Greetings from Brussels

International conservation with DICE

Student activities
Welcome

Welcome to the first ever edition of The GradPost, a newsletter created by postgraduates for postgraduates.

The editorial team pictured above are (from top left to bottom right):
  • Abigail El-Bekai (MA in Creative Writing)
  • Tinashe Mushakavanhu (PhD in English)
  • Kate Rees (PhD in Pharmacology)
  • Magnus Fossum (MSc in Social and Applied Psychology)
  • Mikayala King (Post Doc in Biosciences).

We are keen to hear from all postgraduates who would be interested in becoming part of the team. If you would like to become a member of the team, please email: grad-editors@kent.ac.uk

The GradPost has been created as a means of facilitating communication between Kent postgraduates across all campuses. This will in turn help to develop a strong postgraduate community. We welcome articles about your PG studies and research (including photographs), news, forthcoming events, and any other ideas so please do get in touch with the editorial team grad-editors@kent.ac.uk to have your story heard.

The GradPost will include some regular sections that you can expect to see in each edition such as the PG Snapshot (see p6).

In the next issue you’ll find Ask the Dean. Should you have an interesting question you would like to ask the Dean of the Graduate School about the development of the postgraduate student experience at Kent, please email this to grad-editors@kent.ac.uk and we will arrange for Professor Diane Houston to answer your question in the next issue of The GradPost.

The GradPost is supported by the Graduate School. For those of you who have not yet come across the Graduate School, please see p6 for more information.

Greetings from Brussels

I thought the launch of The GradPost would be a good opportunity to introduce other postgraduates to the University of Kent at Brussels (UKB).

My name is Martin Gaal, I completed my MA in International Relations here in Brussels and have continued on to do my PhD in the same discipline. I often travel to Canterbury to meet with various lecturers and to use the Templeman Library. However, very few of the students I meet know that we have a campus in Brussels.

UKB has almost 200 students enrolled in postgraduate studies. UKB currently offers over 20 programmes of study, concentrating primarily on law and political studies, from an MA in Migration Studies to a PhD in International Law.

UKB has a strong postgraduate community and benefits from a fantastic location in the heart of Brussels. As for the student body, every class is different. What remains constant is the institution’s diversity. We usually have students from between 40 and 50 nationalities studying here. Combined with the interdisciplinary nature of UKB’s programmes, this ensures a multiplicity of views and lively (sometimes very lively) discussions, often forging lifelong friendships that reach around the globe. The location of Brussels further enhances the educational experience both in terms of programme of study and future careers. Whether you are studying Conflict Analysis, Migration, Law or International Relations, Brussels offers fantastic resources for networking, interviews or informal discussion.

As the ‘capital of Europe’, students have access to the European Institutions, NATO, international Non-Governmental Organisations (NGOs), as well as a multitude of conferences.

Personally, my studies here have given me an opportunity to work in the European Parliament as well as a security and defence consultancy. I have met people from all over the world and now have a sofa to sleep on in almost every country I would like to visit.

If anybody from other campuses happens to be in Brussels, feel free to drop in and say hi!

For more information on UKB, see: www.kent.ac.uk/brussels/

Martin Gaal
PhD in International Relations
We... The PhDs

I enrolled onto a PhD at Medway School of Pharmacy in 2005 with Dr Tim Page and will be finishing this year. My experience at the School has really been an education above and beyond a PhD; being here has taught me to be a leader, a follower, a fighter, and a calmer, more patient person. Initially I had difficulty obtaining the required equipment, which at times was frustrating. But I hung on, thanks to my supervisor and my colleague Zannah, and I now feel that I did the right thing. The amount of knowledge I’ve gained during these three years, both academic and personal, will really help me through my life; a lot of the lessons I learned – both sweet and sour – have made an impact on my personality.

There has been huge development of both the Medway campus and the School of Pharmacy in the last three years. The campus is budding with activities and its growing day by day – and so are the PhD students of Medway School of Pharmacy. We are a cosmopolitan group of 22 PhD students, one research technician and one research associate. We are all involved in very different projects with different supervisors, each in our own little sphere of knowledge within chemistry, biology or pharmacy practice. Our group gathers at a Journal Club once every two weeks, where an individual chooses a paper and discusses it with the group. This helps us to understand more about the research work and also share ideas of different experimental methods. There are seminars every week with both internal and external speakers.

A PhD requires a lot of hard work and commitment so we try to follow the motto, “Work hard, party harder”. There is a good vibe in the group and we try and meet outside of the lab to ease stress and have a good laugh. We take advantage of the things Kent has to offer, from Paintballing to eating out. But, unfortunately, due to work and other commitments, we do not always get to socialise as often as we would like.

