

Genome profile to predict diseases

Dubai | By Mona Al Khanjare | 15/03/2003 | [Print this page](#)

An all-in-one DNA diagnosis will be available in the UAE for the first time, a visiting expert to Dubai said yesterday.

Speaking to Gulf News, Professor Gerald Gitsch, Director of the Department of Obstetrics and Gynaecology, Freiburg University Medical Centre, Switzerland, said Genosense Diagnostics offers a unique line of predictive genomic diagnostic profiles. However, those interested in the test should be aged 50 and above, or pregnant.

Each profile focuses on a carefully selected set of polymorphisms associated with a particular disease or physiological imbalance such as cardiovascular diseases, hypertension, atherosclerosis, thrombosis, prostate cancer, complications during pregnancy, menopausal hormone replacement therapy, osteoporosis and so on.

"Genetic testing taken together with the patient's medical history, current diagnostic procedures and counselling interviews provides an effective and comprehensive tool for the creation of individual therapy and prevention concepts," he said.

According to him, Genosense designs and develops predictive genomic diagnostic profiles to support preventive medicine in the fields of gynaecology, andrology and internal medicine.

He added: "The test does not need blood. Buccal mucosa cells (epithelial cells of the oral cavity) are obtained by simply rubbing the inside of the cheek with sterile swabs and forwarded by mail to the DNA laboratory. DNA will be extracted and analysed for specific polymorphisms.

"The laboratory results are interpreted in combination with corresponding anamnesic data by the medical experts leading to an individual diagnosis," he said.

In the UAE, the test samples will be collected and shipped to Vienna by Dubai Medical Laboratory (DML).

"It takes about three days to ship the sample to the lab in Vienna, and then three weeks to get the results," he said. According to the doctor, risk evaluation never gives a 100 per cent chance for a person to develop a disease or not.

"However, there are a couple of investigations which can tell that a disease will come 100 per cent or not, such as thrombosis," he said. "This test is expensive, but it is a once in a lifetime examination. If you know about your health, you can change your healthcare behaviour, and then doctors can prescribe medication, which can prevent you from getting these diseases," he said.

Professor Gitsch said that pregnant women are burdened by hormonal changes, which in some cases may have far reaching complications.

"The risk of such complications, especially for the first pregnancy, is difficult to assess. This test for genetic differences (polymorphism) associated with high risk specific pregnancy complications such as gestosis, thrombosis, miscarriage or premature birth," he said.

"For the first time, it is now possible to predict individual forewarnings concerning genetically high risks in the development of pregnancy complications."

Professor Gitsch added that many people might be concerned that private analysis data could be handed over to the employer, insurance companies or to unauthorised person.

"We want to make clear that Genosense handles all data with absolute care and confidence. The test results are only handed out to the assigned physician and not to the patient. On request, the genetic materials will be destroyed after passing through the test system," he said.

ALL-IN-ONE DIAGNOSIS

TEST PROCEDURES

- Genosense Diagnostics covers detection of polymorphisms associated with a particular disease or physiological imbalance such as cardiovascular diseases, hypertension, atherosclerosis, thrombosis, prostate cancer, complications during pregnancy, menopausal hormone replacement therapy and osteoporosis
- Epithelial cells of the oral cavity are collected by rubbing inside the patient's mouth with sterile swabs. The samples are forwarded to a DNA lab in Vienna, where it is analysed for polymorphisms
- The lab results are interpreted in combination with anamnesic data provided by experts working on the case
- The genetic testing, taken together with the patient's medical history, current diagnostic procedures and outcome of counselling, leads to the charting of individual therapy and prevention concepts for the patient