

# pathologynews

ISSUE 1 | AUTUMN/WINTER 2009

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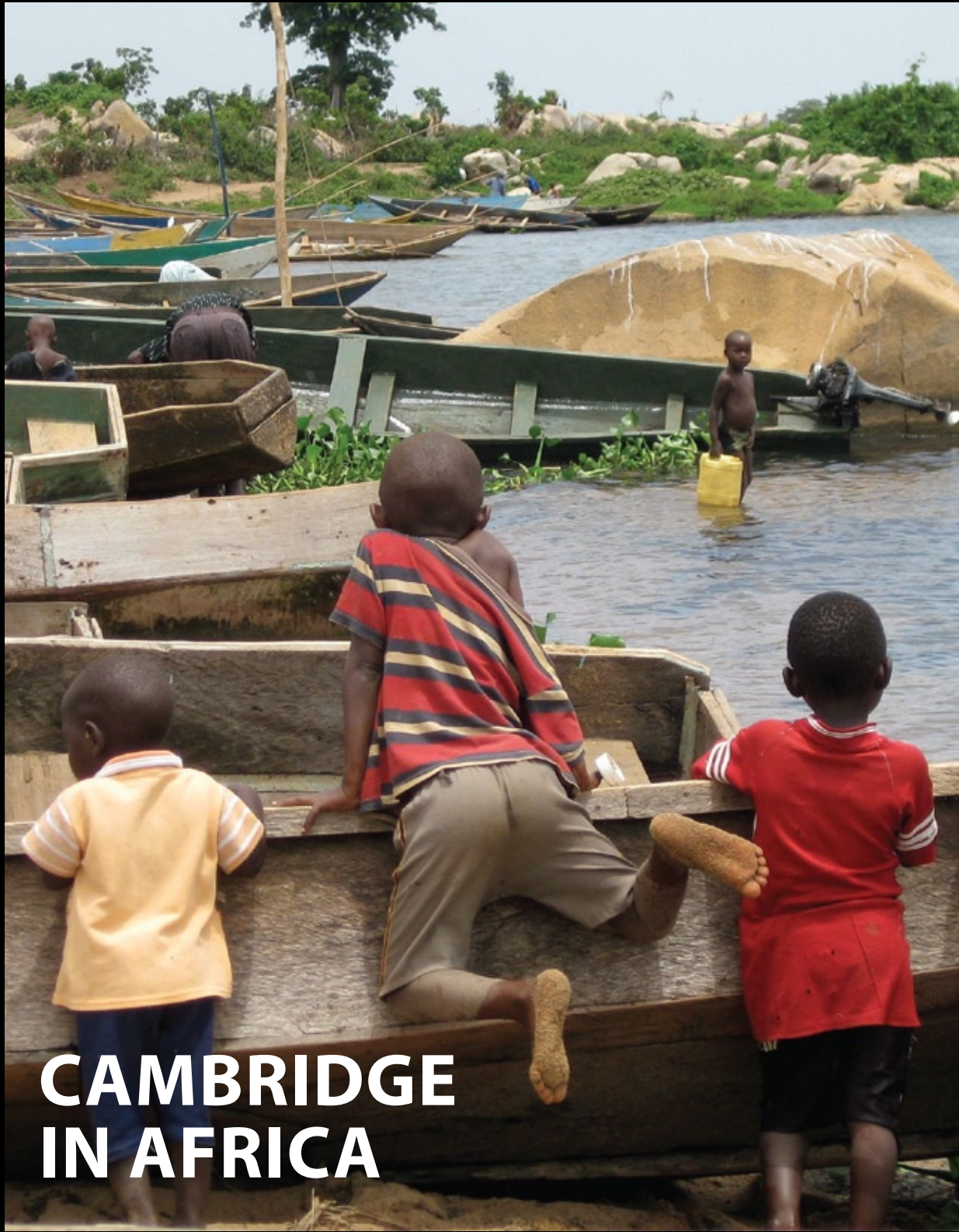
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Welcome to Pathology News, a newsletter from the University of Cambridge

Department of Pathology. Over the years we have been approached by many of our alumni and past colleagues who have expressed that they would like to be kept in touch with developments within the Department. We hope that you find this newsletter interesting and informative. We are always interested to hear from you and would welcome any suggestions for future editions.

Note: If you would prefer not to be contacted by us in the future please let us know and we will ensure that you are removed from our mailing list.

