

# **Seth H. Weinberg, Ph.D.**

**Assistant Professor, Department of Biomedical Engineering at VCU College of Engineering**  
Biotech One, Room 1070D, Richmond, VA, US

Dr. Weinberg's research focuses on computational physiology, specifically questions related to electrophysiology and mechanobiology.

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## **Biography**

Dr. Weinberg received a BSE in Biomedical Engineering from Duke University in 2006 and a PhD in Biomedical Engineering from Johns Hopkins University in 2012. From 2012-2014, he was a post-doctoral research associate with the Biomathematics Initiative at the College of William & Mary. From 2014-2016, he was a Research Assistant Professor at the Virginia Modeling, Analysis, and Simulation Center (VMASC) at Old Dominion University.

Dr. Weinberg's research focuses on cardiac electrophysiology, mechanobiology, cell-extracellular matrix interactions, calcium signaling, nonlinear dynamics in biology and computational neuroscience.

His current projects include ion channel localization in cardiac conduction and disease, stochastic calcium release in cardiac cells, and modeling fibronectin assembly.

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## **Industry Expertise**

Education/Learning, Research

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## **Areas of Expertise**

Computational physiology, Cardiac electrophysiology, Extracellular matrix assembly, Nonlinear dynamics in biology, Multicellular modeling, Calcium signaling, Computational Neuroscience

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## **Affiliations**

Biophysical Society, Biomedical Engineering Society, American Heart Association, Society for Mathematical Biology

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## **Education**

**Duke University**  
BSE Biomedical Engineering

**The Johns Hopkins University**  
PhD Biomedical Engineering

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