

## 2019 CAMBRIDGE UK-JAPAN YOUNG SCIENTIST WORKSHOP

### **PRESENTATIONS**

# Friday 26<sup>th</sup> July, 2019 The Kaetsu Centre, Cambridge

This past week, students from schools in Britain and in Japan have been working together in small UK-Japan teams with a wide range of University of Cambridge scientists and engineers in explorations which have challenged them to work as a team and to think for themselves. We welcome again Professor Wade Allison, Emeritus Professor of Physics, University of Oxford who led the "Energy Generation and Environmental Radiation" project.

In "toe-dipping" the world of cutting edge research and application, the students have not only put school knowledge to real life use, but by working together, have come to see themselves and their futures in a new global context and have formed new international bonds of friendship. Today we learn something of their achievements. Time constraints mean that each team can only give the briefest account of all they accomplished together in just a few short days.

The 2019 UK-Japan Young Scientist Workshop programme, which includes both this Workshop and a similar Workshop to be hosted in Kyoto University immediately afterwards, has been supported by grants and charitable donations from Barclays Bank, The Great Britain Sasakawa Foundation, Mitsubishi Electric Europe, Toshiba Research Europe and The Japan Women's Association in Great Britain, as well by donations from private individuals, and in Japan also by the Japan Science and Technology Agency. We thank the Royal Institution of Great Britain for support in kind and the scientists & engineers of the University of Cambridge for all they have done to make this Workshop such a success. We also thank the Rikkyo School in England and the Kaetsu Centre for their invaluable support and organisation.

















#### **PROGRAMME**

**13.00 WELCOME** 

**Dr Eric Albone** Clifton Scientific Trust

#### 13.15 Supramolecular Hydrogels for Drug Delivery

University of Cambridge Department of Chemistry; Prof Oren Scherman's Group

Science Leaders; Dr Vijay Rana, Dr Shintaro Kawano, Ms Beini Zhan,

Ms Wiebke Schnettger. Facilitator; Mr Munetomo Takahashi

Archie HarrisCounty Upper School, Bury St EdmundsEthan ClarkThomas Hardye School DorchesterKeito KanagawaTohoku University "Tamago" Programme

Nao Sodai Rikkyo Ikebukuro High School

Nazeer Zameer Newham Collegiate 6<sup>th</sup> Form Centre, East Ham

Yudai Nakamura Rikkyo School in England

#### 13.35 Bacterial Phenotypes in the Local Environment

University of Cambridge Department of Biochemistry/CRUK Cambridge Centre Cellular and Molecular Biology Programme

Science Leaders; Dr Rhys Grant, Dr Siolian Ball, Mr Rory Triniman, Ms Amy Hill

Facilitator; Dr Emily Fox

**Hannah Conway** St Benedict's School, Bury St Edmunds

Joshua BaileyFulford School, YorkKanami MurakiKamaishi High SchoolMio YoshiokaRikkyo School in EnglandShotaro MinoFurukawa Reimei High School

#### 13.55 Aerodynamics in Jet Engines

The Whittle Laboratory. University of Cambridge Department of Engineering **Engineering Leaders**; Dr Sam Grimshaw, Dr Chris Clark, Mr Victor Sun,

Mr Phoenix Tse, Mr Lachlan Jardine, Mr Will Ager

Facilitators; Mr Ryo Mizuta, Ms Jenny Jobling, Mr Taka Shirasu

**Daisuke Takano** Fukushima HighSchool

**Damien Mason** Thomas Hardye School Dorchester

Fujito Odashima Kamaishi High School

George Oswick Hinchley Wood School, Esher

**Ishaaq Mohammed** Newham Collegiate 6<sup>th</sup> Form Centre, East Ham

Logan Pyle County Upper School, Bury St Edmunds

Mana TakahashiSoma High SchoolNaoki SonobeIwaki High School

Takaaki Yamaguchi Rikkyo Ikebukuro High School

**Thomas Bidewell** St Benedict's School, Bury St Edmunds

Yutaro Takanaka Rikkyo School in England

#### 14.25 REFRESHMENT BREAK

## 14.55 Cretaceous Cambridge; Investigating Climate Change from a 120 million year old clay sequence and its relevance today.

