



NEWS

AWARDS FOR LOCAL X-RAY DEVICE

The South African-designed Lodox Statscan digital X-ray system was last month named the recipient of two awards from the SABS Design Institute's Disa Awards, winning the award in the Medical and Health care category as well as the Chairperson's Award for the 'most exceptional entry'.

The Disa awards recognise the achievements of South African product designers, while also encouraging local design and manufacture and promotion of international competitiveness in local products.

The Statscan system had its origins as a device to detect diamonds being smuggled out of the country's diamond mines and the key design features were an excellent image quality but with radiation levels that were low enough for daily use. However, its potential in the medical field was immediately recognised by the medical imaging consultants working on the project, and the Industrial Development Corporation of South Africa and Netcare joined with the developers to create Lodox Systems, a consortium to develop and market the scanner for medical use worldwide.

Statscan is based on enhanced linear slot-scanning technology, which produces very high-quality radiographical images in seconds. It can complete a full-body scan in approximately 13 seconds, with an X-ray dose estimated at less than 25% of that of traditional X-ray devices.

Lodox Systems' product manager Rodney Sandwith says that the Statscan is well suited to trauma applications, because of its high speed. A standard feature is a trauma stretcher, enabling the patient to be transferred, for example from an ambulance to the Statscan and on to the trauma unit without being disturbed.

The Statscan can produce X-ray images from as small as 100 x 100 mm up to 1.8 m x 700 mm – i.e. from a small hand up to the full body – and because of the low scatter it can be installed in the ward, without the need for costly shielding.

To date there are three Statscans installed in South Africa – at Groote Schuur and Red Cross Children's hospitals in Cape Town and at Milpark Hospital in Johannesburg – two in Sudan and 10 in the USA, and there is interest from other parts of world. Sandwith says there is also growing interest in South Africa and the state hospitals would be obvious beneficiaries.

Sandwith also notes that developments are ongoing and a recent new feature is the 'lucid' image enhancement, which enables viewing of the bony detail and soft tissue simultaneously. For the future, possibilities include a smaller machine for use in individual practices and a variable X-ray exposure option to accommodate different body thicknesses.

The Statscan was previously the winner of two separate technology awards from the diagnostic imaging research firm Frost & Sullivan in 2004, and winner of the *Popular Science* Best of What's New Award (Personal Health category) in 2003.

Source: www.lodox.com.



A chest scan with 'lucid' enhancement, showing the soft tissue as well as the bony detail.

NETCARE 911 AND EGRES MEDICAL SERVICES TO JOIN FORCES

Netcare 911 has announced its acquisition of the private air ambulance company Egres Medical Services.

Netcare 911's CEO, Dr Ryan Noach, says the company's aeromedical division has experienced a 120% increase in its total number of flying hours over the past year, and currently undertakes in excess of 50 aeromedical transfers per month.

The acquisition of Egres, which operates out of Lanseria Airport in Johannesburg and has a select local and international client base, is aimed at addressing the need for growth, while continuing to provide top-quality service, says Noach.

Egres Medical Services was started in July 2003 after acquisition of the business by the managing director, Sergio Avicé du Buisson, from Medical Rescue International (MRI). Du Buisson has been contracted as the new business development manager at Netcare 911's aeromedical division.

Netcare 911's aeromedical division includes the flight desk within the global response call centre, three dedicated fixed-wing air ambulances (based in Johannesburg, Bloemfontein and Maun, Botswana) and two non-dedicated standby aircraft. Its functions include the provision of air ambulance evacuation services for members and clients anywhere in Africa, and worldwide service through the provision of escorted commercial medical repatriations.

The Botswana service is the newest (started in mid-May) and resulted from 12-month contracts awarded by the Botswana Department of Health to Netcare 991 – a joint venture between Netcare 911 and the Botswana-based Classic Services – to provide ambulance and air ambulance services covering the whole of Botswana.

Source: www.netcare.co.za.

GENETIC TESTING INITIATIVE LAUNCHED

The Genecare HealthNet network for South African doctors who are interested in, or use, genetic testing to help prevent disease and assist in treating patients, was launched in Cape Town last month.

An initiative of Genecare Molecular Genetics, a private company established in 2002 with financing from Netcare with the aim of introducing genetics into daily clinical practice, the network is intended to bring together health professionals from the different disciplines to share information and experiences on genetic testing and to work together to identify risk factors for chronic disorders and implement risk-reduction programmes.

Genecare MD, Dr Maritha Kotze, says that preventive genetic testing is relatively new to South African medicine and that it has enormous potential, particularly for the early detection of disease and the prevention of certain serious illnesses. Genecare HealthNet was borne out of the increasing interest in genetic testing among doctors and the need to provide information and education and other supporting services.

