Sussex engineers launch NASA test track

Last year the Bulletin reported that a team in the School of Engineering, led by Professor Jay Jayawant, was working with NASA and its American industry partner PRT Advanced Mag-Lev Systems to use magnetic levitation and propulsion for assisting the launch of spacecraft. This is a part of the NASA Advanced Space Transportation Programme, which aims to reduce dramatically the cost of getting into space. With conventional rocket launching, an enormous amount of fuel is used at the beginning to get the craft off the ground. The idea of magnetic launch assist is to accelerate the craft to about 400 mph before the rocket engine takes over. A prototype using a 12-ft track was demonstrated in the Sussex laboratories last year, leading to the design of a 50-ft track that has been built near the Marshall Space Flight Centre in Alabama and was successfully demonstrated last month.

The pictures show a 5-ft model of a new design of reusable spacecraft, on top of a carrier that is levitated and propelled along the track by magnetic forces. Covers have been removed from part of the track to show the coils that levitate and guide the carrier. In a full-scale system there would be two tracks, one on each side of the spacecraft, and they would be much smaller in proportion to the size of the craft. The demonstration track uses a novel design of linear motor based on concepts proposed by Eric Laithwaite (Visiting Professor at Sussex until 1997). Eric Laithwaite’s work on magnetic levitation and linear motors fired the imagination of engineers at NASA, which led to the University’s involvement in the project. The next phase will use a twin track 200 ft long, carrying a load of 1000 lb – ten times the capacity of the 50-ft track.


Sowing the seeds in the GM debate

Former Vice-Chancellor Professor Gordon Conway is discovering the power of his current position as president of the Rockefeller Foundation in New York. As a result of worldwide pressure from Professor Conway and other influential lobbyists, multinational seed firm Monsanto has announced that it will discontinue development work on the so-called "terminator gene", which uses technology that makes food crops sterile.

According to a letter sent to Professor Conway, the biotechnology company based its decision not to commercialize the terminator technology on a wide range of input from its various stakeholders and other experts, including the Rockefeller president. In June of this year Professor Conway, a noted authority on agriculture in the developing world and author of The Doubly Green Revolution. Food For All in The 21st Century, urged Monsanto to disavow the use of the terminator technology in a speech he made to its Board of Trustees. Professor Conway had been invited to address the board as part of the company’s promise of wider consultation on its biotechnology activities.

"We welcome this move as a first step toward ensuring that the fruits of plant biotechnology are made available to poor farmers in the developing world," said Professor Conway in response to the letter. However, the Rockefeller Foundation continues to challenge Monsanto and other multinational seed companies to support labelling and to make other concessions necessary to insure that plant biotechnology is better accepted by consumers.

The idea of using "terminator" technologies designed to prevent germination of harvested grain as seed, thereby blocking farmers in developing countries from saving their own seed for re-sowing, has engendered strong opposition in many quarters. Professor Conway and other lobbyists believe that if farmers purchase such seed and attempt to reuse it, the negative consequences may outweigh any social benefits in protecting innovation.

Continued on page 3.
Campus information

Want to spend next year in California? Applications are now being accepted for the William and Olivia Allaway Scholarship 2000/01 which enables a Sussex undergraduate to spend a year at the University of California. The scholarship will be awarded by an essay competition which is open to students currently in their first year (or second year of a four-year programme) on all courses except those which involve a compulsory year abroad. Please contact Liz Wingfield in Arts B150 for further details and an application form. The closing date for entries is Friday 19 November.

Meningitis Any first-year, full-time, undergraduates who have not yet received the meningitis vaccination should make an appointment as soon as possible with the Health Centre. Please phone 249041 for an appointment or pop in. If you are registered with a doctor off campus, contact the surgery and explain you need an appointment for the meningitis vaccine.

Flu The flu vaccination is available to all students/staff registered with the Health Centre. Please phone 249041 between 9.30am and 4.30pm for an appointment.

Formative modes of assessment A Working Party, under the Chairmanship of Dr Stephen Burman (EAM), has been set up to look into the implementation, usage and effect of formative modes of assessment (i.e. a mode undertaken during the course, such as assessed coursework) within BA and LLB programmes. It is anticipated that it will report on the experiences of Schools, Subject Groups and students, the effect on learning and teaching, and make recommendations on preferred models in light of both internal and external consultations. The Working Party will approach Subject Group Chairs and Deans with a structured set of questions, and hopes to meet with students later in the year. Individual faculty members are invited to contribute to the Group’s discussions by sending their views, preferably by email, to either Dr Burman (s.f.burman@susx.ac.uk) or Jim Guild in the Academic Office (j.guild@susx.ac.uk).

