

Nicole Lyons
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EDUCATION

Columbia University, New York, NY
Bachelor of Arts, Neuroscience & Behavior and Biology

RELEVANT COURSEWORK: General Biology Sequence and Laboratory, General Chemistry Sequence and Laboratory, Organic Chemistry Sequence and Laboratory, General Physics Sequence and Laboratory, Biochemistry, General Neurobiology, Behavioral Neuroscience

Seminars: Neurogenetics, Behavioral Epigenetics, Genetics, Molecular Biology of Cancer, Neurobiology of Stress and Memory, Neurocognition, Developmental Biology

RESEARCH EXPERIENCE

Gift From a Child, Scientific Communication and Outreach —Coordination of Pediatric Brain Tumor Tissue Donation 2017-Present

Scientific advisement on developing protocols, education and awareness for post-mortem tissue donation. Clinical research into better supporting families suffering from pediatric brain cancer at all stages of care. Analyzing data on how the multi-institutional program can address disparities in care. Autopsy and tissue procurement standardization. Represent foundation at various conferences and hospitals to present research.

Becher Lab- Mount Sinai Hospital Department of Pediatric Oncology 2023-Present

Molecular research on the biology of Diffuse Intrinsic Pontine Glioma and potential therapies for it. Development of better models for disease in mice and cell cultures to test novel therapies and optimize the use of current treatments such as radiation therapy. Current responsibilities include tissue culturing, maintaining mouse colonies, and bioluminescence imaging.

Children's Brain Tumor Network, Clinical Research Assistant — Children's Hospital of Philadelphia

Working with EPIC EMR, working with patient protocols, extracting data for bio repository, consenting patients, shadowing clinic and surgeries. Organizing data from post-mortem brain tumor tissue samples. Organizing and adding patient information to RedCap

LEADERSHIP- Professional

Tough2Gether DIPG Foundation- Research chair 2023-present

501c3 organization dedicated to bettering research and treatment for the most lethal pediatric brain tumor. Conducting patient care and communication focused research. Assisting with scientific understanding and communication.

DIPG/DMG Research Funding Alliance (DDRFA)- research chair 2023-present
501c3 uniting top researchers, funders, and families to streamline challenges in bettering treatment for DIPG/DMG. Assisting with Research grant review and presenting research to board.

Coalition Against Childhood Cancer (CAC2)- Student/trainee membership coordinator
501c3 dedicated to providing support and resources to the childhood cancer community. Developing programs to encourage students and trainees to be involved with pediatric cancer care and research

Brainstorm Summit- Research Track Committee
Assisting with the development of the research track for the Brainstorm Summit, a 2.5-day conference for pediatric brain cancer for patient families, researchers, and clinicians. Duties include designating research topics that are impactful for family, and advising on the scientific communication to ensure that presentations are understood well by families.

LEADERSHIP- at university

Student Health Advisory Committee 2020-2021
advising Columbia Student Health leadership on issues that impact student health and access to care

Peer Health Advisor Network— Columbia Health Services 2020-2021

Assisted health promotions team in developing programs focusing on student knowledge of Health Services, working with leadership to better serve student body, and serving as a liaison between departments.

Columbia University School of General Studies Student Council- Students with Disabilities Policy Representative 2020-2021

Advocated for students with disabilities and chronic illnesses to receive fair treatment at the institution, worked with medical services to make accommodations accessible for students, and brought current obstacles disabled students face to leadership's attention.

Columbia University Neuroscience Society- Leadership board member and Research Fair Chair 2017-2020

Coordinated with hundreds of scientific laboratories at Columbia University and medical center to host annual undergraduate research fair. Assisted undergraduate students in neuroscience develop connections with scientists and experience in research.

Undergraduate Consultant Center for Teaching and Learning 2020

Students as Pedagogical Partner program. Development of tools to advise faculty on accessible, equitable, and learner-centered education. Focus on students with disabilities and chronic illnesses in STEM fields.

American Medical Women's Association (AMWA)- Columbia University Chapter Vice president 2020-2021

Planned, coordinated, and facilitated events and discussions focusing challenges women in face in medicine both as patients and professionals. Working closely with women physicians and other pre-med women to cultivate a supportive network.

Truman College (Chicago) Healthcare Organization- President and Co-founder 2017

Created a program for healthcare students at Truman College. Worked with faculties to guide students with gaining experience in healthcare, connect with mentors, and apply for next steps in their healthcare education.

ADVOCACY AND SPEAKING ENGAGEMENTS

UNDERSTANDING BRAIN CANCER- Lecture series dedicated to improving patient family understanding of the science of brain tumors.

