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## *Restoring the "Sound of Music"*

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Film and stage star Julie Andrews wants her singing voice back – and she has found hope through a collaborative research project involving the MGH. After an unsuccessful operation on her vocal cords in the 1990s, Andrews' singing career came to an abrupt halt because of vocal cord scarring. But now she has hope that she and others with similar damage may have their voices restored someday thanks to a group of researchers from the MGH, Massachusetts Eye and Ear Infirmary (MEEI), Harvard Medical School and the Massachusetts Institute of Technology (MIT).



*From left, Anderson, Zeitels and Andrews at a press conference announcing the project.*

The research team recently unveiled a new project focused on restoring damaged vocal cords using surgery, laser technology and tissue engineering. Dubbed the Voice Restoration Subsequent to Vocal Fold Scarring project, the initiative is funded by \$2 million in new grants. Leading this project are: Steve Zeitels, MD, of MEEI; Rox Anderson, MD, of the MGH Wellman Laboratories of Photomedicine; and Robert Langer, PhD, of MIT.

According to Anderson, an individual's vocal cords must strike together hundreds of times per second to speak or sing. A thin, specialized layer of tissue, called the superficial lamina propria (SLP) inside the cords, is needed for proper movement. Scarring from conventional surgery – as with Andrews – trauma or tumors can destroy the SLP. In a collaborative effort, the team aims to create tissue-engineered SLP at MIT with implantation at MEEI using laser imaging and microsurgery from the MGH. In addition to Anderson, MGH contributors to the project include Brett Bouma,

PhD, and Mariah Hahn of the MGH Wellman Labs, and Gary Tearney, MD, PhD, of MGH Pathology.

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