Just before the start of the new session, the success news of the very first cohort of MPharm graduates from UoW in the registration exam will instil some energy boost to all Pharmacy staff. We can certainly take pride in the success of these graduates, and probably get some comfort from the fact that we have been doing things right in preparing our Pharmacy students.

The time has come for the move to refurbished shared office spaces in MA building from MM. We hope that this move will enhance team work among staff, and increase research activities and academic development.

Pharmacy research has been progressing well with some grant successes and good quality publication outputs. The number of PhD students in Pharmacy Department is expected the rise in the months to come.

We are hoping to hold another Pharmacy Research Away Day (or half a day) sooner than later, to offer a forum for open discussion on various research-related matters among members of the Pharmacy Research Group.

**Prof Satyajit D Sarker & Prof Rae Morgan**

*Editors*

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**Editorial advisory board**

Dr Angel Armesilla  
Prof Ray Fitzpatrick  
Prof John Howl  
Dr Claire Martin  
Dr Lutfun Nahar  
Dr Paul Rutter

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**Success of the UoW Pharmacy graduates**

The UoW produced its first batch of Pharmacy graduates last year, and 92.6% graduates of this cohort have been successful in passing the registration exam. They are now registered as Pharmacists with the General Pharmaceutical Council. The performance of the UoW graduates is well above average for the UK pharmacy schools.

**Grant success for Dr James Tang**

A new research programme: HEPTAG EXCHANGE-Targeted delivery for liver cancer treatment has been set up by **Dr James Tang** together with Prof John Darling and Dr Weiguang Wang at RIHS.

This new initiative has attracted funding from the European Research Council under the scheme of Marie Curie Actions-International Research Staff Exchange Scheme (IRSES) with a grant number of PIRSES-GA-2011-295218 and €105,000 for 4 years from the 1st January 2012 to 31st December 2015. The research programme synergizes the existing strength in pharmaceutical nano-materials, led by Prof Zhongwei Gu at Sichuan University, China; dosage form and design, led by Professor Juan M Irache at Universidad de Navarra, Spain; cell imaging, led by Dr Sharan Ramaswamy at Florida International University, USA; and cell treatment, led by Prof John Darling at UoW. Apparently this is the first EU grant or this type with Wolves as the lead. Well done James!

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**Prof Sarker joins the TANG**

**Prof Satyajit D Sarker** has been appointed to the editorial advisory board of the TANG, a new journal on oriental pharmacy and plant-based traditional medicines to be published from Korea.

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*Editors: Professor Satya Sarker (s.sarker@wlv.ac.uk) and Professor Rae Morgan (rae.morgan@wlv.ac.uk)
High-profile launch of the INSPIRE project

The INSPIRE project between UoW (Prof S Sarker and Dr L Nahar) and Khulna University (Dr Morsaline Billah) has been launched officially in Khulna University with a high-profile event earlier this month. Professor A K Azad Chowdhury, the Chairman of the University Grants Commission Bangladesh, was present as the Chief Guest.

Publications from the PRG during May-August 2011


Forthcoming Pharmacy Research Seminar

<table>
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<tr>
<th>Date and Time</th>
<th>Venue</th>
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<tbody>
<tr>
<td>Thursday 29 Sep 2011 1.00 – 2.00 p.m.</td>
<td>MA202</td>
<td>Dr Piali Palt (TBC)</td>
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<td>Thursday 27 Oct 2011 1.00 – 2.00 p.m.</td>
<td>MA202</td>
<td>Dr Omar Jann (Coventry University)</td>
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<td>Thursday 24 Nov 2011 1.00 – 2.00 p.m.</td>
<td>MA202</td>
<td>Prof Trevor M Jones CBE</td>
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Phytochemical Analysis achieved higher impact factor

Prof S Sarker took over the Editor-in-Chief role for the Wiley journal, Phytochemical Analysis, and Dr L Nahar became the Managing Editor in January 2010. At that time the impact factor of this journal was 1.744. Under the leadership of Prof Sarker, and excellent management of Dr L Nahar the journal has now achieved an impact factor of 1.848, which puts this journal in the band of top 10% of phytochemical/natural products journals.

Dan Lee’s first issue!

Daniel Lee has published his first ever scientific publication in *The British Journal of Clinical Pharmacy*. In his publication, he discussed the limitations of stroke guidance. Let’s hope for more of these coming from Dan in the coming years. Well done Dan!

Mini article

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Bioprospecting of the flora of the Sundarbans

Satyajit D. Sarker¹, Lutfun Nahar¹, Jamil Shilpi² and Md. Morsaline Billah²

¹Department of Pharmacy, University of Wolverhampton, Wulfruna Street, Wolverhampton WV1 1LY, West Midlands, United Kingdom, ²Pharmacy Discipline, University of Khulna, Bangladesh, ³Biotechnology and Genetic Engineering Discipline, University of Khulna, Bangladesh

*Corresponding author
E-mail: S.Sarker@wlv.ac.uk (Prof S. D. Sarker)

Keywords: Bioprospecting; the Sundarbans; Flora; Medicinal plant; Conservation; Dereplication; Bioactivity

The term ‘bioprospecting’ can be defined in various ways, but probably the most encompassing and acceptable, yet the simplest, way of defining it would be to define bioprospecting as the systematic search, discovery, collection, and scientific and/or commercial exploitation of useful biological (organism, mineral or other organic substance) and genetic samples and mechanisms, from the biodiversity (ecosystem and natural habitat) of certain area, region or country, either with or without the help of indigenous knowledge (Finn and Jones, 1998; Jaymaran, 1998; Masood, 1998a,b; Onaga, 2001; Demunshi and Chugh, 2010; Millum, 2010; Beattie et al., 2011).

