Ethical/legal implications of wireless health

Mary Mehrnoosh Eshaghian-Wilner, Katie Atalla, Ayush Chaudhary, Arushi Gupta, Raj Mehta, Adarsh Nayak, Ben Shiroma and Pujal Trivedi
University of Southern California, USA

Nanomedicine is a revolutionary field with the potential to vastly improve healthcare worldwide. Despite these benefits, the revolutionary rather than evolutionary nature of these new medicines raises unforeseen problems relating to ethics, privacy, intellectual property and regulatory law. Ethical issues include the risks posed to users of a drug during the research and development stage, unequal distribution of new medicines and the possibility for genetic self-enhancement. Privacy issues involve laws that do not adequately protect people’s privacy and the possibility for genetic discrimination based on increasingly accessible genetic information. Intellectual property issues are primarily concerned with the balance between protecting nanomedicine related intellectual property rights and the desire to encourage future innovation. Nanomedicine is particularly difficult to protect from an intellectual property perspective due to bureaucratic distinctions, difficult analysis against prior art, and the complexity of the technology itself. However, the industry as well as the courts may not be enough to properly regulate this nascent field. Given the remarkable potential of nanomedicine to improve global healthcare as well as the great risks that come with new developments in the field, it is important for researchers, industry, legislatures, and the public to work together to ensure the impending medical revolution keeps people safe and changes our lives for the better.

Biography
Mary Mehrnoosh Eshaghian-Wilner is an interdisciplinary Scientist and patent attorney. She is currently a Professor of Engineering Practice at Electrical Engineering Department of USC. She is best known for her work in the areas of Optical Computing, Heterogeneous Computing and Nanocomputing. Her current research involves the applications and implications of these and other emerging technologies in medicine and law. She has founded and/or chaired numerous IEEE conferences and organizations and serves on the editorial board of several journals. She is the recipient of several prestigious awards and has authored and/or edited 100 publications, including three books.


Notes: