

Making a Difference Through Equipment Donations

Seeding Labs Donation Case Studies

Seeding Labs receives equipment donations from a variety of sources, including universities; small, local labs; and multinational biotech and biopharmaceutical firms. These organizations often identify equipment for donation when cleaning out storerooms and making room for current projects. One organization's surplus is another organization's treasure, as indicated in these examples of how scientists have benefited from equipment donations.

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Professor Gikonyo's first class of pharmacy students at Kenyatta University.

Making a Difference Through Equipment Donations

Case Study :: Congo

Scientist Profile:

Scientist: Dr. Samuel Mampunza
Institution: Universite Protestante au Congo, Kinshasa,
Democratic Republic of Congo
Challenge: Post-secondary science education for medical students



The Impact of Donated Equipment:

A country's healthcare system is an indication of that country's general health, and in the Democratic Republic of Congo there are fewer than 5,000 accredited doctors in a country almost four times the size of Texas. With a woefully understaffed healthcare system, the Congo Protestant University, a private university committed to values of quality teaching, African leadership, and transparent business practice, recognized the needs of the country and drew up ambitious plans for a medical school. Their plans came to fruition in the fall of 2007 when they opened their doors and welcomed 200 aspiring medical students, including 100 men and 100 women. The Dean of the newly formed medical school, Dr. Samuel Mampunza, wanted his students to have a firm grounding in the basic sciences, so he required two additional years of mandatory preparatory coursework before his students even began their medical training.

Despite their ambitions and careful planning, there was simply no way Dr. Mampunza could afford to outfit his academic facilities with the proper equipment needed to prepare his students for the rigors of healing their fellow countrymen. Since opening the doors of the Congo Protestant University's Medical School, Dr. Mampunza has worked with Seeding Labs to receive donated laboratory equipment for their pre-med physics, chemistry and biology courses. Dr. Mampunza is thrilled with the outcome: "With laboratory equipment received we have been able to organize and carry out practical lessons in Biology, Chemistry and Physics."

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Case Study :: Chile

Scientist Profile:

Scientist: Dr. Maite Castro Gallestegui
Institution: Universidad Austral de Chile, Valdivia, Chile
Research topic: The interaction between neurons and glia cells



The Impact of Donated Equipment:

In December 2007, an electrical fire destroyed the Biochemistry Institute of the Universidad Austral de Chile, devastating Dr. Maite Castro's lab and the labs of seven other senior scientists and their more than 90 trainees. The high-cost of rebuilding the facilities did not allow for the proper outfitting of Dr. Castro's lab, prohibiting her and her trainees from continuing their research on the interaction between neurons and glia cells. With her lab gone, the question of why the research needed to continue had to be answered. Dr Castro's answer showcased the type of curiosity and desire that fuels scientific discovery all around the world: "I always thought it amazing that two cells can 'talk' and this 'conversation' is the basis for the regulation of events that are important in the whole organism. The long term goal of my research is to apply this knowledge to the study of neurodegenerative diseases. I am proud of my students. They do experiments every day with much enthusiasm and little money."

In June 2008, Seeding Labs sent Dr. Castro and her colleagues' equipment to rebuild and re-stock their labs. This equipment came from a Boston-based biotech company that was doing a long-needed clean-up of its labs. Thanks to the donations coordinated by Seeding Labs, Dr. Castro and her trainees her research continues today. The biotech company that provided the equipment was able to free up lab space and declare a significant charitable donation on its taxes.

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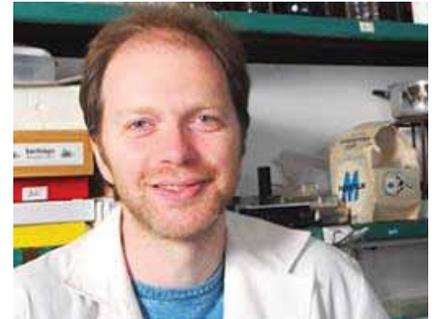


Making a Difference Through Equipment Donations

Case Study :: Argentina

Scientist Profile:

Scientist: Dr. Diego Golombek
Institution: National University of Quilmes, Buenos Aires, ARG
Country: Argentina
Research topic: Circadian rhythms



The Impact of Donated Equipment:

In 1999, Argentina's National University of Quilmes opened the doors of a lab lead by Dr. Diego Golombek to answer the question: "What does light tell the biological clock in neurochemical and molecular terms?" Dr. Golombek describes the circadian rhythms research done by himself and his team by saying, "In contemporary society we literally work against the clock which certainly results in a lower quality of life and higher incidence of illness. The results of my work will help the increasing population of shift workers, airline passengers suffering from jetlag, people with circadian sleep disorders, blind people, and students."

