

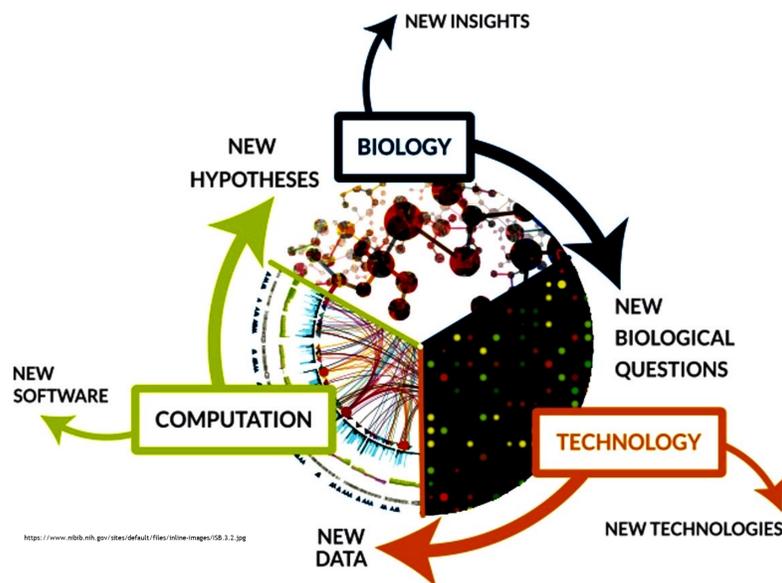
Introduction

Ali Vahdati, PhD
Assistant Professor of Engineering, Department of Engineering
Expertise in Biomedical and Mechanical Engineering
Integration of mechanics, medicine and biology

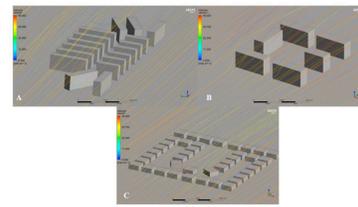
Professional experience prior to joining ECU:

- ▶ Senior Engineer, Corporate Office of Science, Medicine and Technology, Becton Dickinson, Research, Triangle Park, NC, USA.
- ▶ Research Associate and Clinical Assistant Professor, Cleveland Clinic, Cleveland, OH, USA
- ▶ Postdoctoral Fellow, KU Leuven (University of Leuven), Leuven, Belgium
- ▶ Research Associate, University of Sheffield, United Kingdom
- ▶ Graduate Assistant, Department of Aerospace and Mechanical Engineering, University of Notre Dame, Indiana, USA

Approach to integration of research and teaching using computer models



Sample student projects



Example: Converting a class project to a journal paper

- ▶ Three of my graduate students in BIME 6500 Tissue Engineering course were able to publish their class project in a prestigious journal

Pearce, Daniel, Sarah Fischer, Fatama Huda, and Ali Vahdati. "Applications of computer modeling and simulation in cartilage tissue engineering." *Tissue engineering and regenerative medicine* 17, no. 1 (2020): 1-13.

Tissue Eng Regen Med (2020) 17(1):1–13
<https://doi.org/10.1007/s13770-019-00216-9>

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Check for updates Impact factor

REVIEW ARTICLE

Applications of Computer Modeling and Simulation in Cartilage Tissue Engineering

Daniel Pearce¹ · Sarah Fischer^{1,2} · Fatama Huda¹ · Ali Vahdati¹

<https://link.springer.com/journal/13770/volumes-and-issues/17-1>

Student projects and success stories

- ▶ One NSF Graduate Research Fellowship, awarded last year to Shea Middleton who is currently a graduate student in my lab
- ▶ Two NC Space/NASA scholarships, 8000\$ each, awarded to Elliot Paul who is currently an undergraduate researcher in my lab, and Olivia Sessoms who was an undergraduate researcher in my lab and is currently pursuing her master's degree at UC Berkeley on a 40,000\$ scholarship
- ▶ One Goldwater Scholarship in the amount of 7,500\$, awarded to Elliot Paul, joining the ranks of the brightest undergraduate researchers in the nation
- ▶ Seven proceedings publications and presentations at the international annual Biomedical Engineering Society Meeting by both my undergraduate and graduate student mentees
- ▶ Seven presentations at the State of North Carolina Undergraduate Research and Creativity Symposium
- ▶ Six Undergraduate Research and Creative Activity Awards ranging between 1000-2000\$



<https://news.ecu.edu/2021/04/15/engineering-student-receives-prestigious-goldwater-scholarship/>

Engineering student receives prestigious Goldwater scholarship

PUBLISHED APR 15, 2021 BY

- KRISTEN MARTIN



Elliot Paul (Contributed photo)

https://www.reflector.com/news/ecu-honors-college-senior-receives-n-c-space-grant-scholarship/article_4c865b84-5020-5db6-8b21-639a66c71f19.html

ECU Honors College senior receives N.C. Space Grant scholarship

- ECU News Services

Sep 10, 2020



Olivia Sessoms was ECU's only recipient of a N.C. Space Grant scholarship for the 2020-21 academic year.



ECU engineering students among N.C. Space Grant recipients

September 23, 2021 Leave a comment

<https://news.ecu.edu/2021/04/22/ecu-engineering-student-receives-nsf-research-fellowship/>

ECU engineering student receives NSF research fellowship

PUBLISHED APR 22, 2021 BY KEN BUDAY