In many cases, bioprospecting is a search for useful organic compounds and/or genes in microorganisms, plants, and fungi that grow in certain natural habitat. In some cases, bioprospecting may also include any activity undertaken to harvest or exploit he knowledge, innovations, and customary practices of local communities associated with the indigenous genetic resources, for purposes of research, product development, conservation or industrial or commercial application.

Bioprospecting is in no way a new concept, but it has probably been in the limelight in recent years because of improper use of bioprospecting that deprives the people of the source country from any resulting benefit. In fact, people have been bioprospecting since the very dawn of human civilization; prehistoric people noticed that one plant root tasted better than the other, one plant is edible, but the other is not, or that some plants have healing properties.
Whatever may be the definition, any modern-day-bioprospecting should ensure that a fair and equitable share of any benefit resulting from bioprospecting goes to the people of the source country or region, and that bioprospecting instills and/or raises awareness of the people towards the conservation of the biodiversity of their country.

The Sundarbans, thought to be named after the “Sundari” trees (Heritiera fomes) that are found abundantly in this forest, is the largest single block of tidal halophytic mangrove forest, located to the south of Khulna (Pasha and Siddiqui, 2003). This forest, which covers 10,000 square kilometres (of which about 6,000 are in Bangladesh), lies in the vast Bay of Bengal delta, formed by the super confluence of the rivers Padma, Brahmaputra and Meghna.

The Sundarbans forest is the home of a unique and uncommon flora with distinct bioprospecting potential. However, unlike other mangrove forests, the Sundarbans faces the possibility of extinction due to global warming, natural disasters and various man made conditions. Living in an extreme environment, the plants of mangrove origin often produce chemical classes of compounds that may not be found in any terrestrial plants, and these plants are often rich in chemical diversity.

While, since year 2000, a few selected mangrove species have been studied for bioactivity through informal research collaborations between scientists from Khulna University and the group led by Prof. Sarker (Rouf et al., 2006; Uddin et al., 2004, 2005, 2006a,b, 2007a,b; Mondal et al., 2008; Rahman et al., 2009; Alam et al., 2008, 2011), there have still been a number of ‘untapped’ mangrove species, which need to be evaluated systematically for their medicinal properties and potential new drug development, and if necessary, should be appropriately preserved to prevent extinction. To the best of our knowledge, apart from a microbial bioprospecting study of the actinomycetes in the estuaries of the Sundarbans (Mitra et al., 2010), there has been no systematic bioprospecting performed with the flora of the Sundarbans.

Therefore, the INSPIRE project, a research collaboration between Khulna University and the University of Wolverhampton, funded by the British Council, looks into the bioprospecting of the plant resources of the Sundarbans mangrove forest through systematic bioactivity (antimicrobial, antitumor, antimalarial, antioxidant and anti-inflammatory properties) and phytochemical screening. Sophisticated in vitro assays, often 96-well based methods, developed and validated either in Khulna University or by Prof Sarker’s group (Sarker et al., 2005, 2007) will be employed to assess potential bioactivities. Appropriate methods of dereplication (e.g., LC-PDA) (Sarker et al., 2005) will also be employed to avoid unnecessary duplication of isolation and identification procedures.

The expected outcomes of this proposed projects are: i) bioprospecting leading to the identification of plant species from the Sundarban mangrove forest with highest therapeutic potential; ii) determination of bioactivity; iii) isolation and identification of active compounds (possible leads for drug development) utilising a combination of ‘dereplication’, ‘chemical fingerprinting’ and ‘bioassay-guided’ approaches. The outcome of the project will have significant socioeconomic, medicinal, ecological and conservational impacts. Appropriate bioprospecting of the plants from the Sundarbans mangrove forest will identify species with high economic value because of their potential therapeutic implications and possible commercial exploitation for new drug development, and thus form the basis of any strategic plan for preserving the ecology of those species, and long term conservation of this mangrove flora. Clearly, bioprospecting of the flora of the Sundarbans has the potential to bring not only hope to human health in Bangladesh and beyond, but also to social justice and environment conservation.

Acknowledgement
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References

Editors: Professor Satyja Sarker (s.sarker@wlv.ac.uk) and Professor Rae Morgan (rae.morgan@wlv.ac.uk)


The next issue of PReN will be published in January 2012. Please send any news-worthy items, or mini articles directly to the editors by e-mail

Editors: Professor Satya Sarker (s.sarker@wlv.ac.uk) and Professor Rae Morgan (rae.morgan@wlv.ac.uk)