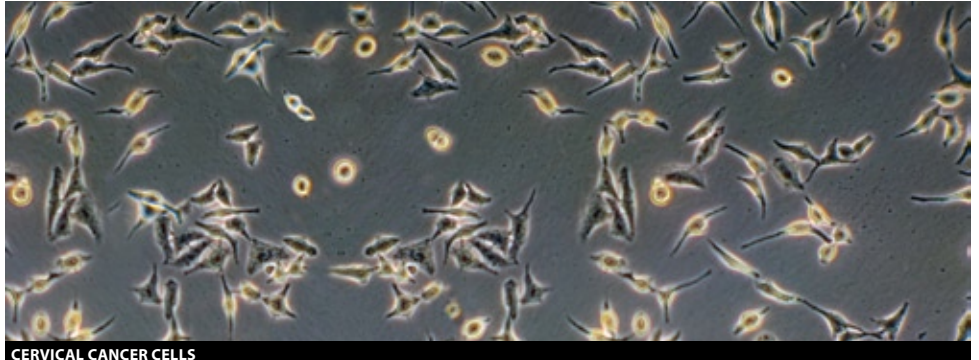
# Featured Academic Professor Margaret Stanley: Cervical Cancer

Cervical cancer is the second most common cancer among women. In 2008 a vaccination programme was introduced for all 12 – 13 year old girls in the UK. Professor Margaret Stanley played a major role in developing this vaccine.

Margaret Stanley is currently Professor of Epithelial Biology, Department of Pathology, University of Cambridge. She was made a Fellow of the Academy of Medical Sciences in 2005 and has been awarded the Order of the British Empire (OBE) for Services to Virology.

Professor Stanley's research interests have always concerned the biology of cervical epithelium and how and why cancer of the cervix develops. Her current research focuses on mechanisms of host defence and the development of vaccines and immunotherapies against human papillomaviruses, the cause of cervical cancer.

2008 was a significant year in the fight against cervical cancer. Harald zur Hausen was awarded the Nobel prize for his work in isolating the human papilloma viruses (HPV) that cause cervical cancer and in the



CERVICAL CANCER CELLS

fortunate to be a recipient of the HPV16 and HPV18 cloned by the zur Hausen laboratory allowing work on the viral proteins to be pursued in her laboratory.

HPV does not grow in tissue culture and all work on viral proteins had to use recombinant molecular techniques. Work in the Stanley laboratory in collaboration with other Pathology Department virologists Tony Minson (current Professor of Virology, University of Cambridge) and Geoff Smith (current Professor of Virology, Imperial College London) resulted in the expression of the most important

to cervical cancer. Two versions of the vaccine were licensed, both with equal effect on the HPV16 and HPV18 viruses that account for 70% of cervical cancer.

In Europe: France, Germany, the Netherlands, Denmark, Austria, Sweden, Norway and the UK have all made recommendations for vaccination in 12 – 14 year old girls. In the UK 300,000 girls will be vaccinated in the first year. Each year in the UK, despite an excellent cervical cancer screening programme, 3,000 women develop cancer of the cervix and 1,000 die. HPV 16 and 18 cause at least 70% of cervical cancers and therefore, the incidence of the disease in those girls vaccinated in 2009 should be hugely reduced.

Vaccination programmes will have a major role to play in saving women's lives in both developing countries where AIDS is prevalent (which increases HPV activity and effect) and in those countries where access to medical services is poor. Professor Stanley notes that *"India has a sixth of the world's population but a quarter of the world's cervical cancer. HPV vaccines could have a huge impact in reducing this burden of disease"*.

There are 15 types of HPV virus. HPV16 and HPV18 are responsible for 70% of cervical cancer. Second generation vaccines that protect against the remaining HPV types are under development. It is anticipated that within 10 years there will be a vaccine available to prevent 90% of all cancer caused by HPV. HPV does not only cause cervical cancer but is also responsible for cancer of the vulva, vagina, anus and 40% of all cancers of the head and neck. This collectively accounts for 4 – 5% of all cancers.



***"It is a privilege to have been part of the research that will make a real difference to womens health."***

UK a vaccination programme for all girls aged twelve and thirteen was started. It has taken twenty-

five years from the point of identifying the cancer causing HPVs to the implementation of vaccination programmes – few other discoveries in basic science achieve application in the clinic in such a short time.

In 1972, Harald zur Hausen started an ambitious and adventurous research programme to test the hypothesis that HPV was a causal agent in cervical cancer in women. Together with his collaborators, he then identified HPV16 and HPV18 in cervical cancers in 1983-4. Margaret Stanley began work on the HPV virus in 1984 and was

surface protein of the virus via a recombinant vaccinia virus. This technology was used by Dr Jian Zhou who had been in the Cambridge laboratory when he moved to Prof Ian Frazer's lab in Australia to generate the first HPV virus like particle (VLP). VLPs are empty protein shells that look like the virus and activate the immune system to generate antibody that neutralises the virus and prevents infection. VLPs contain no DNA and therefore are not infectious.

