Deon Nguyen

Arizona State University

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EDUCATION

PhD, Molecular and Cellular Biology 2024–Present
Arizona State University (ASU), Tempe, AZ

Post-Baccalaureate 2022–2024
University of Massachusetts Chan Medical School (UMass Chan), Worcester, MA

Bachelor of Science, Biomedical Sciences, magna cum laude 2018–2022
Minor in History
ASU, Tempe, AZ

RESEARCH EXPERIENCE

PhD Student, ASU 06/2024–Present
Advisor: Dr. Masmudur Rahman

- Determining the mechanism of the DExD/H-box RNA helicase DHX29 in supporting leporipoxvirus replication in transformed and cancer cell lines
- Characterizing the immunological changes induced by oncolytic myxoma virus on the tumor microenvironment in a syngeneic mouse model
- Establishing the anticancer efficacy of oncolytic myxoma virus in combination therapy with the FDA-approved nuclear export inhibitor Selinexor against metastatic melanoma

Research Associate I, UMass Chan 06/2022–06/2024
Advisor: Dr. Wenwen Fang

- Evaluated the immunogenicity of fully purified circular RNAs in immune and non-immune cell models
- Determined the endosomal and cytosolic sensors involved in foreign circular RNA recognition in innate immunity using CRISPR KO immune cell models
- Developed a scalable and optimized circular RNA purification method that achieves complete separation from double-stranded species and linear RNA contaminants
- Compared the functional half-life of synthetic circular RNAs to linear RNAs

Undergraduate Research Assistant, ASU 08/2019–06/2022
Advisor: Dr. Karen Anderson

- Produced HLA-I tetramers to characterize SARS-CoV-2-reactive CD8+ T cells in unexposed individuals
- Expressed engineered SARS-CoV-2-specific T cell receptors on Jurkat T cells with the Sleeping Beauty transposon system to study cross-reactivity between SARS-CoV-2 and common cold coronaviruses

- Identified conserved epitopes among coronaviruses that induce T cell activation as targets for vaccine design

Helios Summer Intern, Translational Genomics Research Institute 05/2019–08/2019
Advisor: Dr. Patrick Pirrotte

- Utilized mass spectrometry to characterize the nuclear proteomes in ovarian cancer cell models to analyze the transcription factor landscape driven by the atypical chromatin remodeling activity of residual SWI/SNF complex

PUBLICATIONS

- **Nguyen D**, Cias Marquez M, Rahman MM (In press). Methodology for assessing oncolytic myxoma virus efficacy in a syngeneic murine model of metastatic melanoma. *Methods in Molecular Biology*.

- Carmona J, **Nguyen D**, Chandrakanth Hundekar R, Reed N, Cias Marquez M, Cashen M, Gutierez-Jensen A, Rahman MM (2026). Cancer immunotherapy with cytokine-armed oncolytic myxoma virus enhances antitumor responses against colon carcinoma. *Journal for Immunotherapy of Cancer*. https://doi.org/10.1136/jitc-2026-SITC2026.0587

- **Nguyen D**, Cias Marquez M, Gutierez-Jensen A, Lowe K, Rahman MM (2026). mLIGHT-armed oncolytic myxoma virus combined with selinexor and PD-1 blockade reduces pulmonary metastatic burden in an immunocompetent murine melanoma model. *Journal for Immunotherapy of Cancer*. https://doi.org/10.1136/jitc-2026-SITC2026.0830

- Carmona J, **Nguyen D**, Enow JA, Cashen M, Gutierrez-Jensen A, Reed N, Macias Marquez M, Hossain M, Lucas A, McFadden G, Rahman MM. Transgene-armed oncolytic myxoma virus induces abscopal anti-tumor immunity against colon carcinoma in immunocompetent mice. *Manuscript under revision to Nature Scientific Reports*. https://doi.org/10.21203/rs.3.rs-10093553/v1

