RSC Local East Anglia Section – summary of events organised in 2021

Jan 2021

Webinar: Covid-19 Induced Anosmia

20 January 2021 19:00-20:00, United Kingdom

^ Introduction

Reduction of smell or taste is recognised as one of the main symptoms of Covid-19. Dr Jane Parker of the University of Reading is part of a group investigating the disruption of the sense of smell experienced by people infected with Covid-19 virus. She will present the latest findings on this research.

Speakers

• **Dr Jane Parker** University of Reading, Food and Nutritional Sciences, United Kingdom

AGM and chocolate tasting

28 January 2021 18:30-20:30, online, United Kingdom

^ Introduction

The 2021 RSC East Anglia Section AGM will take place online, on Zoom, and be followed by a live, interactive online chocolate tasting run by Cocoa Runners.

Cocoa Runners was set up over 7 years ago as a discovery service to find the very best craft chocolate bars from all around the world, and now has a "library" with over 1000 bars from over 150 makers for sale. Cocoa Runners also runs interactive virtual Craft Chocolate tastings to introduce people to these chocolates via a tutored virtual chocolate tasting of 8 to 10 different bars.

During the tasting we'll explore the difference between taste and flavour, the impact of mouthfeel and texture, we'll delve into the story behind each bar and take a whistle stop tour of the history of chocolate - up to the present day.

^ Speakers

• Spencer Hyman Cocoa Runners, United Kingdom

Feb 2021

How to start up and succeed as an independent consultant

10 February 2021 19:00-20:00, United Kingdom

^ Introduction

This talk provides an overview of how to use your scientific, technical or management expertise to work as an independent consultant.

Freelance working as an independent consultant is an ideal option that gives many people the freedom to stay involved with their field, work flexibly and continue to generate income without being tied to an organisation.

^ Speakers

• Dr Hooshang Zavareh ChemPharmaServe, United Kingdom

March 2021

Chocolate – Can this "Food of Gods" turn into "Food of the Future" thorough science?

4 March 2021 19:00-20:00, United Kingdom

^ Introduction

The cocoa bean constitutes about 10% of the fruit weight, generating large quantities of waste products, including cocoa pod husk, pulp and cocoa bean shell. These underexploited byproducts represent a huge opportunity to increase income for cocoa growers, reduce food waste and to develop new products. The economic and logistics challenges to realize commercially such potential are however enormous. Additionally, the intrinsic material science of such byproducts, raises a wider range of scientific challenges to be overcome in the exploitation as ingredients in chocolate. This talk reviews some of chemical sciences expertise required to develop sugar from cocoa waste stream into an ingredient suitable to make the first whole cocoa fruit chocolate naturally sweeten with cocoa pulp.

Speakers

• Dr Joselio Vieira Material Science, Nestlé UK & Ireland, United Kingdom

Life after redundancy

31 March 2021 19:00-20:00, United Kingdom

^ Introduction

Webinar Event organised by RSC East Anglia Section David Cooke will talk about the effects of redundancy, tips on managing change, coping strategies and potential opportunities. Sarah Salter, RSC Career and Professional Development Adviser will also present some information on the career support that the RSC provides to its members.

Speakers

- Mr David Cooke Retired member of RSC, United Kingdom
- Sarah Salter Career and Professional Development Adviser at RSC, United Kingdom

April 2021

Life as a research fellow: a journey from Wirral to Norwich

27 April 2021 19:00-20:00, United Kingdom

^ Introduction

Dr Wallace will present his research work and describe his journey towards fellowship. He will also provide some hints and tips on the independent research fellowship process.

Speakers

• Dr Matthew Wallace University of East Anglia, United Kingdom

June 2021

Fuels and Lubricants past, present, and future

2 June 2021 19:00-20:00, United Kingdom

^ Introduction

Transportation fuels have driven all the economies in the world over the past 100 years and lubrication has had to keep pace with these developments. An overview of these developments will be given with emphasis on the parts which are not known or seen by the general public. It will start in the early days and progress to a brief outline of how efficiently an oil refinery operates and the plethora of products produced which are important to modern day living including things as diverse as pharmaceuticals to adhesives. The scientific and technical background behind these fuels and lubricants will be reviewed together with the changing economics over time. The fastest and biggest changes in the science and technology have been taking place over the past 20 years. Unlike the early years, these changes have been driven by environmental demands and political manoeuvrings and continue to accelerate now and will continue to do so into the future.

