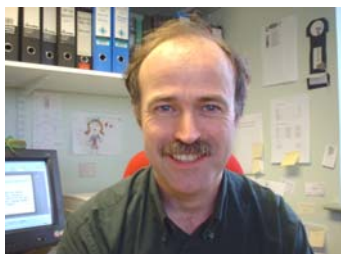




On 19<sup>th</sup> May, 2004, I<sub>2</sub>L celebrated its 10<sup>th</sup> anniversary of success and growth. During these ten years, the company has undergone many changes. I<sub>2</sub>L started life as a wholly-owned subsidiary of Cardiff University. In its early years, the company experienced strong growth in product development and testing and in 2000 decided to concentrate its business in this area. In February 2001, the University reduced its share-holding in the company as part of a management buyout and the company relocated to its present, purpose-built facility. The company continues to grow and expand into new business areas, its success being recognised through several prestigious Welsh business awards.

### *☞ Greetings from the MD ☜*



Assembly Government and Finance Wales, for their support earlier in the year which has allowed the company to increase its white room and office space. We hope to continue to grow our capacity in 2004/05.

As always, it is the hard work of the I<sub>2</sub>L staff that makes the company such a success. The company is fortunate to have such a competent and professional team in place. Whether it is sweltering in the glass-houses, measuring slug damage on lettuces in the rain, or meeting strict deadlines on laboratory studies, this team delivers!

I look forward to continuing to work with you all, hopefully soon! I<sub>2</sub>L will be present at Pestech, GLEE, BCPC in Glasgow, and NPMA. I look forward to meeting you there.

**Peter McEwen, Managing Director**

As I<sub>2</sub>L arrives at the end of another successful financial year, I would like to thank all of you for your continued support. The year has seen particularly strong growth in our **GLP** and **mollusc business**, as well as our first contracts in **resistance monitoring** and **regulatory advice**. The aim of the company in the coming 12 months will be to continue offering excellent service and, as a result, to continue growing and improving our business. I would like to take this opportunity of thanking the Welsh

### *Bedbugs - our old bedfellows return*

Temperate bedbugs (*Cimex lectularius*) have the unfortunate habit of sucking peoples blood, their bites often causing red, itchy bumps. They are distributed throughout temperate regions and have been associated with human habitations for centuries. The bugs conceal themselves under the seams of mattresses and in cracks or crevices around a room, waiting until night when their victims sleep.

Until recently, most people in developed countries believed bedbug infestations were history. However, around 5 years ago, bedbugs started to return and infestations are increasing year on year. **So why the comeback?** One factor may be the increase in national and international

travel. Sales of second-hand furniture are another possibility. It has also been suggested that the re-emergence of bedbugs may be in part due to use of more selective pesticides.

There is emerging evidence, however, that bedbugs are becoming resistant to the pesticides used to control them. I<sub>2</sub>L, in partnership with **Cardiff University** and **The Pest Management Consultancy** have launched a joint initiative to find out exactly how resistant UK bedbug populations are becoming. We are now urgently seeking funds to carry out this essential work.

**Please contact us if you or your organisation would like to help!**

*I<sub>2</sub>L's 10<sup>th</sup>  
ANNIVERSARY  
CELEBRATION!*

*GREETINGS  
FROM THE MD*

*BEDBUGS - OUR OLD  
BEDFELLOWS RETURN*

*ARTHROPOD  
RESISTANCE DATABASE  
& NEWSLETTER*

*PRODUCT EFFICACY  
TESTING AT I<sub>2</sub>L*

*INTRODUCING  
NEW MEMBERS  
OF THE I<sub>2</sub>L TEAM*

*PESTS IN THE NEWS*



*..Rapid  
Responsive  
Reliable*

# Arthropod Resistance Database & Newsletter

The **Database of Arthropods Resistant to Pesticides** is a public service internet resource administered by the Center for Integrated Plant Systems (CIPS) at Michigan State University. It is intended for use by all those interested in resistance management. The database lists arthropod pest species (insects, spiders and mites), the pesticides that they are resistant to, when and where in the world the resistance was documented, and a citation of the research paper that documents this resistance. Resistance cases reported go back as far as 1914. Users of the database can search by species, pesticide, citation (author or title and publication year) and region. If you'd like to check out this most valuable resource, the web address is: [www.pesticideresistance.org/DB/index.html](http://www.pesticideresistance.org/DB/index.html)

