



## Healthcare and Life Sciences in the Year 2020: Mechanisms for Patient Empowerment

A lot has changed since our founding in 2001, in medicine and in other fields that influence medicine. The mapping of the human genome; the passage of the Affordable Care Act; stem cell research; and, the growth of targeted therapies tailored to specific patients are just a few of the significant developments that come to mind. Add to these the invention of Facebook and Twitter (we know, it's hard to believe that neither of these existed 14 years ago); the ascendance of Google and Wikipedia; and, our ability to find patterns in millions of pieces of data streaming in from different sources (Big Data), to infer everything from likely romantic partners to the probability of contracting disease.

ACP's success in accelerating the discovery of a cure for MS depends on our ability to understand *and anticipate* future changes in healthcare and biomedicine—to stay ahead of the curve. To that end, we recently turned our attention to a provocative new report from global consulting giant Deloitte, titled, “Healthcare and Life Sciences Predictions 2020.” And, while the report contained plenty of ideas that challenged and inspired us, we were also pleased to discover that ACP's programs *already* track several important future trends that Deloitte identifies. For example, the report predicts that:

*“Informed and demanding health consumers will be active partners with providers in their own healthcare. Online patient communities will have grown exponentially and will be rich sources of crowd-sourced data, with rating systems for drugs and healthcare provision.”*

Launched in the fall of 2014, ACP's Patient-Powered Research Network, iConquerMS™, is already making this description a reality for thousands of people with MS. Social media has played an important role in building the iConquerMS™ patient community, reflecting Deloitte's unsurprising prediction about modes of communication and social organizing in the future. Deloitte also goes a step beyond this in anticipating widespread utilization of social media by healthcare organizations:



*“Healthcare organizations will engage with patients through social media, regularly gauging their needs and driving them to appropriate products and services for their budget and healthcare requirements.”*

Some may regard this as a dream, others a nightmare. Still, there's no question that healthcare providers are preparing to embrace the use of social media in the near future. A few already have. At the launch of iConquerMS™ last year, Dr. Farris Timimi, a cardiologist from Mayo Clinic, described Mayo's establishment of a Center for Social Media to coordinate and focus Mayo's various social media initiatives and programs. The Center employs 7 professionals full time. Mayo wants patients to become better advocates for their own care by using social media tools to get the best information, connect with providers and with each other, and inspire healthy choices.

*“Big data will be pervasive—requiring new tools and provider models. New data driven competitors will disrupt the research & development model with a focus on data and outcomes, as opposed to the science only.”*

The requirement that the many scientists who use patient biosamples from our Repository return their results to ACP's Repository database is generating, dataset by dataset, truly Big Data on the MS patient population. Dr. Raji Balasubramanian of UMass Medical Center in Worcester and Dr. Ken Buetow of Arizona State University are already in the process of analyzing the ACP data, using new tools developed for Big Data analyses. These collaborations are just a start for ACP in extracting new discoveries from a growing database that includes extensive patient clinical information and data that has been returned from investigators who have used the ACP patient samples. With our focus on finding a cure, ACP is poised to play exactly the role Deloitte predicts will be in demand.

*“In 2020, research and development (R&D) will have few boundaries; the R&D model will be networked, built around academic and other partnerships. The share of ‘in-house only’ discoveries will be at an all-time low. Networked R&D will combine pharmaceuticals and technology with increased patient engagement to prevent and treat disease.”*

In other words, the healthcare and life sciences industries will have embraced the Open Source model upon which ACP was built, and will openly share their discoveries. And while that may not yet be true across the board, we believe it will be soon. In the meantime, the rules of ACP's Repository, that require sharing of outcomes and data, serve to break down barriers and create virtual collaborations among researchers.

We have peered into the future and discovered that our efforts over the past decade have been well in advance of what Deloitte envisions happening by 2020.