Speakers

• Kenneth Lewtas Lewtas Science and Technologies, United Kingdom

September 2021

Making chemistry work for refugees

29 September 2021 19:00-20:00, United Kingdom

^ Introduction

Our research on hydroponics is focussed on the production of high-value crops close to market (urban farming) with a low carbon and water footprint using polyurethane foam as a synthetic soil.

We connected it to a waste disposal problem posed by UNHCR - the UN's refugee agency at the Za'atari refugee camp in Jordan. They saw dirty, unused foam mattresses, we saw an alternative growth substrate and more than that 'a problem' that could actually help. In doing so we developed small-scale hydroponics at the household and community scale. We responded to the frequent cry of the Syrian refugees - that they miss the colour green - not only did we find a technical fix, but also an impact on well-being.

These benefit our work in Sheffield, we now have an urban farm built using the low-cost technology developed in Za'atari with farmers from Syria

Speakers

• **Professor Tony Ryan, OBE** University of Sheffield, United Kingdom

October 2021

Taste & Flavour Chocolate Tasting

7 October 2021 19:00-21:00, Anywhere, United Kingdom

^ Introduction

After the great success of the chocolate tasting with Cocoa Runners in January, we're organising a new tasting, also run by Cocoa Runners, with the theme of Taste & Flavour. Cocoa Runners was set up over 7 years ago as a discovery service to find the very best craft chocolate bars from all around the world, and now has a "library" with over 1000 bars from over 150 makers for sale. Cocoa Runners also runs interactive virtual Craft Chocolate tastings to introduce people to these chocolates via a tutored virtual chocolate tasting of 8 to 10 different bars.

During the tasting we'll explore the difference between taste and flavour with a different set of chocolate bars from last time, looking at the impact of mouthfeel and texture, the story behind each bar and take a whistle stop tour of the history of chocolate - up to the present day.

Speakers

• Spencer Hyman Cocoa Runners, United Kingdom

November 2021

East Anglia Top of the Bench regional competition

1 November 2021 09:00 - 26 November 2021 17:00, United Kingdom

^ Introduction

The time has come to register your interest in the Royal Society of Chemistry Top of the Bench Competition 2021-22.

Teams should be made up of four students - two year 9s, one year 10 and one year 11 student, and the teams will compete with other schools in the region, with prizes and goodies given to the top three schools.

We will be running the East Anglia Regional Heats of the competition through an online quiz which can be completed remotely, and this is to be completed by the team at a time of teacher's choosing between the 1st - 5th November 2021.

The top schools will then take part in the East Anglia Regional Final comprising of a practical experiment to be run by the teams between 22nd -26th November (with chemical/reagent/equipment preparation by the school in advance of the competition and according to a handbook which will be supplied). The practical experiment will be supplemented with pre- and post-lab online questions, to be completed and submitted by the team. The winner will go forward to the National Final and there will be prizes for the top 3 schools and the students in the team.

If your school would like to take part, please email rsceastcompetitions@gmail.com with a completed entry form.

Committee

- Dr Rianne Lord East Anglia Local Section, United Kingdom
- Dr Jane Roberts Treasurer. East Anglia Local Section, United Kingdom

The microstructure of home and personal care products: the contribution of neutron scattering towards sustainability

3 November 2021 19:00-20:00, United Kingdom

^ Introduction

Surfactants are ubiquitous ingredients in the whole range of home and personal care products. Their adsorption and self-assembly properties are the key characteristics which determine their performance. In recent years the neutron scattering techniques of neutron reflectivity and small angle neutron scattering have transformed our understanding of surfactant adsorption and self-assembly at a molecular level. The impact of those neutron scattering techniques will be illustrated with some recently published examples which apply across the range of home and personal care products. In the examples described particular emphasis is placed on the drive towards greater sustainability and reduced environmental impact.

^ Speakers

• Professor Jeff Penfold STFC and PTCL, Oxford, United Kingdom

December 2021

Manipulating crops to make better oils

1 December 2021 19:00-20:00, United Kingdom

^ Introduction

The World's demand for vegetable oils (for food, feeds, chemical feedstocks or biofuels) has been rising at 5% every year for the last five decades. With limited agricultural land, there is an urgent need to increase productivity. In my talk I will address this aspect and also show how crops can be manipulated to produce particular lipids for specific purposes.

Speakers

 Professor John Harwood Cardiff University, School of Biosciences, United Kingdom