



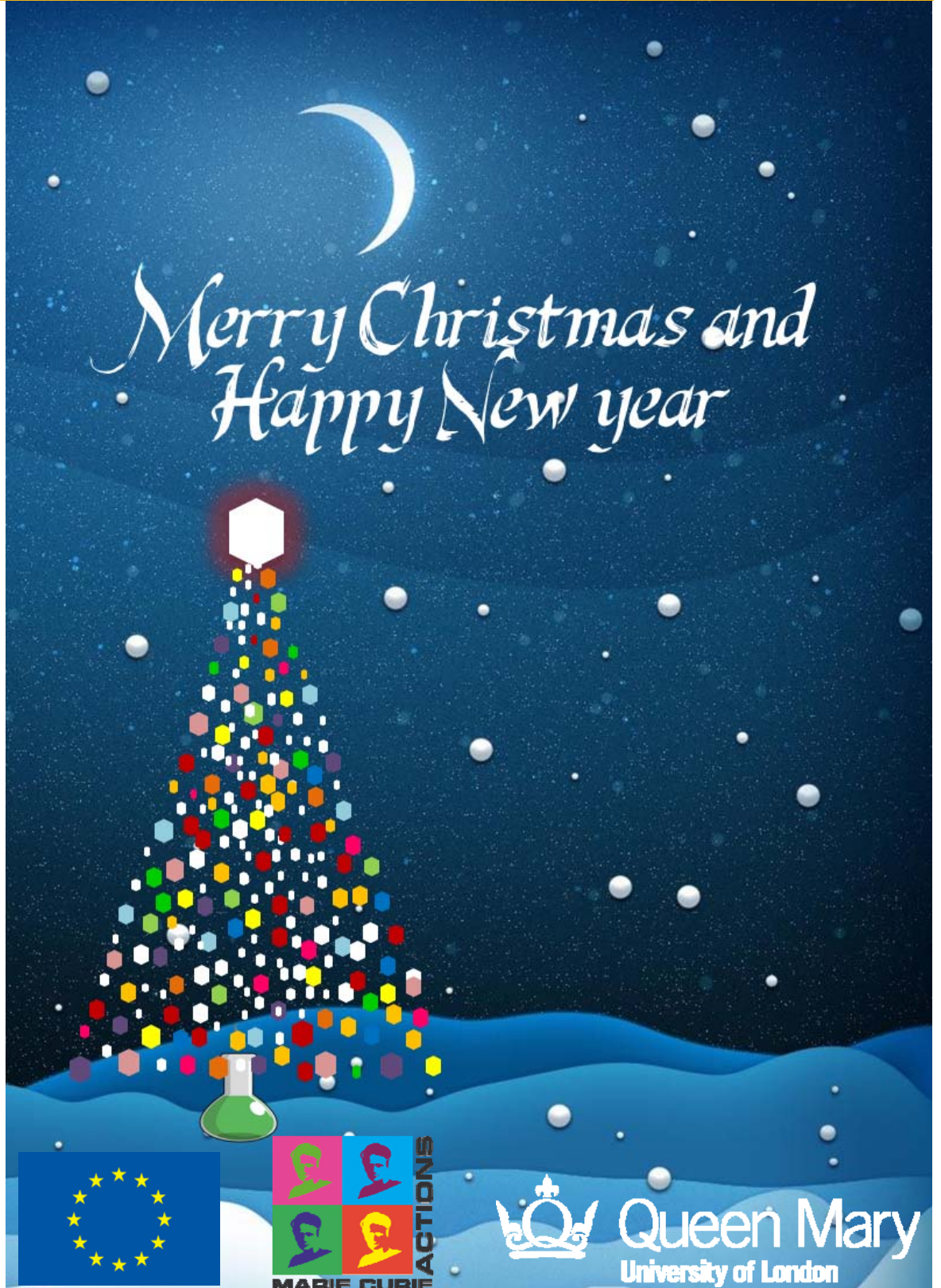
# NANODRUG

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newsletter

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*Merry Christmas and  
Happy New year*



