



An initiative for the advancement of appropriate, high-value innovations in global health biotechnology

Undergraduate International Summer Internships

The BTB international summer internship program gives Rice undergraduate students first-hand exposure to health care in the developing world. The internship:

- Improves students' understanding of the constraints (infrastructural, technological, cultural, educational, political,...) under which such care is given
- Inspires ideas for appropriate technological solutions to medical care issues
- Guides the students in the development of global health technologies that respond to care constraints

In partnership with clinics, schools, and organizations working in developing countries, the internships allow students to advance in a real-world setting their solution to a Global Health Design Challenge Project developed at Rice through their Global Health Technologies Minor coursework. Interns complete three global health technology projects in total: a BTB assigned, a internship host assigned, and a self identified one.

Since 2005, we have reached over 7000 people through partners and programs in countries across the globe, including Mexico, Haiti, Dominican Republic, Honduras, Nicaragua, Guatemala, Ecuador, Brazil, Nigeria, Sierra Leone, Tanzania, Malawi, Botswana, Mozambique, Lesotho, Swaziland, Rwanda, India, and China.

BTB Initiative Mission



...to foster the creation of globally appropriate health technologies that address pressing health needs of the developing world...

By engaging students in a novel multi-disciplinary educational program, we challenge them to reach beyond their usual geographic and disciplinary borders and help them gain knowledge and skills to advance innovative technologies. The BTB Initiative's Global Health Technologies curriculum broadens understanding of disease processes and advances in health technologies, incorporating this understanding with important world health issues. The program gives students real-world global health design challenges, encouraging them to develop meaningful solutions that make a real impact today.

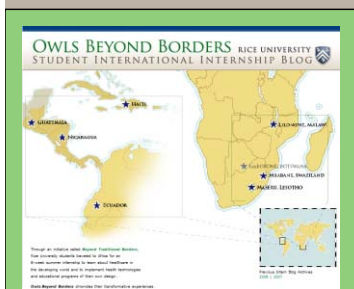
Summer Internship Project Examples

Clinical Technologies

- Diagnostic Lab-in-a-Backpack containing the necessary equipment for physicians to provide medical examinations regardless of location. With three rounds of design and field testing in many locations, country wide roll out will occur in Ecuador in 2009. Additional specialty versions target OB/GYN, Community Health Worker, Dental, and Ophthalmology needs.
- Infant Warmer to provide a temperature controlled environment for newborns, constructed locally from affordable readily available materials
- Low-cost LED-based Bilirubin Phototherapy Device to deliver irradiance for treatment of jaundice
- IV Drip monitor for affordable, reliable control and adjustment of the drip rate of intravenous therapy.
- Medicine Dosing Device that allows caretakers to deliver complicated liquid-drug regimens accurately and reliably, by dispensing a specific amount of medicine per pump as preset by a clinician.

Education Programs for Health & Development

- Summer Camps for secondary school students, ranging from general science and math, microenterprise, career guidance, to bioengineering
- Women's Health sessions, on important issues such as VIA & cryotherapy
- General Health topic sessions, including nutrition and water hygiene, for microfinance trust groups, community groups, and 1° and 2° schools



Share the experiences of former BTB international summer interns as they spend 8 weeks abroad.

Read accounts of their daily lives and learn how new technologies can improve health care in resource limited settings.

www.owlsbeyondborders.rice.edu

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