Wanted: seven students to serve on Senate Elections for seven student representatives on the Senate (in addition to the President and Education Officer of the Students’ Union) will take place next month. Formal notices calling for nominations will be posted on 1 November; nominations will close on 12 November and the poll will take place the following week. The elected members will be drawn from a number of constituencies: Schools, postgraduate students, part-time students, mature students and international students. They will serve for the 1999–2000 academic year.

Be safe not sorry

October 25–31 is National Health and Safety Week. As part of the National campaign the University will be reviewing display screen equipment assessments.

When was the last time your workstation was reviewed? Have you discussed it with your manager or building safety adviser? See the Safety Office web site for local rules and information: www.sussex.ac.uk/Units/safety/.

Mark Lewis (EURO)

Mark died in August 1998, at the end of his second year at Sussex. Thanks to donations from his family and friends, the courtyard in Arts A has been completely refurbished, the stone tubs and the pond replanted, and a plaque set in the gravel.

There will be a short dedication of the courtyard to Mark’s memory on Wednesday 27 October 1999 at 11.30am, attended by Mark’s parents. Any of his friends and fellow students who would like to attend (especially those in his cohort who were on their Year Abroad in 1998–99) will be warmly welcome.

Coffee and tea will be served afterwards, either in the courtyard (weather permitting) or in the Dean’s office.

Chemists scoop prestigious awards

Two research students in CPES have each been awarded a highly prestigious Final Year Award by AstraZeneca, one of Europe’s leading pharmaceutical companies, for their research in inorganic chemistry. Tamsyn Montagnon, who works with Professor Phil Parsons, has been researching the total synthesis of zaragozic acid, an agent that lowers the blood cholesterol level. Iain Simpson, working with Dr Clive Penkett, has been researching the photochemistry of pyridines, producing highly complex precursors for the therapeutically important excitatory amino acids.

There were over 100 applicants and Tamsyn and Iain were picked from a short list of 27 candidates.

AstraZeneca awarded eight Final Year Awards, meaning that the Sussex students scooped a quarter of the available awards. As well as receiving £4,000 each, Iain and Tamsyn will benefit from more support for their final year. They will be teamed up with an industrial chemist who will visit them on a regular basis to discuss their work and give advice.

They will also get the chance to visit other AstraZeneca sites in Britain.

INSTITUTE OF DEVELOPMENT STUDIES CATERING SERVICE

Open during Term Time from Mon–Fri 8.00am–2.00pm & 3.30pm–5.00pm for delicious homemade cakes and scones (some vegan), hot drinks, sandwiches etc.

8.00am–10.30am Serving breakfasts

12.00–2.00pm Lunch including vegetarian and some vegan food, home made soups and ethnic dishes, freshly made salads, toasted sandwiches and baked potatoes.

We offer a take away service. Meal tickets can be pre-booked.

We welcome bookings for dinners (min 12 people) and other social gatherings and can suggest interesting menus. For further information contact Dawn Widgery in IDS on tel. (67)8669 or email D.Widgery@ids.ac.uk.

DATES FOR YOUR DIARY

16 and 17 December at 7.30pm back by popular demand... book your office Christmas Party now and enjoy a traditional candlelit Christmas dinner for only £12.50 per head plus special offers available at IDS bar.
Dorothy Scruton retires

Well over 100 guests paid tribute to retiring Slide Librarian Dorothy Scruton at a party held by the History of Art subject group on 8 October. As Slide Librarian in the Image Archive since its inception 32 years ago, Dorothy has, almost single-handedly, built the collection of colour transparencies from next to nothing to over 95,000. In addition the Archive now houses the Bridson collection of photographs, CD ROMs, electronic images and much more.

Over 50 alumni from as long ago as the 1970s were able to meet Dorothy again at the celebration. Also among the guests was Professor Norbert Lynton, Emeritus Professor of the History of Art at Sussex since 1992.

Bob Marshall

Bob Marshall, who was for 25 years manager of the University Bookshop, died on Friday 15 October. The onset of Parkinson’s disease sadly led to his early retirement in 1993.

