The Royal Family’s Toxic Time-Bomb

An international hunt for regal remains, spearheaded by Professor John Röhl, has finally uncovered the truth behind the ‘purple secret’ of the royal family. The amazing story is the subject of a paperback book, which has just been published by Corgi.

John’s research has proved that for hundreds of years the royal houses of Europe have had a toxic time-bomb running through their veins. Generations of symptoms, from lameness to blistered skin to mental derangement, can all be traced back to one disease, an inherited disorder called porphyria.

For years, debates about the royal porphyria have raged between medical professionals and historians. As far back as the 1960s, the psychiatrists Macalpine and Hunter claimed that the disease was inextricably linked with the crown of England. They argued that the ‘mad’ George III had actually been suffering from porphyria, citing the tell-tale symptom of purple urine as proof. This was not enough evidence to convince the eminent physician Geoffrey Dean, however, who promised to ‘eat my hat’ if the authors could prove that porphyria was responsible for the madness of King George.

It took a unique partnership between John, who teaches history in EURO, and the two British geneticists Martin Warren and David Hunt, to come up with the proof Dr Dean was so sure didn’t exist. John had written a letter to The Guardian to support the porphyria argument. The geneticists spotted the letter, and the three then forged a partnership which saw them hunting down the remains of long-dead royals for a dusting of their DNA. Just a tiny sample of bone marrow could prove conclusively whether the family had porphyria in its blood.

At this stage, John’s research pointed towards at least three royals who had almost certainly had porphyria. Queen Victoria’s grandchild Charlotte, the sister of Kaiser Wilhelm, was the first to be detected. She wrote in her letters of having terrible pains in the abdomen which wandered around her body, being lame, having blisters all over her face...and of having dark red urine. John found references to similar symptoms in the correspondence of her mother Vicky - Queen Victoria’s daughter - and of her daughter Feodora.

The three academics sought permission to open Charlotte’s grave. Initially they were told that her remains had been burned by the communists. Then they found her grave, but the German authorities were reluctant to give permission to exhume her. Continued on page 2.

SPRU Report Calls for Halt to Nuclear Reprocessing

Hundreds of millions of pounds could be saved if BNFL stopped reprocessing spent nuclear fuel, according to a study by Gordon MacKerron, head of the SPRU Energy Programme.

The study, commissioned by Friends of the Earth, and co-authored with independent consultants Fred Barker and Mike Sadnicki demonstrates that, even ignoring all sunk costs, it remains cheaper to immediately start storing rather than reprocessing nuclear waste. According to Gordon - ‘The quicker BNFL can stop reprocessing spent fuel, the sooner they will be able to start making more money.’ The company and its German customers would stand to save £526m by making the switch, the report argues.

Reprocessing is a costly and unnecessary process which is avoided by other nuclear nations. The UK and France are the only countries which still use the technique: 85% of the world’s spent nuclear fuel is stored instead.

Initially, reprocessing was seen as beneficial, providing the opportunity to re-use resources. Continued on page 4
The Royal Family's Toxic Time-Bomb

Continued from front page

Finally, in 1997, they were allowed to remove the three-tonne slab from her coffin. "There she lay," says John, "with flowers still clutched in her hand." Scraping some bone marrow from her femur, they tested it for porphyria. "She had the disease, beyond a shadow of a doubt," says John, "and the chances of her having it independently from George III are almost impossible." Since this breakthrough, the proof has mounted up. "The Queen's cousin, William of Gloucester, who died in a plane crash in 1972, was clinically diagnosed with the same type of porphyria by three different doctors in three parts of the world", says John. "We're only at the beginning. Only last week, someone wrote to us and gave us permission to examine the heart of James II." As his research continues, the point at which the disease entered into the family can be established. It is currently believed to have originated with Mary Queen of Scots, whose son, James I, described his urine as being "the colour of Alicante wine".

John's research has profound implications. From a medical perspective, it allows the genealogy of the disease to be traced back for hundreds of years, something which would be impossible in a family less prominent than the royals. It also sheds new light on European history. George III, who was seen as weak and mad, was actually physically ill. The Tsarina Alexandra has been blamed for the downfall of the Russian monarchy. Did porphyria affect her ability to make decisions?

There is a one-in-two chance of any member of the Royal family with the faulty gene passing it on to each offspring. Of that number, around 10% will suffer symptoms. John's research will also alleviate the suffering of future generations of royals - now they are alerted to the risks of the disease they can protect themselves from it. Perhaps they should be awarded a knighthood.

John has just received an award of over £95,000 from the Arts and Humanities Research Board in support of his work on Kaiser Wilhelm II. He retired from the University last week, having worked here since 1964.

Students Have Their Say In Biggest-Ever Survey

The survey was published by the CVCP, 15 universities and colleges and other HE bodies, was conducted over the last 18 months by the Institute of Employment Studies. The research included inputs from over 20,000 university applicants and 2,000 16-year-olds. According to Richard Pearson, the Institute's Director, the results show that "Students are prepared to work in order to pay for their higher education, but they want to be well-informed consumers and to be able to make effective decisions about the relative merits of different courses and universities. They want better, independent information to support their choices."

The survey reveals that students are still putting the right choice of course at the top of the list - but earning potential and career prospects follow close behind, while traditional concerns such as social life are slipping. They are demanding more access to independent information on standards, and are prepared to work in order to pay for their education.

Pointing the way forward for universities, the survey recommends an emphasis on wider recruitment, with different targeting strategies to be levelled at mature learners and non-traditional entrants. It suggests that universities and colleges work closely with schools to recruit working-class pupils at an early age, and recommends a 'one-stop shop' approach for students to get all the vital information they need from one point in each university and college.

Richard hopes that Making the Right Choice "will help everyone target their efforts to give relevant and useful information and support to the diverse range of people applying to higher education. It will help provide policy makers in national bodies and at individual institutions with a more up-to-date and comprehensive research base than has previously existed in the UK," he says.

