



SCI-FUN Director retires after twenty years

John Martin, Deputy Head of the College of Science & Engineering at The University of Edinburgh, writes:

After nearly twenty years of service, Dorothy McMurrich retired as Director of the SCI-FUN Scottish Science & Technology Roadshow on 1st August 2007. Over this time, Dorothy has built up the organisation from small scale, voluntary beginnings into a professionally-delivered roadshow reaching anything up to 100 schools and 20,000 students in a year. Its principal aim has always been to support and encourage interest in science in schools, particularly at the secondary 2 level, when students are making critical course choices which are make or break for their future scientific education and/or careers. We much appreciate the excellent feedback which SCI-FUN receives from teachers and students, and we take it as a significant measure of Dorothy's success that something like 80% of host schools request return visits. Her commitment to SCI-FUN has been remarkable and she has fought for its interests with great determination. I believe the sectors concerned with science outreach, both for schools and the wider public engagement agenda, have every reason to be grateful to Dorothy for her energetic commitment over many years.

I am sure that friends and colleagues will join us in thanking Dorothy for all her efforts and in offering her every good wish for, as she put it herself, "the start to the rest of my life".

The role of Director of SCI-FUN now passes to the previous Deputy Director, Brian Cameron, for the 2007/8 session (1 October 2007 to 1 April 2008). The experienced team will include Peter Reid as Development Officer, Stuart Dunbar as Roadshow Manager, Mark Reynolds as Technician and two new Science Presenters to be appointed shortly.



PP4SS/SCI-FUN Nuffield student wins international science prize

As we reported in the previous newsletter, our 2006 Nuffield Bursary student Holly Batchelor was awarded the highest prize at the 2007 BA Crest Science Fair in London, for her project "*Cosmic rays: investigating particles from space*", giving her the chance to represent the UK at the Intel International Science and Engineering Fair (ISEF), in Albuquerque, New Mexico, against 1,500 of the brightest and most talented youngsters around the world.

We're delighted to announce that Holly went on at ISEF to win an impressive three prizes: the First Award in the Physics and Astronomy Category (this included \$3000 prize money and having a near-earth asteroid named after her), an Agilent Technologies paid Summer Internship, and a Certificate of Honourable Merit from the American Association of Physics Teachers and the American Physical Society.

Commenting on her achievement, Holly said: 'I thought that so many of the other finalists' projects were absolutely amazing, so when listening to the ascending role-call of winners, I couldn't believe my ears when they called out my name. Even though the noise in the auditorium was deafening, I could still hear the screams of my chaperones from the BA. More than the prize money, I love the idea of having my name in space forever: it's a huge privilege – I don't think it's sunk in yet!'

Holly had to present her project, which investigated cosmic rays – high energy particles that travel

close to the speed of light, to no fewer than twelve judges for a gruelling duration of three hours in total. She was commended for her enthusiasm about her subject, her fantastic communication skills and the wide applications of her project.

Holly has since visited the CERN particle physics laboratory in Geneva (see over), and in June was invited to take part in Intel's EMEA Academic Forum in Budapest, where she was part of the

panel discussing "*Diversity: Women in Science and Engineering*."

In October Holly begins a Physics degree at the University of St. Andrews, for which she was recently awarded a scholarship.



Holly, by her stand at ISEF



Near-earth asteroid Eros

The Lincoln Near-Earth Asteroid research project is a co-operative venture between NASA, the USAF and MIT's Lincoln Laboratory, for the systematic discovery and tracking of asteroids whose orbits pass close to – and in some cases cross – the orbit of the Earth. MIT promotes science education through a programme called the *Ceres Connection*, which seeks to name minor planets after deserving students and teachers.

Holly will shortly be told more about the piece of the solar system that will carry her name for the next hundred million years...

SCI-FUN Physics poster competition: the prize-winners' trip to CERN

In May of this year, students from St Leonards School – winners of the 2006 SCI-FUN Physics poster competition – visited the CERN Nuclear Research laboratories in Geneva, with their teacher, Dr Catherine Dunn, accompanied by Alan Walker, Peter Reid and Prof. Franz Muheim from the School of Physics at Edinburgh.

Dr Dunn, head of Physics at St Leonards, writes the following brief account: "I would just like to convey my sincere thanks to Edinburgh University for both arranging and funding the visit to CERN that St Leonards School won as a result of coming first in the SCI-FUN poster competition. Designing a poster was an excellent idea for a competition as we have the poster to keep, and the students gained much from researching into their chosen topic "Dark Matter" from the list given. Peter Reid did an incredible job compiling the poster as he implemented all the ideas the students had and produced a very striking poster.

