

KEYNOTE SPEAKER

A Conversation with Dr. Peter Diamandis



Peter Diamandis, Chairman and CEO of the X PRIZE Foundation.

Peter Diamandis is Chairman and CEO of the X PRIZE Foundation, which designs and launches large prizes to drive radical breakthroughs for the benefit of humanity. Best known for the \$10 million Ansari X PRIZE for private spaceflight and the \$10 million Progressive Automotive X PRIZE for 100-mpg-equivalent cars, the foundation is now launching prizes in exploration, life sciences, energy, and education. Diamandis shares a glimpse into his life, career, and hopes for the future. He will serve as the keynote speaker for ASM's 100th Anniversary Gala, taking place October 27 in Montreal.

As a child, what did you want to be when you grew up?

As a child of the 1960s, I became fascinated by two things—the Apollo program and Star Trek. I was enamored with the idea of being an astronaut and I especially liked the idea of bringing people with me into space. When I was 11 years old, I started giving lectures on space to my family members and friends, and became infatuated with the subject. One evening, I made a little theater for

my parents, grandparents, and sister and told them about exploring space. After the lecture, my dad gave me \$5. I realized then that there was money to be made in space! During high school, it was generally accepted that I would grow up to be a doctor like my dad. But, in my heart of hearts, I wanted to be an astronaut.

Tell us about your educational path.

I grew up in New York and attended a good public high school, Great Neck North. I then went to MIT and earned an undergraduate degree in molecular biology and a master's in aerospace engineering. I earned my MD degree at Harvard Medical School, as my parents expected me to. Because my passion has always been space, I launched three space-related companies while I was going to school. One was the International Space University, the world's leading graduate program for multinational and multidisciplinary study of space involving more than 30 nations and 140 graduates per year.

What is your greatest professional accomplishment so far?

Your biggest setback?

I think my greatest professional achievement is my work with the X PRIZE Foundation to open up the space frontier. Revitalizing the use of incentive-based competitions has really helped spur this. As far as setbacks, I launched a company called International Microspace Inc. in the early 90s, focusing on low-cost launch vehicles. Basically, we wanted to build a high-quality, low-cost rocket. Our results were only mediocre and we ultimately closed, but I sure learned a lot from the experience.

What do you see as humanity's greatest challenges over the next 20 years?

The grand challenges are still the same for humans, meeting basic needs for access to clean water, food, health care, and education. Right now, there are around 880 million illiterate people and disease is rampant in certain parts of the world. We need to find ways to solve these problems on a global scale.

Do you believe technology can help?

Technology is the only mechanism that can address these issues on a massive scale, because it can take what is scarce and make it abundant. One example is to create educational software that could run on any handheld device such as a smartphone or tablet. Children anywhere on the planet could become literate by learning through artificial intelligence on the device.

Any advice for the next generation of scientists and engineers?

The first thing is to pick a subject you are extraordinarily passionate about. If you focus on something you have a true passion for, and that you also find fun, you will have the motivation to do the hard work necessary to be successful.

Words to live by?

Here are two of my favorites: The day before something is a breakthrough it's a crazy idea. Patience is a virtue, but persistence to the point of success is a blessing.



Abundance, by Peter Diamandis and Steven Kotler, presents the idea that innovation can turn scarcity into abundance, and the opening story about aluminum illustrates this point. Once the most precious metal, aluminum was transformed by technological breakthroughs into one of the most abundant and affordable.