The Pink Pound has become established as a watchword for the consumer power of the gay community. The survey proves that students are now a formidable spending body: the 'Pint Pound' could be the next big thing.
Research Funding Opportunities
This is a selection of Research Opportunities. More details of these and other opportunities are available from the Research Grants & Contracts Office, contact Debbie, ext 3812 or email: D.Foy-Everett@sussex.ac.uk. For an extensive listing of funding opportunities see REFUND on the Research Web site: http://www.sussex.ac.uk/Units/research or USIS Home Page, under Research.

The Pfizer Health Research Foundation is calling for applications from non-Japanese researchers for support. The programme funds non-Japanese researchers’ activities in Japan through a Japanese host. The field of research may fall under health, science, medicine and social welfare. Two awards are available: a short term award for one month amounting to £5,000; and a long-term award for around six months amounting to £12,500. Deadline: 31 July 1999.

The EPSRC is accepting applications for its Water Infrastructure and Treatment Engineering programme. WITE aims to encourage and promote research into novel and innovative engineering and physical science to help address the medium and long-term strategic research priorities of the water utilities. Deadline for outline proposals: 21 September 1999.

The Wellcome Trust is inviting research applications on non-communicable diseases in developing countries and the restructuring countries. Two types of funding are available: project grants for up to 5 years or research training fellowships. Particular areas of interest are: psychiatric disorders, diabetes, tobacco and alcohol related disease, physical injuries, and nutrition. No deadline.

The National Institutes of Health Mechanism Underlying Secondary Conditions in Mobility Disorders programme seeks research projects concerned with the mechanisms of long-term injury, whole body effects, long-term consequences, and potential interventions for secondary conditions that accompany primary disability. No deadline.

VC’s Voice
With due apologies to the other parts of the University, this column is devoted to the question of why teaching loads in the Arts Schools are so high compared with other similar universities which have the same level of funding as Sussex.

Part of the answer is that we seem to devote a higher proportion of our income to central University services than other universities. Of the income of the Arts schools, some 44.4% goes to central costs. We should aim to get this down. Pushing central costs down by one percentage point would allow the funding of 6 new teaching faculty posts. But don’t imagine that this is a costless option: cutting central costs reduces the resources available to the library, the computing service, the admissions office and the exams office. This term’s meeting of the School of English and American Studies deplored next year’s cut in the library budget. And quite right too.

Then there are the costs of maintaining support services to Schools and subject groups. These costs take a further 8% of income. I don’t have the impression that we are unduly generous in our provision of secretarial services, research funds for faculty, or the other services provided within academic units, so cutting this percentage would be painful too. Reducing the share to 7.5% would provide 3 extra teaching posts.

Next come the administrative costs that are hidden within the calculations of teaching loads. In the coming year, 43 posts’ worth of teaching, out of the total teaching faculty of 220, will be allocated to the administrative remissions of Deans, sub-Deans, subject chairs, GRC directors, exam board chairs, admissions tutors, and so on. This is an area where we almost surely are very different from other universities. The complicated interlocking system of Schools, subject groups and GRCs is very expensive to administer, and we must be alert to all possibilities of reducing these very high costs. The changes agreed after last year’s discussion of Arts structures will improve the functioning of the system, and may reduce overheads. Some rationalisation of GRCs is still under discussion, but I have no intention of re-opening the wider discussion of Arts structures.

Turning to the way that teaching is delivered, we need to be more active in the use of research students as teaching assistants. This will provide financial support and teaching experience to research students as well as reducing the load on teaching faculty. Last year’s reforms of the budgetary and teaching allocation system have not yet led to increased use of teaching assistants, and I want us to do better next year. A subject group of 20 faculty which replaces one faculty post with teaching assistants will reduce the teaching load on the remaining 19 faculty by perhaps 5%.

We should consider changes in how we teach. Just to have fewer seminars and more lectures might degrade the quality of teaching and learning in an unacceptable way, but more creative changes in teaching methods need to be explored.

Our complicated curriculum structure with its proliferation of options and its duplications is the second main way that we are different from other universities. If we are serious about controlling teaching loads we must be willing to look critically at the structure of the curriculum. Reducing the number of courses on offer would immediately reduce the number of courses to be taught by individual members of faculty; and it would also give scope for economies of scale.

There are no easy answers, but Arts faculty have to recognise that most of the opportunities for reducing teaching loads are in their own hands. Teaching loads can only be reduced if other things change. I have this week announced to Senate the appointment of John Dearlove as budget-holder for the Arts Budget Centre. He feels strongly that tackling the issue of teaching loads is our top priority, and that is his mandate in his new role.

Millennium Bug.

I really can't work out which is the most ridiculous of these statements!
All in a Day’s Work

Jeff Bailey has been a fixture of the University for 22 years. Plugging the work of the University’s plumbers, Jeff tells us all about the draining demands of maintaining the University’s waterworks - which is only a fraction of their multi-fauceted task.

The first thing you need to know about this job is that you haven’t got a clue when you leave home in the morning what you’re going to be doing when you get to work. You might think you know, but you never do. We get work tickets coming in all the time telling us what to do - things like “two blocked urinals, please investigate and rectify”. But we can be working on a job like that, fairly important, and then the phone rings about something urgent and you have to drop everything and run. You can’t leave something for long when there’s water gushing out of somewhere.

So obviously we do lots of work with blocked drains, blocked toilets, blocked urinals. And we fit a lot of taps. You can imagine how many taps there are in the University, when you include all the accommodation as well, especially the off-campus accommodation. Holland House is one of the worst - it’s like a rabbit warren, there are hundreds of rooms in there alone, and each one has water, sinks and wastes. Some of the hair I’ve pulled out of plug-holes there...well, I won’t tell you about that.