The first patents for HPV virus like particles were lodged by the academic inventors in 1991-2 and the intellectual property licensed at that time by pharmaceutical companies. Ten years later in 2002 the results of the Phase 1 and 2 Trials were published showing that HPV VLP vaccines were effective in preventing HPV-dependent precancers, the essential precursor

# Cambridge in Africa: from worm research to scientific capacity building

by Prof David Dunne

Research initiated in the Department of Pathology is providing exciting opportunities to broaden the outlook and experience of Cambridge researchers whilst crucially building research capacity in Africa. With a long-term view this will allow African researchers to provide scientific solutions for disease problems oppressing African peoples.

## Pathology Department research on neglected diseases in Africa

For more than 25 years the Pathology Department's Schistosomiasis Research Group has been collaborating with African scientists to study schistosomiasis and other parasitic infections in Africa. Chronic, insidious worm infections, such as schistosomiasis and hookworm, afflict hundreds of millions of people in the developing world, causing huge neglected public health and economic burdens. These parasites are long-lived, and people acquire infection in early childhood and often remain infected for life. Individual schistosome



worms have an astonishing ability to live for up to 40 years in the human blood stream, evading and controlling the immune system. Effective drugs are available, but treated populations, particularly children, become rapidly re-infected. WHO now highlights these infections as both 'great neglected diseases' and diseases of poverty.

Research work in rural Africa is challenging but essential if we are to control these intractable parasitic diseases, many of which have complex interactions with other co-infecting pathogens and factors such as chronic malnutrition. Understanding these parasites' biology, immunology and ecology also has much to teach us at a basic scientific level, as they have had an intimate co-evolved relationship with man over millions of years. The Group's studies in Kenya and Uganda have revealed that adults can gradually become resistant to schistosomiasis by developing the

same immune responses that cause allergy in more affluent, worm-free countries. Now genomic studies are revealing that the target worm proteins for these protective responses are in same restricted protein families as the environmental and food proteins that cause allergic diseases. The exciting prospect is that understanding these parasites will provide means to combat parasitic diseases of the developing world, and allergic diseases that are major problems in the developed world.

The Schistosomiasis Research Group's studies integrate epidemiology, parasitology, immunology, socio-economic and clinical studies in rural Africa with molecular and genomic parasite research in Cambridge. In Africa they combine applied and basic scientific studies within disease control programmes, to help African scientists make best use of limited resources while drawing funding from different international agencies for each activity.

## Widening the contribution to scientific capacity strengthening in Africa

During the Schistosomiasis Group's studies many African scientists obtained higher degrees and have gone on to have leading regional health research roles. However, scientific expertise is still very thinly spread in the face of the overwhelming challenges of infectious and non-communicable disease. African science needs wider support. To provide this the Schistosomiasis Group and Cambridge now partner Makerere University Kampala and the Ugandan Virus Research Institute (UVRI) in a Wellcome Trust funded project to promote training in 'Infection and Immunity' in Uganda from secondary school through to post-doctoral research. Ugandan

PhD students, registered at Makerere, research infectious disease priorities in Uganda with Cambridge co-supervision. They spend a year of their 4-year course in Cambridge, and Cambridge researchers visit Uganda to provide on going

support. The Wellcome Trust has now provided £5.2 million for a new scheme called THRIVE, based on the same model but widening its geographic and scientific scope. With Makerere, Cambridge will partner institutes and universities in Uganda,

Kenya, Tanzania and Rwanda in a wide range of health research disciplines. THRIVE aims to build research capacity in East Africa by supporting young African scientists to become internationally competitive and self-sustaining scientific leaders, seeding a regional research community with the critical mass to address African health priorities.

These new projects are allowing Cambridge researchers to form new academic and research links in Africa and are an important step in the development of Cambridge's long-term engagement in collaborative research, capacity strengthening, and training with African Universities.



### THRIVE Case Study: Dr Annette Nakimuli

Dr Annette Nakimuli studied Medicine at Makerere University and a Kulika Trust Scholarship enabled her to obtain a Master of Medicine in Obstetrics and Gynaecology as the leading student of her year. She is a lecturer in the Department of Obstetrics and Gynaecology, with research experience from cervical cancer and pre-eclampsia studies, and a clinical trial on induction of labour. Her primary research interest is pre-eclampsia, a major cause of maternal death in Uganda, and the subject of pioneering research by Professor Ashley Moffet's group in the Department of Pathology.



