

IC Reporter

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STAFF NEWSPAPER OF IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE

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A party, hosted by the Rector and Lady Oxburgh, was held on Monday 3 July to celebrate the 90th birthday of Lady Penney. Lady Penney was joined by three 'generations' of Rectors' wives, as well as many College friends. She is seen here, top right, with Lady Flowers, Lady Ash and Lady Oxburgh (right to left). Lord Penney was Rector of Imperial College from 1967 to 1973.

Neville Miles, College Photographer

Open Day at Imperial

Imperial College's 1995 Open Day took place on Thursday 22 June. Held all over campus, the central focus of the day was a marquee on the Queen's Lawn. Over 1,500 sixth formers attended, many of whom are prospective students for 1996.

Most departments exhibited in the marquee, with by far the greatest contribution coming from the physicists: their five experiments on show assured a continuous 'buzz' around the display.

This year, along with the usual guided tours of the departments, there was a visit to the rooms in a hall of residence and two UCAS workshops.

Contacts made between departmental representatives and visiting teachers were considered valuable. In the words of one headmistress, "All the queries I came with have been answered and I know now where to go for advice in the future".

The Open Day is always useful for potential applicants but this year the event was enhanced by good weather and an enthusiastic turn out by all departments.

Open Day was coordinated by the Schools Liaison Office

IN BRIEF

Appointment for St Mary's Dean

Professor Peter Richards has been appointed Medical Director of Northwick Park and St Mark's NHS Trust. He leaves St Mary's Hospital Medical School this month, after 16 years as Dean and Professor of Medicine.

ICCET lecturer lands top job

Dr Andy Rosenberg, who was the deputy director and lecturer for the Renewable Resources Assessment Group in the Centre for Environmental Technology, has been appointed northeast regional director of the National Marine Fisheries Service in the USA, running a budget of \$44 million a year. Rolland Schmitzen, assistant administrator of the National Marine Fisheries Service, announced the appointment and commented, "Dr Rosenberg has the experience and expertise to lead this region during this critical time in the rebuilding of New England's natural marine resources".

Science in Print award

Dr Carl Norman gained a special merit award of £100 for his entry 'Through a Glass Brightly' in this year's Science in Print competition.

A research associate in the Centre for Semiconductor Materials, Carl also entered the competition last year and won first prize.

The competition aims to encourage scientists to write for the general public. This year's winning entry by Tom Wheldon, Head of the Radiation Oncology Research Group at CRC Beatson Laboratories, begins, 'Like a serial killer with a regular day-job, an isolated cancer cell too closely resembles the normal cells around it'.

Albertopolis rejected

The £100 million scheme to transform South Kensington into 'Albertopolis' has been rejected by the Department of National Heritage's Millennium Fund as insufficiently 'distinctive'. Projects that have been short listed are weighted in favour of environmental and community projects.

Victory for the Thames Cup Eight

Crew member *Jason Botterill* describes the races which led to success for Imperial at Henley

Imperial's Thames Cup Eight began its Henley campaign on Thursday 29 June.

Despite the size of the task that lay before us, the crew were glad to see the waiting over and the racing begin. Although we were not considered to be much of a serious contender by many people, we knew our chances of success were as good as anyone else's.

The first couple of days saw very little in the way of strong opposition and we were able to use these as a learning ground, to

test our race plan for the harder races that would follow.

Saturday morning brought the quarter-finals and with it Goldie Boat Club, one of the favourites for the event, according to the national press. We were determined to prove them wrong, and we did. Leading from the start we went on to win by one length and set a new course record in the process.

This race, however, proved to be the first of two hard races on Saturday. In the afternoon we raced the Nottingham Boat Club

in the semi-finals. Despite the efforts of the morning we managed to equal the old course record and won by one length. All that stood between us and the cup now was the unbeaten Junior Varsity Eight of Washington University.

Waiting was the order of the day on Sunday, as our final was not until 17.15 hours. Nerves were high and adrenaline was pumping as we boated.