Someone’s on call 24 hours a day, and two of us take it in turns to do that. There are seven plumbers on the team now, although there used to be 15. Sometimes when you’re on call you can get called out a lot. Last week I got called out six times. The other Saturday morning there was water coming out of a ceiling in lab 13. And later that day one of the accommodation properties had a blocked drain and the water was coming down and flooding the kitchen. For that job I had to call someone out to assist me - you can’t go down a drain on your own. If you go in above your own height, the gases and that can make you pass out.

"you can’t go down a drain on your own. If you go in above your own height, the gases and that can make you pass out."

In fact, all the plumbers have to know how to deal with gases. Drains and toilets are only part of our job. We’ve all got a CORGI certificate, because we have to deal with different kinds of gases all the time. In the labs there’s nitrogen, oxygen, helium...and they all have to be worked on. If there’s a gas leak, we repair it. If they want a gas point over the other side of the room and there’s no gas there, we install it. The range of what we do is huge. If there’s any equipment that’s broken at the Sports Centre, we’ll take it down to be welded and fixed. All the bike racks that you see around campus, they’ve not been bought, they’ve been built - by the plumbers. We’ve bent them up, welded them up and painted them right here, then fitted them ourselves. There’s all the air-conditioning and the ventilation to fix too. We also fix all the windows - if a hinge or the catch goes, we fix that. And when the roof-tops blew off in the 1987 storm, it was the plumbers who fixed them.

People don’t realise, they think a plumber is an insignificant part of the procedure, but we do keep the University going. The campus is so colossal, there’s so many things that can go wrong, and when it goes wrong, we are there to put it right.

SPRU Report Calls for Halt to Nuclear Reprocessing

Continued from front page.

"When you reprocess spent fuel, you divide it into its main constituent elements. About 96% is unused uranium, about 1% is plutonium, and 3% is high-level radioactive waste. The process was originally encouraged because people thought the plutonium and the uranium were worth having, and that the small volume of waste would be easier to dispose of," says Gordon, "but the plutonium has since become a liability and the uranium has never been recycled because it’s cheaper to buy fresh uranium on the open market than to adapt equipment for the task of re-using reprocessed uranium."

The alternative to reprocessing is to keep the waste stored for longer, and then to bury it in the same way as is planned for reprocessed high-level waste. Although the volume of high level waste is smaller after reprocessing, its heat content is similar to spent fuel, so it still needs the same amount of burial space. As Gordon points out - "Nobody’s been very good at developing long-term strategies for disposing of nuclear waste. But you don’t solve any of the disposal problems by reprocessing."

In fact, it has been accepted for some time that reprocessing is unnecessary and costly. BNFL’s argument has been firstly that they have already spent £3 billion on the reprocessing plant, THORP - a sunk cost which makes it more economical to carry on - and secondly, that they still have contractual obligations. Gordon’s study is revolutionary because it shows that it is more economical to stop reprocessing immediately, despite the sunk costs, and it points the way forward for a renegotiation of BNFL’s contracts - particularly those with Germany. Gordon points out that BNFL can concentrate on clean-up operations: they already have a subsidiary company in the States which has netted them £2 billion worth of contracts. He says "There is no more reprocessing business for BNFL. It’s a dead industry. It’s time to move on."
Sports Federation Annual Colours Award Results

Each year the Sports Federation Colours Committee confers several awards to sports-women and men at the University for their achievements throughout the year. The Full Blue is awarded to those who have reached an outstanding level in their chosen sport. This standard should equate to national or very good regional players who have been willing to represent the University at every possible opportunity. The Half Blue is awarded to sports people who have not attained the playing standards required of a Full Blue, but who are still competing at a high level in their chosen sport. This should equate to good county standard. Nominees must have been willing to represent the University at every possible opportunity.

This year Kelly Moore was awarded the Full Blue for rugby. Kelly, as well as being an invaluable member of the University of Sussex Ladies’ Rugby Squad, has also played for the Lewes Ladies Team, Sussex County and for Under-19 Wales. Kelly is still a first year, and shows potential for even better things over the next few years. She will be sharing her expertise when she takes over the club next year.

Half Blue awards have been given to the following:
Kim Robson for Men’s Handball
Eva Ryttner and Elizabeth Anderson for Women’s Handball

Sports Federation Awards are given to members who have shown great loyalty and commitment to one or more clubs. Members receiving these awards are those who have made a significant contribution during the year, above and beyond the call of duty, and become generally invaluable to their team.

Sports Federation Awards went to:
Nicola Smith for Rowing
Tom Green for Rugby
Sean Burton for Diving
Ivo Schmidt for Handball
Ben Park and Michael Plummer for Wado-Ryu Karate and Kickboxing
Nick Walker for commitment to the Sports Executive Committee.

Team Of The Year - Men’s Basketball
Club Of The Year - Handball

Sussex Rowers Rock the Boat

Some university boat clubs have years of tradition. Some have corporate sponsors. The two year-old University of Sussex Boat Club has something equally remarkable: Nicola Smith.

For a while, however, what it didn’t have was a boat.

Indeed, the club’s lack of a river boat became an unavoidable obstacle to Sussex’s representation in the BUSA (British University Sports Association) Rowing Championships. With four-person river boat (a ‘four’) available at £5000, and a Sports Union grant of £100 and an additional £100 raised in funds the only money available, the situation was somewhat less than optimal. With true northern tenacity, however, Nicola - a final year DPhil student in Chemistry - found and purchased the only £200 ‘four’ in the UK, from the University of Cambridge. With their rickety new boat - affectionately known as ‘Berti’ - Sussex was off to the races.

Two crews, one men’s and one women’s, competed in the 2000 metre regatta, which involves 53 universities from across the UK. Sussex distinguished itself from the outset as the youngest boat club and one of the only proud owners of a wooden ‘four’ weighing in at 50-100lb, heavier than its fibreglass competitors (Recall - the key word here is ‘gusty’). Despite numerous problems with one of Berti’s seats during the race, the men’s crew finished the quarter finals in style. The women’s crew finished second in their heat and proceeded to the semi-finals for the Novice Women’s division.