"The visit to CERN that Alan Walker put together

was truly amazing. To get down into the accelerator tunnel when visiting CMS was the icing on the cake! We just could not believe our luck. For each detector – LHCb, CMS, ATLAS and ALICE – Alan had arranged a tour, and the guides were really generous with their time. We all learned so much, and had an unforgettable experience.

"Each detector left its mark: ALICE for the very clever description of the experiment to investigate quark-gluon soup, by using an *Alice-in-Wonderland*-like story; CMS for our scaling of the detector scaffolding, the enthusiasm of the two guides and for our getting into the LHC accelerator tunnel; and ATLAS for its sheer size and the excellent displays.

"Alan had arranged the visits brilliantly: each in turn got bigger, so every visit was impressive and had impact. Along with Franz, he gave us a truly brilliant guided tour. Both Alan and Franz answered all of the questions asked by both myself and the students. It was a very generous,

and truly memorable prize."

The CERN trip was funded in part by a grant from the Institute of Physics in Scotland.

Images of the prize-winning St. Leonards poster, as well as pictures from the CERN trip, are available at www.scifun.ed.ac.uk/pp4ss.

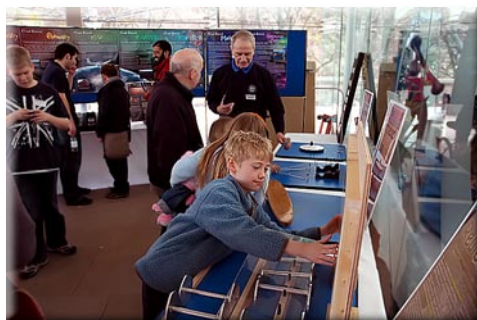


The winning St Leonards team, with Alan Walker and Catherine Dunn

Changes for the forthcoming session

Up to this point SCI-FUN has offered the main Roadshow for the S2 year, SCI-FUN Primer for P6/P7, and has begun to work with other University groups on exhibit clusters and workshops for S5/6 (such as PP4SS).

Our challenge this year is twofold. First, we intend to build, or further strengthen, ties with the various science outreach groups across the University. As an example of this, SCI-FUN recently took part in the "Green Houses: Carbon Free Living?" event at *Our Dynamic Earth* (shown here), an opportunity to collaborate with other university outreach groups. Exhibits, displays and workshops were on hand from the Schools of Chemistry, Physics, GeoSciences and Engineering, accompanied by new SCI-FUN exhibits and posters on a variety of climate change topics. We are actively seeking further events of this type in the coming session.



This is the first part of a much broader initiative, as described below. Discussions are ongoing between the University of Edinburgh and other higher education institutions, science centres and the Scottish Executive, to find new ways in which science outreach can be organised throughout Scotland. As the year progresses we will have more information on the involvement of the SCI-FUN group in this venture.

This year we are altering the traditional delivery schedule for the SCI-FUN Roadshow. Visits to secondary schools throughout Scotland (with associated Primer and evening session events) will take place every other week. On those weeks when we are not taking the standard roadshow to schools, we will be carrying out a significant number of SCI-FUN Primer visits to local schools

(the catchment area being those schools whom we can visit and then return to Edinburgh in a single day). In addition to this, we will be offering schools a variety of workshops for secondary pupils, in association with postgraduate students and others from the university. More information will be available soon.

One consequence of our changed schedule is that we are already overbooked for Roadshow visits at many times throughout the year, and will be unable to fulfil requests from some schools. To offset this, as well as to broaden our connections with other university groups, we will vigorously promote all of the other university science outreach activities to such schools, via our website, in direct school mailing, and during our visits throughout the year.

A major change in the operation of SCI-FUN this year has been to hire Stuart Dunbar in the newly created position of Roadshow Manager. Stuart will be the lead presenter in a team of three, and his responsibilities will encompass the administration of the roadshow schedule, as well as the design and implementation of our new shows and exhibits. Find out more on our website about Stuart's role, and also in our next newsletter, when we will be introducing the new team.

The future of SCI-FUN – John Martin, Deputy Head of the College of Science & Engineering

As some of you may know, in recent years a serious mismatch has developed between the high demand for SCI-FUN and the funding support that we have been able to raise. Eventually, the widening deficit has reached a level that the University of Edinburgh cannot continue to sustain this alone. Recognising the broad benefits of SCI-FUN to science education in Scotland, we have opened discussions with the Scottish Executive and a number of other organisations to establish whether we can find a consortium approach to supporting secondary science. The idea would be to build on the inspiration of SCI-FUN and other outreach activities offered by members of the consortium. This may mean big changes in the organisation but, if successful, has the potential to offer even more varied and exciting programmes. We will keep you all in touch as matters develop.

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