



Krista Donaldson

Casual - Non-Exempt, School of Medicine - MDRP'S - Biodesign Program

Bio

BIO

Dr. Krista Donaldson is the Director of Innovation to Impact at the Byers Center for Biodesign, where her work focuses on ensuring design tools and processes are broadly equitable and accessible across domestic and global health markets. She is also one of the Stanford Biodesign leads in establishing the East Africa Biodesign Program at the University of Global Health Equity (Rwanda), the University of Rwanda, and Kenyatta University (Kenya).

Dr. Donaldson teaches in both the Stanford Biodesign and East Africa Biodesign fellowship programs, as well as co-teaches MED 232 Global Health: Scaling Health Technology Innovations in Low Resource Settings with Dr. Michele Barry and Dr. Anurag Mairal.

Prior to joining the Byers Center, she was recognized as a World Economic Forum Technology Pioneer, TED speaker, and one of Fast Company's "50 Designers Shaping the Future". Her work focuses on closing gaps in health equity and strengthening local innovation. Over 2M patients – mostly children and young people – in 80 countries have been treated by products of which she led the design and scaling. Dr. Donaldson also served as an Economic Officer at the U.S. Department of State where she managed part of Iraq's reconstruction portfolio, co-founded the startup Safehub (acquired by Bitium, USA), and taught at the University of Cape Town (South Africa) and Kenyatta University.

Dr. Donaldson is a long-time member of the Stanford community, having received two master's degrees in Product Design and Mechanical Engineering and a Ph.D. in Mechanical Engineering from Stanford, and TA-ing throughout. During her PhD, she also received the African Teaching Fellowship from the African Studies department. Since graduating, she has been a frequent lecturer in classes in the School of Engineering, Graduate School of Business, and School of Medicine.

In addition to her work at Stanford she serves on a number of boards and works with organizations to promote financing of local medtech innovation in emerging markets.

CURRENT ROLE AT STANFORD

Director of Innovation to Impact, Byers Center for Biodesign

EDUCATION AND CERTIFICATIONS

- Ph.D., Stanford University, Mechanical Engineering: Engineering Design for Sustained Development in Less Industrialized Economies (2004)
- MSME, Stanford University, Design and Applied Mechanics (1998)
- MSE, Stanford University, Product Design (1998)
- BE (Honors, magna cum laude), Vanderbilt University, Mechanical Engineering (1995)

SERVICE, VOLUNTEER, AND COMMUNITY WORK

- Board Member, Finance & Development Committee
- Advisory Board Member

Teaching

COURSES

2023-24

- Global Health: Scaling Health Technology Innovations in Low Resource Settings: MED 232 (Win)

Publications

PUBLICATIONS

- **What's Next in Design for Global Health? How Design and Global Health Must Adapt for a Preferable Future** *GLOBAL HEALTH-SCIENCE AND PRACTICE*
Chauhan, A., Donaldson, K., Santos, A., Ngigi, M.
2021; 9: S283-S294
- **Designing for Scale: Development of the ReMotion Knee for Global Emerging Markets** *ANNALS OF BIOMEDICAL ENGINEERING*
Hamner, S. R., Narayan, V. G., Donaldson, K. M.
2013; 41 (9): 1851-1859
- **Phototherapy Device Effectiveness in Nigeria: Irradiance Assessment and Potential for Improvement** *JOURNAL OF TROPICAL PEDIATRICS*
Cline, B. K., Vreman, H. J., Faber, K., Lou, H., Donaldson, K. M., Amuabunosi, E., Ofovwe, G., Bhutani, V. K., Olusanya, B. O., Slusher, T. M.
2013; 59 (4): 321-325
- **The Need to Implement Effective Phototherapy in Resource-Constrained Settings** *SEMINARS IN PERINATOLOGY*
Bhutani, V. K., Cline, B. K., Donaldson, K. M., Vreman, H. J.
2011; 35 (3): 192-197
- **The Future of Design for Development: Three Questions** *INFORMATION TECHNOLOGIES & INTERNATIONAL DEVELOPMENT*
Donaldson, K.
2009; 5 (4): 97-100
- **Educating Generation Net-Can US Engineering Woo and Win the Competition for Talent?** *JOURNAL OF ENGINEERING EDUCATION*
Chubin, D., Donaldson, K., Olds, B., Fleming, L.
2008; 97 (3): 245-257
- **Scaling Up: Taking the Academic Pathways of People Learning Engineering Survey (APPLES) National** *IEEE Frontiers in Education Conference 2008*
Donaldson, K. M., Chen, H. L., Toye, G., Clark, M., Sheppard, S. D.
IEEE.2008: 1078-1083
- **Targeting undergraduate students for surveys: Lessons from the Academic Pathways of People Learning Engineering Survey (APPLES)** *37th Annual Frontiers in Education Conference*
Donaldson, K. M., Chen, H. L., Toye, G., Sheppard, S. D.
IEEE.2007: 1116-1122
- **Special session - Academic Pathways Study: Special interactive session on findings and implications for engineering education and practice** *37th Annual Frontiers in Education Conference*
Atman, C., Kilgore, D., Eris, O., Fleming, L., Miller, R. L., Sheppard, S. D., Smith, K., Stevens, R., Streveler, R., Amos, D. M., Bailey, T., Chachra, D., Chen, et al
IEEE.2007: 933-935
- **Product design in less industrialized economies: constraints and opportunities in Kenya** *RESEARCH IN ENGINEERING DESIGN*
Donaldson, K. M.
2006; 17 (3): 135-155

- **Customer value chain analysis** *RESEARCH IN ENGINEERING DESIGN*
Donaldson, K. M., Ishii, K., Sheppard, S. D.
2006; 16 (4): 174-183
- **E-pals to enhance mechanics learning** *INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION*
Donaldson, K., Sheppard, S.
2003; 19 (6): 836-846
- **Modification of a methodological design tool for the developing country scenario - A case study in product definition** *13th International Conference on Engineering Design (ICED 01)*
Donaldson, K. M., Sheppard, S. D.
PROFESSIONAL ENGINEERING PUBLISHING LTD.2001: 505-512