University of Cambridge Department of Earth Sciences Godwin Laboratory, with special thanks to the Sedgwick Museum, Collections Manager, Dr Dan Pemberton, and Museum Director, Dr Liz Hide

Science Leaders; Mr Simon Crowhurst, Dr Maryline Vautravers, Dr Simon Kelly

Facilitators; Mr Max Clark, Mr Yuta Tsuchiya

**Amy Bishop** Hinchley Wood School, Esher **Jon Starkey** Thomas Hardye School Dorchester

Mohammed Kamran Afzul Mirza Newham Collegiate 6th Form Centre

Kouta Miyakoshi Iwaki High School

**Reon Imakawa** Furukawa Reimei High School **Suzuna Ogata** Fukushima High School

#### 15.15 Radiation All Around Us

University of Cambridge Department of Earth Sciences, Dr Ian Farnan's Group

Science Leader: Mr Giles Rought Whitta

Facilitators: Mrs Yoko Leedham, Ms Marino Sakuda

Bimakaisei Numashita Furukawa Reimei High School

Hirari Nakamura Fukushima High School Natsuki Ueno Kamaishi High School

Nisan Kotik Hinchley Wood School, Esher

**Shahnawaz Chaudhry** School 21, West Ham

Wilfrid Harvey County Upper School, Bury St Edmunds

#### 15.35 Energy Production and Environmental Radiation

Science Leader; Prof Wade Allison, Emeritus Professor of Physics, Oxford University

Facilitators; Mr Yasuo Adam Roberts-Taira; Ms Roberta Ignirri

Chika YoshidaKamaishi High SchoolEisei ItoFukushima High School

Haruku Kanazawa Tohoku University "Tamago" Programme

Kanato Sasakawa Rikkyo Ikebukuro High School

Mimi Avworo President Kennedy School, Coventry

Naveed Ishtiague Newham Collegiate 6<sup>th</sup> Form Centre, East Ham

Umar Malik School 21, West Ham

Yukina Yokota Furukawa Reimei High School

#### 15.55 Science Communication- Creating a Workshop Podcast

Science Leaders; Mr Adam Murphy, Ms Heather Jameson (Naked Scientist Team)

Facilitators: Mr Andrew Fox: Ms Yukari Shiozawa

Alfred Dry St Benedict's School, Bury St Edmunds

China Kikuchi
Hajime Nakakura
Isra Shaikh
Hinchley Wood School, Esher
Fukushima High School

Nanako Honda Fukushima High School Satomi Hase Soma High School

Will Adler Thomas Hardye School Dorchester

Yuna Sakuma Tohoku University "Tamago" Programme

https://www.thenakedscientists.com/podcasts/short/uk-japan-workshop-young-scientists-2019 https://www.thenakedscientists.com/podcasts/short/2019-uk-japan-workshop-young-scientists

#### 16.25 COMMENTARY

Mr Toshinori Sano Education Attaché, Embassy of Japan

Rt Hon Baroness Garden of Frognal

Prof Alexander Boksenberg, FRS, Emeritus Professor of Experimental

Astronomy and formerly Director, Royal Greenwich Observatory

#### **CLOSING REMARKS**

Naoki Sonobe, Kouta Miyakoshi Iwaki High School

Mr Shinichi Nihei

Iwaki High School
St Benedict's Scho St Benedict's School, Bury St Edmunds **Alfred Dry** Mr Darrin Steward St Benedict's School, Bury St Edmunds

Dr Eric Albone Clifton Scientific Trust

#### **WORKSHOP DINNER** (St John's College)

#### 18.30 Leave for walk to St John's College

met at St John's College Northampton Street 18.50

#### 19.00 Reception St John's College The Backs (Paddock);

**New Court Cloister if wet** 

19.35 Dinner in Hall

#### **WELCOME & GRACE**

**Dr Michael De Volder** Fellow, St John's College &

Reader in NanoManufacturing &

Engineering Design, Institute for Manufacturing

**AFTER DINNER SPEECHES** 

Dr Eric Albone, Clifton Scientific Trust Mr Kentaro Kiso President, Barclays Japan Daisuke Takano Fukushima High School Fukushima High School Mr Ryota Endo

Damien Mason Thomas Hardye School, Dorchester Mr Simon Lewis Thomas Hardye School, Dorchester

**CERTIFICATES presented by Mr Kentaro Kiso**, President, Barclays Japan