



Formulation Science and Technology Group Newsletter

CALENDER OF FORTHCOMING EVENTS 2012

Its all in the Mix,
21st March 2012
The University of Birmingham,
UK

- Details to be posted on the
FSTG website shortly

NanoFormulation2012,
28th May—1st June 2012.
Barcelona, Spain
www.nanoformulation2012.com

- Abstract submission open until
31 March 2012.

- Registration now open

Profile of the Winner of the FSTG Survey's iPod Winner *by Simon Gibbon*

Ken Rabone is an honorary Senior Fellow working with [Prof Peter Weightman's](#) group using his skills developed during a long career in formulation to help the group tackle complex problems at the interface between the physics of the spectroscopy of surfaces and biological systems. Here, Ken has taught on the Master of Research course "[Physical Analysis of Biological Interactions at Surfaces](#)" where designing the right experiments to understand complex phenomena requires a range of multi-disciplinary skills.

When Ken started out in formulation the [design of experiments \(DoE\)](#) (if carried out at all) was done by statisticians. Later Ken went on a DoE course run by [Statistics for Industry](#). This was a very hands on course and gave a good understanding of the principles. Ken speaks passionately of the challenges in even starting to think about how to optimise the formulation of products that need to be effective disinfectants. First, there is a need to learn enough microbiology to even to be able to speak to the microbiologist and then to learn to ask the right questions. Then application of quantitative physical science to biological systems often requires a paradigm shift. In disinfection tests for example, a bacterium is either a survivor or dead. Binary data like this require a logistic or probabilistic approach. In optimising disinfectant formulations we need to increase the probability of killing the bacteria to the level required to achieve disinfection. Here once again talking to the experts led Ken to using [logistic regression](#) to predict formulations that would give this probability. Ken has captured his formulation methodology in the approach offered by his company (Four Delta) as "[formulation by design](#)" offering both scientific and statistical insights.

Many small companies do not have the depth or resources to approach development and optimisation of formulations in the same way as large companies, putting them at a disadvantage. It would appear that some companies often don't know what they don't know and hence undervalue what is on offer. So why don't companies know what they don't know? Here Ken put down a challenge to the FSTG, that the "FSTG should be custodian of the best practices in formulation science and technology". However, the best practices in formulation science and technology are not currently available in one place. Most formulation is carried out in large companies who are targeting specific products, so where the best practices are available they are often intermingled with some very specific information for one type of product. The majority of formulation taught in universities is as part of pharmaceutical science courses and as such has a limited audience. While the advent of high throughput experimentation has made it possible to carry out large experimental programmes, on occasions it has also reduced the use of good formulation practice. This leaves the FSTG with the challenge to be the home of formulation best practice. Ken's suggestion is to start small aiming to raise awareness of the principles behind successful techniques, rather than to try and teach people to be statisticians.

For further information
visit:
www.formulation.org.uk

Thought for the Month:

"The important thing in science is not so much to
obtain new facts as to discover new ways of think-
ing about them"
Sir William Bragg

Become a Member:

<http://www.formulation.org.uk>

Member Focus

We want YOU to tell us about yourselves in this section— if you'd like to take part and you have anything particularly exciting to tell us contact me, Lyn Daintree on our website

www.formulation.org.uk/contacts.html

Organization:

Job title:

FSTG member for:

Research interests:

FSTG Student Bursary Scheme

The **Gordon J. Tiddy bursary** is an award made for the purpose of assisting in travel to conferences in the UK and overseas. Bursaries are provided solely to offset the costs of travel and accommodation and are normally limited to a maximum of £500. The bursary scheme does not cover meetings organized wholly by the FSTG within the UK, for which alternative grant or discount schemes may be organized by the meeting committee as it sees appropriate.

Applicant Eligibility: Applications may be made by any FSTG member, and will be considered on the basis of merit and need. Applicants must be members of at least six months standing and must not have already received an FSTG travel bursary in the previous 2 years.

Application Process: Applications must be made online using the form on the FSTG website (www.formulation.org.uk) and will be considered by the review panel (the officers of the FSTG) on an *ad hoc* basis; there are no fixed application deadlines. Applicants' attention is drawn to the requirements detailed in the notes on the website by which applications are bound.

Some conditions may be waived at the discretion of the review panel, and applicants are always encouraged to contact the current secretary or chairman of the FSTG for advice. All awards are made at the discretion of the review panel whose decisions are final and binding.

MiBio2011 Conference Report

MiBio2011 (Molecular Interactions in Biopharmaceutical Formulations: Investigating the chemistry of biomolecule-exipient interactions 2011) was the first meeting on Biomolecules. The joint FSTG/APS (Academy of Pharmaceutical Sciences) meeting took place on Tuesday 18 October at GSK House, London. The event featured novel case studies, in-depth presentations and journey through the latest, most up-to-date knowledge on molecular interactions in biopharmaceutical formulations and was attended by 47 participants. It is planned to hold a similar event in 2013—if you have any suggested topics, then please let us know.

Speed networking at the beginning of the meeting proved very popular with both delegates and event sponsors and it is planned to do this again at MiBio2013.

FSTG Committee Away Day 26-27th September 2011

The committee members of the FSTG all met at the Macdonald Hill Valley Hotel Golf and Country Club in Shropshire for an "Away Day". This day was set aside to review the services the FSTG offered to its members and to look at the interaction & collaboration of the FSTG with other agencies. Proposals for conferences were based on an understanding of our membership and the needs of these members. A detailed programme list for conferences in 2012 has been agreed and an outline programme for planned conferences until 2014 has been established. Furthermore the FSTG has discussed alternatives to conferences to see if the FSTG can offer services through, for example, webinars. Our members can be assured that the FSTG continually works for the benefit of its members and the FSTG looks forward to bringing our members together through the services it provides.

NanoFormulation2012, Hotel Fira Palace, Barcelona, Spain

NanoFormulation2012 is the 3rd of three international events organized under an EU-funded programme called INFORM (Integrating Nanomaterials in Formulation). InForm comprises of 17 world leading research institutes, SME's and major companies, and aims to bring together the scientific knowledge on the formulation of nanomaterials and create an appropriate platform for the dissemination of first-hand knowledge all over the world.

NanoFormulation2012 will share the best practices on the use of nanomaterials in formulations. The formulation of materials at the nanoscale is scientifically challenging requiring novel physico-chemical and technological approaches. Nanoparticles, novel in size, shape or surface chemistry, offer very attractive functional properties to a range of formulated products, from drug delivery system to coatings and cosmetics. Nanotechnologies are likely to offer a wide range of economic benefits as nanoformulation scientists unlock the potential of formulated products. NanoFormulation2012 offers delegates the chance to participate in structured networking events and a Trade Day.

For more information about the InForm project, the different activities of NanoFormulation symposium or the available bursaries, visit www.nanoformulation.eu



Disclaimer: The views presented in this newsletter do not represent those of the collective memberships of either the RSC or FSTG or individual members. Unless otherwise stated, the views solely represent those of the authors.