I hope this has given you an insight into who we are at Medway School of Pharmacy. All the best and enjoy.

Sushmita Bagchi
PhD in Pharmacy

Focus on research

The University of Kent prides itself on being ranked as world-leading for its research.

Six of the University’s subject areas have been ranked in the top ten of their disciplines nationwide; these included History, Metallurgy and Materials, Social Policy and Sociology, Law, French, Statistics and Operational Research.

The University was also voted the number one university in London and the south-east in the 2008 National Student Survey and it now ranks among the top 30 universities in the UK according to the Guardian’s latest Higher Education League Tables.

If you’d like to submit an article about your own research please email it to graduateschool@kent.ac.uk

Here are just two examples of some of the original and exciting research projects being conducted by Kent’s postgraduate students at the current time.

Biosciences

I came to the University of Kent in 2002, where I studied Molecular and Cellular Biology for my undergraduate degree. I then joined Professor Martin Warren’s group as a PhD student in 2005, where I began researching a bacterial microcompartment called the metabolosome.

The metabolosome is a macromolecular complex found in gut bacteria, such as Salmonella enterica. The metabolosome consists of a protein shell, similar to a virus capsid, which contains several metabolic enzymes that degrade propaneol and its products. Bacteria such as Salmonella are thought to produce metabolosomes to protect the cell from the potentially toxic effects of one of the chemicals produced when propaneol is broken down. Containing the toxic chemical inside the metabolosome allows it to be degraded further by enzymes held inside it. Also, the harmful effects of the chemical are confined to the interior of the structure, away from the essential machinery of the cell. However, very little research had been performed on the structure, and we were keen to understand exactly how this complex forms and how we could engineer the structure to our advantage.

The project started by transferring all 21 genes responsible for making the metabolosome proteins into E. coli. E. coli cannot normally form metabolosomes but the new strain was not only able to make these structures, it was also able to use propaneol to grow. Knowing the proteins were functional in E. coli allowed us to begin the exciting task of building an empty metabolosome: a shell containing no enzymes. When we produced seven of the ‘shell’ proteins in E. coli and looked inside the cells with an electron microscope, we saw structures that looked identical to normal enzyme-filled metabolosomes. This was the really thrilling stage as the next challenge was to design a method to make the empty shell encapsulate a completely foreign protein. We managed to accomplish this by fusing two proteins together. The first was a metabolosome protein called PduV. The second was an unrelated protein made in jellyfish called Green Fluorescent Protein. We previously had no idea what role PduV played but we were quite certain it did not form part of the shell. We thought that it might be involved in directing proteins to the inside of the metabolosome. We found that when E. coli made the new version of PduV at the same time as the shell proteins, Green Fluorescent Protein had been directed to the inside of the empty metabolosome. This was a fascinating discovery for us because it has opened the doors to a new bioengineering aspect of the study.

We are currently designing a new metabolosome that encapsulates different enzymes, tailoring the structure for a range of new processes. In the future, we are hoping we can use bacteria producing our engineered structure to help with a range of processes such as toxic waste processing, drug delivery, antigen presentation, enhancing inefficient or oxygen sensitive enzymes; the possibilities are endless! We did not anticipate our progress would advance so quickly and we cannot wait to see the future potential of our findings.

I had no idea how much I would enjoy my postgraduate studies at the University of Kent. I’ve made some brilliant friends, published my research and presented data at international conferences. I would recommend the Department of Biosciences to anyone with enthusiasm and a passion for science.

Josh Parsons
PhD in Biochemistry
International conservation with DICE

Having completed my Ecology and Environmental Management BSc at Cardiff University, I decided that international conservation was the direction I wanted to take my life in, but I was still unsure of the details. Having researched a number of postgraduate opportunities, it became clear that the Durrell Institute of Conservation and Ecology (DICE) at the University of Kent was one of the most internationally recognised and respected institutes, so I enrolled on the taught Conservation Biology MSc. This opened my eyes to a whole new range of opportunities and, in an effort to broaden my skills and experience, I wrote my thesis on a subject I had never studied before: conservation genetics.

I had found my calling! Finally this was something that I was passionate and enthusiastic about, and something that was incredibly valuable to the wider conservation community. I thoroughly enjoyed my MSc and with the support of my project supervisor, Dr Jim Groombridge, we applied for funding for me to continue my research in a PhD.

Endemic island species – those species that are found nowhere else in the world – are often of particular interest to conservation biologists given their history of isolation, yet it is this feature that also makes them more susceptible to threats. Infectious disease is a growing concern in conservation today and species decline is increasingly being attributed to infectious diseases.