We had prepared ourselves for a titanic struggle which never came. When the umpire's flag fell to

signal the start of the race we surged away and then just kept slipping ahead.

The winning verdict was three-and-a-half lengths, the Thames Cup was ours and Henley was over for another year. The joy of winning will, however, last very much longer than that.

The Eight, pictured below (left to right), are: Andy Kershaw (captain), Tom Gale, Jason Botterill, Richard Lucas, Simon Dennis, Lewis Attrill, Alistair Warnock, Pete Wilson and Jimmy Goodwin (cox).



Media mentions

Government post for Imperial professor

The appointment of Robert May to the post of Government chief scientific adviser was reported widely in the national press in June. He will also be the head of the Office of Science and Technology. Professor May is a Royal Society research professor and a member of the Department of Biology. He has held posts at Harvard and Princeton and his current research interests include theoretical immunology and biological diversity.

Fantastical creation

Professor Glyn Davies (Aeronautics) is, according to the *Evening Standard* (21 June), providing technological assistance towards the design of 'an extraordinary and fantastical creation straddling the Thames' for the Millennium Festival. The project directors hope that the structure, which will be a combination of a zeppelin and a bridge, will attract funding from Government and the Millennium Commission. On special occasions, both balloon and deck could be raised into the air, still tethered to the piers, with enough space to accommodate 600 people.

Publicity at a price

'Who owns science?' was the title of an article in *The Independent* (20 June) written by John Durant, Professor of Public Understanding of Science at Imperial, and assistant director of the Science Museum. The article discussed the opinion that if scientists want the public to be interested in their work, they must learn to take criticism and give up control. Professor Durant wrote, 'There is a deep irony about some scientists' simultaneous desire for a greater presence within mainstream culture and their dissatisfaction with some of the more striking ways in which science has come to be represented in that culture. Part of the price that science must pay for a more central place within culture is a willingness to tolerate comment and criticism from far outside the scientific community.'

Aromatherapy warning

The Big Issue and *The Evening Standard* (13 June) reported the possibility that aromatherapy oils could cause cancer, epilepsy or miscarriages in pregnant women. Dr Sharon Hotchkiss, St Mary's Hospital Medical School, who gave a presentation at ICET's Health and the Environment Symposium and on Environment Day entitled 'Skin Absorption of Chemicals', was interviewed. She said: 'People slap chemicals on themselves thinking their skin will act like a rubber glove. But the skin is not just an inert piece of clingfilm - it's porous.'

OBITUARY

Dean of St Mary's pays tribute to Madeleine Jkinson

With deep sadness St Mary's mourns Madeleine Jkinson, who died on 26 June.

Madeleine was above all the person with her finger on the pulse of St Mary's. She knew everyone from greatest to smallest, from best to worst, from strongest to weakest: she believed they all had a contribution to make. Everyone knew her, perhaps without fully realising that she knew more about them than they knew themselves.

She was down-to-earth, firm, fair and always prepared to listen. People went to talk to her, knowing that what they said would go no further. If she was sometimes prickly it was only through frustration with people who were incompetent, arrogant or unwilling to give just a fraction of the whole-hearted commitment she herself gave.

Madeleine was appointed Administrative Assistant at St Mary's in 1972. In effect, personal assistant (a term which had not been invented then) to the old-style, autocratic (but very efficient) School Secretary. Her tasks when

appointed included: supervision of the general office; enquiries; dealing with heads of departments, academic staff and consultant staff at the Hospital; orders for supplies; advertising for staff; arrangement of selection committees; student accommodation; servicing all the major committees of the School; registration of students; examinations; dealing with confidential matters; and, finally, car parking.

Small wonder that she knew her later job of Personnel and Administration Manager backwards, the institution inwards and outwards, but feared a future in which she believed that others would not understand the intensity, complexity and sensitivity of her task of breathing continuity, humanity and quiet common sense into the daily life of a medical school which functioned more as a family than an institution.

With great courage she lived with her diagnosis for two years and worked to within ten days of her death. It was characteristic of her attention to detail that she planned with a quiet, resigned smile in her closing days, every detail of her funeral.

