

# Greek scientist invents device to detect CVDs

**MORE than 123,000 Filipinos died in 2004 due to heart and vascular-system diseases, the Philippines' health statistics show. Most of the time, many already have the diseases but fail to monitor them at the early stages, when they can still be cured, or their advance arrested.**

A visiting Greek scientist who invented an apparatus that can determine cardiovascular diseases (CVDs) expressed hope that the use of equipment to monitor those at risk could help decrease the mortality rate due to CVDs.

Dr. Helen Marcoyannopoulou-Fojas, a world-renowned cardiologist, invented BPULS. The device has two sensors and is hooked to a computer or a laptop.

"This compact apparatus intends to screen large populations for the early detection of arteriosclerosis [hardening of the arteries], especially on overweight and obese individuals," explained Dr. Marcoyannopoulou-Fojas, wife of Filipino Dr. Marcos Fojas, a Greece-based ophthalmologist.

Using the electronic device, the artery's elasticity will be determined through the pulse-wave velocity (PWV) difference in the left external carotid (two major arteries that supply blood to head and neck) and left dorsalis pedis (the blood vessel of lower limb that carries oxygenated blood to the dorsal surface of foot) pulses with the simultaneous help of single lead ECG (electrocardiogram) that records the electrical



activity of the heart.

The abnormal time of PWV that increases the body mass index (BMI), according to Dr. Marcoyannopoulou-Fojas, is an early indication of arteriosclerosis. The BMI mean time for lean persons is less than 25 seconds, for overweight, more than 25 seconds to 30 seconds, and for obese, it's more than 30 seconds.

The cardiovascular expert emphasized, "BPULS does not need any gel for sensors. It is noninvasive, inexpensive, easy to use and fast to perform in screening the whole arterial tree."

In a presentation, Dr. Marcoyannopoulou-Fojas said if the segment of the aorta is normal, PWV time

is longer, blood flow is slower and the artery is elastic. While for those with illness, PWV is shorter because of cholesterol and fat. The artery is no longer elastic and the blood flow is faster.

"Overweight and obese people have high risk factors in the development of cardiovascular disease because their arterial walls are no longer elastic," she said.

She also noted that normal-looking people who have abdominal obesity would likely be at risk to developing cardiovascular diseases.

The normal waist circumference for women is less than 35 inches, while for men it is less than 40 inches.

To prevent arterial dysfunction at an early age, Dr. Marcoyannopoulou-Fojas recommended people at risk to having cardiovascular diseases to reduce weight.

Her advice: "Eat to live, and not live to eat. Avoid alcoholic beverages and food, such as pork, cheese, merienda sandwiches and sugar-rich foodstuff."

When asked of BPULS's availability in the country and its corresponding cost, she said, "Companies like Sirius and Siemens are interested with my device. But right now there are talks with the United Nations that it will be distributed soon for free."

She declared, "I want to help people change their lifestyles. This is not a money-making machine."

*IN PHOTO -- DR. Helen Marcoyannopoulou-Fojas, a Greek scientist, holds a tape measure while explaining that having a normal waste size avoids the risk of developing cardiovascular diseases. She is one of the presenters in the recent Department of Science and Technology's Total Wellness Program held in Taguig.*  
ARVIN GUTIERREZ

## From Baby Steps to Giant Strides - Greek Challenge

'We sailed a bit conservatively, and it's nice to have a win in our second race ever,' said George Nottis, the shore crew manager for Greek Challenge following Greek Challenge's dispatch of Shosholozza in the second race of the day and the Greeks' second race in the Louis Vuitton Pacific Series.

Greek Challenge went into their second race of the Louis Vuitton Pacific Series with a -1 in their scoreline for taking a hard contact penalty during the pre-start of their race against Alinghi on the opening day of the series. They also went into today's race using a spare Emirates Team New Zealand spinnaker because they shredded their brand new kite during the drop following the race.

There is no question that Gavin Brady is a great helmsman and leader. He certainly had his work cut out for him with his new team, but Sotiris Buseas is a shrewd businessman and has used his resources well in getting his team this far.

Buseas started organizing his Greek Challenge about three years ago and tapped Greek Olympic, dinghy and big boat sailors on the shoulder to join the team. Among the first consultants he turned to was Sebastien Col, # 1 in the ISAF match racing rankings, and the K-Challenge helmsman.

Col and the core of his core team, Gilles Favennec and Christophe Andre, led the Greeks in a four-day training camp on the K-Challenge AC class boat.



The regime:

Day 1 - How to manage the towline. How to leave the dock.

Day 2 - How to hoist main, raise sails, tack, drop sails, dock in and check all equipment

Day 3 - Jibes

Day 4 - Trim

Explained Col, 'It is hard to find the balance between racing and safety and these boats are dangerous if you jump into them and have the wrong expectation. It is very dangerous if you make a mistake. The noises and loads on the boats are tremendous.'

Upon arriving in Auckland, Buseas turned to Gavin Brady to take the helm on the borrowed LVPS boats. The recruiting continued through the week of training in Auckland and Brady focused

the multi-tongued crew's boat handling skills rather than concentrate on match racing.

Magnus Holmberg, Luna Rossa skipper, made light of the swiftness in which many of the teams came together and his team's progress during the practice week, 'We know each other's names!' Brady covered for Greek Challenge, 'The good thing about being in New Zealand, you can get away with calling everyone 'Mate'.'

Today Poseidon is in a benign mood and Greek Challenge earned their first point in an AC class boat. They have '0' cumulative points and accomplished so much in very little time by tapping the best resources available to them. The momentum continues toward their America's Cup challenge.

## Hospital on alert after 19 die from infections

The capital's Evangelismos hospital has been put on alert following 19 deaths caused by infections in the facility's two intensive-care units in recent weeks.

According to data presented at a recent conference of the Hellenic Association of Intensive Care and reported by the Athens daily Eleftheros Typos, 140 patients were treated in the hospital's two ICUs in the past three months.

A total of 87 cases of infections and 19 deaths were recorded in this time, the paper said, noting that the mortality rate among patients infected in one ICU was 32 percent, while in the other, the incidence of infection reached 116 percent (as some patients were infected by more than one microbe). The main cause of the infections was the serious shortage of nursing staff, the newspaper said, quoting hospital administrators. It added that the hospital was mulling specific measures such as isolating infected patients.