The Mauritius parakeet (Psittacula eques) was once the world’s most endangered parrot when, in the early 1980s, less than 20 individuals remained, of which only three were known to be female. Thanks to the hard work of the Mauritian Wildlife Foundation (MWF) and National Parks and Conservation Service, the population now numbers over 350. Deformation and the introduction of invasive species prevent the Mauritius parakeet from returning to its historical range and population size. In spite of this, a remnant population is currently infected with PBFD (Psittacine Beak and Feather Disease) and population is estimated to number approximately 30,000. This is a globally widespread continental species and as such has been exposed to a variety of pathogens through its evolutionary history. This means that ringneck parakeets have evolved a range of immunological defences to infections making them more resilient to infectious diseases. As the Mauritius parakeet is only found on the island of Mauritius and as such has not been exposed to many pathogens, it can be thought of as being immunologically naive. This means that when a novel pathogen is introduced, it may have a devastating effect as the Mauritius parakeet has not built up a strong immune system.

As the name suggests, Psittacine Beak and Feather Disease can affect the beak and feathers of infected birds (Psittacine refers to the taxonomic group that contains all parrots, parakeets and cockatoos). In infected Mauritius parakeets, a number of feathers may emerge yellow, instead of their normal green. As the disease develops, feathers become more and more malformed and ultimately, the bird may lose a number of flight and tail feathers as well as their body feathers. Although adult birds are sometimes able to recover, young birds and chicks are particularly susceptible.

Using molecular genetic techniques and historical field records, we are able to quantify the levels of inbreeding and relatedness in the recovered population of Mauritius parakeets. By considering this alongside detailed disease test results, which tell us whether the birds are currently infected with PBFD or have been infected in the past, we can make predictions about the effect of inbreeding on the recoverability of birds to PBFD. By identifying the birds that are most likely to survive an infection, we can make recommendations for the future management of this endangered endemic species.

In today’s world, where international travel is readily available to many and animals are frequently traded for research, food and the pet trade (both legally and illegally), the spread of pathogens is likely to increase. An understanding of how this disease is spread between birds of the same species and between different species will help in the understanding of disease dynamics in a wider context.

There is no doubt that postgraduate student expectations and experiences differ from those of undergraduates, but that doesn’t mean that postgraduate life should be all work and no play. It’s all about balance, and that is what DICE has helped me to achieve – I have found it a fantastic place to be for the last three years. Not only have I met, worked with and become friends with some wonderful people, I have also learnt so much about what we can do and how much of a difference we can really make.

Claire Raisin
PhD in Biodiversity Management
www.kent.ac.uk/anthropology/dice/postgrad/phd_raisin.html

1 Extracting DNA in our lab (J Groombridge)
2 One of our captive males ‘Bonza’ and I
3 Achilles, a young male Mauritius parakeet infected with PBFD (S Tollington)
Kent Union

Kent Union is integral to the University of Kent, providing excellent quality representation, commercial services and membership services to all students.

In recent years, the postgraduate community at Kent has grown considerably and Kent Union is now expanding to ensure that it meets the needs of its postgraduate members. Kent Union has put together a new strategy for engaging with postgraduate students, some of which is outlined below.

During the summer of 2008, Kent Union worked with the Dean of the Graduate School to increase the number of postgraduate course representatives at the University. Working with the institution was extremely effective and the number of postgraduate course representatives has doubled since the previous year. A new Postgraduate Forum has been established and, despite being in its infancy, is set to provide a discussion forum solely for postgraduate academic issues. For more information, email Helen Palmer, Vice President – Education at h.palmer@kent.ac.uk

As part of Kent Union's Welcome Week programme, a number of special events were organised specifically for postgraduate students. Kent Union hopes to build on this in future years to ensure that there is a wide array of activities for postgraduate students to participate in on arrival at the University of Kent. Activities this year included a BBQ, Wine and Tapas evening, tours of Canterbury and a comedy evening. If anyone wishes to suggest an idea for the future, please email kentunion@kent.ac.uk

Kent Union hopes to engage more postgraduate students in its democratic processes and increase postgraduate involvement in elections. The establishment of the Woolf College Committee has been a great success and is just one forum through which postgraduate students have a voice.

Services such as the Student Advice Service and JobShop have received positive feedback in recent student satisfaction surveys; however, Kent Union is aware that there is always room for improvement. From October 2009, we are looking to offer some more pro-active advice sessions, and JobShop will be looking out for more part-time employment opportunities that would suit the requirements of postgraduate students.

