



1ST PATIENT INNOVATION AWARDS

Patient • Caregiver • Collaborator

A STATEMENT FROM THE PATIENT INNOVATION ADVISORY BOARD

“The Patient Innovation (PI) Awards are aimed at honoring all patients, caregivers and collaborators who have developed innovative solutions to cope with their health condition or to assist others they care about. **Over 200 innovations** were eligible and selecting the winners was an extremely difficult task as the innovations are all very good and inspiring. We are happy to announce the six winners of the PI Awards: In the category “patients”: **Lisa Crites (USA)** with the Shower Shirt, **Louis Plante (Canada)** with the Frequencer and **Tal Goleworthy (United Kingdom)** with the Exovasc. In the category “caregivers”: **Debby Elnatan (Israel)** with Upsee and **Joaquina Teixeira (Portugal)** with the helium balloons. In the category “collaborators”: **Ivan Owen (USA)** who has helped many patients get 3D-printed prosthetic hands.

Warm congratulations to all those who participated.”



Prof. Aaron Ciechanover
Technion-Israel Institute of Technology (Nobel Laureate in Chemistry 2004)



Prof. Eric von Hippel
MIT



Prof. Katherine Strandburg
New York University



Prof. Lee Fleming
University of California, Berkeley



Sir Richard Roberts
New England Biolabs (Nobel Laureate in Physiology or Medicine 1993)



Prof. Robert Langer
MIT

AND THE WINNERS ARE



Louis Plante (Canada)

INNOVATION
The Frequencer™
CONDITION
Cystic Fibrosis

Louis Plante's cystic fibrosis increases the risk of lung infections due deficient clearing of the mucus. He used to spend 4 hours per day doing kinesiotherapy (chest clapping) to alleviate this problem, until he noticed during a concert that the vibration of the speakers had the same positive effect. Using his background in electronics, Louis developed the Frequencer, a device that uses sound waves to help clear the lungs. After four years of R&D and clinical trials, the Frequencer is the first device to deliver low-energy resonant (acoustic) vibrations, reducing mucus viscosity and promoting mucus flow in patients with cystic fibrosis.



Lisa Crites (USA)

INNOVATION
The Shower Shirt™
CONDITION
Mastectomy for Breast Cancer

Lisa Crites was diagnosed with breast cancer. Following a mastectomy, she was advised to avoid showering in order to prevent infection through the drain sites. She then created a water-resistant garment, the Shower Shirt, to enable patients in a similar situation to shower normally and navigate these difficult moments with dignity. The Shower Shirt has obtained FDA approval and already crossed geographic borders to reach 36 countries.



Tal Goleworthy (UK)

INNOVATION
Exovasc®
CONDITION
Marfan Syndrome

Tal Goleworthy needed open cardiac surgery followed by anticoagulation drug for life due to Marfan Syndrome. He applied his engineering background and knowledge in piping and plumbing to work with his doctor address his own aortic problem with the Personalized External Aortic Root Support (PEARS). Since PEARS was first installed on Tal's heart 10 years ago, the device has been implemented in more than 45 patients to prevent aorta rupture.



Debby Elnatan (Israel)

INNOVATION
Upsee™
CONDITION
Cerebral Palsy

Debby Elnatan's youngest son was born with cerebral palsy. Although he could not move or participate in family walks, Debby did not give up. She tried different ways to “link him” to her through straps, leading to Upsee. With Upsee, her son is now able to “walk” like other children and can participate in family activities. Upsee helps children with similar conditions to participate “in their own way” in social gatherings.



Joaquina Teixeira (Portugal)

INNOVATION
Helium Balloons
CONDITION
Angelman Syndrome

Joaquina Teixeira's son, Gonçalo, has Angelman Syndrome, which is characterized by developmental delay, lack of speech, seizures, and psychomotor problems. Although 6 years old and able to walk, Gonçalo refused to stand. One day Joaquina noticed that the helium balloons at a party attracted her son's attention and made him want to reach them. That very day, she placed helium balloons all over her own house and watched Gonçalo jump and walk to reach the balloons.



Ivan Owen (USA)

INNOVATION
3D Printed Prosthetic Hand
CONDITION
Amputees

Ivan Owen, an artist and prop maker, posted one of the “mechanical hands” he created on YouTube. A carpenter from South Africa that had lost fingers in a sawing accident contacted Ivan and asked him for help in designing and building a low-cost prosthetic hand. Ivan accepted the challenge and also developed low-cost 3D-printed prosthetic hands for children. He later shared the digital files used to produce the parts in a 3D printer. His work inspired a large and growing network of volunteers and “makers” committed to making a difference (e.g., e-NABLE).

THE PI AWARDS CEREMONY JULY 10, 2015

Patient Innovation (PI) is a nonprofit, international, multilingual, free venue for patients and caregivers of any disease to share their innovations. PI is an initiative by Católica Lisbon School of Business and Economics in collaboration with Instituto de Medicina Molecular (IMM).