From the start, this Sussex crew led their lighter competitors in first place until the ill-fated seat disabled a bow-side rower.

With stroke side rowing on, Berti cut horizontally across two lanes. With an incredible presence of mind and a much-appreciated sense of humour, the coxswain Hilary Bailey veered Berti back into her lane while the seat was re-attached. The women’s crew found themselves over six boat lengths behind the last boat and only 1000 metres remaining. In a space of 750 metres, the valiant four in their ancient but speedy vessel rowed from a standstill position to catch the last crew, moved beyond the next crew and then pulled into the crew vying for third place. The University of Sussex women’s crew missed the BUSA Finals by less than half a boat length. The third-place crew was shaken. The crowd was stunned.

Oxford has nothing on Sussex when it comes to exciting races. That, ladies and gentlemen, is a debut. And the University has one slick wooden craft named Berti and one dedicated club president named Nicola Smith to thank for it.

The club welcomes students of any shape, size and level of ability wishing to join the club in the upcoming autumn term. Interested students may contact Elene Dawskins (Women’s Captain) at bus76@centra1.susx.ac.uk or Stephen Jukes (Men’s Captain) at hcu05@central.susx.ac.uk. Look out for a new series on University clubs due to start in the Bulletin next term.
The Innovation Centre Celebrates Three Years of Innovation

The Innovation Centre has been at the forefront of new developments both in technology and business practice since it opened three years ago. With the double-punch force of this combination, the Centre has created real opportunities for small technology-based companies in the Sussex region. It combines ultra-modern office space with an even more up-to-date emphasis on communication and people-based business practice. Its management is as au fait with the latest forms of web-based business as the companies it houses. And it lives by the maxim 'think globally, act locally' - much to the benefit of Brighton and beyond.

Intended as a place where small, high-tech start-up companies could be nurtured, the Centre has been swept away by its own success. Three years is the anticipated incubation period for new businesses, so many of the companies are preparing to move on to expanded premises. However, the management is still working around the clock trying to accommodate all the new companies which are clamouring for space.

As Chris Hudson, Facilities Manager, points out, "Last week we had five approaches in two days. One was from an A-level student from Leeds who was about to start down here and wanted somewhere to run a software business from. Another was a company called Methylated Melodies, run by a student who had just finished his finals here, which specialised in recording music digitally and putting it on CD. His special target was going to be student bands. The range is huge."

In order to accommodate such bright ideas, the Centre will be taking over neighbouring Ashdown House, adding about 8000 sq ft of second-stage space. This, together with the planned extension, will effectively double the space of the Centre, and mean that second-stage businesses can be housed alongside the start-up companies. "This should promote the circulation of ideas even more," says Chris.

He points out that the Centre is more than just a building for the people who work there: "We give a very high level of support, from general business advice, to the technology brokering and the Skills Directory, to the offices themselves. When companies set up, they will find the offices are fully fitted with all the services they need, and that they have access to photocopiers and faxes, so they don't have to buy them. Mike Herd, the Director, can provide business advice, and since we aren't a big bad landlord, we go easy when people have cashflow problems. They get a level of support they wouldn't get anywhere else."

Chris has a vision of the Centre as the flagship enterprise of what will eventually become a new 'Silicon Fen' - the tag given to the area of high-tech business which cluster around Cambridge. "Those with the vision for the Centre took a gamble with this place, and it's paid off," he says "Who knows what could happen next?"

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Focus on Innovation: Genpak

Genpak was set up in 1993 by Dr Julian Burke, a Senior Lecturer in Biochemistry at the University. He worked out of his garden shed until The Innovation Centre provided him with a more salubrious base. Genpak were one of the first companies to take root in the Centre. Six people now work in the office - four of them students on work placements, usually from Sussex. Dr Nish Patel, who joined Genpak in 1996 after a PhD in clinical biochemistry, is the company manager. "Joining Genpak gave me the chance to turn my scientific knowledge into something which worked commercially," he says.

Genpak sells equipment and specialised reagents for use in genetic analysis. The sorts of people who use the company are researchers screening DNA for diseases or those attempting to catalogue the human genome. Indeed, Genpak can help with anything that involves DNA sequencing. They also have the lowest-priced high-specification machine in the UK. "This machine spots DNA from one place to another, very accurately," says Nish. 50,000 different bits of DNA can be 'spotted' onto a 1″ glass slide.

The company has expanded rapidly since its garden shed days. There is now a subsidiary company called Genpak Inc, which is based in the US and was set up in 1996. There is also a branch called Genpak Marketing Services, which runs from an office in Brighton, and concentrates on sales. Over the last three years, Genpak has grown nearly 400%.

Genpak's website is: www.genpakdna.com.
ANNIVERSARY

Celebrates Three Glorious Years

In Innovation: Rivendell

The brainchild of two enterprising COGS graduates, who set while they were students in their second year, and haven't up, Andrew Hardy and Aaron Figg have seen their ideas grow into money-spinners to internationally respected projects. shed themselves in the Innovation Centre, they have more people. They have also doubled their workspace and are it again.

provides software developments for corporate businesses. Their project to date has been the 34-volume Dictionary of Opera. "The content of as the biggest plus than the pictures," we overcome problems by installing to the Tate Gallery site it access to the pictures and further." They have dictionary of Opera, live onto the web on move the intranet business, which they say an area which is ready to explode. They say they've learnt some realities about the business world since they've been in the Centre. But, says Aaron, "Being in the Innovation Centre gives a measure of prestige which is very important. And our business has just gone mad over the last 12 months. There's just too much work for us to do."

