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INSTITUTE *for* CLINICAL &
TRANSLATIONAL RESEARCH

Postdoctoral Biodesign Training Programs (TL1)

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Postdoctoral Biodesign Training Programs (TL1)

- **TL1:** Component of NIH Clinical & Translational Science Awards

- **Unmet Clinical Need:** Biodesign process is a systematic approach to finding unmet clinical needs, inventing technologies, and implementing solutions.

- **Training Goal** : Our mission is to provide postdoctoral trainees an interdisciplinary patient-centered translational research in biodesign, helping to bridge the gap to improve the process for translating biomedical discoveries into clinical applications that improve human health.

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Postdoctoral Biodesign Training Programs (TL1)

Leadership

Mary Catherine Beach, MD, MPH

Jay Pasricha, M.B.B.S., MD

Phillip Phan, PhD

Youseph Yazdi, PhD, MBA

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TL1 Postdoc Trainees 2021-22

 Dr. Ridwan Alam, MD, MPH	JH School of Medicine, Email: Ralam@jhmi.edu	**Research Interests:** Dr. Alam is interested in the design and development of minimally invasive devices to improve urologic practice. In particular, he is interested in tools to assist with cancer detection and drug delivery for the upper urinary tract as well as reconstructive technologies for the lower urinary tract.
 Dr. Zachary Plona, BSE, MD	JH School of Medicine Email: zplona@jhu.edu	**Research Interests:** Dr. Plona aims to combine his clinical background as a surgeon with his engineering training to advance the technology and techniques used in surgical practice. His work focuses on the creation of new surgical devices that increases functionality, improve patient outcomes and enable surgical techniques and procedures that otherwise would be impossible. Currently, he is pursuing the Masters in Biomedical Engineering in the Center for Bioengineering Innovation & Design.

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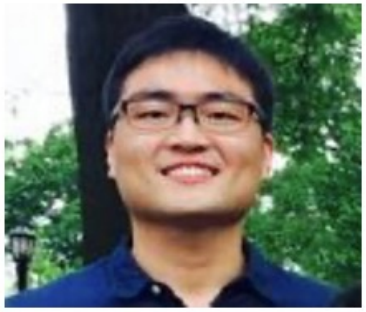
TL1 Postdoc Alumni

2020-21  Dr. Alexis Graham, MD agraha16@jhmi.edu	**TL1 Program:** CBID Graduate 2021 **Surgical Interest:** Vascular surgery **TL1 Research Title:** Solving Lymphatic Leak after Pediatric Cardiac Surgery Expanding Minimally Invasive Surgery to Low Resource Settings **Researching:** Medical device development, bioengineering, vascular surgery best practices.
2020-21  Dr. Jae Ho (Mike) Lee jlee738@jhu.edu	**TL1 Program:** Mentor-led Research in Department of Mechanical Engineering **Interest:** Mathematical Medicine **TL1 Research Title:** StomachSim: A novel in-silico simulator of gastric biomechanics and biochemistry for application to digestive processes in health and disease **Researching:** StomachSim: A Novel In-Silico Simulator of Gastric Biomechanics and Biochemistry for Application to Digestive Processes in Health and Disease.

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Ideal Applicant for this Program?

- A commitment to a career focused in biodesign, innovation and translation to market
- MD or PhD Health-professional
- US citizenship, permanent resident, or non-citizen national status (persons born in outlying possessions of the U.S.)
- Pursue research training on a full-time basis, defined by NIH as 40 hours per week (100% time and effort)

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TL1 Program Tracks

A. Team project leading to Master's degree under the JHU Center for Bioengineering Innovation & Design (CBID)

Examples of previous projects in this track: Solving Lymphatic Leak after Pediatric Cardiac Surgery. Trainee and their team developed a technique to improve efficacy and will publish the results.

B. Mentor-led project in any Department

Examples of previous projects in this track: *StomachSim: A novel in-silico simulator of gastric biomechanics and biochemistry for application to digestive processes in health and disease.*

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Support & Eligibility

- **Support (Financial)** *Dollar amounts are approximate
  - 12-month Stipend Range: $53,760 - $58,608 Depending on Yrs of experience
  - Tuition Support: $16,000 per year
  - Health Insurance Stipend: $4,200 per year
  - Research funds: Up to $2000 per year
- **Program Eligibility**

  All Candidates

  a) United States citizens, permanent resident, or non-citizen national status (proof of residency status required)

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Core Experiences & Services

Training in design/conduct/analysis of clinical research in team settings;	Protocol and IRB preparation	Data collection and analysis; manuscript writing
Multi-level mentoring support	Apprenticeship and mentorship – Hands on research	Engagement in related career development activities
Access to ICTR Programs and Resources	Biostatistical Resources Core Support	Presentation of research project at national meeting

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TL1 Application

Deadline: Friday, January 7th, 2022

Application Now Available via SLATE

MSE (CBID)
Application Deadline: December 31, 2021.

Application questions
Contact: CBID@jhu.edu

- Complete online TL1 application:
  1. Personal statement (1-2 pages describing your career objectives, interest and/or experience in at least one of the clinical research areas)
  2. Two letters of recommendation
  3. CV/Resume
  4. Unofficial Transcripts

Johns Hopkins
Institute for Clinical & Translational Research

JHU Pre-doctoral Clinical Research Training Program
Any questions?

Evaluation and Selection

TL1 Application Deadlines: January 7, 2022

Application Review:
January - February 2022

Official Award Notification: March 2022

Official Start Date:
July 1, 2022 *(April 2022 start available)*

TL1 Program Manager

Stacey Marks, MS
sjmarks@jhu.edu

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Questions?