© BBC PHOTOGRAPHER TODD ANTHONY

## NEWS IN BRIEF

### HONORARY DOCTORATE OF SCIENCE AWARDED TO FORMER HEAD OF IMMUNOLOGY

Professor Herman Waldmann, former Head of our Immunology Division, and now Head of the Dunn School of Pathology at Oxford, received an Honorary Doctorate of Science from the University of Cambridge on 23rd June 2008. Professor Waldmann collaborated with colleagues in the Department in the 1980s to develop the drug Campath® now used as treatment for leukaemia and being trialled as a treatment for MS. Dr Mike Clark continues his research in the Department as Reader in Therapeutic and Molecular Immunology.

### WORLD-LEADING RESEARCH

The Research Assessment Exercise (RAE) assesses the quality of research in universities and colleges in the UK enabling the higher education funding bodies to determine the levels of their research grants. The University of Cambridge Department of Pathology submitted 44 staff to RAE2008 (over 98% of its established staff positions). Reflecting the breadth of the Department's interests, our staff featured in 5 Units of Assessment (providing, for example, over half of the University's submission to the Infection and Immunology Panel and a third of the submission to the Cancer Panel). Between 35% and 45% of the profile of these submissions was graded as 4\* (world-leading), and 80% – 85% in 4\* plus 3\* (internationally excellent or higher). All were ranked either first or second in the UK in the Times Higher Education analysis of these profiles.

## National Pathology Week Pathology on the Screen – fact or fiction?



In November 2008 the National College of Pathologists organised the first ever National Pathology Week co-ordinating events across the UK designed to promote an understanding of pathology to a public audience. Our television screens are inundated with forensic pathologists (programmes such as *Silent Witness*, *CSI*, *Waking the Dead*). To address the concern that this is influencing the public perception of pathology, we organised a event at the local Arts Cinema in Cambridge. Between screening a premiere of the concluding part of popular BBC television series *Silent Witness*, three different pathologists, offered the audience a unique insight into their varied experiences of pathology.

Dr Benjamin Swift, Home Office pathologist and adviser to the production team of *Silent Witness* talked about his decision to pursue a career in forensic pathology. "The only summer job I could get was in a mortuary". He described how the real life (and death) work differed from that of his on-screen colleagues and offered

a glimpse of working behind the scenes at the BBC. Professor Andrew Wyllie, Head of Department explained to the audience the significance of his field of study: apoptosis, and discussed how understanding the death of a cell, as opposed to a person, contributed to advances in medicine. Dr Chris Smith a Clinical Lecturer in Virology, vividly portrayed the journey of a cold-sore virus and warned audience members of the dangers of kissing relatives and strangers!

The evening was a great success with audience feedback including "I never realised pathology was all of that". The Department will be running a similar event in Cambridge for 2009 National Pathology Week on Tuesday 3rd November presenting "The Deadliest Disease" a BBC documentary about sleeping sickness accompanied by Professor Mark Field from the Department, talking about his work with Trypanosomes.

• Further information and tickets available from Campod 01223 330291.

## Research Matters Professor Anne Cooke: Diabetes

There are approximately 375,000 people in the UK diagnosed with Type 1 Diabetes. It can be self-managed by a daily regime of blood tests and injections but if left untreated, it can lead to serious complications including heart disease, stroke, blindness and kidney failure.<sup>1</sup>

Type 1 Diabetes is an autoimmune disease where insulin producing pancreatic  $\beta$  cells are destroyed by the immune system. Professor Anne Cooke's research group are working on prevention, identification of individuals at risk, and treatment with the long-term aim of curing this debilitating disease.

Type 1 Diabetes is caused by a combination of genetic and environmental factors. It is increasing by 4% each year in the UK, too rapid to blame on genetic change in the population.

Historically, infection has played a large part in wiping out portions of the population whose genetic backgrounds make them more susceptible to infections. In essence, our immune systems have co-evolved with infections and been shaped by them. Now we have a growing population with a genetic tendency to develop Diabetes. This suggests that the genetic background predisposing to this auto-immune reaction could possibly have a further purpose related to infection. Collaborative research with Professor David Dunne (CU

Dept of Pathology, Division of Microbiology & Parasitology) and Dr Pietro Mastroeni (CU Vet School) has demonstrated that exposure to parasites reduces the onset of diabetes, supporting the 'hygiene hypothesis'; that we have produced an environment too clean to support the development of a healthy regulated immune system.

