Challenge.gov
Government Challenges, Your Solutions

WINNER PROFILE

Meet: Andrew Brimer and Abby Cohen
Co-CEOs and Founders of Sparo Labs
St. Louis, Missouri

The Challenge: Design by Biomedical Undergraduate Teams (DEBUT)

The National Institute of Biomedical Imaging and Bioengineering, part of the National Institutes of Health, challenged student teams to design solutions that addressed critical needs in biomedicine, including technology for underserved populations and individuals with disabilities. The DEBUT Challenge is an annual competition held since 2012.

The Prize:

$10,000

The Solution:

The Washington University team designed a low-cost spirometer to address the dearth of devices to measure lung function for diagnosing and monitoring respiratory diseases in the developing world. It costs less than $10 — compared to traditional prices of $1,000-$2,000 — without sacrificing accuracy or precision.

For More About the Winner:

Abby Cohen
Phone: 248-520-4903
Email: abby@sparolabs.com

SUCCESS: IN THEIR OWN WORDS

How has participating in this challenge helped you advance your solution?

DEBUT provided a validation of our idea as well as the capital needed to move our project from a proof-of-concept to a fully functional prototype. The prize winnings helped us start our company, Sparo Labs, which now employs five full-time employees. We've entered 11 more grant competitions, winning nine, and have raised $1.3 million in funding. Recently, we demonstrated our flagship product, Wing®, at the White House. Our next milestones are completing the FDA clearance process and launching an Indiegogo Campaign to continue advancing development.

What is the impact of your solution for government, your community, and society?

Wing helps patients control their asthma or other respiratory condition using a powerful app and pocket-sized sensor that measures lung function. Patients instantly get accurate readings of their or their child's lung function. It aids in the early detection of asthma flareup to ensure they take the right medication at the right time for optimal breathing. Wing helps its users discover how various factors uniquely affect their lungs by tracking lung function, medications and triggers over time. By sharing a report with their care team, patients can work with their doctors to evaluate and develop the best treatment plan. Wing provides patients with actionable data and enables their care team to make more informed, personalized decisions about treatment and improve outcomes.

GSA