'The aim of HealthNet is to bridge the gap between research and clinical practice,' Kotze says.

Over the past three years Genecare has focused its activities on research and new test developments, with a particular focus on cardiovascular and dietary issues. Now the company is entering a commercialisation phase, with new product offerings being introduced into the health care system.

Kotze explains that genetic testing is recommended for those who are at risk of certain diseases, such as cardiovascular disease or the common cancers, and that ideally it will provide an explanation for the onset of the clinical disease. If not, it should at least provide insight into the disease risk factors and the 'treatment points'.

Kotze adds that genetic tests are of limited use on their own, and must be used in conjunction with other patient information and tests such as pathology tests, medical history, medication record, diet, lifestyle, and environmental and other relevant factors. For example, a genetic test showing a patient's predisposition to heart disease used in conjunction with their medical and family history and other clinical details, would enable the practitioner to recommend an approach incorporating medication, dietary and/or lifestyle changes aimed at minimising the patient's chances of actually developing the disease.

Genecare's genetic tests are centred around the following product lines:

- Diagnostic testing to confirm or exclude the clinical diagnosis of specific familial disorders.
- Risk reduction tests linked to nutrition and lifestyle assessments that target the interaction between genes and the environment.
- Prognostic testing for risk stratification and monitoring of disease progression, to facilitate surveillance and optimal treatment.



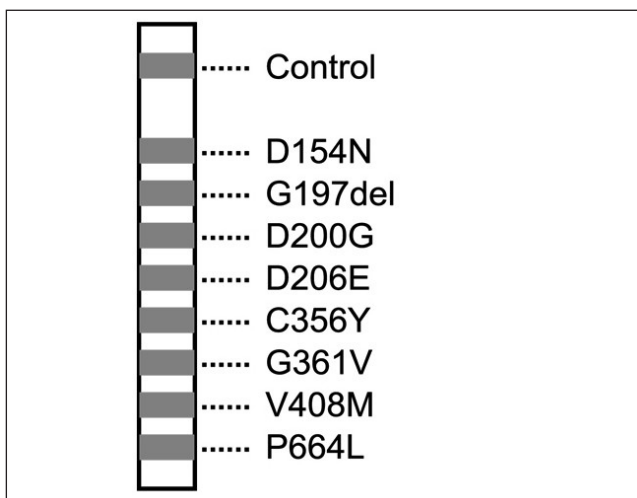
- Pharmacogenetic tests to identify individuals who might experience adverse reactions to certain categories of prescription medications.
- Identity testing, including forensic, genealogy and paternity determination.
- Customised genetic testing for clinical trials and diagnosis of diverse genetic conditions.
- Contract research and direct sequencing to identify known and novel genetic variations.
- Genetic counselling and multi-disciplinary educational workshops.

Kotze says that cheek swabs are recommended for sample collection and that these should be collected by HealthNet doctors or on referral to Genecare's genetic counsellors. Analysis is undertaken in the company's Cape Town laboratory, while the genetic counsellors, who also offer both pre- and post-test counselling, are available in several of the main centres in South Africa.

Kotze believes that while genetic testing is very much in its infancy, in the future it will become an integral part of medicine.

Genecare's HealthNet medical advisor, Dr Hein Badenhorst, a general practitioner in Britz, says that he has been using genetic testing as an 'add-on tool' for only a few months, principally in the areas of cardiovascular disease and cancer risk management, and that already it has brought 'phenomenal results'. Cautioning that it is 'not for everyone', he says patients most likely to benefit are those who are prepared to make significant lifestyle changes.

Citing as an example the case of a mother and two daughters, in whom familial hypercholesterolaemia was detected in genetic testing, but of which no other signs were present, he says that it was possible to introduce dietary and exercise changes into their lifestyles to control their cholesterol levels.



Familial hypercholesterolaemia strip-assay to be applied in adults with total cholesterol levels exceeding 7.5 mmol/l and a family history of early-onset CHD.

'Genetic testing is no longer pie in the sky but something we can use in preventive medicine now.'

For more information and to sign up to Genecare's HealthNet network, visit www.genecare.co.za.

MALARIA – IS PROGRESS BEING MADE?

Malaria remains a major global problem, exacting an unacceptable toll on the health and economic welfare of the world's poorest communities, according to the first report of the Roll Back Malaria (RBM) partnership.

Each year an estimated 350 - 500 million people worldwide are affected by malaria, mostly due to infection with *Plasmodium falciparum* and *P. vivax*. It causes more than 1 million deaths and contributes indirectly to many more deaths, mainly in young children, through synergy with other infections and illnesses.

RBM was launched by the World Health Organization (WHO), United Nations Children's Fund (UNICEF), United Nations Development Programme (UNDP), World Bank and other organisations in 1998, with the aim of halving malaria worldwide by 2010. At the end of 2004, some 3.2 billion people in 107 countries and territories were living in areas at risk of malaria transmission.

