



Chain Reaction

**Sheffield
Hallam
University**

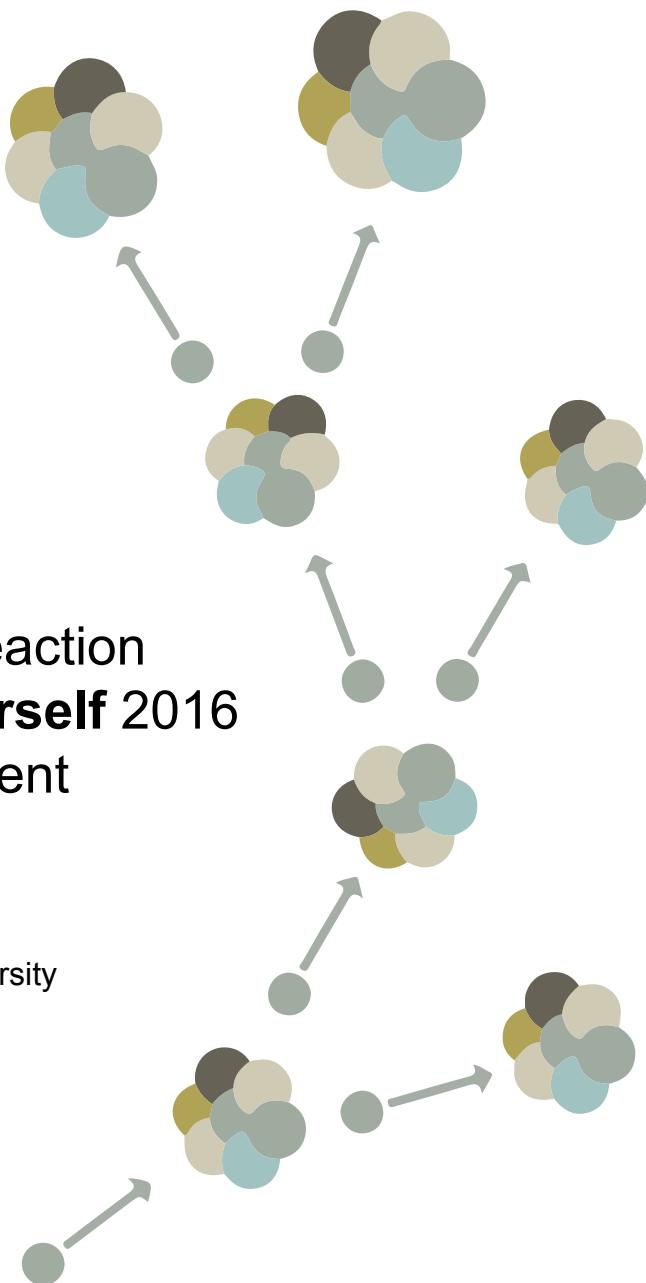
Centre for
Science
Education



Funded by the
European Union

The Chain Reaction **Express Yourself** 2016 National Student Conference

Sheffield Hallam University
1st March 2016



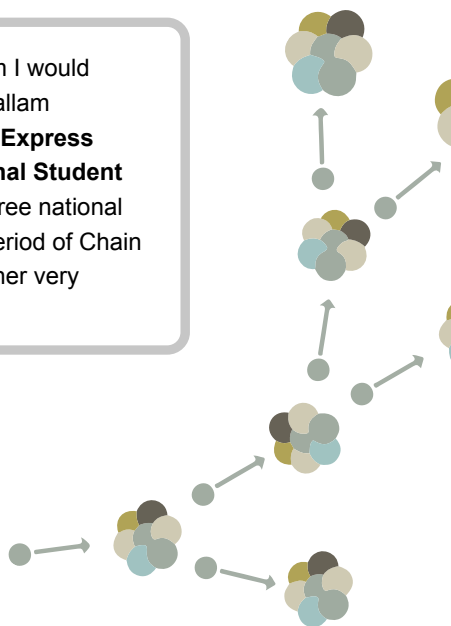
On behalf the Chain Reaction team I would like to welcome you to Sheffield Hallam University for the **Chain Reaction Express Yourself Conference 2016 National Student Conference**. This is the final of three national conferences over the three-year period of Chain Reaction, marking the end of another very successful year for the project!

Teachers and students have participated in inquiry based science education from twelve countries across Europe. Conferences are underway in most of our partner's countries this month with students presenting their work in much the same way as our students will today.

I'm sure it will be a very exciting day and one where students can share ideas and see how others have developed their work through inquiry based science education. Teachers will also be able to share their ideas and views on the approach and reflect on their experiences together. I look forward to watching your presentations and speaking with as many of you as possible. Good luck and I hope you have a very enjoyable day!

