Theme: **Transformative Technologies and Institutions (TTI)**

2021-2022

**Background**

The Global Health Equity Scholar will be responsible for completing assigned activities assigned under the mentorship of Dr. Anthony So.

TTI strives to ensure equity in delivering technologies for global health, a process that requires attention to the dimensions of access at every product lifecycle stage. Technologies and institutions have the potential to transform the health of populations and to narrow the disparities between those who have and those who do not have access to such health care.

TTI aims to develop a policy and research framework for discovering, developing and delivering transformative technologies. By applying systems thinking, TTI creates an enabling environment to ensure delivery of transformative innovation to resource-limited settings. Both open science and open access are key strategies that TTI examines for improving access. Open science can help reduce barriers to participation, so those in low-resource settings can develop the technologies they need. Likewise, open access can enable equitable sharing of scientific advances. By engaging with a range of stakeholders, TTI seeks to position the University as a health equity leader through its research and education mission, to ensure that the knowledge generated and innovations brought to market generate the most health benefits for the public, especially those at greatest disadvantage. You can learn more about this theme on our website.

**Scope of Work**

Specific responsibilities may include, but are not limited to:

- Conduct research and data analyses (using a systems thinking approach) to inform discussions and potential publications. Topics may include the following:
  - Open access, open science, and health equity
    - Example project: Using bibliometric data to undertake network and other bibliometric analyses to identify influential researchers contributing to open access at Johns Hopkins and other U.S. institutions. This information would be leveraged to develop a campaign to change local norms of open-access.
  - Citizen science and accountability technologies
    - Example project: Critically examining existing platforms for stakeholders to collaborate and crowdsource information for development (e.g., UNICEF’s U-report). There is an opportunity to create tools that empowers stakeholders to monitor for accountability. For this project, experience in coding, data visualization, and communication are crucial.
  - Algorithmic bias in Big Data and artificial intelligence for global health applications
Example project: Developing a framework to understand the implications of algorithmic bias on global health and international development as data infrastructure expands in low-resource settings.

- Help manage projects and organize strategic convenings by establishing schedules and agendas for meeting participants, as well as prepare background research materials. In addition, strategically frame meetings in collaboration with the TTI team and plan for consultative meetings to drive GHES projects with the support of the TTI team. Strategic convenings include:
  - **Technology Product Lifecycle (TPLC) committee meetings**: The TPLC Committee is a University-wide group of faculty and staff committed to enhancing health equity throughout the process of bringing our innovation and technology products to populations in need
  - **Events to promote open access and open science**: Students will help co-develop and organize events that raise the profile of open access throughout the University
- Conduct interviews with faculty or other stakeholders in the community who are strong voices on these issues
- In conjunction with the Alliance’s communication team, generate policy briefings and multimedia segments

**Preferred skills**

Interest in open science or open access: TTI looks for students with an interest in open access and open science. In addition, students also with experiences of participating in open source software, open data or open science projects would be particularly welcomed. Interest in data sciences: Students with additional technical backgrounds (e.g., coding ability, programming skills, and economic analyses) are given priority in the application process. In addition, experience with machine learning, Big Data projects, data visualization, or statistical modeling is preferred.

The GHES position requires a minimum commitment of 10 hours per week. Questions can be directed to [Divina Varghese](mailto:Divina.Varghese@TTI.edu).