The view from the tower by Don

6.45 a.m. What's that racket? Ah, the alarm clock. Smash the 'off' bar. Term's over - just forgot to turn the thing off last night. Nice to lie in for a bit ...

10.20 a.m. Twenty minutes late for course planning meeting. HoD makes sarcastic remark about some people thinking they're on holiday like students. Goes on to suggest that my fourth year course on the analysis of the thermal insulation of steam locomotive boilers should be discontinued. But I've been doing it for many years, I protest. Precisely, he says, perhaps I could bring it into the twentieth century (the twenty-first being too much to ask - sarcastic snigger again).

12.35 p.m. Committee still arguing whether Prof Doless' new proposal constitutes good course design or not. It seems honest enough to me: 'Strength of Virtual Materials III: 20 lectures will be delivered on advanced topics to be determined by the state of my research at the time. Coursework will involve students in literature searches which will be acknowledged in published papers'.

2.32 p.m. Back from a good plate of sausages and potatoes at the Polish restaurant. That glass of Hungarian 'Bull's Blood' wasn't bad either. Turn on e-mail. 'There are 64 new messages' it says. Turn off e-mail.

3.12 p.m. Startled into consciousness by a knock on the door. PhD student reminds me of our three o'clock meeting. Have I read his

transfer report yet? (Blast! Where have I put it?) Yes, very interesting - I'll need a little more time to have a closer look at the maths. Pop in again next week and we can discuss whether it merits a joint publication.

3.15 p.m. Crossword clue in *The Times* on my desk happens to catch my eye.

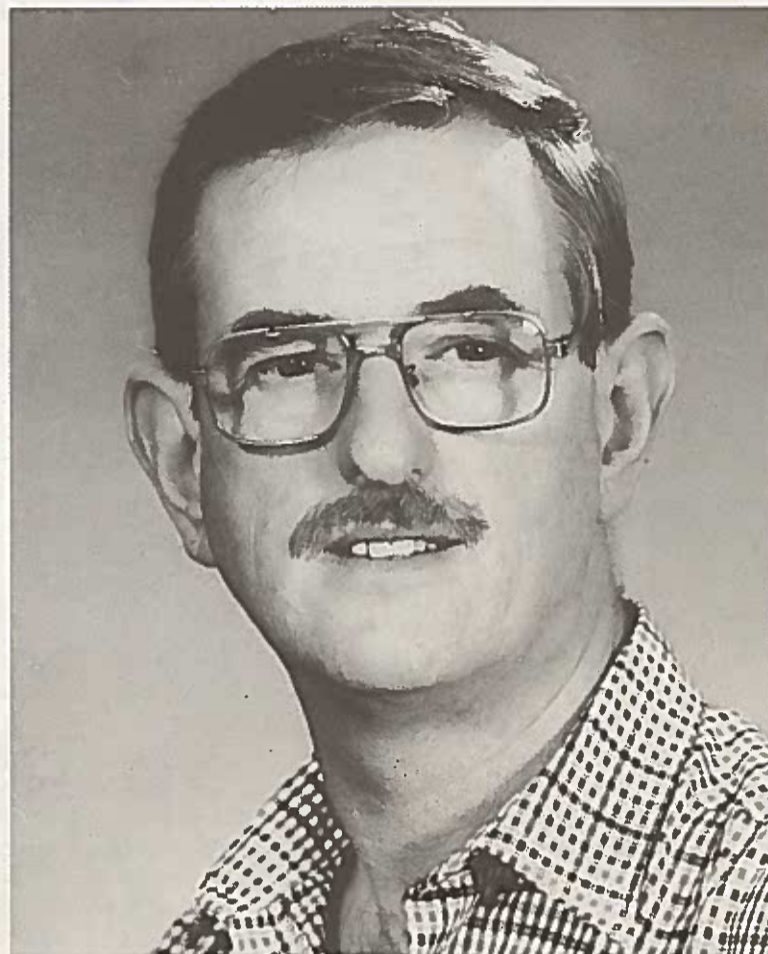
4.10 p.m. Of course! Number of puppies born in a trash can (6,3) is 'litter bin'. All done now - very satisfying. Better see what's in this envelope. Oh no! I've forgotten to write my EPSRC final grant report. That'll put paid to my research for today.