Work with Dr Jennifer Nichols at the Centre for Stem Cell research has resulted in a recent breakthrough enabling the generation of embryonic stem cells from NOD (non obese

diabetic) mice. This highly significant outcome provides a new research tool for diabetes researchers, enabling a complete genetic analysis of diabetes<sup>2</sup>.

Other collaborations include work with Dr Jules Griffin (CU Department of Biochemistry) looking at identifying biomarkers; the use of monoclonal antibodies (provided by Professor H Waldmann, University of Oxford) to develop tailored therapy inhibiting the progression of the disease.

"This disease affects many children world-wide and is set to become more prevalent year by year. Our work shows promising signs and it remains my ambition to cure Type 1 diabetes before I retire."



"Our work shows promising signs and it remains my ambition to cure Type 1 diabetes before I retire."

<sup>1</sup> Diabetes in the UK 2009: Key statistics on Diabetes, Diabetes UK  
<sup>2</sup> Nature Medicine 15, 814 – 818 (2009)



## First gene for child brain tumour identified

**P**rofessor Peter Collins and his team in the Department of Pathology's Division of Molecular Histopathology have found the first genetic link to a common childhood brain tumour as published in the journal *Cancer Research*. The Department of Pathology researchers, funded by Cancer Research UK and the Samantha Dickson Brain Tumour Trust, have pinpointed a rearrangement of DNA that causes around two-thirds of all cases of pilocytic astrocytoma – the most common brain tumour in five to 19 year-olds.

Very little is known about the causes and genetics of childhood brain tumours. But this significant discovery could provide leads for creating better treatments and make diagnosis of the disease more accurate.

Brain tumours are the second most common type of childhood cancer. Pilocytic astrocytomas affect around 145 children each year in the UK. Professor Peter Collins said: "This is the first time a specific genetic link has been made to the majority of pilocytic astrocytomas. We found a specific rearrangement of DNA in around two-thirds of all cases of pilocytic astrocytoma. The resulting DNA sequence includes a portion of a gene called BRAF\*\* that is known to be mutated in a number of other cancers, and which we think may trigger this disease."

**“If we can diagnose exactly which type of brain tumour a child has as early as possible, the tumour is more likely to be treated successfully”**

Professor Collins and his team carried out genetic scans on 44 pilocytic astrocytoma samples, searching for common genetic changes. They found a DNA sequence on chromosome 7 which is rearranged in 66 per cent of the samples – enough of a majority for it to be classed as a significant genetic marker for the disease. This rearrangement creates a fusion gene, whereby part of the BRAF gene is fused to another, previously uncharacterised gene. The fusion leads to activation of the part of BRAF that is involved in stimulating cell growth. This is the first time this type of fusion activity has been associated with a brain tumour.

Around a quarter of children diagnosed with pilocytic astrocytoma cannot be successfully treated. Knowing which genetic sequences to search for will enable doctors to diagnose the disease more accurately.

Professor Collins added: "If we can diagnose exactly which type of brain tumour a child has as early as possible, the tumour is more likely to be treated successfully. We also hope the findings will mean it is possible to create therapies in the future that block the activity of the fusion gene and halt the growth of tumour cells."

## Research reveals new information about antibiotic resistance in bacteria

Scientists in the Department of Pathology have uncovered the final piece in the jigsaw revealing the structure of 'efflux pumps' which allow *Salmonella* and other disease-causing bacteria to develop resistance to antibiotics and other drugs. The research, supported by the Wellcome Trust, allows greater understanding of how bacteria escape treatment and may help scientists develop new strategies to prevent antibiotic resistance.

Efflux pumps have evolved as survival mechanisms for the bacteria, reducing the concentration of noxious chemicals within the cells to levels that do not inhibit bacterial functions. These substances include naturally-occurring molecules toxic to the bacteria, such as bile salts in our gut. However, bacteria now also use the pumps to expel many antibiotics and other drugs that we use in the therapy of infections. The efflux pumps can deal with a great many drugs so they are important in the increasing incidence of bacterial multi-drug resistance, which is a growing threat to clinical treatment of infections.

Professors Vassilis Koronakis and Colin Hughes from the Department of Pathology have spent two decades studying the structure and function of these pumps. Now, together with Dr Martyn Simmons, a Cambridge Oppenheimer Research Fellow, the researchers have elucidated the structure of the final component of the pumps, enabling them to see more clearly how the bacteria evade antibiotics and develop resistance.