- Carmona J, Cashen M, Hundekar RC, Reed N, Cias Marquez M, Gutierrez-Jensen A, **Nguyen D**, Rahman MM (2026). Cancer immunotherapy with IL-15Rα-armed oncolytic myxoma virus enhances antitumor immunity against solid tumors. *The Journal of Immunology*. https://doi.org/10.1093/jimmun/vkag141.981

- **Nguyen D***, Carmona J*, and Rahman MM (2026). Oncolytic virotherapy for the treatment of tumors with armed myxoma virus. *Advances in Cancer Research Volume 171*. https://doi.org/10.1016/bs.acr.2026.02.002

*Equal contribution

HONORS AND AWARDS

ASU School of Life Sciences Graduate Student Poster Competition 2026
(25 total presenters)
Amount awarded = $250

ASU Graduate College Q2 Travel Award 2025
Amount awarded = $350

Achievement Rewards for College Scientists (ARCS) Award 2026
Amount awarded = $8,500

ASU School of Life Sciences Graduate Student Travel Award 2025
Amount awarded = $100

ASU Graduate College Q3 Travel Award 2025
Amount awarded = $100

Best Overall Poster 2025
7th Annual BioSci Southwest Symposium
(58 total presenters)

ASU Graduate Research Support Program 2025
Amount awarded = $2,000

Certificate of Recognition for Contribution as Judge for 2025
32nd Annual School of Life Sciences Undergraduate Research Symposium

ASU Women and Philanthropy Foundation Grant 2025
Amount awarded = $50,000

ASU Graduate Student Government Individual Travel Grant 2025
Amount awarded = $950

ASU Graduate College University Grant 2025
Amount awarded = $5,000

Best Posters Award winner 2023
5th Annual RNA Therapeutics Conference: From Concept to Clinic
(four award winners out of over 140 presenters total)
Amount awarded = $100

2nd Prize Award in the Immunology Category 2022
29th Annual School of Life Sciences Undergraduate Research Symposium
(over 80 presenters)

College of Liberal Arts and Sciences Dean's List 2018–2022

Obama Scholar 2018–2022

New American University Provost's Award 2018–2022

Helios Scholar 2019

Peoria Rotary Club Student of the Month 2018

ORAL PRESENTATIONS

- The RNA helicase DHX29 reduces leaky scanning to ensure accurate leporipoxvirus translation initiation 11/2026
  Full talk, Viroholics Seminar Series

- The RNA helicase DHX29 promotes leporipoxvirus infection 10/2025
  Full talk, Molecular and Cellular Biology Colloquium Seminar Series

- The RNA helicase DHX29 promotes leporipoxvirus infection 05/2025
  Flash talk, 25th International Poxvirus, Asfarvirus, and Iridovirus Conference

- Oncolytic immunotherapy in the treatment of lung metastatic cancers 05/2025
  Full talk, 10th Annual Arizona Biomedical Research Centre-Flinn Research Conference

- Innate immune sensing of synthetic short and long circular RNAs 04/2024
  Full talk, RNA Data Club Seminar Series

- Proinflammatory and type I interferon responses to foreign RNA circles 05/2023
  Full talk, RNA Therapeutics Institute Monthly Chalk Talks

POSTER PRESENTATIONS

- The RNA helicase DHX29 reduces leaky scanning to ensure accurate leporipoxvirus translation initiation 11/2026
  ASU School of Life Sciences Graduate Student Poster Competition

- DHX29 positively regulates gene expression of leporipoxviruses 11/2025
  7th Annual BioSci Southwest Symposium

- The RNA helicase DHX29 promotes leporipoxvirus infection 05/2025
  25th International Poxvirus, Asfarvirus, and Iridovirus Conference

- Scalable purification of circular mRNAs 06/2024
  6th Annual RNA Therapeutics Conference: From Concept to Clinic

- TLR7/8 sensing of exogenous circular RNAs activates an innate immune response in human cells 10/2023
  28th Annual UMass Chan Basic Science Retreat