4.55 p.m. Coming home to write the report was a good decision. Doubles semi-final happens to be on. There are strawberries in the fridge.

10.45 p.m. I feel shattered now. Will have to write the report tomorrow. The semi-final was sensational! Of course, it ran into the third repeat of the *Horizon* documentary on steam locomotives. Had to be watched for professional reasons. I must have dozed off 'cause there's Jeremy Paxman going on about some cuts in university education. 'Of course the idea that dons have long holidays is a complete myth' says the Vice Chancellor he's interviewing. Well done VC, I just wish more people would realise that!

Apologies to the Don's Diary in the THES.

Aeronautics technician receives MBE



John O'Leary, departmental photographer for Aeronautics, has been awarded a MBE for his work as an inspector in the special constabulary.

His community work includes involvement with the Southwark Youth Project. Every summer he helps take up to 800 south London children camping, and raises £10,000 towards the cost of the trip.

He has worked in the Department of Aeronautics for 39 years, joining the College as a junior technician.

'We are delighted that he has won this award,' commented Professor Peter Bearman, Head of

Aeronautics. 'John was away on the first Monday after the awards were announced. He is very modest and certainly doesn't go around boasting about the voluntary work he does, so we weren't quite sure at first if it was our John O'Leary in the honours list. We were really quite surprised, and very pleased for him.'

John, pictured above, was particularly pleased to receive the MBE as it is almost unheard of for an ordinary officer of his rank to be awarded with this type of honour.

Sir Nevill Mott, who became a Fellow of Imperial College in 1978, was made a Companion of Honour, for services to science.

Biochemistry professor receives ROPA award

Professor Gordon Dougan, of the Department of Biochemistry, has been awarded £98,298 over two years by the Medical Research Council under the newly instigated Realising Our Potential Award (ROPA) scheme adopted by the research councils.

The project is entitled 'Domains of tetanus toxin for targeting the central nervous system'.

The scheme focuses specifically on researchers already working closely with UK industry and commerce on basic or strategic research projects.

The researcher can use the funding to carry out separate curiosity-driven research of their own choosing.

Letters to the Editor

Dear Editor

In your issue of 7 June, you ask if Chris Toumazou is IC's youngest ever professor.

Not by a long way. When A.A. Hall (later Sir Arnold Hall) was appointed Zaharoff Professor of Aviation in 1945 he was 29.

He later went on to become Director of the Royal Aircraft Establishment and, later, Chairman of Armstrong Siddeley.

Yours faithfully

F.G. Irving
Retired senior lecturer,
Aeronautics

I have also been informed that Abdus Salam, the Nobel Prize winner, became a Professor of Mathematics in 1957, at the age of 29. Ed

MEDICAL MERGER

National Heart and Lung Institute poised to become new Imperial College department

With four weeks to go before the much talked about merger, *IC Reporter* interviews the deans who run the NHLI.



Professor Tim Clark, the Dean of NHLI, and Dr Marion Kimberley, the Administrative Dean.

The National Heart and Lung Institute is a post-graduate medical research institute which joins IC on 1 August. The NHLI's principal objective is to carry out research, development and education in heart and lung medicine. *IC Reporter* went to see this new Imperial College 'department' and meet the people who run the Institute.

A 15-minute walk from Imperial, the NHLI is just off the Fulham Road, housed in a converted convent which has been extended. Within the building the overall effect is light, modern and airy. Professor Tim Clark, the Dean, and Dr Marion Kimberley, the Administrative Dean, were very friendly and relaxed, happy to talk about their management of the NHLI and the decisions and events leading up to the merger.

"We have this relationship where I am head of the Institute, acting on behalf of my colleagues and doing the best I can for them and trying to make sure they perform well for the Institute," said Tim. "But Marion is the one who makes the Institute run! I think it is a good combination and we have to work very closely together as a result."