Queen Mary  
University of London

# Faraday Discussion 175, an unexpected and great meeting experience

*By Dr. Yolanda Salinas Soler (QMUL)*



Last September I spent three fantastic days in Bristol (from days 17<sup>th</sup> to 19<sup>th</sup>) where I had the great honor of attending to the **Faraday Discussion 175**, a special and atypical conference based on Physical Chemistry of Functionalised Biomedical Nanoparticles, organized by Faraday Division of the RSC, and celebrated in the beautiful campus and facilities of the University of Bristol. The style of this conference was different to the ones I get used to attend. One month in advance, all the participants received a complete set of papers in order to have a main idea and to prepare any comment or questions related with the topic. All those papers will be later on published in the Journal Faraday Discussion, which impact index is highly attractive. The specific style of these discussions is based on 5 min presentation of the scientific work (showed in the papers) and followed by 20 min of questions. All delegates at the meeting have the opportunity to make questions, comments, to present any additional information that can help or contradict the results, calculations or measurements presented. In addition, the meeting is recorded and these remarks will be published in the final journal volume, a part of extra questions to the main authors that can be done via website during two weeks after the meeting, for giving the chance to the authors to make any modification in the papers discussed

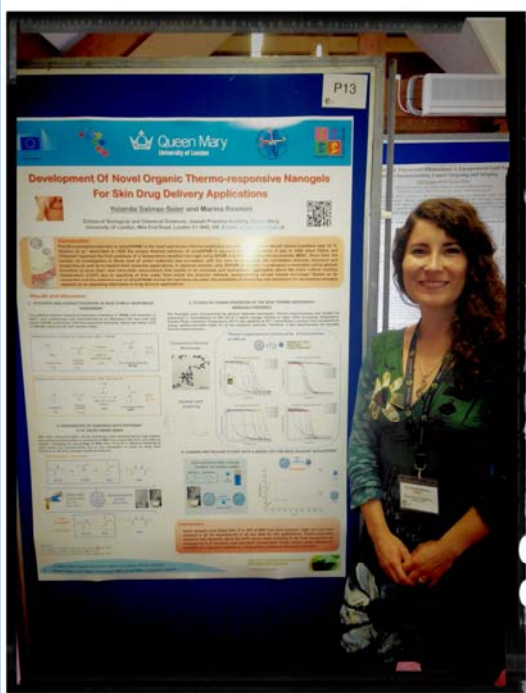




The main themes during the meeting were Nobles metal nanoparticles, Quantum dots, Carbon nanotubes and graphite/graphene and other nanoparticles, but mainly the hot topic was Magnetic Nanoparticles. Between the worldwide invited speakers we found from Peter Dobson (*University of Oxford*), who delighted us with an amazing introductory lecturer about the importance of surface chemistry for nanomedicine, followed by inspiring presentations with Paul Alivisatos (*Lawrence Berkley National Laboratory*), Kerry Chester (*UCL Cancer Institute*), Hedi Mattoussi (*Florida State University*), Edman Tsang (*University of Oxford*), Oliver Reiser (*Universität Regensburg*), or Ivan Parkin (*University College London*), never forgetting other very interesting participation of european research groups, and concluding with the brilliant remarks of Mostafa El-Sayed (closing) directly coming from *Giorgia Institute of Technology (USA)*.



***With Prof. Nguyen T. K. Thanh (scientific committee), two invited speakers Prof. Peter Dobson (my right) and Prof. Oliver Reiser (my left) and in the middle me (Dr. Yolanda Salinas-Soler) and PhD. student Amelie Heuer-Jungemann.***



My experience during these three days was very grateful and exciting.

The chance to expose my last results in this area with a poster, the beautiful experience of speaking directly with the invited speakers, the active participation during the meeting which opened my mind to new ideas and applications, the peaceful and historical facilities of the University of Bristol, the chance to learn more about other research (from the best groups working in nanoparticles applied mainly in biomedicine), making new friends from other universities and why not, also opening some collaboration with other research groups interested in our nanogels technology. Basically, an unexpected conference full of tradition and good science!







*The Faraday Loving Cup*

Well, now maybe you are thinking, fine, fancy meeting, but what else? Do you want to know more details about the DINNER of the conference? Nothing you can guess! Let's start with a bit of history:

### *History of the Faraday Loving Cup Ceremony*

The Loving Cup, known as the Faraday Loving Cup, was purchased out of funds raised by an appeal to members of the Faraday Society to commemorate Mr. G W S Marlow, Secretary and Editor of the

Society from 1928 to 1947. The cup, dating from 1728 (seems quite old but honestly, the statement and shininess will surprise you), is made with silver and is reputedly by the lady silversmith Heslie Fawdery. It bears a crest of which nothing is known and no inscription was added by the Faraday Society.

