



## October 2009 Newsletter

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### Introduction

I hope this newsletter finds you happy and in good health. Thank you for voting for us and the landmine issue in the Google 10<sup>^</sup>100 Race! We are grateful for your support and for sharing this incredible opportunity with your friends. The polls closed at the end of the day on October 8th, and we will let you know when we hear back from Google. Again, many thanks for your participation and support.

Last month, 20 rats passed their final tests in landmine detection and 50 patients were detected by our TB detection rats after being missed by microscopy!

APOPO is proud to announce that the Tanzanian National Institute for Medical Research has granted us permission to access the HIV status of the patients we screen for TB. We requested this authorization to look into TB/HIV co-infection, and see if our rats can play a role in early detection of

these patients, which is crucial! This will allow us to take great leaps toward detecting TB in co-infected patients, and we hope to play a role in early detection and save more lives with this knowledge.

Take a look at our interview with Field Manager and Trainer Mark Shukuru and read the article on our breeding program for more information on where our HeroRATs come from! Again, we thank you for your constant and continued support!

### **Thank you for your support in Google's 10<sup>100</sup> Project to Save the World!**

Exciting news: out of 154,000 organizations Google selected APOPO's HeroRATs as one of only 67 finalists in their 10<sup>100</sup> Project to save the world! Last week, supporters had the option to vote for "landmine removal" at Google's site and vote for supporting APOPO! With your votes we hope to win this competition and dramatically increase the scope of our work and the number of lives we touch. Thank you for your dedication and for voting for our HeroRATs!

### **APOPO granted HIV clearance to study relationship with TB**

APOPO is pleased to announce that the Tanzanian National Institute for Medical Research has approved our request to study the HIV/TB co-infection rates in the (anonymous) patients we currently screen for Tuberculosis. Early detection and treatment of Tuberculosis is essential, but it is especially pressing for people infected with HIV. HIV patients are more likely to develop TB than other people and in sub-Saharan Africa, and TB kills more people who are HIV-positive than any other disease! Furthermore, HIV and TB are common co-infections and patients cannot start the drugs for TB and HIV at the same time. If we can detect these patients earlier, they have the possibility of starting the course of drugs to treat the TB, before they begin their HIV treatment regimen.

Our initial research goal is to determine whether our HeroRATs are more sensitive than microscopy in detecting TB in HIV-positive patients. Subsequently, we intend to fine-tune our assessment procedures to maximize the likelihood of detecting TB early in HIV-positive patients. Early detection

will maximize the probability of effectively treating TB in this highly vulnerable segment of the population and will thereby reduce the likelihood that they will succumb to the joint burden of two highly infectious diseases.

### **Founder Bart Weetjens speaks at Lisbon Forum on Social Entrepreneurship**

Bart Weetjens, APOPO's founder, was an honorary speaker at the Lisbon School of Business Forum on Social Entrepreneurship on September 11, 2009. He had the honor of speaking before 30 MBA Students, press and academics at the University of Lisbon in Portugal about social enterprise. Typically, the Lisbon MBA attracts students with several years of professional experience in various industries, who then re-invent their careers. This is the perfect time to be exposed to social enterprise, the rewards of a socially-oriented business and the challenges, which are in many ways similar to those of any business. Bart shared his experiences with APOPO, and encouraged the students to dare to dream, and take the risks to make their dreams a reality.

### **Twelve new HeroRATs – Reflections on our breeding program**

APOPO has been breeding Gambian Pouched rats since 1998, when our first pups were born. Since then, our breeding program has overcome many challenges and gone through a lot of change! This month we are glad to report that twelve baby rats were born in our captive breeding program!

APOPO's initial attempts at breeding and training Gambian Pouched rats began in Belgium in 1998. Bart and Christophe were sent 10 rats from a colleague at Sokoine University of Agriculture's Pest Control Center. These rats were caught in the wild in Tanzania and sent to Belgium. Within a year, APOPO had its first captive-born, and hence trainable, rats. These two rats, Onzo and Louise, as well as six more born later that year, began their initial training to prove the concept that giant African pouched rats can discriminate explosive scents.

In 2000, when APOPO moved to Morogoro, Tanzania we brought with us captive, Belgium-born rats and set up an indoor breeding facility. We trapped more wild rats from nearby farms, orchards, and the river and paired these rats, one male and one female per cage. These initial attempts at breeding

were somewhat successful, but we felt we could do better.

In 2006, we built outdoor breeding cages to allow the rats to live a more natural environment. These large cages with dirt floors and filled with natural materials allow the rats to play and exercise, as well as to burrow as they do in the wild. Furthermore, we began feeding our breeding rats more maize and wheat, similar to what they were taking from farms in the wild. In each breeding cage we put one established male and two female rats. Every month, HeroRAT caretakers Mama Lucy, Asnati and Albert dig out their burrows and check for pups. Then they move the mother and her litter inside and put another female back in the breeding cage in her place. Depending on the pups' ages, they stay with their mother for further nursing or begin their training once they have opened their eyes.

Since instituting these changes in 2006, APOPO's breeding program has seen a significant spike in the number of offspring. Our mothers are producing several healthy pups every month for our landmine and TB detection programs. Our breeding success contributes to the sustainability of our program and allows us to increase the number of HeroRATs capable of saving lives.

### **Interview with Field Manager Mark Shukuru**

Mark is a long time employee of APOPO and has been working for us since 2002. He grew up near Sokoine University in a village called Magadu. Mark's family are subsistence farmers; they have cultivated crops on the slopes of the Uluguru mountains for generations. Mark grows maize and bananas and raises chickens. He is married and has one daughter, and his mother still lives nearby. His mother tongue is Kiluguru, the main language around Morogoro, and he also learned Swahili in primary school, English and a bit of French in secondary school. Others from his village were already employed at APOPO, so when we started planning to expand the landmine training field in 2002, Mark heard about the opportunity and joined the team to help survey the field.

These days Mark does much more than tend the field. He is responsible for its maintenance including keeping it well marked, free of debris and cutting the vegetation. Each morning before dawn he comes to the office to prepare the

rats for the field and once there he trains eight landmine rats along with his partner Claude. Later in the day, back at the office, he assists with the training of REST rats in the square cage set-up and maintains the database, entering training and test results.

When Mark first heard about APOPO, he thought it was impossible that people could be training rats to detect landmines! He was very surprised when he found out it was true! He's glad that many people in Europe and America are starting to hear about the HeroRATs and he hopes this will happen more in Africa where people have less access to the internet. Perhaps more local people will be interested in visiting APOPO and learning about our work. Mark is excited about all of APOPO's growth and hopes it will continue so that we can save even more people. Furthermore, he really enjoys working here because everyone is close. He says if you need help or have a problem, you always get an answer right away. He thinks he'll be with APOPO forever.

### **Support APOPO's Work**

APOPO's staff and HeroRATs are working hard to save lives and limbs from disaster and disease. For information about the work we are doing, or to contribute to the HeroRATs cause, please visit [www.herorat.org](http://www.herorat.org).