"I see my role as managing rather than administrating," commented Marion. "What I am doing in my position is trying to make sure that the institution is financially viable and efficiently run in order to support its academic mission. Sometimes that means things that academic staff want to do have to be constrained, because of the need to keep the place strong in all areas."

Professor Clark has been on the staff of the Royal Brompton Hospital, which is closely associated with the NHLI, since 1970.

He was Dean of UMDS (United Medical Dental Schools of St Guy's and St Thomas's) until 1989. In 1990 he joined the NHLI full time to become dean. He continues to work as a physician at the Royal Brompton and his particular academic interest is the treatment of asthma. "My background is very straightforward," he said, "Marion's is more unusual".

Dr Kimberley is a mathematician who has been within the University of London all her working life. She joined Goldsmiths as an assistant lecturer and stayed there for about 20 years. "I eventually became head of the department of mathematics, then dean of science and mathematics. Being dean is a very interesting occupation. It's just as intellectually challenging, in my opinion, as doing research - you have to solve problems." Marion joined the NHLI in 1988. "I was actually asked by somebody I knew at the Brompton Hospital if I would be interested in this job. It was a wonderful change - totally rejuvenating to actually move after being in the same place for so long."

Tim and Marion have spent most of the last year getting everything ready to transfer to Imperial. They both welcome the merger and believe postgraduate institutes joining multi faculty colleges is the way forward for London medicine. "This is really the final step in a process that has been going on for 30 years: it is not a new idea," explained Tim, recalling the Todd Commission of the 1960s. "Our participation in the BPF [British Postgraduate Medical Federation] has been of limited value scientifically; for example, we have little in common with the Institute of Dental Surgery or the Institute of Psychiatry. Whereas we do have a

lot in common with the basic science that is at Imperial College."

Of the implications of the merger for the people working at the NHLI, Tim says, "There won't be a magical difference on the 1 August for the academic staff. We're staying here and the 15-minute walk from IC necessitates that we will run much of our own activities on this site. However, it will give our academics and researchers the opportunity to develop exciting scientific interactions with colleagues at Imperial. I'm sure the opportunities will very rapidly become apparent and it is up to us to develop the structures to encourage links."

"I think the people who work in the central support areas of the NHLI will notice quite a lot of difference," commented Marion. "Because of the need to work with other parts of the College. For instance, we have had our own independent finance department, and we'll now get financial service from IC."

"I hope our researchers will have a much richer academic environment eventually to work within," she continued, "Because that actually is the whole point of the merger".

They have been involved in discussions with Imperial staff for nearly a year now, and Marion describes the College as welcoming and the people easy to work with. "It also has a very devolved model which makes it easier for other institutions to join and gradually become part of the College without feeling too threatened".

"People at the NHLI have thought for many years now that joining Imperial College was the obvious thing to do," added Tim. "Not only because it is geographically very close, but because of its excellent scientific environment."

Two academics working at the National Heart and Lung Institute describe their research to *Carrie Golus*. Dr Stephen Durham, a respiratory clinician, seeks to alleviate hay fever...

For people suffering from grass pollen allergy - the most common type of hay fever - summertime can be miserable. In the most severe cases, sufferers are forced to remain indoors with windows and doors shut.

"It's something that tends to be trivialised unless you happen to suffer from it," says Dr Stephen Durham, Reader in the Department of Allergy and Clinical Immunology. "Patients are often ostracised. And if you happen to be a food packer, or a telephonist, or a singer, it's not pleasant to have constant symptoms."

90 per cent of summer hay fever sufferers can be treated either with antihistamine pills or nasal sprays. However, for a minority of sufferers these treatments don't work. Stephen is investigating another method of treatment: injecting patients with grass pollen protein to make them immune to the allergen.

Results of the immunotherapy are encouraging. Patients have

shown decreased sensitivity to grass pollen with treatment, for over four years. Now Stephen is trying to determine if patients must continue to have injections, or if the effect is permanent. If so, this would be a definite improvement over tablets and sprays, which have a temporary effect.