Their small lab was paired with a small budget of \$55,000 to buy the necessary equipment and supplies to conduct their research, an astonishingly low amount considering the price of lab and analytical equipment. As a result, Dr. Golombek was unable to conduct his research as efficiently as he would have liked, and the lack of proper equipment was impeding his group's progress. Fortunately, in 2006, he linked up with Seeding Labs. According to Dr. Golombek, "The equipment from Seeding Labs helped me to perform experiments in a more comfortable way and to realize that it is possible to find solidarity in science."

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Making a Difference Through Equipment Donations

Case Study :: Chile

Scientist Profile:

Scientist: Dr. Claudio Hetz
Institution: University of Chile, Santiago, Chile
Research topic: Treatment and clinical studies of HIV/AIDS and Creutzfeldt-Jacob disease



The Impact of Donated Equipment:

In March of 2007, Dr. Claudio Hetz opened his new laboratory as an Assistant Professor at the University of Chile. The purpose of this new lab facility was to provide treatment and continue clinical studies focused on HIV/AIDS. However, the research conducted at Dr Hetz's lab changed when it was discovered that the incidence rate of Creutzfeldt-Jakob disease in Chile was double that of the rest of the world. Even more troubling than the high incidence rate of this degenerative neurological disorder, was the fact that no other lab in Chile was researching the cause for their dangerously high rate. Dr Hetz's lab answered the call and collaborated with Chilean hospitals to analyze samples from patients affected with the disease, and perform gene therapy. Dr Hetz and his team of trainees could barely even begin to conduct the necessary research since they were lacking the start-up packages common to beginning professors in the United States. Dr. Hetz and his team depended almost entirely on the charity and aide of colleagues worldwide, and equipment from Seeding Labs.

In 2009, only two years after he received equipment from Seeding Labs, Dr. Hetz's lab was training 22 scientists—including four post-doctoral students, eight graduate students, and three undergraduate students. By 2009, the lab was progressing in their research, and was being acknowledged by their peers. Since then, Dr Hetz has been awarded the TWAS-ROLAC Young Scientist Prize from the Latin-American Science Academy for the best young scientist in Latin America and the Caribbean.

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Making a Difference Through Equipment Donations

Case Study :: Argentina

Scientist Profile:

Scientist: Dr. Hector Ricardo Morbidoni
Country: Argentina
Research topic: Evolution of drug-resistance in tuberculosis



The Impact of Donated Equipment:

In 2003, Dr. Ricardo Morbidoni completed a post-doctoral fellowship at the prestigious Albert Einstein College of Medicine and prepared to return to his native Argentina to study drug-resistant tuberculosis-- a disease that affects thousands of his countrymen, and hundreds of thousands of people in the developing world each year. Making the transition from the Albert Einstein College of Medicine to his facility in Argentina was tough to say the least. Upon his return he continued his research, working out of an almost empty room and improvising equipment as best he could. Dr. Morbidoni even rigged up a functional incubator out of a used refrigerator— dubbing his creation a “fridgecubator.”

“I returned from the USA in 2003,” described Dr. Morbidoni. “At that time, Argentina was in its worst economic crisis ever. I was unable to start working. I contacted Seeding Labs and obtained equipment and consumables. Ten thousand dollars turned into equipment worth almost sixty thousand dollars.”

Today, Dr. Morbidoni works out of a fully functioning laboratory, receives funding from American agencies to continue his tuberculosis research, collaborates with colleagues in the US and France, trains students, and has published data in international journals. Best of all, he reports: “We have implemented a method for rapid determination of drug resistance in tuberculosis. The method shortens from 45 days to 4 days the time required and will be added to our public health service that provides coverage to a population of 1,000,000 people.”

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