Profile of Anjuu Trevedi, Technology Consultant

My job title 'Technology Consultant' sounds more imposing than it really is. Basically, it's about identifying, gathering and disseminating information. If someone has a good idea and they want to tell others about it, I can do that for them. For example, I was contacted by someone who was looking to commission some academic research. I contacted the relevant department at the University of Sussex, and now they're talking to each other. It's all about opening doors.

Since I'm a technology consultant, I help those who are specifically involved in technology. In my opinion a consultant works as an intermediary between groups, communicating and creating links between tenants in the Innovation Centre, in academia and in the outside world. I work internationally as well as locally, developing contacts using web-based services. I also help people to become aware of technology - if someone says "I've got this, how can more people take advantage of it?" I can advise them as to who to talk to and how to promote their product to a wider audience.

I am able to do this because I have at my disposal the Sussex Skills Directory - a database of technology-centred Sussex companies, which can be accessed by anyone via the internet. Anyone who needs contact with a specialist company or academic can use the directory to find who and what they need quickly and easily. The Skills Directory also is a base for organising workshops and seminars.

I can also call upon the Sussex Know How Exchange. The Exchange was created to help businesses and individuals help each other, for free, by sharing 'best practices' and 'know how'. At present it contains over 150 member companies and organisations such as Business Link Sussex and the two universities. Companies can always benefit from sharing non-commercially sensitive information, and because there's such a local angle to the Exchange, so much of the benefit is ploughed back into the area. There has been a slow, but sure, cultural shift from academics in both universities (Brighton and Sussex) who are more open to the idea of commercialising their research. I hope that this continues, because there must be a huge number of ideas out there, just on this campus alone.
Close up on Research

In the mid-1980s, the issue of nuclear waste was a headline-grabber, with the toxic clouds of Chernobyl drifting across Northern Europe, and CND spearheading protests across the land. Since then, CND's membership has dwindled, and GM foods hold the health-scare pole-position. But the Committee on Medical Aspects of Radiation in the Environment (COMARE) has been keeping its eye on the nuclear industry all along. Professor Bryn Bridges, based at the Cell Mutation Unit, has been at the helm for six years as the watchdog's chairman. Here, he tells us about COMARE's research.

COMARE was set up over ten years ago after a programme by Granada TV alleged that there was an excess of childhood leukaemia near the Sellafield reprocessing plant. Since then we have produced six reports, looking mainly at Sellafield but also at Dounreay and the weapons base at Aldermaston.

Our first report, which investigated Sellafield, found that there was indeed an excess of leukaemia in the area. In fact, childhood leukaemia incidences are around ten times higher in the nearby village of Seascale than the national average. We were also very critical in that report of BNFL for their failure to pass important information on to COMARE. In 1996 we scrutinised Sellafield again in a report which took two years to put together. In this report - our fourth - we had an exhaustive look at the situation, and found that the excess of childhood leukaemia had been going on for over thirty years.

Sellafield has been a nuclear site since 1947, and before that it was a chemical explosives plant making TNT, which is potentially carcinogenic in itself. But even though this report went into incredible detail, there just wasn't enough evidence to attribute the high incidence of leukaemia to radiation.

One theory is that high leukaemia levels are partly down to population mixing. There is considerable epidemiological evidence to show that childhood leukaemia is an infectious disorder, although we don't yet know what the infectious agent is. But there is very good evidence that when you put mixed populations together, especially in an isolated rural area, you get a transient burst of childhood leukaemia: perhaps a doubling of the average rate. It happened with the North Sea oil industry, with New Towns, military bases and, in the war, with evacuees.

At Dounreay, there were six cases of childhood leukaemia between 1979 and 1984 when only one would have been expected. In our sixth report we investigated the possibility that radioactive particles on the beaches surrounding the reprocessing plant had given rise to this excess. From about 1979 the monitors at Dounreay had been picking up bits of radioactive material on the beach, but they hadn't publicised it, and the beach in front of the site wasn't closed off.

In fact, we found that the contamination on the beaches couldn't be responsible for the childhood leukaemia rates. There's just not enough of it. However, the radioactive particles could still be dangerous - the most powerful ones could kill you if you swallowed them. Of course, to have the chance of swallowing a particle you'd have to swallow lots of sand. But physical contact could lead to a localised skin ulceration.

The Atomic Energy Authority had claimed that the particles came from a road spillage of the casings that go on fuel rods in the 1960s, but we discovered that just one of the particles from the beach had as much radioactivity as the entire spillage was supposed to have.

Then they told us about an explosion in the intermediate level radioactive waste disposal shaft which happened in 1979. They obviously hadn't wanted to draw attention to the shaft, and as soon as we saw it we said it was absolutely unacceptable. It's about 215ft deep, around two-thirds full, and built around 20ft away from the edge of a cliff which is rapidly eroding. We called in the Radioactive Waste Management Advisory Committee, and together we made a joint recommendation that the shaft should either be rendered unbreachable by the sea or all contents should be removed and stored properly. The government accepted the recommendation, and they agreed to the change — at a cost of around £200 million. It was probably the most expensive government committee recommendation ever!

Despite the dangers presented by this shaft, population mixing can be held as the most plausible explanation of the leukaemia cluster in Dounreay. But the situation at Sellafield remains a mystery. We simply don't know what is causing the high levels of childhood leukaemia there. It is clear, though, that the biggest source of radiation there is from the Sellafield site. The local estuaries are all radioactive - low level, but if you use a Geiger counter there, it would go off the scale.