He hopes the research will advance the understanding of allergic disease in general. "Hay fever is a very good model, because it's a pure form of allergy," he explained. "Patients are fine most of the year, then during the grass pollen season they develop symptoms. You can study that under very controlled conditions."

In collaboration with Professor Barry Kay, Stephen is also investigating the mechanism of immunotherapy. In future, the research could suggest treatments for more severe diseases, such as food allergies or asthma. Stephen's group has recently been awarded a National Asthma Campaign grant to extend the research to look at the effects of immunotherapy withdrawal.

...and Professor Alan Williams, a scientist in the Department of Cardiac Medicine, investigates structure and function in the heart.

One of the major questions of basic cardiac function is, how does the electrical activity of the heart link to the mechanical activity? Alan Williams, Professor in Membrane Biophysics, is researching one particular aspect of this question: how the calcium involved in the muscle contraction of the heart is regulated.

Muscle contraction - whether in cardiac or skeletal muscle - is controlled by the calcium level in cells. These calcium ions are released from an intracellular membrane network. Alan's research concerns one particular protein that acts as an 'ion channel' - a pathway for the release of calcium. He and his group are trying to determine how this channel is regulated at the molecular level. "It's a protein of fundamental importance to the way the heart works," said Alan. "Many aspects of the way in which the protein works are still unknown."

In heart disease, the cells sometimes lose the ability to maintain and regulate calcium. One possible reason is that this ion channel is not functioning. Alan's research on

normal muscle cells could eventually shed light on this area. "If you don't know how it works normally, you're not going to know how it works in disease," he said.

Malignant hyperthermia is a particular disorder that his research might help to explain. If a patient with malignant hyperthermia is exposed to anaesthetics, the muscles contract and give off a vast amount of heat, resulting in death unless treated quickly. Malignant hyperthermia also occurs in pigs, which can develop similar symptoms under stress. A mutation in the protein that Alan is studying could be responsible for this condition.

Alan's research mainly concerns heart tissue in mammals, though he also does some work on mammalian skeletal tissue. In addition, he is collaborating with groups doing research on heart tissue in birds and skeletal tissue in insects. In the long term, the research could identify ways to control the ion channel with drugs.

Carrie Golus is Media Liaison Officer in the Press Office at Imperial College

'Third revolution' offers opportunities

A report by *Dr Anthony Cox* examines Japan's reassessment of its R&D policy and the implications for UK researchers

After many years of steady economic growth, Japan's self-confidence has suffered with the recession.

It received a further set back when the Hanshin earthquake showed that Japan was just as vulnerable to these catastrophes as California. The recent poison gas attacks in Tokyo and Yokohama have put an end to the impression that Japan is a crime- and terror-free society.

Japan is in a transition state, occasionally called the third revolution (the previous ones being the Meiji restoration in 1868 and the post war reconstruction). Electoral reform is underway. The Government, sensitive to international pressures, is taking steps to reduce the trade surplus. In 1993 Japan's GDP showed negligible growth, while 50,000 jobs were lost in the manufacturing industry. Manufacturing is expected to decline further as Japanese companies move off-shore to cope with the appreciating yen.

Problems facing Japan's high-tech industries

For 25 years Japanese companies have invested consistently in research and development (R&D). 'Made in Japan' is now synonymous with quality and technological innovation. Technologies developed under the numerous co-operative programmes have been exploited in computers, lasers, micro machines, ceramics, etc.

Industry's partner for the past 25 years has been the Ministry of Trade and Industry (MITI). Having watched over a steady increase in private sector R&D during that time, MITI is now perturbed by the recent stagnation in research investment.

The declining interest in science and engineering amongst young people is also a problem. It is expected to result in a shortage of R&D personnel in coming years. There is concern over the reliance on imported technology and Japan's inability to create an American-style entrepreneurial culture.