The funeral will be at the North Chapel of Woodvale Crematorium at 3.00pm on Tuesday 26 October.

To read the full obituary, see the Bulletin on the web at www.sussex.ac.uk/information_office/bulletin/.

Sowing the seeds in the GM debate

Continued from front page.

Current faculty at Sussex have been influential recently in the ongoing GM debate.

A team led by Dr Erik Millstone of SPRU argued in Nature that the idea that GM plants would be chemically the same as conventionally bred plants was “pseudoscientific”. They claimed that genetically altered crops – such as Monsanto's herbicide-resistant soybean – could not be regarded as safe until they had passed the toxicity tests used for pharmaceutical products.

Erik and his colleagues dispute the concept of “substantial equivalence”, which proposes that if a genetically modified (GM) food is substantially equivalent to the organism on which modification was carried out, it should be regarded as similarly acceptable and can be assumed to pose no new health risks. Writing in Nature, the three authors claim that the concept is vague and has not been properly defined.

Erik, an expert on food-safety policy, said, “I am not arguing that all GM foods must always and indefinitely be tested to exhaustion, but I am arguing that if you start by assuming that known genetic and compositional differences are toxicologically insignificant you risk making serious mistakes.”

In response to the article, five genetic engineers launched a counter-offensive in Nature, describing the arguments as “ill informed” and saying that they could equally be applied to every new strain of crops that is bred in a conventional manner.

One of Erik’s co-authors was Sue Mayer of GeneWatch UK. She has also just published a major new report in conjunction with SPRU’s Dr Andy Stirling.

The pair have created a “map” of the debate surrounding GM crops, using a new technique called “multi-criteria mapping”. The approach is familiar in areas like energy and land-use planning but – until now – has not been applied to the GM crops issue in the UK.

Instead of asserting a single “right” (or “wrong”) answer, the new method highlights the uncertainties and the reasons for disagreement, and draws a “map” of the assumptions under which different options look “best”.

Unilever, which funded the study, sees it as a useful contribution to the development of methods to help give greater focus to the societal aspects of consumer needs in business decision making. “Multi-criteria mapping”, said Andy, “shows that difficult policy choices are not just about ‘sound science’ – they are about people’s values and interests as well. If regulation is not clear about this, then the unproductive conflict will continue.”

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 Leverhulme Trust invites applications for its study abroad fellowship scheme. This will fund a sabbatical period overseas for a period of three to 12 months with a maximum award value of £20,000. Deadline: 11 November 1999

The British Academy's next deadline for its conference grants scheme is approaching. Support covers both travel to international conferences and the cost of organising a conference in Britain. Deadline: 30 November 1999

The AHHRB is inviting applications for its research grants scheme. Awards are intended to meet costs of: research assistants, information technology, fieldwork, consumables and preparation of research. Awards range from £5,000-£50,000. Deadline: 30 November 1999

The NERC has announced a new programme in support of earth observation. An important component of the new programme is the development of Centres of Excellence for the pursuit of Earth Observation in support of environmental science. Deadline: 1 December 1999

Under FPS there is a second call for the Information Society Programme. A total of 789 million Euros (£505m) is available for this call. Of special note are: RTD projects; future and emerging technologies action; research training networks and centres of excellence; and IST studies in technology and market analysis. Deadline: January 2000 (Contact: R.L.Dowsett@sussex.ac.uk for info)

The Wellcome Trust is calling for partnerships in science and art. This is a unique opportunity for scientists and artists to research, develop and produce projects that reflect contemporary practice in each discipline. R & D grants up to £10,000 and production grants up to £50,000 are available. Deadline: 10 January 2000

The Royal Society invites applications from UK postdoc scientists for bilateral research projects with scientists in South Korea. Grants are intended to cover international travel and subsistence for the UK side and subsistence for incoming Korean researchers over a three-year period. Deadline: 15 January 2000

The British Council is inviting applications for the UK-Dutch joint scientific research programme. The programme encompasses all fields of academic research. Grants are for international travel subsistence. Deadline: 31 January 2000
Lectures, Seminars, Colloquia

During the Autumn term the Bulletin will be produced fortnightly. We will therefore include two weeks' lectures on the back page. Please make sure that you get information to us in time for the copy deadline. Lectures, seminars and colloquia that miss the deadline will be put on the web at www.sussex.ac.uk/information_office/bulletin/ which will be updated every Friday.

