Matthew Philip Mulé | MD-PhD Student

NIH Cambridge Scholar | Mpm63@cam.ac.uk | Website: *matthewpmule.com*

Education

University of Cambridge | PhD Expected May 2022
NIH Oxford-Cambridge Scholars Program

University of North Carolina Chapel Hill School of Medicine | MD expected 2024
Medical Scientist Training Program combined MD/PhD program 2016-2018; 2022-2024

Tufts University | Bachelor of Science – Biology 2014
Cum Laude
Highest Thesis Honors

Research Awards and Fellowships

Cambridge Trust NIH Scholarship (August 2018 – present)
The Cambridge Trust grants scholarships to approximately 500 students annually to select international students to study at Cambridge.

NIH Oxford Cambridge Scholarship (August 2018-present)
Awarded to pursue PhD studies in an individualized international collaborative PhD project in systems immunology between University of Cambridge (Lab of Ken Smith) and National Institutes of Health (Lab of John Tsang)

University Cancer Research Fund MD/PhD Scholar Award (July 2017-August 2018)
Funding from the NCI designated UNC Lineberger Comprehensive Cancer Center to support my MD/PhD scholarship at UNC Chapel Hill School of Medicine.

National Institutes of Health Intramural Research Training Award (2014- 2016)
Postbaccalaureate research fellowship under the mentorship of Christopher Hourigan in the Myeloid Malignancies Section at National Institutes of Health, Bethesda MD.

Nathan T. Gantcher Scholarship Award (2013-2014) Independent funding award from Tufts University to support my research in the lab of Andrew Camilli in the Department of Molecular Biology and Microbiology at Tufts University School of Medicine.

NH-INBRE Undergraduate Research Fellowship (2010-2012) Funding to support my research in the lab of Lori Bergeron at New England College.

Publications

Mulé MP, Mannis GN, Wood BL, Radich JP, Hwang J, Ramos NR, Andreadis C, Damon L, Logan AC, Martin TG, Hourigan CS. Multigene measurable residual disease assessment improves acute myeloid leukemia relapse risk stratification in autologous hematopoietic transplantation. Biol Blood Marrow Transplant 2016 doi: 10.1016/j.bbmt.2016.08.014. PMID:27544285

Shainheit MG, **Mulé M** and Camilli A. The core promoter of the capsule operon of Streptococcus pneumoniae is necessary and sufficient for colonization and invasive disease. Infect Immun. 2013 Nov 25. PMID: 24478084

Mulé MP, Giacalone D, Lawlor K, Golden A, Cook C, Lott T, Aksten E, O'Toole GA, Bergeron, LJ. Iron-dependent gene expression in Actinomyces oris. Journal of Oral Microbiology. 2015 Dec 20. 7:298000 PMID: 26685151

Hokland, P, Ommen, H, **Mulé MP,** Hourigan CS. Advancing the MRD concept in Acute Myeloid Leukemia. Seminars in Hematology. 2015 Apr 7. PMID: 26111465

Wong HY, Sung AD, Lindblad KE, Sheela S, Roloff GW, Rizzieri D, **Mulé MP,** et al. Molecular measurable residual disease testing of blood during AML cytotoxic therapy for early prediction of clinical response. Front Oncol 2018;8 PMID: 30697529

McReynolds LJ, Yang Y, Yuen Wong H, Tang J, Zhang Y, **Mulé MP**, et al. MDS-associated mutations in germline GATA2 mutated patients with hematologic manifestations. Leuk Res. 2019;76(August 2018):70–5. PMID:30578959

Clinical Protocols

NCT02527447: Biomarkers for Personalized Early Assessment of Response During Salvage Chemotherapy in People with Relapsed or Refractory Acute Myeloid Leukemia (PEARL15)
Associate Investigator

Thesis

Mulé, M. Camilli, A. Characterizing Transcriptional Control of the Streptococcus pneumoniae Capsule Operon. Tufts University Undergraduate Honors Thesis 2014

National Conferences

58th American Society of Hematology Annual Meeting (December 3-6 2016) Goswami M, Oetjen K, **Mulé MP,** Sheela S, Wong HY, Liu Q, Calvo KR, Lai CE, Hourigan CS. Increased Frequencies of PD-1+ CD8+ Marrow-Infiltrating Lymphocytes Associated with Highly Clonal T-Lymphocyte Expansions in Relapsed and Refractory AML Patients but Not Healthy Adults. Poster Abstract # 1664

57th American Society of Hematology Annual Meeting (December 5-8 2015)
Mulé MP, Mannis GN, Radich JP, Wood BL, Ramos NR, Lai CE, Flanders M, Andreadis C, Damon L, Logan AC, Martin TG, and Hourigan CS. Multigene MRD Assessment Improves AML Relapse Risk Stratification in Autologous Hematopoietic Cell Transplantation. Poster-Abstract # 4350

Other Research Presentations, Conferences, Awards:

Cold Spring Harbor Systems Immunology 2019 (March 14-16 2019) Poster: Human vaccine response signatures revealed through simultaneous transcriptome and protein profiling in single cells

John B Graham Research Day (November 11, 2016. Chapel Hill NC) Oral Presentation: multigene relapse risk prediction in autologous transplantation for acute myeloid leukemia.
***One of six students at UNC School of Medicine selected for oral presentation.**

NHLBI Research Day Festival (April 29, 2016. Bethesda, MD) Oral presentation and poster: Comprehensive residual disease assessment improves AML relapse risk stratification in

autologous hematopoietic cell transplantation.
NIH Postbac Poster Day (April 20, 2016. Bethesda, MD) Poster: High sensitivity personalized residual disease monitoring predicts acute myeloid leukemia relapse. ***Best Poster Award**

NHLBI Research Day Festival (June 12, 2015. Bethesda, MD) Oral presentation and poster: Measurable residual disease in patients undergoing autologous stem cell transplant for acute myeloid leukemia.

NIH Postbac Poster Day (April 30, 2015. Bethesda, MD) Poster: A complementary multigene strategy to quantify residual disease in acute myeloid leukemia patients prior to autologous stem cell transplant.

Tufts University Honors Thesis Dissertation (April 28, 2014 Somerville, MA) Dissertation: Identifying novel mechanisms of *Streptococcus pneumoniae* capsular polysaccharide regulation. * **Highest Thesis Honors**

5th Annual Northeast Undergraduate Research and Development Symposium (March 2-3, 2013 Biddeford, ME) Poster: Characterization of AmdR, an iron dependent transcriptional repressor. ***Best Poster Award**

Tufts University Summer Scholars Poster Session (October 30, 2013. Somerville MA) Poster: Characterizing transcriptional regulation of *Streptococcus pneumoniae* capsule in host colonization and disease

Tufts Summer Scholars Biochemistry and Biomedicine Panel (July 17, 2013, Somerville, MA.) Oral Presentation: Characterizing transcriptional regulation of *Streptococcus pneumoniae* capsular polysaccharide.

New Hampshire-INBRE 2012 Annual Meeting (July 13-14, 2012. Whitefield, NH) Oral Presentation: Metal Dependent Transcriptional Regulation in *Actinomyces naeslundii*
***One of four students state wide selected to give oral presentation**

2012 Eastern New England Biology Conference (April 24, 2012. **Easton, MA)** Poster: *Actinomyces naeslundii* Metal Dependent Repressor Binds to Siderophore Promoters

New England College Undergraduate Research Showcase (April 7, 2012. Henniker, NH) Poster: *Actinomyces naeslundii* Metal Dependent Repressor Binds to Siderophore Promoters