The report is claimed to be the most comprehensive effort ever to present the available evidence on malaria worldwide and it says that there is clear progress in scaling up antimalarial interventions in many countries. However, as few countries started implementing programmes to provide access to the tools and strategies recommended by RBM until 2000, it is still too soon to determine whether the global burden of malaria has increased or decreased.

Malaria in Africa

The malaria burden is greatest in Africa. During the 1980s and the early 1990s malaria mortality in rural Africa increased considerably, probably as a result of increasing resistance to chloroquine. In 2000, 53 African countries signed the Abuja Declaration committing themselves to providing, by the end of 2005, prompt and effective treatment and insecticide-treated nets (ITNs) for 60% of the people at highest risk of malaria and intermittent preventive treatment (IPT) for 60% of pregnant women. But few countries are likely to reach these targets, because until very recently control efforts have remained too fragmented and major international investment has materialised too late, the report says.

Specifically the report finds that:

- On average half of African children with fever are treated with an antimalarial drug, with most treatments involving chloroquine. However, artemisinin-based combination therapy (ACT) is becoming increasingly available and by the end of 2004, 23 African countries had adopted ACTs. In addition, 22 countries had adopted and begun to implement home management of malaria for children under 5 years of age



(which involves education and training of mothers and provision of pre-packaged medicines).

- The number of ITNs distributed has increased 10-fold during the past 3 years in more than 14 African countries.
- IPTs for pregnant women, in addition to the scaling up of delivery of ITNs to pregnant women, are being implemented in 11 African countries.

The report says that around US\$1.9 billion per year - of which US\$1 billion is needed for ACTs - is estimated to be needed to combat malaria in Africa effectively, but currently only about one quarter of this amount is available. However, with financial support for malaria programmes having increased rapidly over the past few years, and complemented by increased capacity development at all health system levels, progress is likely to accelerate.

This relatively upbeat view was challenged in a scathing editorial in the *Lancet* (23 April 2005), which says that RBM has done little to halt the march of malaria and that not only has it failed in its aims, but it may also have caused harm. Citing a "loose association": structure and "inadequate and sometimes conflicting technical advice", the editorial says that unless RBM produces some demonstrable results to assuage the sceptical

international community, the partnership risks losing all credibility. For any sort of progress to be made - indeed, simply to fix the current chaos - RBM needs strong leadership and a clear signal from all its partners that malaria is a priority.

For its part on Africa Malaria Day (25 April 2005), the World Bank announced a new global strategy on malaria and a booster programme to make funding available to enhance programmes to combat the disease. Admitting that its efforts to date have been 'severely understaffed and underfunded', the Bank says that it intends to provide increased financing and technical support for malaria control and it estimates that a total commitment of US\$0.5 - 1 billion is feasible over the next 5 years.

Dr Brian Sharp, director of the MRC's malaria research led programme, says that until recently there have been no mechanisms to reach the RBM goals, but the Global Fund to Fight AIDS, Tuberculosis and Malaria offers the prospect of making significant progress. Key strategies for Africa appear to be indoor spraying, the use of ITNs and the availability of ACTs, but the main challenge is the lack of capacity in malaria control programmes.

Source: www.rbm.who.int / www.worldbank.org.

Jonathan Spencer Jones



ARTHRITIS FOUNDATION

Registered Nonprofit Organisation- No.002-847 NPO

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Bank Account: Arthritis Foundation, Standard Bank Thibault Square, branch 020909, account 070965226.

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Branches: Johannesburg, Soweto, Alexandra, Pretoria, Free State, Western Cape, Eastern Cape, KZN.

Current Leaflets: Aches & Pains – Living with Arthritis * Arthritis Foundation – its role in arthritis care * Ankylosing Spondylitis * Back Pain * Bursitis, Tendinitis & Carpal Tunnel Syndrome * Care of the Feet * Complementary Therapies (Physiotherapy, occupational therapy, chiropractic, commercial remedies) * Dermatomyositis * Diet & Exercise * Fibromyalgia * Gout * Joint Hypermobility * Joint Replacement * Juvenile Arthritis * Lupus Erythematosus – *Eng, Afrik* * Osteoarthritis – *Eng, Afrik* * Osteoporosis * Paget's Disease * Pain & Arthritis * Polymyalgia Rheumatica * Psoriatic Arthritis * Raynauds Phenomenon * Reactive Arthritis – *Eng, Afrik* * Reiter's Syndrome * Rheumatoid Arthritis – *Eng, Afrik* * Scleroderma * Sjogren's Syndrome * Understanding Arthritis – *Eng, Xhosa, Zulu* * Up & About with Arthritis – tips for daily life.