# FUTURE MEDICINE

*Prescriptions for 21st Century Healthcare from Futurist, Jim Carroll*

## THE EMERGENCE OF PERSONALIZED MEDICINE:

*A fundamental and significant shift in healthcare philosophy and medical research is occurring – from a world in which we "react" to disease and illness after it has happened, to one in which we will be doing far more in advance to "prevent" specific health care problems. The driver for this massive change is the emergence of extremely specialized and highly personalized medical treatments based upon your own particular DNA.*

## SKILLS WARS:

*Hyper-growth in knowledge means that every medical profession is becoming ever more specialized and niche-oriented. Add to this the looming baby boomer retirement wave and declining numbers of medical graduates, and it's evident that the war for talent is going to drive much of the agenda of the health care industry in the next few years.*

## HOSPITALS GO VIRTUAL:

*A hospital today is a physical place; tomorrow, it will be defined by the reach of its virtual network of bio-connectivity devices. It will come to be thought of as an extended community network by which a good portion of its services are provided.*

## EXPONENTIAL KNOWLEDGE GROWTH:

*Medical knowledge is doubling every eight years; this is expected to drop to every two years in the near future. Leading edge research now results in new methodologies, treatments and drugs faster than ever before. For medical professionals, the future is all about "keeping up," and developing agility for rapid innovation, response, development, and implementation. For pharmaceutical and health care suppliers, it's about rapid development and faster time to market. The pace of innovation and discovery is picking up.*

## BIO-INFORMATICS TAKES CENTER STAGE:

*Microsoft estimates that at least 50,000 people worldwide are now working in the field of bio-informatics – a field that involves the development of the highly sophisticated computer databases and computational methodologies that analyze a patient's DNA – a development that is critical to our migration into the era of personalized medicine.*

## DRUGS GET SMART:

*In the next few years, medical packaging will become smarter as it plugs into your home network. Your pill bottle with provide you advice on how the medicine will be used and when it should be taken. A few years after that, medicine itself will become intelligent: an in-home bio-monitor will analyze the effectiveness of the treatment, adjusting the dosage up or down as appropriate.*

## FEEL SICK? IT'S QUICK!

*Customer service is coming to the health care industry faster than you might think, and nothing will ever be the same. Pioneers such as Minute-Clinic (with the tag line, "You're sick, we're quick") are rapidly redefining the delivery of health care. Once "patients" become "customers," their expectations of their family doctor and local hospital will have forever changed.*

## CARBON-COMPOSITES AND YOU!

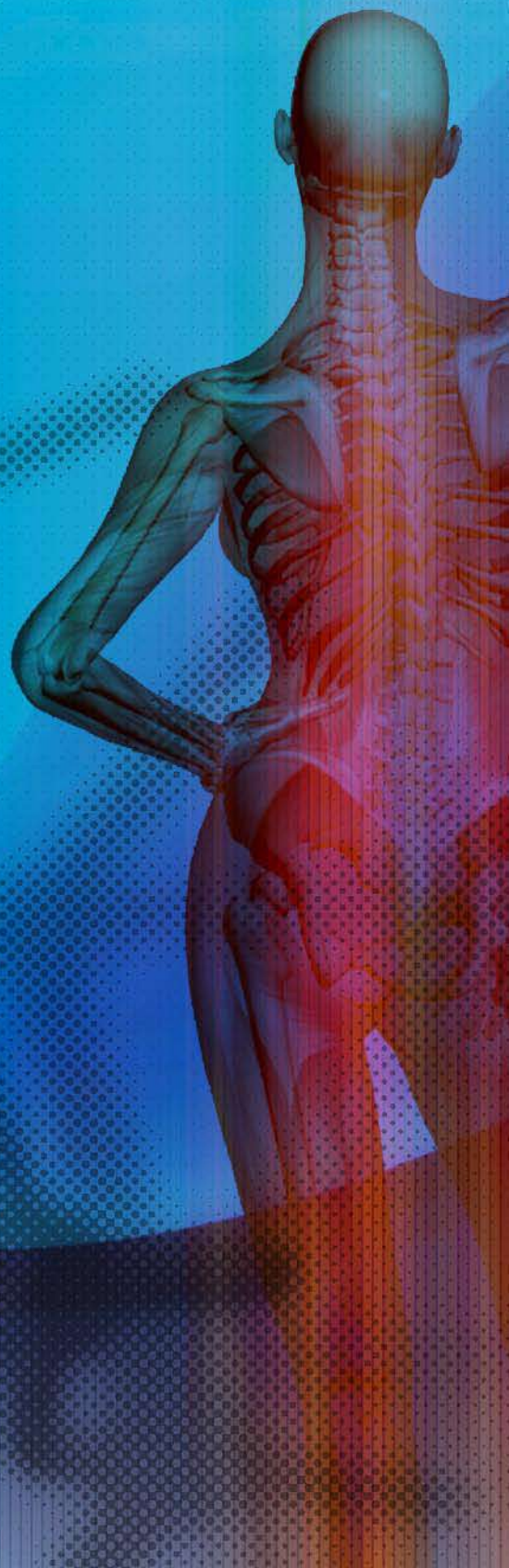
*Hip replacements are going hi-tech! By the time you reach the age of 72, you might find that up to 10% of your bone structure is made up of composite carbon fiber structures. The world of bio-materials is set to evolve at a furious pace as the science of golf-clubs comes to personal body structure re-engineering.*

## ATTITUDE CHANGES:

*The entire medical system is set to be transformed with the entrance of GenConnect (those born after 1990) into the health care system. As they take on careers as medical professionals and administrators, they will bring with them a flood of new ideas, innovation and different ways of thinking. Health care institutions currently clogged with organizational sclerosis cannot keep pace with today's demands. But GenConnect's aggressive attitude towards change will quickly break down this sclerosis.*

## BIO-CONNECTIVITY BECOMES THE NEXT BIG THING:

*A flood of highly intelligent, Internet-connected medical devices enters the health care industry, providing new opportunities for monitoring and managing difficult health care conditions. A furious pace of innovation comes to dominate the healthcare device and medical technology industries.*



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