Even though we haven't made any definitive links between radiation and health problems, there has been a clear theme of shiftiness amongst the authorities when it comes to releasing information, as well as a lack of desire to investigate situations. But things have improved. There was a time in the nuclear industry when because no-one understood it and because a lot of it was classified, those who were involved weren't adequately monitored. They became a bit of a law unto themselves. Things have changed a lot over the last ten years, and that's partly to do with COMARE. Although our power is not regulatory, all of our recommendations have been accepted by the government. I think we do a very important job.
BALLS ON CAMPUS
Buckie Balls Speaks

In line with the recent rechristening of the late lamented Stanley Deason School (now Marina High), I feel a revamp on campus is called for. Local Sussex towns - how provincial! Who thought that one up? I detect the evil genius of Prinny again. Out with Chichester, Pevensey, Falmer et al; in with the Moulscoomb Lecture Theatre and Aisin Seiki. All problems with the building known as Sussex House disappear. Call it Whitehawk All. Incidentally, has the new tit-feeder been installed to amuse faculty as they wait with increasing irritation to gain entrance to that building to collect scripts from the Exams Office?

In line with the principles of the University’s Scottish Vice-Chancellor, I have been asked to audit money-raising schemes in individual units around campus, and I recently visited the BIOLS pick-your-own allotment where plants are grown in 24-hour-a-day simulated sunlight in the expectation that this would increase photosynthesis and produce a bumper crop. All-year strawberries are currently supplied to at least three national supermarkets. I also noticed a row of students from Arts being subjected to the same treatment. Why? I asked. Why not? they responded… Philosophy students no doubt... giving credence to the notion of the Arts-Science scheme.

This week’s campus anomaly: why are there two sites claiming to be The Sports Centre?

I couldn’t help noticing the proliferation of empty BT phone boxes; it is my understanding that these have been placed around campus as a place for students with mobile phones to stand to protect them from the rain whilst chatting to friends. This, however, is not as much of a blot as Billy Smart’s Circus which arrives in early July with its full equipment of clowns in red robes and funny hats... I’m so sorry, I mean the W.I. striped marquee which decorates the lawns outside the Library.

Further news on the Travel Agency. I normally find my respectable, non-corduroy, dark-suited appearance grants me access everywhere, but I was foiled in my attempt to breach the Travel Agency security this week. The cross-beams caught even me in their trap and I was unceremoniously ejected.

Finally, I have a job vacancy in my palatial suite in Chichester; the Moulscoomb Lecture Theatre, for a PA Executive Assistant to help me in my onerous and stressful task of composing this column for lesser intelligences - someone to make the coffee for me and my dark-suited friends. Job suited to any university secretary... Surely not on this modern enlightened campus?

OUT WITH THE OLD
AND IN WITH THE NEW

The Brighton Oak Hotel is changing names, our new name will be THE QUALITY HOTEL BRIGHTON.

We will still have 138 bedrooms, all twin or double with en suite facilities.

We will still have eight meeting rooms seating up to 200 delegates theatre style.

We will still be able to offer the same friendly service and staff all for excellent value for money.

You have discounted corporate rates at the hotel.

Why not give us a call now and let us accommodate you where QUALITY comes naturally.

Keep watching this space, we will be back again, and take note of all the above we might even test you sometime, soon!

QUALITY HOTEL BRIGHTON
West Street, Brighton, East Sussex, BN1 2RQ
Telephone: 01273 220033 Fax: 01273 778000
Teaching Awards 1999

William Locke of the Teaching and Learning Development Unit writes:

The University of Sussex Alumni Society (UoSAS) has made awards to three members of faculty in recognition for their excellent teaching. This is the third year the scheme has run, and the Awards will be given at the Summer Graduation Ceremony on 13 July.

The recipients of the 1999 Awards are:

Angela Jacklin, USIE, for her support for trainee teachers in mathematics, the level of support she receives from students and colleagues in schools and her teamwork.

Brian Bates, Social Psychology in CCS, for his inspirational teaching which draws on research, his development of the research skills of students who go on to a variety of careers, and students' enthusiasm for his courses.

Mike Tribe, Environmental Sciences in CPES, for his student-centred approach, the priority he gives to innovation and particularly the use of educational technologies, and the very positive feedback from students.

After initial nominations - often by students - shortlisted nominees prepare a portfolio of evidence, which is carefully considered by the Awards Panel. The Panel is chaired by the Vice-Chancellor, Professor Alasdair Smith, and consists of Dr Alun Anderson (Editor, New Scientist and Member of Council), Libby Lines (Alumni Society), Dr Tony Binns (AFRAS and Member of Senate), and Hannah Darvill (Education Officer, USSU).

The Awards Panel was also impressed by the achievements of the other shortlisted nominees:

Paul Myerscough (Media Studies in CCS), for his hard work and commitment to students' learning needs, and his curriculum development in the English and Media Studies degree programme.

Brian Smith (Physics and Astronomy in CPES), for the breadth of his achievements, the strong links he has established with professionals outside the University, his work on the Management Studies minor, and his perseverance in putting students' personal skills development on the agenda.

The annual scheme aims to promote excellence in teaching and learning at the University, and is open to all those teaching University courses and for MPhil and DPhil supervision. Applicants for an award may be nominated by members of staff and/or students and alumni of the University, or be self-nominated. Nominations for the next round of Teaching Awards will be open in the Spring term 2000.

European Union Fifth Framework Programme RTD Deadlines (1999)

Below is a summary of expected deadlines for the latter half of 1999 for the EU Fifth Framework Programme (1999-2002) for RTD proposals (June deadlines now complete).

These deadlines are publicised in advance of the Calls for Proposals (although a few have already called): this is to take account of the Summer vacation, and to help with early planning and preparation of proposals.

Most of the remaining deadlines will fall in October 1999 and a few in September and December 1999 (dependent on research task). The main areas of research to be addressed are:

- Quality of Life: Biotechnology / biomedicine / food / health / agriculture / fisheries / neurosciences / genomes / bio-ethics / public health services / the disabled / socio-economic aspects (all October deadlines).

