



## **Dan Barry, MD, PhD**

**Former Astronaut**

**President and founder, Denbar Robotics**

Dan is a former NASA astronaut and a veteran of three space flights, four spacewalks and two trips to the International Space Station. He retired from NASA in 2005 and started his own company, Denbar Robotics that creates robotic assistants for home and commercial use, concentrating on assistive devices for people with disabilities.

He received numerous honors. A few of them are the following:

2000 and 2002 NASA Exceptional Service Medals, 2001 Top 10 in the world career spacewalk hours, 100 Most Notable Princeton Graduate School Alumni of the 20th Century, Harvard Medical School Paul J. Corcoran Award and honorary doctoral degrees from Beloit College and St. Louis University. Dan is also a frequent speaker and has given keynote addresses to audiences throughout the world.

Dan's educational background includes a bachelor of science degree in electrical engineering from Cornell University in 1975; a master of engineering degree and a master of arts degree in electrical engineering/computer science from Princeton University in 1977; a doctorate in electrical engineering/computer science from Princeton University in 1980; and a doctorate in medicine from the University of Miami in 1982. He has seven patents, over 50 articles in scientific journals and has served on two scientific journal editorial boards. He has film and television experience as well, including roles in two documentary films and as a cast member in season 12 of CBS Survivor.

### **Adaption.**

Life adapts. It happens at every scale of size and time throughout the world. Dan uses examples from space flight and from CBS Survivor to show both how essential adaptation is to survival and how we can readily adapt to new environments and challenges. We respond within seconds to an emergency, becoming stronger, faster, seeing better, more awake and alert. On a longer time scale we learn skills, how to ride a bike or how to hit a tennis ball, and our minds and bodies respond with stronger muscles, greater coordination, smoother moves. On evolutionary time scales, species adapt to changing climates and varied environments. Adaptations make life remarkably resilient—there are creatures that live in alkaline lakes, in acid ponds, in undersea vents where there is no sunlight and temperatures reach hundreds of degrees. Humans have taken an extra step—we not only adapt mentally and metabolically, but we change our environment to make our lives more comfortable. We have even reached the point where we are able to affect the environment on a planetary scale and, while that may have negative repercussions for earth, it opens the possibility of someday walking on Mars in shorts and short sleeves. Adaptation is a universal phenomenon that is vital to survival for more than just biological organisms. Highly successful businesses that stop expanding, innovating, and adapting, lose vision and initiative and eventually wither away. The same pattern is true for individuals and for nations. Species expand or become extinct. Businesses grow or dissolve. Individuals develop and change or fade away. Nations adapt to change or stagnate and dissolve.