As the Bulletin is being produced fortnightly there is will be less space on the back page for small ads. All adverts sent in will now be displayed on the web version. Please try to keep adverts to 20 words or less.

Monday 25 October

1.30pm Optical and Atomic Physics Seminar: Vladimir Minogin (Russian Academy of Science), Two-photon laser cooling mechanism and physics of MOT. PEV 1-2A1.

4.00pm Sociology and Social Psychology Seminar: Mailread Dunne, Classified results: Tests, selection and social class. D310.


Tuesday 26 October
2.15pm SEI Research in Progress Seminar: Mary Kaldor (LSE), The Balkans and European security after Kosovo. A71.


5.00pm Media Studies Seminar: Don Slater (Goldsmiths), The internet in Trinidad: An ethnographic approach. EDB 125.

5.15pm German Research Colloquium: Edward Timms, Karl Kraus and the crisis of musical culture in Vienna. A155.

Wednesday 27 October
1.00pm IDS Seminar: Peter Newell, Globalisation and governance of the environment. Room 121.

4.00pm CMAIA Colloquium: J. Ball (Oxford), Microstructure and quasirregular maps. PEV1-1A1.


5.00pm Migration Research Seminar: Russell King, A place in the sun: British retirement migration to the Mediterranean. D630.

Thursday 28 October
12.30 Inorganic Discussion Group: George Clark (Auckland), A specific role for Mg cations in the condensation of DNA. CHI 3R143.

4.00pm Economics Seminar: David Ulph (UCL), Endogenous information flows and the welfare evaluation of research joint ventures. D510.

4.00pm CPES Colloquium: Jim Feast (Durham), Solid state physics in bed with organic chemistry. Chichester Lecture Theatre.

4.00pm Biochemistry and Genetics and Development Seminar: David Draper (Johns Hopkins), Protein recognition of a conserved RNA tertiary structure in the ribosome. Biology Lecture Theatre.

Friday 29 October

4.00pm Astronomy Centre Seminar: I. Snellen (IoA), Young extragalactic radio sources. Arundel 401.

4.00pm Chemical Physics and Materials Seminar: P. A. Hatherly (Reading), Soft x-ray ionization of molecules. CHI3 3R241.

4.30pm Philosophy Society Seminar: Jonathan Ree (Middlesex), Philosophy and style. A155.

Monday 1 November

1.00pm Experimental Psychology Seminar: Ted Ruffman, Indirect measures of social understanding: Are they important, are they implicit, are they relevant to autism? Biology Lecture Room (EP 3.9).

4.00pm Sociology and Social Psychology Seminar: Carla Willig (City), Discourse analysis and applied psychology. D310.

4.30pm Neuroscience Seminar: Jonathan Bacon and Bruno Marie, Wiring up a simple neural circuit in the cockroach: From genes to behaviour. Biology Lecture Room.

Tuesday 2 November
2.15pm SEI Research in Progress Seminar: Judith Watson (Greenwich), Regional learning infrastructures: Some case studies. A71.


Wednesday 3 November
1.00pm IDS Seminar: Ramya Subrahmanian, Co-production, primary education and social exclusion. Room 221.

5.00pm Migration Research Seminar: Alice Bloch (Goldsmiths), Social networks and community organisations in the settlement of refugees in Britain: A case against dispersal. D630.

Thursday 4 November


4.00pm CPES Colloquium: Linda Cooper (British Museum), Mummies, murder and materials: Science at the British Museum. Chichester Lecture Theatre.

5.00pm History Work in Progress: L. Kettenacker (German Historical Institute, London), 1989: Revolt against the German state or stampede towards unification? A155.

Friday 5 November
SPRU Seminar: David Levy (Head of European Policy Digital Broadcasting, BBC), The digital gateway: Regulating for convergence. EDB 121.

4.00pm Chemical Physics and Materials Seminar: Malcolm Heggie, Kosmas Prassides, Hazel Cox, Research summaries. CHI3 3R241.

4.00pm Astronomy Centre Seminar: P. Meikle (Imperial), Type Ia SNe and their use as distance indicators. Arundel 401.