- Information Technology: Future & Emerging Technologies, Open Domain (September deadline); all other areas (December deadline)

- International co-operation: policy research for sustainable development / sustainable plant & animal production / environment & industry: problems of selected regions / improving health care / socio-economic modernisation / water policy and management (September deadlines)

- Energy: cleaner energy systems, energy efficiency (October 1999)

- Improving Human Potential: Marie Curie Training Sites Call launched on 11 June: Research groups apply to host young researchers working towards their Doctorates for short stays from 3 months to one academic year (deadline 13 October 1999).

The total budget for the Fifth Framework Programme is: 14.96 billion euros (about £11 billion). Funding is available for collaborative research between EU countries: for research networks, fellowship grants, conferences, workshops, basic & applied research, demonstration activities and feasibility studies.

Research proposals should address EU objectives such as: promoting the competitiveness of EU industry, improving the quality of life, and reducing unemployment.

The consortium must demonstrate complementarity of expertise and genuine trans-European collaborative research.

For more information/advice/guidance about the Fifth Framework Programme, please contact:
R.L.Dowsett@sussex.ac.uk. The Commission’s Fifth Framework web page address is: www.cordis.lu/ftp5. The UK Research Office web site is also very helpful: www.ukro.ac.uk
Robin Lee Poetry Prize Competition

Linda Chin, a student in HUMS, was one of the runners-up in this year’s poetry competition.

In memory of my father who is alive

I
You offer a peach to me, but the last one I had was bitter, juiceless, so I shake my head politely, blush and lie, “I’m not hungry.” My bone has been chewed before, and now juts out of skin like a gun hid in trousers. You notice my fingers are clumsy as I light the incense and place it above the happy naked Buddha, and ask me in a language whose face my schooling has rubbed off

Who is that other always beside you, I count the two of us walking, and then a shadow between

II
What is this broken earth you call home? Gay bricks once of a small fortress. Two-pronged utensils that have survived the New Year feasts. Wooden buckets. Rags beside the river that have scratched the red skin of a newborn girl.

I am walking in a museum, father.

III
My peace of mind cannot be found in the elements that you have charted, having read books that lure you into a culture of giving thanks with pig, false money, incense. Yet I am awakened by water, on the thin page I dip two dots and one stroke underneath. This is the radical for blue-green life that requires strong limbs to swim. I wrestle with you silently, losing my breath in what you call your world. There is the wood radical, a cross with wings. Millions of trees whisper outside the village, all their roots touch underneath the earth like the fingers of shy lovers confessing.

Now metal, a house of three floors. I envision your mother’s copper, the colour of mud with knots of wisdom - a circle of hope around her skinny wrist. Now earth, a cross on a line. From earth springs tree, gold; next to earth is water, life; and fire comes as an end, a figure with arms and legs running. Follow me, you call when absent. I know only the bare essentials of cooking a feast, the fire refines the raw. My death will witness how little I feel my heritage.

These five elements compose the universe. I paint them on paper, recite their names aloud.

IV
What are these red marks that we follow on the road? A legacy of leaves that fall silent. Funny faces drawn with chalk that disappear when we have passed. Sunburns of afternoons relinquishing their rights to keep you here. Taking years away from your life, I walk down the riverside of stones, words.

Pocket Book of Memories

What colour was your first bike? Can you remember your first love, your best holiday, your favourite pudding? Medical records go with patients but personal identity travels more slowly. This is a particular problem with the elderly and confused, in institutions and day-care centres, who interact with a changing variety of care staff. Memories establish personal uniqueness and can offer a point of contact for busy professional carers but are not easily unlocked.

Now, Linda Sheppard and Jennifer Rusted, experimental psychologists in BIOLS, have produced a pack which will enable carers to compile key words to cue memory, in a slim pocket book which is immediately accessible and which can accompany patients wherever they go. The cues stimulate memory and get a conversation going but are in a form in which privacy is still under the control of the patient. An example might be the name of the person’s first pet hamster.

A small hint may trigger a great deal of memory, as with Proust. You don’t need to carry all eight volumes of A la recherche, if a packet of madeleines will do.

A Pocket Book of Memories is published by Hawker Publications and will be launched at the 9th Alzheimer Europe Meeting on 30 June.

TAXIS

BRIGHTON STREAMLINE
74-74-74

There really is only one Streamline in Brighton

160 LICENSED TAXIS * 24 HOUR

FREEFONES

HOTHOUSE (CRYPT)
EAST SLOPE LOBBY
CENTRAL REФECTORY
FALMER & VARLEY HALLS
SUSSEX HOUSE

FARE DEAL PRICES AT ALL PHONES
Mathematical Analysis
Seminars

Friday 2 July 2.00pm: V Volevich (Moscow), Newton's polygon in spectral theory and in small perturbation theory for boundary value problems for PDE. Room 2A2.

Thursday 8 July 5.00pm: C Trettter (Regensburg), Boundary eigenvalue problems of Orr-Sommerfeld type. Room 2A2.

Language Schools

- Five Day Summer Schools: Languages for Pleasure, in French, German, Italian, Japanese, Russian and Spanish. 5-16 July 1999. Cost: £100. If you are interested in these courses, or the weekly courses starting in October, contact the Open Course Assistant on 877258.
- Full-Time Intensive Four Week TESOL: If you are interested in the TEFL as a career, this course is a must. Running 5-30 July, 2-27 August and 6 September-1 October. For further details contact Linda Gunn, Tel. 678006 (ext 2173).

Library Opening Times

- Monday, Wednesday, Thursday, Friday: 9.00am - 5.30pm
- Tuesday: 9.00am - 7.30pm
Also open 10.00am - 5.00pm on five Sundays from July 4 - August 1. (These days are primarily for Open University students and none of the usual weekend services will be available.)

Sports Services

The following classes will run over the summer vacation:
- Circuit Training on Monday nights 6.00 - 7.00pm.
- Body Tone on Wednesday lunchtimes 1.00 - 2.00pm.
- Fitness for Life (suitable for the older person) on Thursday mornings 11.00 - 12.00.
- Childrens Ballet on Saturday mornings 10.00 - 11.00am.
- Adult Ballet on Saturday mornings 11.00 - 12.00.

