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**DESCRIPTION: A 9-week Summer Internship to provide students the opportunity to work at the epicenter of the Global HIV and TB co-epidemics in South Africa**

The Ragon Institute of MGH, MIT and Harvard, through its International Research Office, is offering a nine (9) week, fully funded summer internship program in KwaZulu-Natal, South Africa for Harvard undergraduate students. There are three options to choose from: (A) **Basic Science Research** in HIV-TB, (B) **Clinical Research** in HIVwith an integrated poverty alleviation program, and (C) **Operational Research** in HIV-TB and health innovation with a non-profit organization. Students will be mentored by an MGH/Harvard/Ragon faculty member and gain skills working side-by-side with local South African and international investigators, graduate students and care providers.

1. **Basic Science Research**

The basic science component is based at the University of KwaZulu Natal (UKZN) where the Ragon Institute has helped to build the state of art biomedical research facilities. Successful candidates will work alongside researchers at two UKZN affiliated research institutes namely Africa Health Research Institute (AHRI) <https://www.ahri.org> and the HIV Pathogenesis Program (HPP) <http://hivmedicine.ukzn.ac.za/HIVPathogenesisProgramme.aspx>. Both institutes are located at the University of KwaZulu Natal Medical School campus. Student Students will receive basic science training in any of the following areas, immunology, virology, molecular biology and bioinformatics under the supervision of a local investigator. The internship will also include seminars and visits to clinical research sites in the greater Durban area where cohorts and sampling populations are situated. The internship will expose students to career paths in basic science and global health research and will provide a competitive advantage for admission into global health sciences graduate programs. Supervisor/Mentor: Dr. Zaza Ndlovu

* <https://www.ncbi.nlm.nih.gov/pubmed/26362266>
1. **Clinical Research with an integrated Poverty Alleviation Program / ‘FRESH’**

Based in the township of Umlazi, 30 min south of Durban, the *FRESH* program (Females Rising through Education, Support and Health) is a unique combination of basic science research and poverty alleviation that enrolls young HIV-uninfected women at high risk of infection. With a focus on detecting acute HIV infection at the earliest timepoint, the aim of FRESH is to fill gaps in information critical to development of an effective HIV vaccine or novel treatment/prevention strategies. Study participants co-enroll in a life/job skills curriculum to ensure tangible benefit to participation in the research. Students will gain an understand of the challenges faced by young women African women that impact this group having the highest rate of HIV infection in the world as well as gaining an appreciation conducting research in a resource limited high-burden setting. Students will be involved in either the clinical research operations (implementation of surveys, data collection and analysis), or may be involved in the social intervention preparing and linking the women to work or return to school. Supervisor/Mentor: Dr. Krista Dong

* <https://www.youtube.com/watch?v=D8SY98CZiYY>
* [https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018(17)30150-9/fulltext](https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018%2817%2930150-9/fulltext)
* [https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018(17)30146-7/fulltext](https://www.thelancet.com/journals/lanhiv/article/PIIS2352-3018%2817%2930146-7/fulltext)
* <http://immunology.sciencemag.org/content/3/27/eaau2798>
1. **Operational Research in Global Health / Health Innovation / ‘ITEACH’**

Based at the Ragon affiliated non-profit organization, *ITEACH* (Integration of TB in Education and Care for HIV/AIDS). Launched in 2005 on the premises of a large government hospital (Edendale) on the outskirts of KZN’s capital, Pietermaritzburg, it is a referral center in the health district with the highest rate of HIV and HIV-TB co-infection in the country. Despite a recent facelift to the hospital’s façade, Edendale continues to struggle to meet national targets for HIV testing, TB screening, linkage to and retention in care. ITEACH is a non-profit the designs and tests interventions to improve care and treatment to the poor and underserved, by utilizing abundant and available resources and partnering with underutilized allies, such as African Traditional Healers. Student interns will work side-by-side with members of the ITEACH team, which is comprised of uniquely experienced and committed local South Africans have been working on the front lines of the epidemic for the last decade. Project options include work with the ITEACH HIV-TB “warriors” or with the ITEACH African Traditional Health Practitioners program. Activities will be determined by student interest and skills, with particular need for impact assessment, data analysis clinic and preparation of manuscripts. Students will spend time at the hospital, go on outreach events and visit local clinics and traditional healer home practices. Supervisor/Mentor: Dr. Krista Dong

* <https://www.youtube.com/watch?v=MaKCsf0W4-s>
* <https://www.youtube.com/watch?v=ZqnH9ZV-ccw>

**Cost and Logistics.** Successful candidates will receive a scholarship to cover international flights, accommodation and living expenses in South Africa during the summer internship. Assistance will be provided to arrange accommodations and to arrange in-country travel. No visa is required for stay in South Africa for less than 90 days. Note: funding is not provided for weekend and extra-curricular activities.

**Health and Safety Training**. All student, irrespective of selected option, will be required to complete the citi online human subjects research course and for those who opt for the lab research experience, an online lab safety training course.

**Vaccination and Malaria.** Successful candidates will visit a Travel Clinic in Boston to review vaccine and prophylaxis requirements. All students must have the Hepatitis B vaccine series. If travel to a yellow fever endemic country prior to the Summer internship, proof of yellow fever vaccination will be required to enter South Africa. There is no Malaria in or around Durban or Pietermaritzburg. Malaria prophylaxis is recommended only for students who plan to travel to rural/game parks during their stay.

**Questions.** You may email the Course Directors, Drs. Zaza Ndlovu and Krista Dong with any questions you may have.

**Key Dates:**

* Applications open: December 11, 2019
* Application deadline: February 1, 2019
* Internship South Africa June 3 to August 2, 2019

**Submitting your Application.** Please ensure all documents are submitted via email before the February 1st deadline to both: Zaza Ndlovu zndhlovu@mgh.harvard.edu and Krista Dong woodil.iteach@gmail.com

**Application Check-list:**

1. Completed Ragon Summer Internship Application
2. Current Resume/CV.
3. (2) Letters of Recommendation. Ensure one letter is from a current or recent mentor/advisor who has worked directly with you.