Open Day
There will be an Open Day for Mature Students on Saturday 23 October from 10.00am–3.00pm. For more information please contact Schools Liaison on (67)8417.

Gardner Arts Centre freebies
The first five readers who turn up at the box office waving a copy of the Bulletin will receive one free ticket for The Chomondeleys and The Featherstonehaughs and The Victims of death in Smitherens at 7.45pm on Tuesday 26 October.

There are also 10 tickets available for Happy Birthday Mister Deka D at 7.45pm on Thursday 4 November.

An exhibition of artwork by William Green is currently on show in the Gardner Arts Centre until 6 November.

Bulletin
The next issue of the Bulletin will be out on Friday 5 November. The copy deadline for that issue will be 1.00pm on Friday 29 October.

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

ARTS ADVISORY COMMITTEE

It is easy to make decisions. It is hard to make 'good' decisions that are in the long-term interests of a disparate group of units in a university, a federal system of schools, subject groups, GRCs, and the 'centre'. And it is hard again to secure support for decisions precisely because many individuals and units inevitably look to their particular interests and to the short-term. All too often, good decisions are not followed up and implementation is a frequent problem in all organisations and especially in universities, but a decision not implemented is a decision of no relevance.

It was because I wanted to do my best to make 'good' decisions for the area – decisions that would be supported and implemented – that I saw it as vital to establish an advisory committee that would command respect and make decisions on the basis of solid information, with back-up from administrators. The committee I have established consists of two subject group chairs, Craig Clunas and Pat Thane; two GRC Directors, Martin Van Gelderen and Jim Rollo; two subject deans, Rod Bond and Andrew Crozier; and Richard Fairbank (Planning Section) and Peter Clements (Arts Accountant). The Committee had its first meeting on 29 September and the minutes have been circulated to all subject group chairs, Deans, GRC Directors and school administrative officers, as well as to colleagues in the administration. Decisions about posts will be taken at a November meeting and the minutes will be circulated in the same way.

ARTS AWAYDAY

The demise of the Arts Finance Committee and my appointment to the post of Arts Budget Holder created something of a new situation for the arts area as a whole. I felt it was important to organise an Awayday for subject group chairs, Deans, GRC Directors, SAOs, and colleagues in the administration with a particular interest in arts. I wanted us all to meet and exchange views with a view to our working to a shared agenda so as to make the area as a whole 'better' for staff and students alike. The Awayday, sadly the last event organised by Andrew Hood, was held at Deans Place Hotel, Alfriston, and I produced a number of papers on:

• **Income:** next year the HECE grant for arts will be down by c£250k because of the 'need' to make efficiency gains.

• **Research grant income:** as a university and in arts we are way below the average of the top 30 universities in the 1996 RAE in terms of research grant income per academic in spite of our being way above the average in the RAE grades.

• **Administration:** we need to think hard about the cost and disposition of clerical and administrative support, laboratory support, and computing support in a situation when we may be spending more than our competitor universities.

• **The Arts Curriculum:** concern has been expressed about the continuing viability and credibility of the 'normal' two course per term arts model at the same time as there is a lot of unease about teaching loads.
• Peter Clements produced a one-page paper on the Arts Budgetary Model. Those of you who want a copy of the Arts Awayday papers should look to your Dean or Subject Group chair.

ACTION

There is little point in having an Awayday and shared ideas unless there is a follow-up in terms of action.

First, I have established three working groups on support (Chair: Mick Johnson); research grant income (Chair: Russell King); and the Arts curriculum (Chair: Brian Short). Each group will look at their issue and come up with recommendations, reporting by the beginning of the Spring term so that the recommendations can be discussed by schools and subject groups. All three working group chairs will be writing in the Bulletin, setting down how they see matters and asking for help.

Second, I have already decided that 10% of research overheads will go to the principal investigator as a personal research budget and this has already happened. I know this is a modest kind of incentive, but it is a start; it can make a real difference to a workaday academic life; and I am not opposed to seeing it used to ‘buy out’ from teaching although I think this is a matter that needs to be discussed with the relevant subject group chair.

Third, I am committed to the rapid establishment of an Arts Computing Support Unit, and this will be in place as soon as savings can be secured from elsewhere in the support budget; to fund this unit in any other way would simply reduce the spend on faculty and have an impact, albeit modest, on teaching loads that are already seen as a problem.

John Dearlove
ARTS BUDGET HOLDER