*Salmonella* and other so-called 'Gram-negative' bacteria, such as *E. coli* and *Pseudomonas*, are bound by two membranes, so the efflux pumps must therefore traverse both membranes in order to pump substances out. Other types of cells, such as human cancer cells and malaria parasites, also have efflux pumps, but these cells only contain a

single membrane that the pumps have to cross, making their structure much more simple.

*"The challenge for the bacteria is to rid itself of potentially damaging molecules across the unique envelope,"* says Professor Hughes. *"They do this using apparently simple yet sophisticated biological nanomachines."*

The bacterial pumps pick up drugs via a transporter in the inner membrane, which delivers them to a "trash chute" known as a TolC exit duct in the outer membrane. A third component – the "adaptor" – connects these two components, opening the TolC exit duct to eject drugs out of the cell. The researchers have now managed to elucidate this whole tripartite structure, which is published in the *Proceedings of the National Academy of Sciences*.

Professor Hughes suggests that knowing the structure of the bacterial tripartite pumps allows further research to better understand how they work, and presents new possibilities for developing crucial new antibiotics. *"This new research shows how the bits come together. Knowing the key components and their assembly can open up new therapeutic targets - in particular by preventing the pumps assembling in the first place."*



**FIGURE: COMPLETE TRIPARTITE PUMP**  
C.270 ANGSTROM HIGH, SPANNING BACTERIAL CELL ENVELOPE OF INNER AND OUTER MEMBRANES AND INTERVENING PERIPLASMIC SPACE, PUMPS OUT ANTIBACTERIAL DRUGS TO ESTABLISH MULTIDRUG RESISTANCE.

# Our History: 125 years

The Department of Pathology celebrated its 125th year in 2008. We are very proud of our history and thank those who have kindly contributed to the archive of photographs and memories of the early days in the Department. We are delighted to reproduce a short extract from the book *Gentlemen, Scientists and Doctors* by Dr Mark Weatherhall which details the very early days of the Department (see below).

We carried on the 125th celebrations through to 2009, (the 800th year of Cambridge University) with a charity dinner-dance at Homerton college, organised by Campod. Current staff were joined by friends and supporters to enjoy a candlelit meal followed by dancing to the Galaxy Big Band. It was a superb evening and a charity auction raised £2,000 for Campod (Cambridge Fund for the Prevention of Disease).



## Gentlemen, Scientists and Doctors

Research and the Rise of the Experimental Sciences: Pathology at Cambridge 1884–99 The 'Adullamites' [Abridged Extract]

**R**oy began with one and a half rooms in the Department of Anatomy, previously used by Humphry for classes in histology, and by John Willis Clark for mounting preparations in spirit. Sharing laboratory space proved disruptive for both physiologists and pathologists. Overcrowding made experimental pathology and the cultivation of micro-organisms impracticable. Roy's rooms were some distance apart, involving much carrying of specimens to and fro; this made them difficult to supervise and several valuable articles were stolen. Research in such circumstances was virtually impossible. In his annual report for 1886 Roy presented an ultimatum to the University, stating unequivocally that he could no longer

**“rooms were some distance apart, involving much carrying of specimens to and fro; this made them difficult to supervise and several valuable articles were stolen.”**

‘carry on the efficient teach of Pathology, or profitable original work, unless adequate space be provided’. He was supported by the Special Board for Medicine, which issued a report at the same time complaining of the lack of space for research in pathology. The MLRS took Roy's threats seriously and conferred with him, George Paget, Foster and the Professor of

Anatomy, Alexander Macalister, about how the various needs of the pathological, anatomical, physiological, and medical departments could best be met. The arrangement that they reached published by the MLRS in October 1887, allocated Roy most of the old chemical laboratory and set aside a site for new buildings for human anatomy and physiology. Roy was generally happy with this arrangement and stated that he wished to move in as soon as possible. Professor Living moved out in the summer of 1888, the lighting of the laboratory (vital for histological work) was improved, and the laboratory was handed over to Roy in the summer of 1889. In his annual report of May 1889, Roy wrote that, despite not having been expressly designed for pathological work, the

new laboratory served its purpose well, and had been fitted up ‘in accordance with the various sections into which the Science of Pathology naturally falls’:

“one room... is allotted to Morbid Anatomy, and the preparation of Macroscopic Morbid specimens for class-demonstration and for the Museum. Another large room is specially

devoted to Bacteriology, being provided with apparatus for the artificial cultivation and study of Pathogenic Micro-organisms, which are now known to be the causes of so many diseased conditions. Another room is used as a chemical room, the chemistry of disease having become of great and ever-increasing importance. Another room is arranged for experimental work, where, by physiological methods, the deviations in function which take place in disease can be conveniently studied and demonstrated.”

