The SCI London Regional Group is currently the largest of all SCI regional groupings with c.1,000 members in Central and Greater London, the counties of Essex, Hertfordshire, Bedfordshire, Surrey, Middlesex, Kent and Sussex. The majority of whom are based in the region and are employed in the chemical, pharmaceutical and allied industries. There is also a good percentage of members in education and academia. The Group's geographical remit includes more than 60 universities and colleges, the City of London, Westminster and Parliament, headquarters or London offices of some of the largest industrial companies in the world, and a plethora of science museums, galleries, societies and associations.

The Group has a long and continuous history and was established shortly after the foundation of the Society itself in 1881. Its first Chairman was Sir Frederick Abel, the co-inventor of cordite.

The Group organises a regular and dynamic schedule of activities throughout the year in keeping with its mission statement 'utilising our capital city to publicise science and allow networking opportunities for all'. The broad-based programme of general interest and specialist events attracts a wide range of attendees - from students and families to science professionals and politicians.

The SCI London Regional Group has a strong relationship with UCL's Chemical Physical Society, the students' society of UCL's Chemistry department (and the oldest UCL student society), and sponsors their lecture programme.

## **Contact Details**

If you would like more information about the Group and its activities, or if you would like to get involved in the organisation of events, please contact communications@soci.org

### Join SCI Today!

If you are not yet a member, you are missing a chance to network with people across the chemical and chemical-using industries. SCI enables connections that spark innovation, gets careers moving, and sets business ideas rolling. As a member, you will also receive *Chemistry & Industry (C&I)* magazine every month, enjoy discounts on conference booking fees and a great range of other benefits.

Visit www.soci.org/membership to find out more and join us.



London Regional Group **Programme Card Winter 2014** 



## **Programme**

Date

Time 30 Sep14 5.45 for

**Speaker** Dr Adam Rutherford, 6.15 pm Editor at Nature,

Journalist and TV Broadcaster



**Event Details** 

Title to be confirmed Details to be confirmed

07 Oct14 5.45 for

Dr Ron 6.15 pm Lancaster, Kimbolton Fireworks.



Fireworks: Practice & Principles

The scope of the lecture is the general explosive chemistry, particularly the influence on burning of paricle size, types of tubes, temperature and pressure. Various firework effects will be demonstrated, eg, whistles, colours, crackers. Also included will be firework types and the broad scope of pyrotechnics.

14 Oct 14 5.45 for

Joseph Padfield, 6.15 pm National Gallery

Managing

Director



**Studying and Caring for Old Master Paintings:** A behind the scenes look at some of the work of the National Gallery

This talk will introduce the work of the National Gallery Scientific Department; from examining the materials found in paintings to considering the safety and quality of the lights we use to illuminate them. It will show how 'behind-the-scenes' scientific work

is used to provide the most accurate information possible about the paintings and how this is used to inform decisions about their care and display, ensuring that generations to come will enjoy these magnificent paintings.

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21Oct 14 5.45 for

6.15 pm

Various



**Careers Event** 

Speakers from a variety of industries, including GSK and Johnson Matthey will talk at this special event designed to assist you with your career choices. Come and find out how the skills you have learnt from your academic career can be translated to the workplace. Following on from the event you will have a chance to network with the speakers over the usual wine and nibbles.

28 Oct 14 5.45 for 6.15 pm Dr Gustav Kuhn, Goldsmiths University



The Science of Magic: Why magic works

In this talk we will explore some of the principles used by magicians to distort your perception. For example, we will look at how magicians use misdirection to manipulate your attention and thereby prevent you from noticing things even though they might be right in front of your eyes. Alternatively, magicians may manipulate your expectations about the world and thus bias the way you perceive objects and can even make you see things that aren't necessarily there. At first sight, our proneness to being fooled by conjuring tricks could be interpreted as a weakness of the human mind. However, contrary to this popular belief, Kuhn will demonstrate that these 'errors' reveal the complexity of visual perception and highlight the ingenuity of the human mind.

# **Programme**

**Date** Time 04 Nov 14 5.45 for 6.15 pm UCL



#### **Event Details**

**Energy and matter at the origin of life** 

Lane will show how natural proton gradients in alkaline hydrothermal vents could have driven carbon fixation and energy conservation under abiotic conditions and protocellular conditions, and later, how the requirement to generate proton gradients could have driven the deep divergence between bacteria and archaea.

11 Nov 5.45 for 14 6.15 pm Surrey University

Prof Neil Ward,

**Arsenic in Water: A Global Problem** 

During the last 11 years, extensive studies have been undertaken to determine the concentration of both total dissolved arsenic and its individual chemical species using a novel solid phase extraction (SPE) technology. The SPE cartridges are highly effective in preserving the four arsenic species under investigation, with little influence from external factors such as pH. This presentation will review the above and provide data from studies in Argentina which have provided a new insight into the possible problems of arsenic in the environment.

18 Nov 14 5.45 for 6.15 pm

Peter Reed. Independent Researcher

Speaker

Dr Nick Lane.



Robert Angus Smith, Acid Rain and the 'Monster Nuisance of All'

In 1859 Robert Angus Smith became the first person to use the term acid rain. In 1864 Angus Smith was appointed the first Inspector of the Alkali Inspectorate, established to control pollution from industrial chemical processes, including 'acid gas' from the Leblanc alkali process. Later, pollutants from other processes were regulated so that by 1956 the Inspectorate was responsible for 1,910 processes across the UK. 2014 marks the 150th anniversary of the establishment of the Inspectorate and it now operates as HM Inspectorate of Pollution as part of the Environment Agency. The talk will review Angus Smith's role as a civil scientist and the circumstances of these reforming events.

25 Nov 5.45 for 14 6.15 pm

Stephen Swanson, GlaxoSmithKlein R&D Manager



The Chemistry of Respiratory Medicines

With a focus on medicines currently used for the treatment of respiratory diseases, including asthma and bronchitis, the presentation will highlight several areas of drug discovery where organic chemists make key contributions. The relationship between chemical structure and the associated pharmacology of drug molecules across a range of biological target classes will be illustrated as will the importance of optimising physicochemical properties for the development of novel medicines.

5.45 for 6.15 pm Dr Ipsita Roy, University of Westminster



**Tissue Regenerating Plastics from Bugs** 

Bacteria can be used for the production of a family of polymers called Polyhydroxyalkanoates (PHAs) that are biodegradable and biocompatible. PHAs are polyesters of 3-,4-,5- and 6-hydroxyalkanoic acids and depending on their monomer carbon chain length can be divided in to two main types, short chain length PHAs (C3-C5), SCL-PHAs and medium chain length PHAs (C6-C14). PHAs have a range of mechanical properties and degradation rates and hence can be used to mimic a variety of different tissue types. The talk will describe the production of a range of PHAs and their use in bone, nerve, cartilage and cardiac tissue regeneration. In addition, the use of PHAs for controlled and targeted drug delivery will be described.