NIKITA GANESHAN

MD Candidate 2026

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EDUCATION

Loyola University Chicago, Stritch School of Medicine **08/2022 - 05/2026**
Doctor of Medicine (MD)

Keck Graduate Institute **08/2019 - 05/2020**
Post-baccalaureate, Pre-medical Certificate

University of California, Irvine **09/2014 - 06/2018**
B.S. Biomedical Engineering, Specialization in Bio-photonics

RESEARCH EXPERIENCE

UC Irvine School of Medicine **10/2016 - 06/2018**
Department of Neurology
Undergraduate Student Researcher

- Built miniscope to record neural activity in awake mice studying neurodegenerative disease and image processed each frame in Matlab
- After programming and establishing the imaging technique via ImageJ and Matlab, studied the effects of ketamine and NRG1 on cortical plasticity and disinhibition via a mouse model

CALIT2/UC Irvine School of Medicine **10/2017 - 06/2018**
Department of Plastic Surgery, Tissue Engineering, & Wound Healing

- Studied wound healing in induced diabetic foot ulcers through mouse models
- Designed a device for micro/nano-bubble oxygenation of wound irrigation fluid aimed to couple it with principles from negative pressure wound therapy
- Eventually got start-up funding from UC Irvine's Applied Innovation Incubator

UC Irvine Department of Chemistry & Department of Dance **03/2015 - 06/2015**
Multidisciplinary Project
Undergraduate Student Researcher

- Helped choreograph and dance pieces that illustrated chemistry concepts such as Hydrologic cycle, Gas Laws, etc. as a part of a interdisciplinary kinesiology pedagogical method research project

PRESENTATIONS

UC Irvine Research Symposium (2018)

- Poster + Talk: Nanobubble Generator to Promote Oxygen Delivery in Wound Healing and Tissue Preservation

- Poster: Ketamine Modulation of NRG1/ErbB4 Signaling and PV Neuron-Mediated Cortical Disinhibition Enhances Adult Visual Plasticity

MSACL Conference (2019)
- Poster: High Throughput LC/MS-MS Assay quantifying Amyloid beta 40&42

ASMS Asilomar Conference: The Role of Mass Spectrometry in Neurodegenerative Disease Research (2021)
- Poster: Detection of Beta Amyloid 42/40 ratio in Plasma by LC-MS/MS

PATENTS

Ganeshan, Nikita. Vial for sampling assembly. United States Patent No. D902,429. U.S. Patent and Trademark Office. 17 Nov. 2020.

Lynn, Thomas C, **Ganeshan, Nikita.** Plate for Sampling Apparatus and Microcentrifuge vial for Microsampling Apparatus. United States Patent No. D922,611. U.S. Patent and Trademark Office. 15 June 2021.

WORK EXPERIENCE

Quest Diagnostics Inc. (San Juan Capistrano, CA) **05/2018 – 07/2022**
Department of R&D Mass Spectrometry
Biomedical Engineer/Staff Scientist
- Designed, developed, and validated diagnostic assays LDTs (Alzheimer's biomarkers, tumor biomarkers, genetics assays, and micro-sampling) in whole blood, plasma, and CSF
- 3D Modeling (SolidWorks/Onshape, 3D Printing, and Rapid Prototyping) for custom test kits
- Helped set up intern program and trained interns

UCI Applied Innovation - BUBTECH (start-up) **06/2018 – 09/2019**
Original Member & Design Engineer/CTO
- Won grant to continue wound healing device technology as start-up
- Designed and built prototype of functional wound healing device to be used in 510K animal testing
- Acquired VC funding and submitted SBIR grant application

Medtronic, PLC **06/2016 – 06/2017**
R&D Intern, Neuromuscular division
- Helped design neuromuscular inter-cranial support catheters

UC Irvine Division of Continuing Education **05/2015 – 01/2017**
General Assistant - Corporate Education
- Set up for corporate certificate programs in Management and Engineering

HONORS/AWARDS
- Quest Diagnostics Patent Innovation Award (2020)

- UC Irvine Applied Innovation Incubator Fellowship (2018)
- Undergraduate Research Opportunities Program Poster and Publication: Neural Imaging in Mice (2018)
- Multidisciplinary Project Fellowship: Software and Hardware for Microscopic Brain imaging in Live Mice (2018)
- UCI Undergraduate Writing Award Recipient (2016)

VOLUNTEER EXPERIENCE

Neighborhood Health Initiative, Stritch School of Medicine **09/2022 - Present**
Volunteer
- Deliver health screening to the Humboldt Park community of Chicago

MemorialCare Saddleback Medical Center **03/2021 - 05/2022**
ED Volunteer
- Assisted medical staff in general tasks and supported patients and caregivers

Pomona Free Clinic **09/2019 - 06/2020**
Student Volunteer
- Assisted the medical team in providing basic services to an underserved community

Leukemia and Lymphoma Society **10/2015 - 06/2017**
Mission Volunteer
- Supported patients, their families and caregivers by being an external voice of support

NEGU Jesse Reese Foundation **09/2015 - 05/2017**
Arts and Programming Volunteer
- Raised over $50K by putting on a mini-musical showcase, hosting a silent auction, and other small events throughout the years

Athena Olympiad at UC Irvine **10/2015 - 04/2017**
Co-founder and Outreach Chair
- Brought STEM exposure to middle and high school girls

LEADERSHIP

Medicus Podcast at LUC Stritch School of Medicine **09/2022 - Present**
Producer/Contributor

Stritch School of Medicine, Admissions Committee **09/2022 - Present**
Tour Guide, Student Panelist

LUC Mentors, Mentorship for Pre-Med Students **09/2022 - Present**
One-on-one mentoring for undergraduate students interested in Medicine

Quest Diagnostics, Department of R&D Mass Spectrometry **05/2020 - 07/2022**
Department College Intern Liaison

Keck Graduate Institute, Student Journal **09/2019 - 05/2020**
Copy Editor

Phi Sigma Rho Sorority at UC Irvine **10/2014 - 06/2018**
VP of Public Relations 01/2015 - 12/2015
VP of Communication 01/2016 - 12/2016
Philanthropy Chair 01/2017 - 12/2017

Arpana Dance Company - Irvine, CA **09/2011 - 06/2021**
Dancer, Performer, Volunteer Teacher

PROGRAMMING LANGUAGES

Programming: Solidworks, OnShape, MATLAB, Labview, ImageJ, Arduino

LANGUAGES

Languages: Tamil (Fluent), Hindi (Fluent), Spanish (Beginner)

PROFESSIONAL ASSOCIATIONS

- American Medical Association (AMA)
- American Society of Clinical Oncology (ASCO)
- American Academy of Neurology (AAN)
- Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART)
- Biomedical Engineering Society (BMES)
- American Association for Clinical Chemistry (AACC)
- American Society for Mass Spectrometry (ASMS)
- Phi Sigma Rho Sorority Alumni Association

HOBBIES/INTERESTS

- **Dancing:** 10 years of early training, 11 years of professional training
  - Toured domestically and abroad
  - Experience teaching and performing in regular studios, as part of physical therapy/training, and as a part of kinesiology teaching method research for STEM principles
- **Piano/Singing**
- **Traveling**
- **Hiking/Backpacking (National Parks)**