The procurement of his own laboratory was an important success for Roy, but it brought with it new staff to employ, new equipment to buy, and new bills to pay, all of which relied on the precious funds administered by the MLRS for which all the university's burgeoning scientific departments completed voraciously. The MLRS its picked up the bill for most of the day-to-day costs of maintaining the premises, including repairs and ordinary fittings, the wages of assistants and laboratory boys, and from 1895, the costs of laboratory equipment such as slides, spirit, glycerines, glass and tubing. The Museums and Lecture-Rooms Maintenance Fund, the money for which came directly from the University Chest, paid for cleaning, coal, water, gas and electric light. The costs of research and teaching came, as before,



1949 - THE BUGS AND DRUGS COURSE - PHOTOGRAPH KINDLY PROVIDED BY DR D. L. CALDWELL

from the fees paid by students. Little if no money was left, however, to pay the stipends of researchers. Limited funding for science was available from leading scientific and medical societies such as the Royal Society, the British Association for the Advancement of Science (BAAS) and the British Medical Association (BMA). BAAS, Royal Society or BMA funding was scarce, hard to come by, and usually only available to scientists already well established in their field. Roy received Royal Society Funding in 1885 to investigate an outbreak of cholera in Spain. At Cambridge, college fellowships remained the most important source of financial security for young scientists, if they could come by them. Otherwise young researchers had to compete for one of the rare studentships or fellowships available for whole time research, such as the George Henry Lewes studentship in physiology that Roy himself had held in the early 1880s. Hence it was a major boost to departmental fortunes when, in November 1886, the Attorney-General Sir Richard Webster, acting as the executor for the will of his friend John Lucas Walker, offered the university the £10,000 left by Walker to encourage scientific or literary research in Cambridge or London to found a studentship in pathology.

Reprinted by permission of Boydell & Brewer Ltd from *Gentlemen, Scientists and Doctors: Medicine at Cambridge 1800 – 1940* by Mark W Weatherhall (Boydell Press 2000) pp 144-146

Additional photography: [www.simonpeckham.co.uk](http://www.simonpeckham.co.uk)



## NEWS IN BRIEF

### THE NAKED SCIENTISTS WIN PRESTIGIOUS AWARD

It's a little known fact that the incredibly popular 'The Naked Scientists' radio show is based in the Department of Pathology. Pioneered by Dr Chris Smith and part-funded by the Wellcome Trust 'The Naked Scientists' is the only weekly science show broadcast on local radio. Chris's informal approach, stripping science down to the bare essentials, has captured the imagination of the listening public. According to figures for BBC radio, the show is the most 'listened to again' on every station on which it is broadcast. The podcast is top of the United States science charts for downloads.

In recognition for his successful work in engaging a diverse audience with science Chris has been awarded the Royal Society's prestigious Kohn Award. Chris said: "It is an honour to receive the Royal Society Kohn Award, as communicating science to the public is so crucial for our society. I enjoy every minute of working on the Naked Scientists radio show – talking to scientists from all over the world and producing such diverse content for the show is fascinating.

"Above all, the letters and emails we receive every day from listeners all over the world really make the effort worth it because it's clear that our programmes are helping to enthuse young people about science, which is incredibly satisfying to see and exactly what we set out to do." [www.thenakedscientists.com](http://www.thenakedscientists.com).



### RESEARCH PUBLICATIONS

A full list of published papers with contributions from Department of Pathology are available online at [www.path.cam.ac.uk/research/publications.html](http://www.path.cam.ac.uk/research/publications.html)

### A 'WHAT' OF PATHOLOGISTS?

An interesting on-line debate on what a collective group of pathologists should be called was featured on the blog of crime novelist Peter James. Suggestions included: an incision of pathologists, a d'eath of... a poke of... body of... eviscera of...

celebration of... close-shave of... a second chance of... a miracle of... More specific suggestions included a clot of haematologists, a colony of microbiologists, a spliff of toxicologists and a cell of cytologists. Dr Peter Cowling won the competition with 'a panacea of pathologists'!

## Part II Pathology Reunions

We are always delighted to hear from past students and staff members. If you are interested in organising or attending a reunion, please contact us or our colleagues in Cambridge Alumni Relations Office (CARO).

