



▶ TO THE FUTURE

EDITED BY AMY MULVIHILL

Written By Lauren Bell, Ron Cassie, Lauren Cohen, Ken Iglehart, Jane Marion, Jess Mayhugh, Amy Mulvihill, Gabriella Souza, And
Lydia Woolever. Illustrations by Aldo Crusher.

HEALTH & MEDICINE

If Baltimore has a signature industry, it is undoubtedly health care. Between the hospitals, the medical schools, the biotech labs, the insurance giants such as CareFirst, and the thousands upon thousands of private practitioners and support staff, it's no wonder Baltimore has the nation's third-highest concentration of health care employees. Unsurprisingly, the industry is tipped for growth—continued expansion to meet the demands of the new federal mandate for health insurance and the aging of the baby boomers will guarantee that.



GENOMIC MEDICINE Modern Medicine

Since its inception, The Johns Hopkins University School of Medicine has been at the forefront of medical education. Today, Hopkins is again pushing the study of medicine forward with the recent introduction of its “Genes to Society” curriculum. Spread over four years, the curriculum offers a fresh take on the traditional health and disease model, one that’s grounded in an ever-expanding understanding of the human genome. Growing out of a need to reshape the instructional experience to meet the ongoing revolution in medicine, the “Genes to Society” curriculum takes into account the wide range of factors—from genetics to behavioral, environmental, and societal influences—that impact a given patient’s disease presentation.

Along with Hopkins, the University of Maryland School of Medicine (UMSOM) is considered a leader in genetic and genomic teaching. The Institute for Genome Sciences, an international research center, is located on the university’s Baltimore campus, and UMSOM offers a program in personalized and genomic medicine. In fact, UMSOM professor Miriam G. Blitzer is the executive director of the American Board of Medical Genetics and currently serves as president of the Association of Professors of Human and Medical Genetics.

Although genetics have been understood as an important factor in patient health for more than 100 years, it’s only since the sequencing of the human genome a little more than a decade ago that researchers have begun to explore the possibilities, opening up entirely new fields of study like pharmacogenomics, which examines how an individual’s genes affect his or her body’s response to medications.

As for personalized medicine—including prevention, diagnosis, and treatments designed with and for your genetic data—that remains on the horizon. But, some breakthroughs are already happening in the field of cancer treatment. In fact, Personal Genome Diagnostics, a Baltimore-based company that does cancer patient genetic work, received a \$21.4 million venture capital investment last fall, indicating exciting things to come.