Biomedical Engineering for Global Health (Cambridge Texts in Biomedical Engineering)

Rebecca Richards-Kortum
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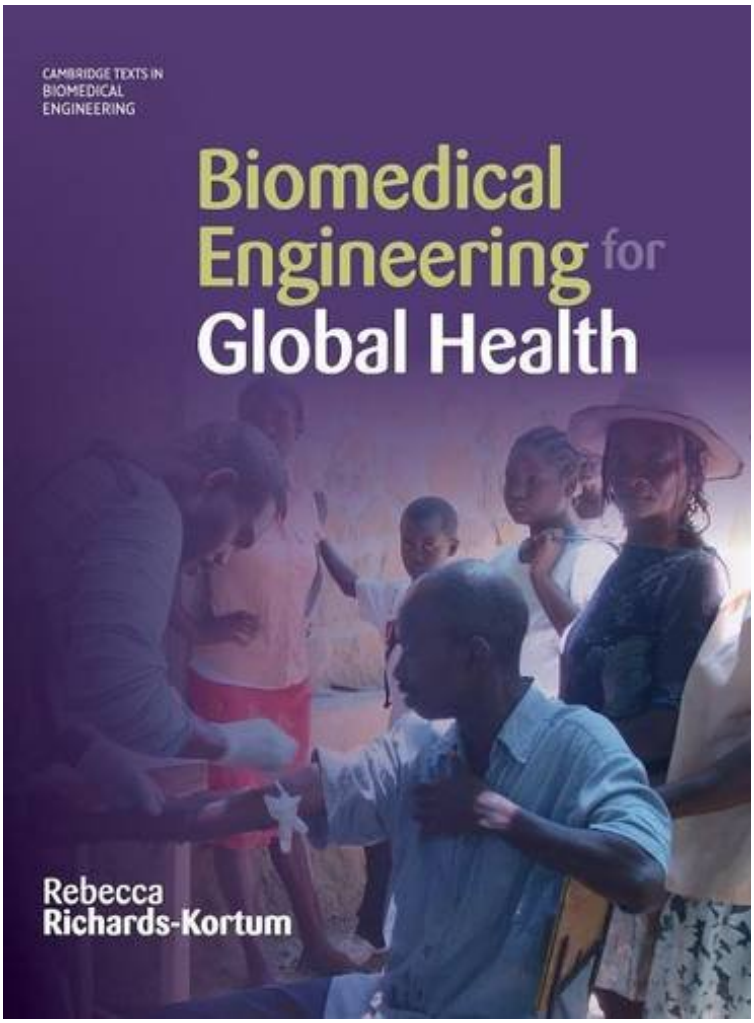

#1028810 in Books Cambridge University Press 2009-09-01Original language:EnglishPDF # 1 10.87 x .91 x 8.62l, 3.00 #File Name: 0521877970418 pages | File size: 47.Mb

Rebecca Richards-Kortum : Biomedical Engineering for Global Health (Cambridge Texts in Biomedical Engineering) before purchasing it in order to gage whether or not it would be worth my time, and all praised Biomedical Engineering for Global Health (Cambridge Texts in Biomedical Engineering):

0 of 2 people found the following review helpful. Five StarsBy Anonymousas expected0 of 6 people found the following review helpful. NOT ImpressedBy DocJ77This book sucks

Can technology and innovation transform world health? Connecting undergraduate students with global problems, Rebecca Richard-Kortum examines the interplay between biomedical technology design and the medical, regulatory,

economic, social and ethical issues surrounding global health. Driven by case studies, including cancer screening, imaging technologies, implantable devices and vaccines, students learn how the complexities and variation across the globe affect the design of devices and therapies. A wealth of learning features, including classroom activities, project assignments, homework problems and weblinks within the book and online, provide a full teaching package. For visionary general science and biomedical engineering courses, this book will inspire students to engage in solving global issues that face us all.

'As part of the Clinton Global Initiative, Rice University is launching a major initiative in global health technologies to narrow the unconscionable gap in life expectancy between rich and poor. This beautifully written volume by Rebecca Richards-Kortum will inspire and empower the next generation of engineers to make global health their calling. As President Clinton has said, 'today's generation of young people holds more power than any generation before them to make a positive impact on the world.' The next Jonas Salk or Maurice Hilleman will definitely have this book close at hand.' Thomas Kalil, University of California, Berkeley and Clinton Global Initiative'Professor Richards-Kortum has been in the forefront of giving bioengineers a conscience. This book is an excellent first step in educating engineers as to medical problems in the developing worlds and ways in which bioengineers can make a difference.' Paul Yager, Department of Bioengineering, University of Washington, Seattle'Professor Rebecca Richards-Kortum, a world leader of biomedical engineering research, an HHM investigator and NAE member, brings a global message to all scientists, indeed to all citizens of the world. Regardless of our educational background, we should be concerned about world health. Providing better treatment in a positive social environment, caring about the epidemic level of certain diseases and giving cost effective solutions to health management is not just scientifically exciting. It is also our responsibility as citizens of this world! Richards-Kortum makes it crystal-clear that engineers and scientists can provide intelligent solutions to medical problems and can improve the quality of life of our patients, our citizens, no matter where they live. The examples from Botswana or Lesotho are telling of the crisis bioengineers are facing in a global environment ... I have shown my prepublication copy of Richards-Kortum's book to high school students and young undergraduates ... They left my office inspired, as true, new apostles for better health treatment methods. No other book has made such transformation of young scientists in such a short time ... This book will become the most influential biomedical text of our generation.' Nicholas Peppas, Fletcher S. Pratt Chair in Engineering, The University of Texas at Austin'Rebecca Richards-Kortum is one of the brightest and clearest-thinking biomedical engineers of her generation. Several years ago, she turned her attention to the uses of biomedical technology for improving world health. In her teaching, first at the University of Texas and then at Rice University, she was able to refine her observations into a vision for biomedical engineering that moves beyond the world we see each day. Now she has produced a book that will enable all of us to make the leap she made, and to see our power and obligations a bit more clearly. This is the kind of engineering book that comes around only once in a generation.' Mark Saltzman, Yale University'Helping students understand, early in their academic training, what it takes to bring novel, safe, and effective medical technologies to the patient is laudatory. Rebecca Richards-Kortum very nobly succeeds in doing that in the context of resource-challenged environments by writing a very engaging and provocative book. Bravo!' John H. Linehan, Professor of Biomedical Engineering and Medicine, Northwestern University'Biomedical engineers not only need expertise in the science, engineering and mathematics that underlies their field, they must also know the context in which biomedical engineering is practiced. Professor Richards-Kortum skilfully presents the key medical, policy, social and ethical issues that need to be considered in applying biomedical engineering. This is a comprehensive book that addresses biomedical engineering from a truly global perspective and shows students how these important issues affect the design of devices and therapies. This book will also be an important reference for all biomedical engineers.' George Truskey, Biomedical Engineering, Duke University'This outstanding book by Professor Rebecca Richards-Kortum on bioengineering and world health is based on her years of pioneering work and superb teaching on this topic at the University of Texas and Rice University. This pace-setting book focuses on the application of engineering methods and technological advances to medical technologies, with an emphasis on improving human health in the world. With the increasing globalization of science, technology and healthcare, the publication of this book is extremely timely to meet the urgent demand today. This book addresses the important questions of how to use science and technology to solve healthcare problems and how to translate these new healthcare technologies to the bedside. It also considers the important economical, legal and ethical issues associated with developing new medical technologies to improve world health. This is a very valuable book not only for teaching in fields such as bioengineering, but also for reading by the general public. It will have major positive impacts on bioengineering and world health for years to come.' Shu Chien, President of the Biomedical Engineering Society, Chair of the Department of Biomedical Engineering, University of California, San DiegoAbout the AuthorRebecca Richards-Kortum is the Malcolm Gillis University Professor at Rice University, Houston and the Director of the Rice 360 Institute for Global Health. Her research has been instrumental in improving early detection of cancers and other diseases, especially in low-resources settings. She is currently working with colleagues and undergraduate students to develop and deploy a suite of technologies necessary to reduce neonatal death in Sub-Saharan Africa. Dr Richards-Kortum has 40 patents, and her teaching programs, research and

collaborations are supported by grants from NCI, NIH and NSF, the Gates Foundation, and HHMI. She is a member of the NAS, NEA and the American Academy of Arts and Sciences.