomy & Physiology
* Directed and facilitated weekly small-group sessions to tutor first-year MSTP and MD students

**Albert Einstein Anatomy & Physiology (Bronx, NY)** *November 2022 – Present*

*Teaching and Laboratory Assistant*

* Collaborated with curriculum directors to teach anatomy to first-year medical students in human cadaver laboratories

**Prince George County Biomedical Mentorship Program (Washington, DC)** *October 2020 – May 2022*

*Biomedical Mentor*

* Mentored two high school students pursuing a career in STEM; planned group sessions for college application advising

**Wheaton College Varsity Women’s Soccer (Norton, MA)** *December 2018 – May 2020*

*Team Peer Advisor*

* Mentored and academically advised teammates through tutoring sessions and management of class schedules

**YMCA Reach and Rise Program (Attleboro, MA)** *November 2019 – April 2020*

*Youth Mentor*

* Served as a mentor to children within 5th – 8th grade in a therapeutic afterschool program that supports students suffering

from PTSD and trauma related to adverse childhood experiences

**Elizabeth Amen Nursery School (Norton, MA)** *January 2018 – March 2020*

*Teaching Assistant*

* Worked as a personal aide to a child with behavioral challenges, monitoring safety and increasing his interpersonal skills
* Interacted with and taught students, while also monitoring safety and maintaining order in a 4-5 year old classroom

**Wheaton College Chemistry Department (Norton, MA)** *August 2018 – January 2020*

*General Chemistry and Organic Chemistry Laboratory Assistant*

* Collaborated with both general chemistry and organic chemistry professors to teach students laboratory techniques
* Managed set-up and clean-up, in addition to training students in the completion of laboratory tasks and benchwork

**Wheaton Tutor Outreach Program (Norton, MA)** *August**2017 – January 2018*

*Yelle Elementary School Tutor*

* Assisted 4th and 5th graders in an afterschool program to complete homework assignments

**LEADERSHIP EXPERIENCE**

**MSTP Social Media & Outreach (Albert Einstein COM)** *November 2022 – Present*

*Director*

* Coordinated official Instagram, Twitter, and TikTok accounts for the MSTP program at Albert Einstein

**Artificial Intelligence in Medicine Club (Albert Einstein COM)**  *January 2023 – Present*

*Executive Board – Vice President of Programming*

* Responsible for organizing speaker panels and leading coding workshops for students and faculty

**MSTP Recruitment Chair (Albert Einstein COM)**

*Senior Recruitment Chair March 2024 – April 2025*

*Junior Recruitment Chair March 2023 – March 2024*

* Organized and led recruitment events for prospective students, including interview panels and welcome events

**Orthopedic Surgery Interest Group (Albert Einstein COM)** *May 2023 – May 2024*

*Executive Board – Research Coordinator*

* Collaborated with Montefiore faculty to identify academic opportunities and research mentorship to current medical students

**Pediatrics Interest Group (Albert Einstein COM)** *January 2023 – March 2024*

*Executive Board – Jacobi Kids Coordinator*

* Led outreach events for pediatric patients at Jacobi Hospital, including founding a weekly socialization and play program

**NCAA Student-Athlete Advisory Committee (Wheaton College)** *February 2019 – May 2020*

*Wheaton Athletic Mentor Executive Board*

* Organized, served at, and fundraised for community events, in addition to serving as marketing and social media coordinator

**Wheaton College Athletics (Wheaton College)** *May 2019*

*Lyons Leadership Academy*

* Represented women’s soccer at a week-long leadership academy, which included group collaboration activities to enhance peer leadership and interpersonal skills

**WORK EXPERIENCE**

**Falk Recreation Center (Bronx, NY)** *September 2022 – Present*

*Intramural Assistant*

* Responsible for greeting and check-in at the front desk, in addition to management of weekly intramural sports

**Winged Foot Golf Club (Mamaroneck, NY)** *May 2024 – August 2024*

*Server*

* Delivered exceptional customer service to high-profile members and guests by efficiently managing high-pressure

environments, demonstrating strong multitasking abilities, and ensuring meticulous attention to detail

**Summer House Santa Monica (Bethesda, MD)** *September 2021 – April 2022*

*Server*

* Served at a modern California-inspired restaurant, where I worked directly with guests to ensure a positive dining experience

**Lucky Lou’s Bar and Grille (Wethersfield, CT)** *May 2020 – August 2020*

*Server and Bartender*

* Served 40-50 hours per week; developed conflict resolution and interpersonal skills, enforced COVID-19 protocol

**Wheaton College Admissions Ambassador (Norton, MA)** *January 2018 – January 2020*

*Tour Guide and Information Session Panelist*

* Provided informational sessions and tours to prospective students

**AWARDS AND ACCOLADES**

Award of Excellence in Medical Education *Einstein IMPact Day 2024*

Richard and Virginia Thornburgh Leadership Award *2020*

Wheaton College May Fellows Honor Program *Fall 2017 – Spring 2020*

Dean’s List *Fall 2017 – Spring 2020*

Candace Whiffen Dyal '76 Endowed Scholarship *2018, 2019*

NEWMAC Academic All-Conference *2018, 2019*

Charles A. Dana Scholarship *2018*

Award for Excellence in Hispanic Studies *2018*

**GRANTS AND FELLOWSHIPS**

**Wheaton College**

Trustee Merit Scholarship *2017 – 2020*

Porter Fellowship Fund *2019*

Wagner Professional Development Funding *2019*

**National Institute of Neurological Diseases and Stroke**

Summer Research Experience in Neurobiology (Federal grant #2R25NS078795-06A1) *2019*

**RELEVANT SKILLS**

* **Techniques:** Machine learning, high-performance computing, bulk and single cell RNA sequencing analysis, biostatistics, PBMC isolation, RNA isolation, mouse handling (restraint, sex determination, tail tip, ear notch, and CO2 euthanasia), social media marketing, graphic design and fundraising
* **Applications:** Microsoft, RStudio, Python, C++, Adobe Photoshop, GIMP
* **Foreign Languages:** Conversational Spanish proficiency

**REFERENCES**

**Sophie Molholm, PhD**

*Professor & Co-Director of Rose F. Kennedy Intellectual and Developmental Disabilities Research Center*

Department of Neuroscience | Albert Einstein College of Medicine, Bronx, NY

Email: sophie.molholm@einsteinmed.edu

**Hanna Kim, MD, MS**

*Assistant Clinical Investigator*

Juvenile Myositis Therapeutic and Translational Studies Unit | NIAMS, Bethesda, MD

Email: [hanna.kim@nih.gov](mailto:hanna.kim@nih.gov)

**Vivek Kumar, PhD**

*Assistant Professor & Principal Investigator*

Genomics, Behavior and Addiction Research | The Jackson Laboratory, Bar Harbor, ME

Email: [kumar.vivek@jax.org](mailto:kumar.vivek@jax.org)

**Mark LeBlanc, PhD**

*Professor& Department Chair*

Department of Computer Science | Wheaton College, Norton, MA

Email: [leblanc\_mark@wheatoncollege.edu](mailto:leblanc_mark@wheatoncollege.edu)

**Michael Kahn, PhD**

*Professor & Department Chair*

Department of Mathematics | Wheaton College, Norton, MA

Email: [kahn\_michael@wheatoncollege.edu](mailto:kahn_michael@wheatoncollege.edu)