Whilst these problems are recognised, there are few changes in prospect that would alter the situation significantly in the short term. Because of Japan's lack of natural resources, both Government and industry agree that future prosperity depends on retaining a strong manufacturing base and that the present 'hollowing out' of industry must not be allowed to go too far. The consensus is that a less regulated environment is necessary for a dynamic and creative culture. This will require changes in management and education, with companies being more imaginative in their research and less risk averse.

With the end of the cold war, MITI believes that economic security has replaced defence security as the justification for co-operative and harmonisation of standards. Research and development costs have become too high even for the large Japanese multinationals. International corporate alliances have become essential.

Amongst industrialists, there is concern that if the present trends continue Japan will lose its technological advantage. One prerequisite for the new creative culture called for is a doubling of the Government's investment in R&D to match the USA, France and Germany. In addition, coordination between Government and academia is recognised as inadequate.

Limited research partnerships with universities

University research departments are a relatively untapped source of ideas for Japanese industry, being rarely regarded as a source of exploitable technology. Industry's contacts with the universities are primarily the source of next year's graduate intake.

The university ethos which champions academic autonomy is an obstacle to links with industry (although professors at the private universities have more freedom to work with industry than their counterparts in the national universities). Until recently, industry had preferred to form alliances with American and European institutions. However, as the quality of Japanese university research improves, attitudes are changing - closer relationships are in sight.

Japan's R&D policy changes

MITI is opening up its domestic programmes to foreign participation and encouraging companies to form alliances across the globe, while promoting deregulation to increase imports. The Government research expenditure has been increased. In 1995 the overall budget is set to increase by five per cent, with priority being given to: promoting basic and creative research; improving the information network; introducing schemes to raise scientific awareness; expanding the space programme; creating centres of excellence in the national institutes; improving university research facilities; providing tax incentives for R&D.

MITI's technology programmes have been reorganised under the Industrial Science and Technology Frontier Programme (ISTFP), the New Sunshine Programme and the Medical and Social Equipment Technology Programme.

The ISTFP, which includes the most important technologies for future industries, has been enlarged to include projects on Femtosecond Technology and Evolutionary Molecular Engineering.

Priority in the New Sunshine Programme is to be given to developing 'environmentally friendly basic technologies for mitigating the effects of pollution' and technologies for sustainable systems.

In the field of medical and social welfare - which already include R&D on diagnostic imaging, artificial organs and digital hearing aids - six new projects will be started.

Additionally MITI, in collaboration with industry and the prefectural governments, is expanding the Advanced Research Centres and the Key Technology Centres. All these programmes offer opportunities for foreign participants.

Opportunities for UK-Japan collaboration

Japan is one of the UK's most important trading partners. In 1994 the UK exported goods worth £3 billion to Japan, while imports amounted to £9 billion. Japanese companies have also invested heavily and now there are 212 manufacturing plants and 96 R&D centres in the UK. Over 30 per cent of the world's innovative developments come from Japan and 25 per cent of the world's researchers are Japanese.

At any one time during the year there are around 100 British scientists and engineers in Japan seconded for one or two years in companies, government laboratories and universities under fellowships provided by MITI, the STA, Monbusho, DTI, the Royal Society and individual companies. There are now more than 150 collaborative university to university basic research projects and these are expected to expand following the signing of the Intergovernmental S&T Agreement in 1994.

The UK's reputation for innovative research is high and those wishing to collaborate will find willing partners in Japan. For those seeking Government research contracts, MITI's domestic and international projects offer opportunities to participate in advanced research with scientists from around the world. In recent years UK research groups have been successful in winning contracts in ceramics, geothermal power, hydrogen energy, hypersonic jet engines and industrial heat recycling. This summer NEDO will invite research proposals for projects in femtosecond technology and molecular biotechnology projects. Further opportunities for British scientists exist in the STA's prestigious ERATO programmes which allow key researchers to recruit international scientists for their imaginative research projects.

Links between Japanese companies and British universities have flourished in recent years. Toshiba and Hitachi have established research groups in Cambridge, Canon and Kobe Steel have located at the Surrey University Park, Eisai has a laboratory at UCL, Tanabe at the University of Strathclyde and Fujisawa at the University of Edinburgh. These collaborations have highlighted the benefits of working with British universities and now other Japanese companies are looking to build partnerships with British institutions. Often these relationships lead to investment in manufacturing and R&D facilities or strengthen existing investments.

