Driving Innovation to Improve Global Health

Promoting Sustainability in Health Practices and Delivery

Climate change is impacting people’s health and well-being worldwide and posing daunting challenges for coming generations. Erb Institute students, faculty and alumni are partnering with innovative companies, government agencies and nonprofit organizations on research and field work around the globe to help emerging nations prepare for climate effects and improve the sustainability, quality and delivery of healthcare. Closer to home, they are promoting greater sustainability in the U.S. healthcare industry and encouraging the adoption of green practices and products that mitigate climate change.

Entrepreneurs Unleash Technology’s Potential

Algal Scientific develops nutritional supplements

Algal Scientific Corp., co-founded by Jeff LeBrun and John Rice, both Erb ’09, and a team of Michigan graduates, has developed two distinct business units that serve the animal feed, human nutrition and wastewater-treatment industries. One unit is focused on the production of Algamune™ beta glucan products, which are used as additives for animal feeds and as human nutritional supplements to strengthen immune response. The second unit is dedicated to the commercialization of the Hypertrophic™ wastewater-treatment system. The company, which has won the Erb Institute Award for Sustainability, the DTE/U-M Clean Energy Prize and other major awards, recently closed on a $3 million Series A financing round.

Read more about Algal Scientific Corp.: http://bit.ly/algalscientific

Photo credit: DFID - UK Department for International Development via Wikimedia Commons

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Colm Fay, Erb '12, made a real-world impact on health in eastern Africa during his two years with Abt Associates’ International Health Division, where he managed the launch and implementation of an innovation fund for health enterprises that serve the poor. Now he is bringing his overseas knowledge and experience to the U-M William Davidson Institute, where he recently became research manager for the Base of the Pyramid Enterprise Sustainability and Growth program. In his new position, Fay will manage the development and growth of the program, which aims to analyze and understand the factors that influence the process of venture development at the Base of the Pyramid, from inception to scaling.

Engaging stakeholders in sustainability initiatives

Kara Davidson, Erb ’13, helped to engage stakeholders in sustainability initiatives during two summer internships. In 2011, she collaborated with the board of directors and staff of the Schenectady Greenmarket in Schenectady, New York, to develop, coordinate and supervise a community day designed to raise awareness of the market among members of a low-income community. The following year, Davidson worked on a customer relationship management project at Dairy Management Inc., a Rosemont, Illinois-based trade organization supported by America’s nearly 49,000 dairy farmers, as well as dairy importers. She conducted research and provided recommendations to the organization’s sustainability group on ways to improve stakeholder engagement.

Reducing malaria in Uganda


Aligning healthcare delivery with sustainability

Catherine Dyson, Erb ’14, Annie Cronin, Erb ’14, and Jenna Agins, Erb ’13, assessed the U-M Health System’s Patient Food and Nutrition Services group to identify strategies for reducing its waste, water and energy footprints and achieving cost savings. In their 2013 research report, the students recommended improving product sourcing, ramping up recycling and adopting composting processes to decrease the amount of plastic, metal and food flowing into the waste stream. Read more: http://bit.ly/Food-Healthcare
Advancing neonatal care in developing countries

As a 2012 intern at GE Healthcare in India and China, Ben Chen, Erb ’14, analyzed new market opportunities for GE’s high-tech maternal-infant care products, which have advanced neonatal care in developing countries. He also defined a go-to-market strategy to make these products more readily available and affordable in underserved markets and to help reduce infant mortality. During his 2013 internship at Roche Pharmaceuticals, Chen created a process for gathering market information on preclinical drugs in China.


Assessing Chinese policy impacts in the Poyang Lake Region

Howard Lin, Erb ’05, studied the environmental, public-health and regional economic-development impacts of Chinese government policies to return reclaimed farmland to Poyang Lake in Jiangxi, China, and resettle farmers and fishermen in new towns, following massive flooding and damage in the region in 1998. In his research report, he suggested a strategy for aligning economic incentives with conservation and public-health objectives. Lin’s approach entailed merging the abandoned farmland with existing nature reserves in the area and creating more ecotourism opportunities to generate income while reducing human contact with the schistosomiasis-infected lake water.

Read more: http://bit.ly/PoyangLake

Building Public-Private Partnerships to Improve Global Health Outcomes

Claudia Harner-Jay, Erb ’98, a senior commercialization officer at PATH, is leading a collaborative project with Merck for Mothers to identify and advance life-saving maternal-health innovations in resource-poor settings, particularly in Southeast Asia and Sub-Saharan Africa. Pharmaceutical developer and manufacturer Merck & Co. launched the 10-year, $500 million initiative targeting more than 20 countries around the world, including the United States. PATH, an international nonprofit global health organization, has developed a Microsoft Excel-based strategic prioritization tool to assess and rank nearly 40 technologies for their highest potential to reduce mothers’ deaths during childbirth, and is making the tool publicly available.
Promoting Healthcare Sustainability at a Major Medical Center

Jenna Agins, Erb ’13, is pursuing a long-sought-after career in healthcare sustainability at NYU Langone Medical Center in New York City, where she has taken a position as sustainability manager. “I work on energy-management projects, water, waste and chemical-reduction efforts as well as greenhouse-gas accounting,” Agins says. “I am also leading the development of an employee-engagement program for sustainability to increase participation in and adoption of sustainability initiatives across the medical center.” In the community, Agins is helping to coordinate the medical center’s participation in PlaNYC, the sustainability and resiliency blueprint for New York City.

FocusMotion promotes physical fitness

Grant Hughes, Erb ’13, and Cavan Canavan, MBA ’12, co-founded FocusMotion, formerly Focus Solutions, to help Americans get into better shape and improve their health. FocusMotion promotes physical fitness by utilizing wearables to understand human movement. To date, the company has raised more than $1 million in funding and forged partnerships with Samsung, Pebble and Microsoft. The two entrepreneurs won the $20,000 Pryor-Hale Award for Best Business at the 2013 Michigan Business Challenge and made a pitch to investors at the 2013 Michigan Growth Capital Symposium. Read more about FocusMotion: http://bit.ly/focusmotion

Cutting-edge diagnostics in rural India

CentriCycle is working to improve healthcare in rural India through the use of sustainable diagnostic technology and education. The Michigan nonprofit company won the $7,500 Erb Award for Sustainability at the 2013 Michigan Business Challenge. The winning team members include Carolyn Yarina, BSE ’13, Alex Thinath, BSE ’13, Justin Beeker, BA ’13, Michael Bodden, BBA ’13, Harish Kilaru, BS ’16, and Amin Haririnia, BA ’13. Read more about CentriCycle: http://bit.ly/centricycle

Health Experts Illuminate Key Issues

Rick Ament, the CEO and founder of the healthcare industry sustainability consultancy, SOS Partners, moderated an October 2012 Erb Speakers Series discussion on “The New Healthcare Mission: Innovating Through Sustainability,” which examined the key challenges confronting healthcare providers that are pursuing sustainability.