Welcome to the Autumn 2011 edition of the GENIE newsletter.

We hope you have enjoyed the previous editions and as always welcome any feedback or comments you may have. In this edition we take a look at GENIE’s study of the personal tutor system, report on potential dietary agents in anticancer therapy and also give a brief update on our public engagement lecture series.

A GENIE-led staff-student partnership, investigating the personal tutor system, has proposed a new code of practice that has been accepted in principle by the University of Leicester’s Academic Policy Committee.

While there has been much anecdotal evidence of inconsistencies in the quality of delivery of the system across higher education, the issue has rarely been studied formally.

To identify problems and best practice, and then create and drive policy, GENIE put together a large research team, with 15 students and 7 personal tutors working in collaboration. Their rigorous approach, based around detailed questionnaires, focus groups and interviews of students, academic staff and other stakeholders, allowed them to gather real opinions in a meaningful and systematic fashion. Responses from almost 2000 campus-based students and 300 academics were analysed and the results could now help many thousands of tomorrow’s students and tutors.

If you have any comments, news or reviews please contact:

Dr Colin Glen
e: cdg9@le.ac.uk

Dr Aneela Majid
e: am242@le.ac.uk

www.le.ac.uk/genetics/genie
SWIFT wins video prize

The prize winning video can be viewed at: http://www.youtube.com/watch?v=uMMfHZUNpZY

Often the time available for students in laboratories is limited due to a lack of resources. As a result of this, a novel approach for students to experience lab-based learning is being developed. The aim of the SWIFT (Second World Immersive Future Teaching) project is to address some of the limitations of teaching and learning in real laboratories, increasing opportunities for activities such as student interaction and experimental design. The project also researches the impact of using virtual laboratories on teaching and learning in biomedical sciences, and provides exemplars for transfer to other sciences.

Recently, one of the project’s videos was voted 1st place in the Best Educational and the People’s Choice categories at the 4th Annual Virtual Worlds Best Practices in Education Conference (VWBPE) held in the virtual world of Second Life.

The VWBPE Conference is a grassroots, community-based conference and is the largest global event of its kind, with around 2,700 attendees and 170-plus presentations, posters and workshops.

Participants include creators and users of teaching/learning environments, resources, tools, support services and professional development opportunities internal and external to virtual world environments.

SWIFT’s three-minute video features Second Life avatars voiced by Dr Paul Rudman and Dr Suzanne Lavelle, members of the SWIFT project team. The video shows the two avatars leading viewers on a tour of the virtual laboratory that the SWIFT project has created in the 3-D virtual world of Second Life, where University of Leicester undergraduates take part in virtual laboratory activities.

SWIFT is funded by the Higher Education Academy (HEA) under their National Teaching Fellowship Project Scheme (NTFS) and is a collaboration between GENIE and the Beyond Distance Research Alliance.
HERO Schools Project Reception

Over 40 health and education professionals, teachers and researchers attended an evening reception to learn about the HERO Schools Project on Tuesday 14th June 2011.

The event included posters and talks about GENIE and HERO and the Schools Project from the Director of GENIE, Professor Annette Cashmore, and Dr Nicola Suter-Giorgini, one of GENIE’s Teaching Fellows. Director of The National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care (Leicestershire, Northamptonshire and Rutland), Professor Richard Baker, also spoke about the health problems in the region and how the HERO project fits into the wider CLAHRC programme aims to implement high quality research that improves the health of the population of the region. After the talks attendees had the chance to see and try out HERO’s hands-on activities that help school children think about healthy eating and physical activity and to talk to the team of HERO staff and Genetics postgraduate students and postdoctoral researchers who had been involved in running the activities. The event generated good interest from schools and public health professionals and will be followed up with an interim report at the end of the year as the project develops.

Clone that Gene!

On Wednesday 30 November, The University of Leicester will be hosting an exciting GENIE-designed course focused on the practical aspects of DNA recombinant technologies. New drug discovery, gene therapy and genetically modified food, to name a few, are all based on DNA recombinant technologies and the understanding of these technologies forms part of the post-16 biology curriculum. The course has been specifically designed for teachers and technicians involved in the support of post-16 biology who wish to acquire practical experience of gene cloning, and the necessary information and resources to reproduce these techniques within their classroom.

