

## synopsis

Biomedical Technology Newsletter

Winter 2009

### SANYO E&E Europe BV assists sample storage for UK ProtecT Study and University of Sheffield.

**SANYO E&E Europe BV in the UK has been working with the ProtecT Study for the past ten years supplying -86°C Freezers for sample storage.**

The aim of the ProtecT Study is to evaluate the effectiveness, cost-effectiveness and acceptability of treatments for men with localised prostate cancer in a pragmatic randomised controlled trial.

Blood specimen collection commenced in July 1999 and to date most of the men recruited to the ProtecT Study have also agreed to donate blood samples for research. These samples are kept locally for a 3 – 4 month period and then sent for long term storage in Sheffield (soon to relocate to Oxford) and Cambridge. The samples are robotically aliquotted and split into duplicate sets with samples held on two sites for additional security.

Mr. Peter Holding, coordinating lead research nurse based at the Royal Hallamshire Hospital in Sheffield commented; “The collection currently consists of serum, plasma and DNA samples from approximately 100,000 men. These are stored in -86°C mechanical freezers which are almost exclusively SANYO VIP series. I have assisted with the purchase and general maintenance of these freezers over the past 10 years. Our current SANYO inventory is as follows:

- 9 freezers (1 in each of the UK centres).
- 24 freezers in Sheffield.
- 13 freezers in Cambridge.

We also purchase our racking, alarm system and CO<sub>2</sub> backup from Sanyo. Servicing and maintenance by SANYO has always been dealt with promptly and the freezers are easily maintained (simple filter cleaning and door de-icing). Deliveries and installations have also been straight-forward despite working in a tower block and having to use service lifts.

We have plans to further develop our sample storage with new facilities currently being developed at the University of Oxford. We will continue using Sanyo hardware (and indeed ‘software’ - the remote freezer monitoring system is on our current list of ‘wants’!). I certainly have no reservations when recommending them to others and indeed have done so many times.”

**The increased demand for sample storage in Sheffield has led to the University of Sheffield Medical School constructing a new Biorepository on site at the Royal Hallamshire Hospital.**

Mr. Kevin Corke, Facilities Manager for the School of Medicine & Biomedical Science, who runs the new facility commented “we have used SANYO -86°C Freezers for a number of years in many departments within the Medical School. Space within the existing building became a problem especially with the additional Freezers acquired for the ProtecT study. Funding provided by the SRIF 3 initiative (Science & Research Investment Fund) and the success of the ProtecT study enabled construction of the new Biorepository which provides us with the additional space and security for our Freezers.

A total of twenty new MDF-U53V Freezers were purchased by the University of Sheffield to equip the Biorepository which will formally open shortly and provide much needed storage space for research samples.



A view of some of the twenty MDF-U53V Freezers installed in the new Biorepository at the University of Sheffield.



Royal Hallamshire Hospital (UK)

## SANYO and Quantum Scientific contribute to saving Australia's National Icon.

On the 4th of September 2009, SANYO in conjunction with QUANTUM SCIENTIFIC were pleased to donate a brand new SANYO MDF-192(T) -86°C chest freezer to assist in the ongoing research and preservation of Australia's national icon, the Koala.

The Australian Wildlife Hospital is the busiest wildlife treatment facility in Australia, attending to approximately 6,000 cases per year including around 600 koalas, as well as other marsupials, reptiles, birds and frogs. The Australian Wildlife Hospital is a major project of Australia Zoo Wildlife Warriors Worldwide – the conservation charity founded by Steve and Terri Irwin. Located at Australia Zoo on Queensland's Sunshine Coast, it is Australia's largest wildlife hospital.

Disease in koalas causing significant illness and mortality is a critical issue contributing to their dramatic population decline. Although habitat loss and fragmentation are most implicated in koala population declines, disease is contributing significantly to the extinction of smaller populations.



*A recovering koala in the intensive care unit.*

Chlamydial infection in koalas is a common cause of infertility, urinary tract infections and conjunctivitis which often leads to blindness. As many as 40-50 per cent of koalas coming into care in both Queensland and New South Wales are showing clinical signs of chlamydiosis.

Professors Peter Timms and Ken Beagley from the Queensland University of Technology's Institute of Health and Biomedical Innovation (IHBI) are working to develop an effective anti-chlamydia vaccine for koalas which they hope will be an answer to the disease that is threatening their survival in the wild.

Dr Jon Hanger, Director of Research and Ecological Services at the Australian Wildlife Hospital, is coordinating the collection of samples and will administer the trial



*Presentation from the Australian Wildlife Hospital and QUT IHBI, a certificate in appreciation of the freezer donation. (left to right) Prof. Beagley, Mr Brown, Dr Hanger, Prof. Timms.*

vaccines stored in the SANYO MDF-192(T) -86°C chest freezer. On site Dr Hanger will be working closely with Professors Timms and Beagley to assess the efficacy of the vaccine.

Professors Timms and Beagley at IHBI have been working for some time on vaccines for human chlamydial infections and are having significant success in developing such vaccines in the mouse model. Because they have selected chlamydial vaccine antigens that are conserved across all the chlamydial species, it is now possible to test these same antigens or close homologues of them, to protect koalas against the koala strains of chlamydia. They are the recognised world leaders in the study of chlamydial infections in koalas and to date 18 female koalas treated with an anti-chlamydial vaccine developed by them are showing positive results. Professors Timms and Beagley's research group is the only one in the world dedicated to eradicating the threat of these infections to Australian fauna.

The research also has benefits for humans because chlamydial infection is a major cause of infertility in women. "By studying chlamydial disease in koalas, as well as in humans, we hope to understand how this tiny bug can cause so many nasty diseases and how to develop a vaccine for use in humans and animals," Professor Timms said.

IHBI has more than 700 members and aims to provide Australia with a centre of excellence for the development of world-class innovation in health and biomedical applications. Quantum Scientific together with SANYO have enjoyed a long standing relationship with the institute from their inception. Providing high quality instruments from the SANYO range and exceptional backup service and support has been the key. IHBI now have over twenty SANYO MCO-18AIC CO<sub>2</sub> incubators, six SANYO cooled incubators and in excess of eighteen SANYO VIP -86°C ultra-low temperature freezers.

The donation of the SANYO MDF-192(T) to the Australian Wildlife Hospital to assist in the ongoing research with Professors Peter Timms and Ken Beagley from IHBI, further strengthens this relationship and highlights both Quantum Scientific' and SANYO's commitment to "THINK GAIA."



*Donation of SANYO MDF-192(T) chest freezer by Mr Derek Brown, Managing Director Quantum Scientific. (left to right) Prof. Timms, Mr Brown, Dr Hanger, Prof. Beagley*