

# ISRAEL MATTERS!

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## Israel Absorbs Georgian Refugees From War

## Israel and US Agree to Deploy Radar Defense System

Israel and the US have agreed to deploy an early-warning missile radar which would be linked to a US satellite-based alert network, Ha'aretz reported.

The radar is to be placed in the Negev desert in southern Israel and manned by US personnel from the US European Command, the daily said.

The Israeli defense ministry would not comment on the report.

The system could double or even triple the range of identification, which would be particularly useful should Iran launch an attack on Israel. It was reported the radar will be operational in early 2009.

The US satellite system will increase the range of Israel's early-warning system to 2,000 km from the 800 to 900 km of the country's current system. It would be a component of Israel's Arrow anti-missile network.

Israel regards Iran as its biggest current existential threat, given Tehran's nuclear ambitions and President Mahmoud Ahmadinejad's repeated assertions that it should be erased off the map.

The distance between the two countries is about 1,600 km.

The agreement to deploy the system resulted from discussions between Israeli military Chief of Staff Lieutenant-General Gabi Ashkenazi, and his US counterpart, Admiral Mike Mullen, and by civilian defense leaders of both countries.

A total of 75 new immigrants fleeing the conflict between Georgia and Russia arrived in Israel with most of them settling in the cities of Bat Yam and Ashdod.

The Immigrant Absorption Ministry approved an assistance package for the newcomers that will include Hebrew schooling, employment offers and subsidized rent. Underprivileged immigrants will also receive a grant of several thousand shekels. According to the Jewish Agency, some 120 additional Georgians are preparing to immigrate to Israel within the coming

months.



The Memisashvili family

The Memisashvili family abandoned its home in the Georgian capital of Tbilisi for the safety of Israel. Vaj'a and his wife, both in their thirties, and their two children, aged 3 and 8, have taken up residence in Kibbutz Messila in northern Israel as part of a collaborative program between the Jewish Agency and the Kibbutz Movement. "I feel like I've come home," said a proud

Vaj'a. "Here, I am not afraid of a war starting. As an Israeli citizen I will do whatever is necessary to defend the homeland. I feel like we've come home, and I know everything will work out for the best."

The kibbutz, he says, has welcomed his family with open arms. "I have a lot of family in Israel, and I heard stories of when they first immigrated, I was surprised by the way people responded to us. They come over, they visit, they bring us clothes and things for our home, and we were even invited over for Shabbat dinner. It warms the heart."

Natia Zurshvili, a single mother of two, was a resident of Gori. The town became the epicenter of the violent clashes between Russia and Georgia. "Our house was bombed, almost all of it collapsed," she said. Zurshvili and her children were staying at an absorption center in Ashdod along with her sister and her sister's family. "We came with nothing, not even a change of clothes," recalled Natia. "It's hard to describe the hell we've been through."

In the coming days Zurshvili is expected to move into a larger apartment along with her children and mother, and she has been declared eligible for the welfare grant. "I'm still in shock because of everything that's happened," she said, "but I hope we'll manage. I'm an accountant, I hope I can find work and make a living here."

#### ISRAELI NEWS FROM SCIENCE AND TECHNOLOGY

#### Exoskeleton Suit Helps Paralyzed Walk

Former Israeli paratrooper Radi Kaiof, paralyzed for the past 20 years, now walks down the street with a dim mechanical hum. That is the sound of an electronic exoskeleton moving the 41-



year-old's legs and propelling him forward -- with a proud expression on his face -- as passersby stare in surprise.

"I never dreamed I would walk again. After I was wounded, I forgot what it's like," said Kaiof, who was injured while serving in the Israeli military in

1988. "Only when standing up can I feel how tall I really am and speak to people eye to eye, not from below."

The device, called ReWalk, is the brainchild of engineer Amit Goffer, founder of Argo Medical Technologies, a small Israeli high-tech company. Goffer himself was paralyzed in an accident in 1997 but he cannot use his own invention because he does not have full function of his arms.

ReWalk helps paraplegics - people paralyzed below the waist - to stand, walk and climb stairs. The system, which requires crutches to help with balance, consists of motorized leg supports, body sensors and a backpack containing a computerized control box and rechargeable batteries. The user picks a setting with a remote control wrist band -- stand, sit, walk, descend or climb -- and then leans forward, activating the body sensors and setting the robotic legs in motion." It raises people out of their wheelchair and lets them stand up straight," Goffer said. "It's not just about health, it's also about dignity." The ReWalk is in clinical trials in Israel and will soon be in trials at the Moss Rehabilitation Research Institute in Pennsylvania.

# Scientists Unveil Mini-Robot for Travel Through Bloodstream

Scientists at the Technion University, teamed with a researcher from the College of Judea and Samaria, have developed a miniature robot that can move within the bloodstream.

"For the first time a miniature robot has been planned and constructed, that has the unique ability to crawl within the human body's veins and arteries," said Dr. Nir Shvalb of the College of Judea and Samaria. "The robot will be able to crawl against the bloodstream with a force typical of blood vessels within the body without any problem, which has not been possible before."

Oded Salomon, a researcher at the medical robotics lab in the Technion's engineering faculty, added that the miniaturization achievement is unprecedented, as is the ability to control the robot's activity for unlimited periods of time, for any medical procedure. For comparison, the diameter of a similar robot developed by researchers at Kyoto University is one centimeter. The Israeli robot's diameter is one millimeter.

The new robot consists of a hub from which tiny arms stretch out, allowing the robot to strongly grip the vessel walls. The operators can manipulate the robot to move in increments, and its special structure allows it to crawl within a variety of vessels with differing diameters. Blood vessels have differing diameters, making it essential for the robot to be able to adjust accordingly.

### **Drug Offers Hope To Cystic Fibrosis Patients**

An experimental drug designed by Hadassah Medical Organization researchers has proved successful in clinical studies for treating cases of the incurable genetic disease cystic fibrosis (CF). The success of the Phase II trial was announced by Hadassah in Jerusalem and PTC Therapeutics in the US. The drug helps to "rescue" the faulty proteins that lead to CF and other illnesses. The drug holds promise in treating more than 2,400 genetic diseases caused by a certain class of DNA mutation.

CF affects the mucus glands of the lungs, liver, pancreas and intestines, causing progressive disability due to multisystem failure. Most CF victims die in their 20s and 30s from lung failure, but some survive to 40 or 50 years due to lung transplants and other treatments.

Twenty-three adult CF patients, the vast majority of whom have a severe form of the disease with poor respiratory and pancreatic function and recurring lung infections, took part in the Phase II trial. The patients had increased production of the missing protein and more than half reached a normal level after the first two weeks. Their lung function improved, and they also gained weight.

PTC Therapeutics reported that the compound has been granted "orphan-drug" status by the US Food and Drug Administration for the treatment of Duchenne muscular dystrophy and CF, a special status which the government grants in support of drugs for rare diseases.

The drug is based on the work of Prof. Eitan Kerem, head of pediatrics at Hadassah University Medical Center on Jerusalem's Mount Scopus, and Dr. Michael Wilshansky, head of the pediatric gastroenterology unit.