

jewish heart for africa

Project Sol to Integrate Lass Water Sterilization Technology

NEW YORK, April 12, 2010 -- Jewish Heart for Africa (JHA), a 501(c)(3) nonprofit organization, through its Project Sol initiative plans to utilize the UUF (Upcycled Ultrafiltration Filter) in an upcoming river water pilot project in Africa. UUF is an emerging new water sterilization technology developed by Dr. Yoram Lass of the Sackler School of Medicine at Tel Aviv University.

Lack of safe water and proper sanitation techniques are a root cause of disease, hunger and poverty in Africa's developing nations. Project Sol provides Israeli technologies to power African schools, medical clinics and water pumping systems. By utilizing this technology Project Sol aims to provide viable water sources, eliminate environmental waste and support healthcare in villages in Uganda, Tanzania and Ethiopia.

Lass's technology, still in the research and development stage, uses hollow fiber "artificial kidney" dialyzers. These dialyzers are used as high-grade ultrafiltration (UF) filters, which are typically discarded after a single medical use. The new technology proposes to gain additional benefit from the disposed "artificial kidney" filter, by re-harnessing its ultra filtration capacity for treating water. This "upcycling", is a new approach that eliminates the environmental issue of medical waste and provides an affordable filtration technique.

The planned use is for Project Sol solar panels to provide electricity for a water pump. The pump will draw water from local rivers and produce 3,500 liter/h of pressurized water (up to 1.5 bar). The pressurized water would filter through the UUF membranes, leaving pathogens behind and produce sterile drinking water.

"We are excited to work with Dr. Lass. In these areas, water that is available is often used for bathing, washing clothes and drinking and so present a health concern. This important new technology can have an immediate and life-changing effect in African villages where local river water is either contaminated, insufficient or non-existent," says Project Sol Founder and President Sivan Borowich-Yaari.

Ultrafiltration (UF) is a separation process using membranes with pore sizes in the range of 0.1 to 0.001 micron. Typically, UF will remove high molecular-weight substances, colloidal materials, organic and inorganic polymeric molecules and pathogens. After cleaning and recycling the dialyzers using the US standard ANSI/AAMI/RD47, UUF technology eliminates water borne diseases and pollution making unfit water available for drinking and other uses. The low cost of the recycled UUF is ideal compared with most expensive commercial applied membrane and hydranautics filters.

“This new approach (UUF) can provide affordable pathogen free water in developing countries. UUF can help fighting water bound diseases and water pollution and make unfit water usable for selected water uses. UUF can reduce mortality and morbidity due to enteric diseases in developing countries,” says Dr. Yoram Lass.

About Professor Yoram Lass

Dr. Yoram Lass is an Israeli physician and former politician who served as a member of the Knesset for the Labor Party between 1992 and 1996. Born towards the end of the Mandate era, Lass earned a doctorate in medicine at the Hebrew University of Jerusalem. He worked as a lecturer, and became vice-Dean of the Tel Aviv University Medical School. During the 1980s he presented the science-based television show Tatzpit with Yael Dan. He later became Director General of the Health Ministry. A member of the Labor Party, he was elected to the Knesset on its list in 1992. He chaired the Health Subcommittee until 1996. After leaving politics he returned to teaching and currently is a professor at the Department of Physiology and Pharmacology Sackler School of Medicine at Tel Aviv University.

About Project Sol

Project Sol, a Jewish Heart for Africa initiative, provides Israeli solar technologies to power African schools, medical clinics and water pumping systems. Since its launch in 2008, Project Sol has brought power to over 100 thousand people living in Ethiopia, Tanzania and Uganda. Through the purchase of Israeli renewable technologies, Project Sol supports high tech Israeli job creation and provides the building blocks for microeconomic development and improved education and healthcare in Africa. Project Sol is online at www.jhafrica.org.

Contact: Mimi Fellner
Jewish Heart for Africa
212-710-6426
media@jhafrica.org