The Cup was used at Faraday Discussions on the occasion of the Conference Banquet to toast the memory of G S Marlow and Angela and Tony Fish. Angela worked for the RSC from 1968-1995 and was most closely associated with the organization of the Faraday Discussion meetings. When she died at the age of 56 she left a very generous legacy to the RSC in both her name and that for her husband Tony Fish, who worked for Shell. It was this money that was used to establish what is now known as the RSC Travel Grants scheme.



*The Faraday Loving Cup ceremony dinner tables*

Interesting, isn't it? Do you want to know more about it? Then I will explain a hint of the ceremony....The Faraday Loving Cup is passed round the tables to all of the guests in turn. There is only one cup for circulation and the President starts the cup at the High Table.



*The High Table and Professor Graham Hutchings, President of Faraday Division.*

At any given time, three people are involved in the loving cup ceremony. All three are standing. To start, the President stand, along with the two people to his left and says the words “*in piam memoriam of G S Marlow and Angela and Tony Fish*” (meaning “*in dutiful memory of G S Marlow and Angela and Tony Fish*”). Then, the President drinks from the cup, bows to the person on their left, who then, in return bows back and take the cup. This guest now turns to the next guest on their left and they bow to each other, faces ahead and says the same words, drinks a small amount of the contents of the cup and then applies the napkin to the rim of the cup. This guest bows to their right (the President) who returns the bow to the left hand site of the previous guest and also returns the bow. The three keep stand and when the second guest does the steps, the previous one sits down. The ceremony is repeated for the entire guest in this fashion round the High Table until the cup returns to the place where it started. It is then passed around the assembled company in the same manner. After a while, and between after we enjoyed a delicious dinner, my turn arrived and I participated in this historical and appealing tradition. The content of the Cup was a kind of sweet red wine, very tasty by the way! For me it was a very special occasion to be involved in this ancient ceremony that belongs to the one of the most old and remarkable society of chemistry in the world, all celebrated inside an impressive venue of the University of Bristol.



*Finally, Cheers! “in piam memoriam of G S Marlow and Angela and Tony Fish”!!*



# Job vacancies

## Announce d'ouverture de stage Master M2

**Title:** Molecular modelling of nanoparticles for drug delivery

### Description:

Formulation of drugs in nanoparticles is a major research field in pharmaceutical sciences. The identification of optimal drug – polymer matrix matches is a critical step in the development of such formulations. The proposed internship project is integrated in the establishment of novel in silico approaches in our department to support the design of nanoparticles for drug delivery by molecular modelling. The project requires parameterization of coarse-grain models and modeling amphiphilic co-polymer self-assembly in aqueous media (see e.g. G. Srinivas et al. *J. Phys. Chem. B* **2004**, *108*, 8153). The successful candidate will use molecular dynamics simulations with Gromacs and Desmond molecular dynamics codes.



### Benefit to internship student:

Practical experience in small molecule and polymer modelling to support drug-nanoparticle formulation; insight into industrial applied research in a well-established, experienced team in the department Structure, Design, and Informatics; the results of the project will be published in peer-reviewed journals; the candidate will have an opportunity to interact with people from Marie-Curie Initial Training Network “NANODRUG” (<http://www.nanodrug.qmul.ac.uk/project.html>)

### Requirements:

Master M2 level with knowledge in molecular modelling, computational and physical chemistry acquired during university course work and internships; basic knowledge in programming, scripting, and computing; good scientific English (oral & written communication); autonomous and pro-active mind-set.

### Length of internship, envisioned start & localization:

6 month starting in January/February 2014; Vitry-sur-Seine. Supervisors: Dr. Andrey FROLOV and Dr. Anke STEINMETZ.

Interested candidates, please, address Curriculum Vitae and letter of motivation to: Mr. Andrey FROLOV, Marie Curie postdoctoral fellow (ITN “NANODRUG”)

Sanofi R&D

Lead Generation to Compound Realisation—Structure Design & Informatics

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# Forthcoming Events

**4th NANODRUG  
International Scientific Meeting**  
22-25 February 2015  
Innsbruck, Austria

Researchers to give presentations of the progress of their research projects, and on the evolution of PDP. Evaluation by SiCs

**4th NANODRUG  
Winter Training School**  
25-28 February 2015  
Innsbruck, Austria

Computational chemistry and molecular modelling: applications in the life sciences. Particular aspects of the industrial R&D environment

# NANODRUG



Cranfield  
UNIVERSITY



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## CONTACT