There are many different extra-curricular opportunities available for postgraduate students, from one-off day trips to volunteering in the local community. If you have suggestions for new activities, email studentactivities@kent.ac.uk

For more information, visit www.kentunion.co.uk

Rachel Evans
Representation and Democracy Manager

Graduate choice: an inspirational story

I am a postcolonial child, born three years after Zimbabwe's independence. Growing up on the streets of a Zimbabwean township, I always dreamed of training to be a doctor at an overseas university; part of the dream has turned out to be true, only I'm training to be a different kind of Dr.

Since I come from the developing world, there is a tendency to put a glass ceiling to your capabilities. With so much going against our environment, there is always this feeling that you may never succeed. It's sobering to realise that human beings are not creatures of environment and background – a philosophy based on the false dichotomy of determinism. Rather we are creatures of choice.

I have come to the University of Kent to do what is impossible in Zimbabwe today; to explore the depths of my own creative and critical imagination, to fill gaps in my knowledge and experience, to broaden my world view and, most importantly, to experience something other than Africa. The UK has been my first point of contact with Europe and the rest of the world. Before, my whole sense of the world was built on Zimbabwe, and my conception of Europe was formed by the writers I encountered in the library of my youth.

One of the main reasons I came to Kent was because I strongly felt that I needed a wider intellectual and cultural context than the one in which I was born and raised. Studying at Kent has certainly added a new dimension to my life. Many hardships and thousands of words later, my dream is playing out.

Tinashe Mushakavanhu
PhD in English

Hi, my name is Samantha Kennedy and I’m President of the newly established Woolf College Student Committee (WCSC). We represent all postgraduate students across all campuses, and not just those who live in Woolf. The committee is made up of a group of students who give up their free time to make university more enjoyable and less stressful, ensuring that your opinions are heard by the right people.

This year we plan to organise lots of events including a city bar crawl and an all-day summer event in the centre of the College. We are also an important point of communication between you and the University when any problems arise and will work to get any situation remedied for you.

Our Student Activities Officer, Ben Alonso, is looking for anyone interested in event planning/running to form an entertainment team to help put on events in the College. If you’re interested, please email ba76@kent.ac.uk

Our Welfare Officer, Victoria Glenn, is also looking for volunteers to form a campaigns team; to contact Victoria, please email vg42@kent.ac.uk

If you want to get involved or meet me and the committee, come along to one of our weekly meetings held every Tuesday evening at 6.30pm in the Woolf College Common Room. Details of how to get to Woolf College if you’ve not visited us before are available on the web at www.kent.ac.uk/maps/canterbury/ The Common Room is situated adjacent to the main entrance.

Please be aware that elections and the Woolf AGM are coming soon so keep your eyes peeled.

You can also chat to us and other Woolf College students at www.makephpbb.com/woolfcollegeforum/ email woolfpresident@kent.ac.uk with any questions or visit www.kentunion.co.uk/woolf/
The Graduate School

The Graduate School was recently established to lead the strategic development of postgraduate education and research across all campuses at Kent. We are here to champion the academic and social interests of all our postgraduates, and we look forward to interacting with many of you as the work of the Graduate School develops over the course of the next academic year.

Postgraduate community

One of our main aims is to enhance the quality of the postgraduate student experience through the creation of a vibrant postgraduate community. We are keen to support cross-disciplinary student-led initiatives, such as The GradPost, and would welcome suggestions from postgraduates about the kinds of activities you would like us to host (for example, social and networking events, conferences, workshops).

If you would like to contact the Graduate School, please call us on 01227 827838 or email graduateschool@kent.ac.uk

For the latest information, see www.kent.ac.uk/graduateschool

Transferable Skills Training

The Graduate School also provides a Transferable Skills Training Programme for all postgraduate research students and postdoctoral researchers.

One-to-One Academic Writing
Thursday 4 June

Media Training
Friday 5 June

Scientific Writing Two-day Course
Monday 8 and Tuesday 9 June

Introduction to NLP Part 2
Wednesday 17 June

ECDL Advance Word-processing
Five three-hour sessions – 22, 23, 25, 29 and 30 June

Effective Researcher Two-day Workshop
Wednesday 24 June

Presentation Skills – How to Present at Conference (Part 3)
Thursday 2 July

Getting the Most from your Academic Relationships
Thursday 2 July

ECDL Advance Access – Five three-hour sessions
Monday 6 July

Broadening Horizons Two-day Workshop
Thursday 23 and Friday 24 July

For more information about all the programmes listed above and to book online, please visit www.kent.ac.uk/graduateschool/skills/index.html or email skills@kent.ac.uk