The Japanese acknowledge their modest reputation for original ideas. By recruiting a talented cadre of foreign researchers, they aim to raise their creativity.

Dr Anthony Cox, an alumnus of Imperial College, is Science Counsellor at the British Embassy in Tokyo. He will be the main speaker at the seminar, entitled 'Japan's research and development strategies for competitiveness', to be held at Imperial on 18 July. For more information, contact Suzanne Westfold-Scott on 46580.

DIARY

July

COLLEGE EVENTS

Thursday 13 July
Annual research staff barbecue
Queen's Lawn, 18.30 hours. Call HUB office for information, extension 48740/1.

EXTERNAL EVENTS

Tuesday 11 July
Poetry reading
'Unstable regions - notions of real and imagined worlds of poetry and science'. Miroslav Holub and Roy Porter. To be held in the Flight Gallery, the Science Museum at 19.00 hours. Tickets £5 (£3 concessionary price for IC staff) from Stephen Foulger, the Science Museum, Exhibition Road, London SW7 2DD. Send a cheque made out to the Science Museum, together with your name and address.

Wednesday 19 July
AWISE summer launch
Association for women in science, engineering and technology. To be held in the Science Museum at 16.00-18.30 hours. To reserve your place please send a £2 cheque, payable to AWISE, to Anne Barrett, AWISE launch, Room 455 Sheffield Building, Imperial College, London SW7 2BY.

TRAINING PROGRAMME COURSES

Tuesday 4 July
Course for academic and research staff
'Career development workshop for women academics'. No charge. For further information ring extension 45521/0.

5, 12, 19 July
Courses for academic and research staff
'Optimise and survive the working day'. No charge. For further information ring extension 45521/0.

Thursday 6 July
Course to develop personal effectiveness and management skills
'Introduction to Imperial College'. Morning course. No charge. For further information ring extension 45521/0.

Friday 7 July
Course to develop personal effectiveness and management skills
'Preparing for retirement'. No charge. For further information ring extension 45521/0.

NOTICE BOARD

Chemical industry awards 1995

For increasing public understanding of science and familiarity with the chemical industry through the news media. The President's award of £10,000 will be made to the individual who has, in the opinion of the judges, made the most outstanding personal contribution to fulfilling the Chemical Industries Association's aims by achieving coverage of science or the chemical industry in the news media. Entries must be nominated by a CIA member company. For further details call John Boier on 0171-834 3399.

Homoeopathy

Homoeopathy treatment for adults and children is available on Monday afternoons at the Health Centre. Contact Rosalind George on 0171-603 6604 for further information and to make an appointment.

IC Reporter

Contributions for the next issue should be received by **Friday 11 August**. These can be sent to Victoria Browning via e-mail (v.browning) or internal post (Rm 546B, Sheffield Building). Extension 46697. Fax 46700. Please note the editor reserves the right to cut or amend the articles as necessary. Information correct at time of going to press.

From 11 July IC Reporter issues will appear on the web and in print. It can be found on the web under <http://www.ad.ic.ac.uk/extnl-rel/icr/icr.htm>

Keeping in touch after retirement

Members of staff who are about to retire and who wish to receive Gazette and/or IC Reporter are asked to write to Eileen Cox, Establishment Officer, Personnel Division, Sheffield Building, giving their home address and indicating the publication(s) they wish to receive.

Centre for Computing Services HELP DESK

The Centre has extended the opening hours of the Help Desk. The Help Desk will now be open to all customers from 09.00-18.00 hours, Monday to Friday for face to face, e-mail and telephone consultation. These hours will apply throughout the vacation periods as well as term time.

If you have any computing service/support problem in connection with academic Computing Service and the College network, that you think the CCS can help you with, do not hesitate to make contact either face to face, Room 481, Centre for Computing Services, Mechanical Engineering Building, or telephone extension 49000 (answerphone available).