



“Parkinson’s patients and the deaf already can have computerized devices implanted. By the 2030s this will become ubiquitous. Computers will be small enough to enter our brains noninvasively through our capillaries. One application will be to extend our neocortex (the region of the brain where we do our thinking) in the cloud, just as today I can extend the intelligence of my smartphone in the cloud.”

—Ray Kurzweil, futurist and a director of engineering at Google

“In 10,000 years or more, I would expect to see less differentiation among global populations. I don’t think a new species of humans will arise since our culture evolves more rapidly than our genes.”

—Sarah Tishkoff, population geneticist at the University of Pennsylvania

“The most obvious driver of physiological evolution in the future would be human manipulation of genes to favor certain characteristics—if we could learn to do that. The first thing we would do is try to get rid of the baggage that evolution left us with—so the diseases and disorders linked to aging bodies would probably be our first targets.”

—S. Jay Olshansky, biodemographer at the University of Illinois at Chicago



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# WHERE WE ARE GOING

WE ASKED leading scientists how they think humans will evolve in the future. Here is what they had to say. For more expert commentary, go to [ScientificAmerican.com/sep2014/predictions](http://ScientificAmerican.com/sep2014/predictions)

"Evolution is incessant, and humans, like every other life-form on earth, are evolving and will continue to evolve; however, nobody knows what humans will become other than maybe going extinct. Evolution has its own ways that no one can predict for sure."

—Yohannes Haile-Selassie, paleoanthropologist  
at the Cleveland Museum of Natural History