*"I have not heard of any reunions of former Part II Pathology students so I thought I would let you know about such an occasion. It happened when Peter H.A. Sneath (Prof. Emeritus, Leicester)*

*visited us in August and I realized that we had three other graduates of the Part II living in London [Ontario]: myself, James L. Whitby (Prof. Em. Clinical Microbiology, Univ. Western Ontario) and David White (Prof. Surgery and Xenotransplantation, Univ Western Ontario)...*

*We had a celebratory dinner... It brought many stories and from me memories of my father's involvement because he taught the first Part II Path in 1925. It was fun to reminisce.*

*Now that the University is taking great trouble to be in touch with alumni there may be mechanisms that could assist reunions of your Part II graduates from time to time. It seems to me that there must be a considerable group of distinguished products of a course of study that those of us who talk together about it feel was important to the development of their careers. It would be sort of nice to know something direct of what the course has meant to biomedical studies and I suspect it is a lot."*

Robert G. E. Murray, OC, MA, MDCM, DSc, FRSC

### Class of 1949 – 50th year anniversary!

Dr Ernest Kohorn (Prof. Emeritus, Yale) would like to contact his former classmates from the 1949 Part II Class to celebrate the 50th anniversary of their study in Cambridge. If you are in contact or know the circumstances of any of the following: B R Corbin (Newnham), C le Q Darcel (Fitzwilliam), E D Farmer (Queens), K M Underwood (Girton), R L Morgan (Johns), J R H Pinkerton (Trinity) or F V Simpson (Jesus) please let us know.

● **Contact:** Jane Rich, Department of Pathology, Tennis Court Road, Cambridge CB2 1QP

## Annual Alumni Lecture

Friday 25th September 2009 ● 10.45am ● Lecture Theatre, Department of Pathology

The Department Pathology invites alumni from across the University for the Annual alumni lecture as part of the 19th Alumni Weekend, *Cambridge Unveiled*. Professor Andrew Wyllie, Head of Department will be presenting *Cancer: the enemy within* and Dr Stacey Efstathiou, Head of Virology speaking about *Influenza*. There will be the opportunity for questions from the audience. Booking essential – through CARO [www.alumni.cam.ac.uk](http://www.alumni.cam.ac.uk).

# Help us conquer disease and create a healthy future



## Campod

CAMBRIDGE FUND FOR THE PREVENTION OF DISEASE

**A charity supporting research in the Department of Pathology**

- **Make a donation:** we are grateful for gifts of all sizes, either return the slip below or donate on-line at [www.path.cam.ac.uk/campod/support](http://www.path.cam.ac.uk/campod/support)
- **Remember us in your will:** a legacy is an easy way to give, costing nothing in your lifetime. So if you don't have a Will, or intend to update an existing one, please consider including Campod (Cambridge Fund for the Prevention of Disease).
- Your gift will directly help our researchers in their vital work to combat major diseases including cancer of the breast, ovary, cervix, bowel, brain, lymphoma, degenerative brain diseases, influenza, diabetes, arthritis, pre-eclampsia, bilharzia, sleeping sickness

### RECENT CAMPOD FUNDRAISING EVENTS

#### SPRING CONCERT, MAY 2009

We invited our friends for a wonderful evening of music at the United Reformed Church in Trumpington Street, Cambridge. The delightful 'Cellophony', an unusual octet of young professional cellists, played a programme including Wagner, J.S. Bach, Rachmaninov, Ravel, Dvorek and Jacob.

#### THE 9TH ANNUAL CAMPOD GOLF CHALLENGE, JUNE 2009

The 9th Annual Campod Golf Challenge was held at the prestigious Gog Magog Golf club. Seventeen teams battled in the Stableford four competition with 'The Fore Spanners' claiming the trophy. As always there was a wonderful atmosphere and some fun fundraising activities including the auction of the opportunity to share breakfast with top race-horse trainer Henry Cecil, raising altogether a total of £3,115.75 for Campod.



**For more information about Campod visit our website:**  
[www.path.cam.ac.uk/campod](http://www.path.cam.ac.uk/campod)

*All donations to Campod should be made to "University of Cambridge" and sent to Campod, Department of Pathology, Tennis Court Road, Cambridge CB2 1QP*

### I WOULD LIKE TO SUPPORT CAMPOD

I would like to donate  £25  Other £ \_\_\_\_\_ *We are grateful for gifts of all sizes*

to Campod (Cambridge Fund for the Prevention of Disease) *Cheques made payable to University of Cambridge*

I would like further information about supporting the Department of Pathology

*giftaid it*  I am a UK tax payer and would like Gift Aid to be collected on this and any future gifts to Campod

*Return to: Campod,  
Department of  
Pathology,  
Tennis Court Road,  
Cambridge  
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