Also from CIPS, in cooperation with the **Insecticide Resistance Action Committee (IRAC)**, comes the **Resistant Pest Management (RPM) Newsletter**. This biannual newsletter serves to inform the resistance workers worldwide of the ongoing changes and advances in the field of resistance management. If you'd like to register to receive this newsletter, go to: <http://whalonlab.msu.edu/rpmnews/>

## Product efficacy testing at I<sub>2</sub>L

I<sub>2</sub>L is a Pesticides Safety Directorate accredited Good Experimental Practice laboratory holding the ORETO certificate. The company can carry out laboratory, glass-house, caged arena and field trials and offers a fast, accurate, competitive and confidential service under a wide range of environmental conditions. We have a wealth of experience working with a wide range of pests of agricultural, medical and veterinary importance.

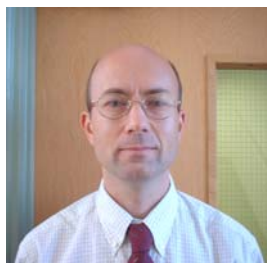
In addition to product efficacy testing on pesticides, attractants and repellents, we also test pest trapping and pest monitoring devices.



For further information on our product efficacy testing service, please contact Dr Lara Senior, [lara@insect-investigations.com](mailto:lara@insect-investigations.com)

## Introducing new members of the I<sub>2</sub>L team

There have been two new appointments in 2004. A new Technical Director, **Dr Graham Small**, has joined us from Cardiff University. Graham's expertise is in pesticide resistance diagnosis, characterisation, monitoring and management. In addition to his research on a wide range of arthropod pests, he has for the last 5 years been Commercial Manager of the Pest Management & Ecotoxicology Centre in Cardiff University. Graham will help I<sub>2</sub>L extend its service portfolio and will assist the MD in all aspects of marketing. His email address is: [graham@insect-investigations.com](mailto:graham@insect-investigations.com)



**Dr Nigel Halsall**, our new Head of Ecotoxicology, joined us from Mambo-Tox in March. Nigel has built an internationally-recognised reputation in ecotoxicology and brings with him a wealth of experience in GLP studies. He is now helping the company to expand the portfolio of studies it offers for regulatory submission of pesticides in the areas of non-target arthropods (NTAs), honeybees, soil fauna and dung fauna. We expect this to be a major growth area for I<sub>2</sub>L over the coming years. You can email Nigel on: [nigel@insect-investigations.com](mailto:nigel@insect-investigations.com)



I<sub>2</sub>L is also pleased to welcome **Lucy Morapedi** who has joined us for a 10 week **GO Wales** work placement over the summer vacation. Lucy is from Botswana and is currently studying for a degree in Biomedical Sciences at the University of Wales Institute, Cardiff. During the short time she has already been with us, Lucy has experienced the pleasures of working with ants, houseflies and cockroaches. Never a dull moment at I<sub>2</sub>L!

## Pests in the news

This issue's 'Pests in the news' story was reported widely in the international media and highlighted possible problems with the planting of non-GM plant refuges in association with GM plants. Such refuges are planted as a resistance management strategy to preserve pests susceptible to the toxins expressed in the GM plants. However, an Arizona-Texas team of scientists found that pollen from GM crops engineered to express a pesticidal toxin [normally produced by a bacterium, *Bacillus thuringiensis* (Bt)] contaminated nearby non-GM plants. This led to the expression of low to moderate levels of the Bt toxin in the ears of the non-GM plants which could, in turn, favour the selection of resistance.

These findings have led to fears that the growing of GM crops in countries that are not as rigorous in their implementation of the refuge strategy as the US could lead to high levels of Bt toxin in non-GM refuges and to insects becoming resistant to Bt transgenic crops.

For more details on this important study, please see the paper which was recently published in the Proceedings of the National Academy of Sciences (PNAS 2004 101:7526-7529).

I<sub>2</sub>L Express Editor & Designer:  
Graham Small

Further information on the services mentioned in this newsletter, and on all our other services, can be obtained from our website: [www.insect-investigations.com](http://www.insect-investigations.com)

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