

Anoop M. Nilam

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SUMMARY

Biomedical engineer with experience creating nanomedicine vaccine deliverables, and imaging solutions. I am looking to leverage these experiences into creating drug development solutions in research scientist roles.

WORK EXPERIENCE

May 2021 - Present

Nanomedicine Lab, Principal Investigator: Dr. Jonathan Lovell

- Developed a protocol for hemoglobin purification and concentration for use in vaccine experimentation
- Demonstrated Photoacoustic contrast in GI tract imaging in collaboration with KNU – South Korea
- Demonstrated that IP administration of compounds leads to longer circulation of PA contrast agents in collaboration with Duke University
- Mined the plasmodium genome using Biopython & NetMHC to find 1000+ vaccine targets
- Designing peptide-based vaccine for strong MHC Class 1 binders to immunize against tropical diseases

POP Biotechnologies, Inc. – Contract/Consulting

- Indexed 200+ Phase 1-3 clinical trials for Flu vaccine testing parameters (NIH)
- Indexed 50+ Phase 1 & 2 clinical trials for Alzheimer's vaccine testing parameters (NIH)

SKILLS

- Computer Information Systems Certificate: Issued by New York State June 2020
- Proficient in Biopac, MATLAB, Minitab, Microsoft Office, Python, Solidworks, & SQL Databases
- Generative AI & Machine Learning Processes: Google Cloud Certification
- PA & Ultrasound Imaging Techniques, ELISA, ELIspot, Microscopy: Bright-field & Fluorescent (Tecan), Spectroscopy: UV-Vis, Nanoparticle sizing
- Gel electrophoresis, live cell culture, BSL-2, Rodent IP & IM injections, oral gavage, Giemsa

PROJECTS

- Publication #1: "Intraperitoneal administration for sustained photoacoustic contrast agent imaging" - DOI: [10.1016/j.pacs.2022.100406](https://doi.org/10.1016/j.pacs.2022.100406)
- Publication #2: "Barium sulfate and pigment admixture for photoacoustic and x-ray contrast imaging of the gut" - DOI: [10.1117/1.JBO.28.8.082803](https://doi.org/10.1117/1.JBO.28.8.082803)
- AIFeel: an AI-based solution to create sensory input for prosthetics: Presented to Jacobs Institute
- Automated Bidirectional Sample Transport System: Proposal for NF Memorial Medical Center
- Bismuth Subsalicylate: Proposal to use as a diagnostic photoacoustic contrast agent

EDUCATION

University at Buffalo, the State University of New York

Bachelor of Science, Biomedical Engineering

Bachelor of Arts, Mathematics

- University Honors College
- Tau Beta Pi – Engineering Honors Society - Treasurer
- Alpha Epsilon Delta – Pre-Health Honors Society
- Pride of New York Scholar
- Nanomedicine Research Fund Grant Recipient
- GPA: 3.82/4.00