Please contact the Sportcentre reception for further details on 678228.

Small Ads

WANTED: Housesitter from 31 July - 29 August. Free accommodation in 3 bedroomed house very near Preston Park station offered in return for cat sitting and plant watering. N/S please. Contact Katie, ext 8428 (day) or 330362 (eve).

FOR SALE: Child's bicycle with stabilisers, suit 4-7 year old, brand new front tyre. £20. Telephone 2893 (Office) or 416426 (Home).

NEEDED: Lift to Penzance, to arrive Saturday 3 July early am/Friday 2 July late pm. I'll bring petrol money, a good sense of humour and entertaining stories if you bring the transport! Please contact Sally, email s.l.hall@sussex.ac.uk, or Tel. ext 4353 (day), 732025 (eve).

TO LET: Delightful, spacious 3 bedroom detached house with garden in Lewes. From 26 July to 27 August. £250 per week. Tel: 477221 or e-mail m.j.bove@sussex.ac.uk.

HOUSE TO LET: (Halland Road, Moulsecoomb). Large furnished 4-bedroom house (one double) is available from early July 1999. Description: Lounge, diner/kitchen, two bathrooms; washing machine, fridge, GCH, double glazed windows. Large garden, patio, shed, 1 mile from University. Price £50 + bills. Contact: Mrs Kate Nassispour on 487176 (eve).

FOR SALE: Ability Office (the office utilities package) - includes ability write, ability database, ability spreadsheet, ability draw. Windows compatible. £40 (£50 in shops). Brand new (won in competition), unopened. Contact Paul Hammond, email p.r.hammond@sussex.ac.uk or Tel. 624649 or ext 2880.

FOR SALE: Bloomsbury Group related literature (The Woolfs, Vita S.-W., Bell, Strachey(s), books on Charleston etc). Ring or e-mail Alexandre for further information or catalogue: Tel. 880439 or ext. 8006, email A.Loske@sussex.ac.uk.

FOR SALE: 97 Aiwa portable stereo, 1 CD, 2 tape deck (no rec), radio. Need to sell fast!! £60-70 range. X628/4ecu.

FOR SALE: Old Pine Wardrobe, depth 1ft 6 1/2", width 2ft, height 8ft 1 1/2". Price £200 ono. Old Pine Dresser, depth 1ft 8 1/2", width 3ft 10", height 7ft 10". Price £450 ono. Please contact Sam on (67)2229 or email S.N.Fuller@sussex.ac.uk.

FLAT TO LET: A very nice two-bedroom purpose-built flat in Seven Dials. Fully furnished, washing machine, dish-washer, TV, central heating, parking space, ten minutes walk from Brighton station, two minutes from shops. Available immediately to end of September (earlier or later date negotiable). Double room £750 pcm. Tel: 735653.

KIDS' SCIENCE: After-school club covering KS2 science and other material, with hands-on experience and fun, for 7-10 year-olds. Ring Jackie on Brighton 703625 for details.


FOR SALE: 2 coach tickets Brighton-Heathrow valid until 2/9/99. £12 each ono. Please email kapy4@sussex.ac.uk or phone 246099.

AVAILABLE: Painting and decorating, interior and exterior. Experienced mature student Tel 01273 698719.

TO LET: Large, attractive flat in central Brighton available September - December. One double bedroom plus large study/conservatory. Faculty/staff only. Telephone 298508 or e-mail sff7@sussex.ac.uk.

TO LET: 1 Bed (Oible) furnished flat at Seven Dials, Brighton, with garden, available July - end September. W/machine, F/freezer etc. Rent £400 pcm, including all bills except phone. Ring: Nicky 733003 eve.

FOR SALE: Fujitsu laptop. Pentium 200, 64RAM, 5GB, ergomouse, CD-ROM, 56K modem, 13.3" TFT, carrying bag, win98, office pro97, lots of software. £1300. Please contact prpa5@central.sussex.ac.uk.

BOOKSHOP GOES LIVE: The Bookshop is pleased to announce that its Website is now up and running. Why not pay us a visit at http://www.sussex.ac.uk/Units/business/bookshop. It has new publications, book features, faculty publications and much more.

FOR SALE: Volvo 240dl Estate, W Reg, Engine gone as drove with no oil, was superb runner & body, Mot, Tow Bar, £150 ono. Studiomaster 12:R Gold Mixing Desk; Parametric Eq; 4 Aux S/R's; immaculate; rackmountable; warm & quiet £225 ono. Sitar, unused, £200 ono. Awe 64 Gold Soundcard £85 ono. Eucalyptus Didgeridoo £60 ono. Emu Est-32 Memory; 16meg of Simms £50 ono. Creative Essentials sample Cd's £10 each. Pentium 266 Cpu £25 Motherboard (built on sound & graphics - can disable) £35. 32 Pin 1 Meg Simms Chips £5 each. Apple Mac Scsi leads £5 each. 486 - no monitor just base £30. 386 - no monitor just base - £20. T v Sony colour TV, Teletext, Remote £45 ono. Vacuum cylindrical vac with wash facility £35 ono. Contact Dan - Ids Publications Office on 678229 or email lard@harpermanea.freeserve.co.uk

Bulletin

This is the last Bulletin of term. The next issue will be out on Friday 8 October 1999. We would like to take this opportunity to wish everyone a very enjoyable summer break.

The Bulletin appears every Friday during term time with copy deadlines the preceding Friday lunchtime. We welcome any suggestions for news, events, letters and small ads from staff and students of the University.

Please contact the Information Office in Sussex House on (67)8888 or email: Bulletin@sussex.ac.uk.

Bulletin on the Web: http://www.sussex.ac.uk/information_office/bulletin/