

Bioengineered ears win first place at World Technology Summit

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Lawrence Bonassar, associate professor of biomedical engineering, holds a 3-D printed artificial ear on which he collaborated with Jason Spector, associate professor of surgery and otolaryngology at Weill Cornell Medical College. The bioengineered ear won first place for health and medicine at the World Technology Summit. Credit: Lindsay France/University Photography

A method for bioengineering living human ears garnered a first-place award at the World Technology Summit in New York City, Nov. 15.

Lawrence Bonassar, associate professor of biomedical engineering, and

Jason Spector, associate professor of surgery and otolaryngology at Weill Cornell Medical College, were honored in the Health and Medicine category of the awards, which recognize innovative work "of the greatest likely long-term significance" for the 21st century.

The winners were announced at the World Technology Awards, which capped the two-day World Technology Summit conference, Nov. 14-15. The World Technology Awards have been called "the Oscars of the technology world" in part because of their peer-reviewed selection process. Winners become members of the World Technology Network (WTN) – a roster of organizations and individuals from more than 40 countries.

Bonassar and Spector's artificial ears employ 3-D printing and injectable gels made of living cells. These gels can be used to fashion ears nearly identical to a human ear. The replacement ears could be a novel solution for reconstructive surgeons to help children born with the absence or severe deformity of the ear. The ears could also help people who have lost part or all of their external ear to an accident or cancer.

The method of bioengineering [ears](#) is detailed in a study published earlier this year in the journal *PLoS One*.

Bonassar and Spector have been collaborating on bioengineered human replacement parts since 2007.

The World Technology Awards have been presented by the WTN since 2000 to honor people and organizations working in 20 different categories of science and technology and related fields. The 700 award nominees this year were submitted by former winners and finalists; research by the WTN staff; and from nominations from individuals and companies.

More information: More information and list of award finalists:
www.wtn.net/summit2013/winners.php

Provided by Cornell University

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