Participants will be able to:

- Learn the theory behind cutting edge genetic cloning techniques
- Become confident in carrying out the techniques so they can be replicated in their school/college
- Learn about the relevant health and safety regulations and protocols relating to the activities

Course Fee: £195
(Includes FREE resources for use in classroom or FREE visit to GENIE)

To book: Call the Science Learning Centre East Midlands on 0116 252 3771.

Genetics into Space – GENIE’s War of the Worlds

GENIE has had a busy summer contributing Genetics workshops to five Summer Schools during July and August. Perhaps the most surprising was GENIE’s involvement in the Senior Space School UK organised and run by the Department of Physics and Astronomy. In a 3 hour Genetics workshop the students attending this popular Summer School were taken from ‘Observing Life on Earth’ (extracting DNA from bananas) to ‘Considering Extraterrestrial Life’ (GENIE’s War of the Worlds) to ‘Detecting Alien Life’ (DNA amplification and analysis). GENIE’s War of the Worlds is a new game, situated on Mars and Venus, which was specifically created for this year’s Space School UK. The players of the game first had to choose the traits (“genes”) that would be beneficial for the survival of their imaginary species under the extreme circumstances on either Venus or Mars. The traits that can be selected are all known traits of extremophiles on Earth, like hot-spring bacteria. In the next stage of the game students found out whether their species was thriving or not through ‘battles for survival’ between species, where luck is decided by throwing 20-sided dice! Finally, students discovered that their chosen genes may not be so good when one is trying to invade another planet…

For more information about GENIE’s War of the Worlds contact Dr Cas Kramer (ck53@le.ac.uk), GENIE’s Outreach and Public Engagement Coordinator.
Public Lectures

February saw the second in our popular series of public engagement lectures. The speakers were Professor Charalambos Kyriacou and Dr Turi King who gave very entertaining talks on genes and biorhythms, and the link between surname and genetics.

There was a huge amount of positive feedback and an attendance of around 100 people. We hope to build on the success of these events when presenting a third pair of lectures on Tuesday the 11th of October 2011, from 6.30pm at the University of Leicester.

Talks will be given by Professor Anne Willis, Director of the MRC Toxicology Unit, on ‘The control of gene expression following toxic injury’, while Dr Colin Glen, one of the editors of GENIE News, will ask ‘Mutagens… do they echo in eternity?’. For further details please check the GENIE website: www.le.ac.uk/ge/genie/

GENIE Day Out

It’s not all hard work and no play!

Recently the GENIE team enjoyed a day out at Rutland water which involved sailing, picnicking, playing cricket and Frisbee… all this despite our British summer threatening to ‘dampen’ things down!

Research in Focus

Potential for dietary agents in anticancer therapy.

Dr Lynne Howells (Dept. of Cancer Studies and Molecular Medicine).

Naturally occurring compounds found in the diet are being investigated to see whether they may have anticancer properties.

Such agents are attractive because they have a long history of use within the human populace, a good safety profile and are cheap to produce. We have recently shown in the laboratory that the dietary agent curcumin (from the spice turmeric and often used in curries) is able to enhance anticancer properties of the chemotherapy agent oxaliplatin, and may work by targeting drug resistant cancer cells that are responsible for cancer recurrence following chemotherapy. A clinical trial of curcumin in bowel cancer patients has recently been completed, allowing us to take forward a safe and tolerable dose for future trials. We now plan to give bowel cancer patients whose cancer has spread to the liver, daily doses of curcumin in conjunction with their standard chemotherapy. This way, we will be able to monitor whether curcumin may be able to enhance efficiency of chemotherapy in patients, and whether it may be beneficial in helping to prevent some of the unpleasant side effects associated with oxaliplatin-based chemotherapy. This work has been funded by Hope Against Cancer, Cancer Research UK, the Bowel Disease Research Foundation and the Royal College of Surgeons.

Upcoming Events

Our next public lecture event will take place on Tuesday 11th October 2011 at 6.30pm in the Frank and Katherine May Lecture Theatre, at the University of Leicester.

For further details please check the GENIE website: www.le.ac.uk/ge/genie/