- TLR7/8 sensing of exogenous circular RNAs activates an innate immune response in human cells 05/2023
  5th Annual RNA Therapeutics Conference: From Concept to Clinic
- Stable T cell receptor expression using the sleeping beauty transposon system 05/2022
  29th Annual School of Life Sciences Undergraduate Research Symposium

- Nuclear proteomic profiling of ovarian cancers with shared genomic alterations in SWI/SNF subunits 08/2019
  13th Annual Helios Symposium

TEACHING EXPERIENCE

Graduate Teaching Assistantships

- BIO 353 Cell Biology 01/2027–03/2027
- BIO 100 The Living World 08/2026–Present
- BIO 351 Developmental Biology 07/2026–08/2026
- BIO 353 Cell Biology 05/2026–07/2026

Undergraduate Teaching Assistantships

- BIO 451/551 Cell Culture and Biotechnology 06/2021–06/2022
- BIO 420 Immunology: Molecular and Cellular Foundations 12/2021–06/2022

MENTORING EXPERIENCE

- Jackson van Horn (currently in ASU BS program) 08/2026–Present

- Charlene Stockdale (currently in ASU BS program) 08/2026–Present

- Zikang Chen (currently in ASU BS program) 05/2025–Present

- Manuel Cias Marquez (currently in ASU BS program) 10/2024–01/2026

- Anja Lera (currently in Endicott College BS program) 11/2023–06/2024

- Brendan Geesey (currently in University of Pennsylvania PhD program) 01/2022–06/2022

- Ananya Kohli (currently in Cornell University PhD program) 01/2022–06/2022

OUTREACH AND SERVICE ACTIVITIES

1st In-VIBO Biology: Forging Science Frontiers Research Fair 11/2026

- Engaged public high school students in scientific outreach
- Designed and provided hands-on activities for attendees to participate in and learn from

32nd Annual School of Life Sciences Undergraduate Research Symposium 04/2025
- Judged scientific posters made and presented by undergraduate researchers based on poster design, interpretation of results, and articulation of overall research

Volunteer Committee Member for the Artists of Biodesign Exhibition 03/2025–Present
- Collaborate with a team to organize and showcase artwork created by staff, faculty, and students
- Curate displays, design signage to promote the exhibition, and foster community engagement through art
- Contribute to event planning, logistics, and outreach to encourage participation

ASU Graduate Student Government Research Grant Reviewer 03/2025–Present
- Evaluated and scored graduate student research grant proposals based on originality, feasibility, and impact
- Provided constructive feedback to applicants to improve proposal quality

Statewide Arizona Science and Engineering Fair 03/2025
- Judged a variety of student research projects, ranging from biology to physics
- Scored students based on their scientific approach, comprehension of project areas, data interpretation, and creativity of experimental design
- Provided exposure and pathways to STEM careers to budding scientists to reinforce their interests in research

ASU Open Door 02/2025
- Assisted in running an interactive “Build-your-own-virus” activity for children to participate

Worcester Technical High School Biotechnology Program 11/2023–06/2024
- Provided a high school student from historically underrepresented groups with valuable and practical lab experience
- Mentored student in basic molecular biology techniques, cell culture, and immunoassays

Statewide Massachusetts Science and Engineering Fair 05/2023
- Judged a variety of student research projects, ranging from biology to physics
- Scored students based on their scientific approach, comprehension of project areas, data interpretation, and creativity of experimental design
- Provided exposure and pathways to STEM careers to budding scientists to reinforce their interests in research

Online Undergraduate Research Scholars (OURS) Program 10/2021 and 03/2022
- Organized research immersion program alongside a team of professors and other TAs for online undergraduate students to participate in-person
- Instructed students of various research experience levels in basic and intermediate lab techniques

PROFESSIONAL MEMBERSHIPS

American Society for Microbiology (ASM) 2025–Present
Branch member

American Association for the Advancement of Science (AAAS) 2025–Present
Elemental member