Ongoing project debuting at the 2023 BrainStorm Summit

<https://brainstormsummit.org/live-streaming-sessions> at 1:20:50

EXAMINING PATHWAYS TO UNIVERSAL HEALTH COVERAGE- U.S. House of Representatives Committee on Oversight and Reform

Testimony 3.29.22 Can be found at <https://www.congress.gov/event/117th-congress>

Guest lecture at Mount Sinai School of Public Health for the course "Health Literacy and Communication". Spring 2023&2024. Lecture Topic: Patient Communication Strategies for Complex Medical Conditions in Transplant and Pediatric Neuro-Oncology. Special attention is given to the impact of medical literacy on medication adherence and compliance.

PRESENTATIONS

Oral Abstract Presentation at annual Society for Neuro Oncology Meeting 2023- SCIENTIFIC LITERACY AND DECISION-MAKING OF PATIENT FAMILIES IN PEDIATRIC NEURO-ONCOLOGY

Children's Hospital of Philadelphia Poster Day 2024- POSTMORTEM TISSUE DONATION: GIVING FAMILIES THE ABILITY TO CHOOSE Vijay Ramaswamy, Nicole Lyons

Children's Hospital of Philadelphia Poster Day 2023- A CALL TO ACTION TO INCREASE ACCESS TO POST-MORTEM BRAIN TUMOR DONATIONS: GIFT FROM A CHILD Nicole Lyons et al

PROFESSIONAL MEMBERSHIP

Society for Neuro-Oncology (SNO) 2021- present
Coalition Against Childhood Cancer (CAC2) 2017-present
American Association for Cancer Research (AACR) 2021-present
American Medical Women's Association (AMWA) 2021-present

TECHNICAL SKILLS

Wet Laboratory: Tissue culturing and cell line maintenance, Immunofluorescence, mouse colony maintenance, bioluminescence imaging, western blot, immunohistochemistry, DNA and RNA extraction

LANGUAGES

English (fluent)
French (conversational)

RESEARCH PUBLICATIONS

SUCCESSFUL DEVELOPEMENT OF RESOURCES FOR DMG/DIPG PATIENT FAMILIES THROUGH A NETWORK OF FAMILIES, RESEARCHERS, AND CARE TEAMS Nicole Lyons et al. *Accepted for presentation at IPSNO 2024 and publications in Neuro-Oncology June 2024*

PATIENT DESIRE TO SHARE DATA AND PARTICIPATE IN RESEARCH IN THE DIPG/DMG COMMUNITY Nicole Lyons et al. *Accepted for presentation at IPSNO 2024 and publications in Neuro-Oncology June 2024*

SUCCESS AND IMPACT IN 5 YEARS OF POST-MORTEM BRAIN TUMOR TISSUE PROGRAM: GIFT FROM A CHILD Nicole Lyons et al. *Accepted for presentation at IPSNO 2024 and publications in Neuro-Oncology June 2024*

IMPROVING ACCESS TO POST-MORTEM BRAIN TUMOR TISSUE DONATION BEYOND THE INPATIENT HOSPITAL SETTING Nicole Lyons et al. *Accepted for presentation at IPSNO 2024 and publications in Neuro-Oncology June 2024*

INN-28. SCIENTIFIC LITERACY AND DECISION-MAKING OF PATIENT FAMILIES IN PEDIATRIC NEURO-ONCOLOGY Nicole Lyons et al *Neuro-Oncology*, Volume 25, Issue Supplement_5, November 2023

OTHR-11. THE IMPORTANCE AND INFLUENCE OF PATIENT FAMILY INVOLVMENT IN PEDIATRIC NEURO-ONCOLOGY RESEARCH Nicole Lyons et al. *Neuro-Oncology*, Volume 25, Issue Supplement_1, June 2023

EOLP-05. POSTMORTEM TISSUE DONATION: GIVING FAMILIES THE ABILITY TO CHOOSE Vijay Ramaswamy, Nicole Lyons, et al *Neuro-Oncology*, Volume 24, Issue Supplement_7, November 2022

EOLP-04. A CALL TO ACTION TO INCREASE ACCESS TO POST-MORTEM BRAIN TUMOR DONATIONS: GIFT FROM A CHILD Nicole Lyons et al *Neuro-Oncology*, Volume 24, Issue Supplement_7, November 2022,

TBIO-03. THE GIFT FROM A CHILD PROGRAM IS EMPOWERING POST-MORTEM TISSUE DONATION ACROSS THE UNITED STATES, *Neuro-Oncology*, Volume 22, Issue Supplement_3, December 2020, Page iii467, Angela Waanders, Melissa Williams, Nitin Wadwhani, Xiao-Nan Li, Stewart Goldman, Kella Tran-Du, Jane Minturn, Jennifer Mason, Mariarita Santi, Angela Viaene, Mateusz Koptyra, Michelle Monje-Deisseroth, Javad Nazarian, Madhuri Kambhampati, Augustine Eze, Mark Souweidane, Nicole Lyons, Ginny McLean, Patti Gustafson, Allen Gustafson