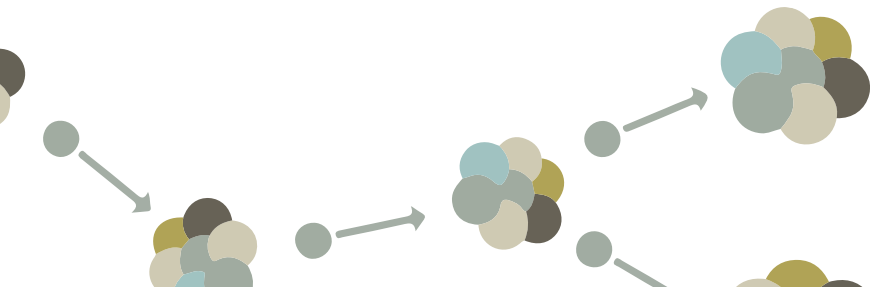


Dr Stuart Bevins
Coordinator of Chain Reaction



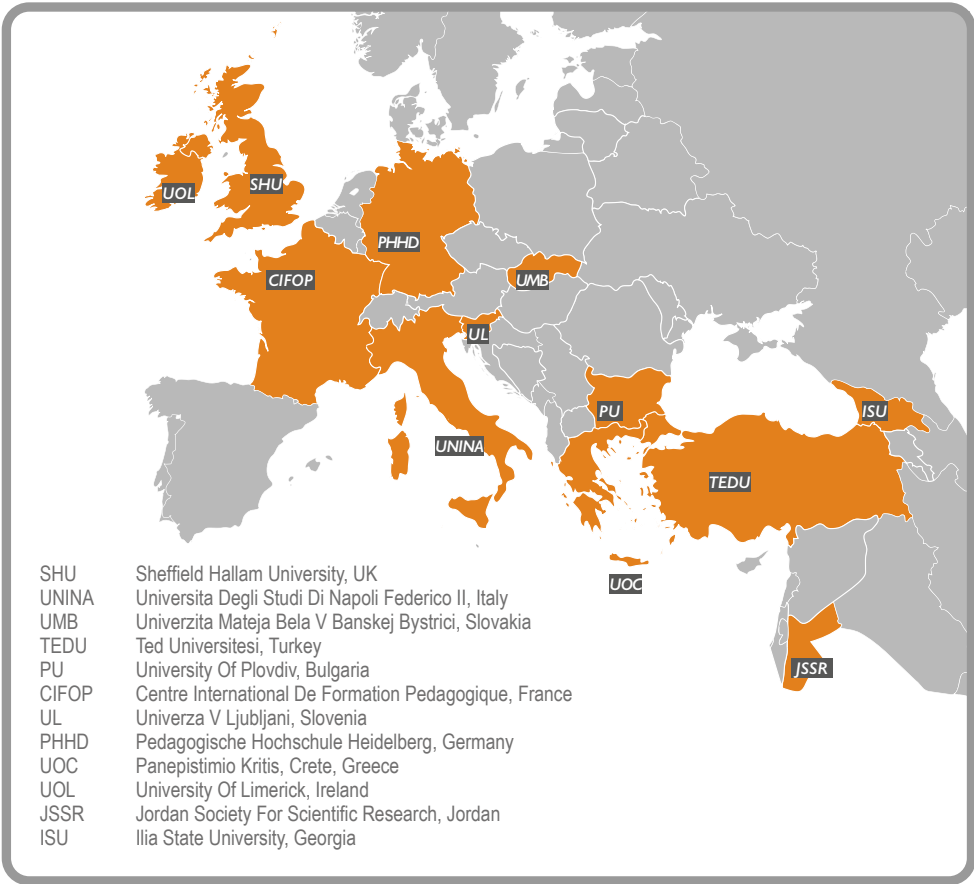
Programme Of The Day

Time	Activity	Room
9.30 - 10.00	Arrival	Main Hall, Floor 6, Owen Building
10.00 - 10.15	Conference Introduction	Main Hall, Floor 6, Owen Building
10.15 - 11.15	Pupil Presentations or Activity	Main Hall, Floor 6, Owen Building or Break-out Rooms
11.15 - 11.30	Break	
11.30 - 12.30	Pupil Presentations or Activity	Main Hall, Floor 6, Owen Building or Break-out Rooms
12.30 - 13.30	Lunch & Poster Presentations	Main Hall, Floor 6, Owen Building
13.45 - 14.00	Evaluations and Awards	Main Hall, Floor 6, Owen Building
14.00	Depart to coaches OR Opportunity to look around the University	



About Us

Chain Reaction is a three-year Inquiry Based Science Education (IBSE) project funded by the EC as part of the FP7 programme. The project works across 12 institutions in 12 different countries. We started work in June of 2013, with the project being coordinated by The Centre for Science Education at Sheffield Hallam University.



12

EU Partner Countries

Reaching
180 Schools
360 Teachers (directly) 1,440 Teachers (indirectly)
10,800 Students

36

National Conferences

International

3

Conferences

Our Questions To You

The Chain Reaction project has developed a number of interesting and exciting science questions for pupils across Europe to research. Each topic links to the Earth and the Universe and provides a thought-provoking starting point for inquiry and team research.



Collision Course

What are the chances of objects from space hitting the earth? What damage could they do?



ET Phone Earth

Is it possible that Extraterrestrial life exists?



Out of site, out of mind

What are the most suitable natural materials to act as a liner for a landfill site?



Green Light

What do Compact Fluorescent Lamps (CFLs) offer? Are they an alternative to traditional light bulbs?



Ozone Conference

What can we understand about ozone formation in the troposphere and ozone layer depletion in the stratosphere?



Green Heating

How much energy can Solar Panels really produce? Do they offer a sustainable alternative source of energy?



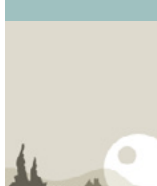
Cosmic Website

What was the Big Bang? What current research is taking place to understand the Big Bang?



Feed The World

What impact can fertilisers have on farming and food production?



Marsology

If you could be involved in the next exploratory mission to Mars, what would you look for?



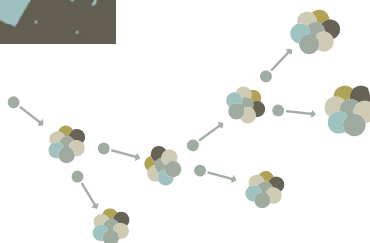
PHEPPS

What is the most efficient design for a Portable Hydroelectric Power Plant (PHEPP)?



Plants In Space

What plants could grow in space and provide oxygen and food for astronauts?



Our Scientists

As well as working with teachers and pupils in schools, the Chain Reaction project has also worked with practicing scientists. As part of your work in school you may well have met at least one of them!

Our scientists are the judges at today's conference. They will select one winner and one runner-up from the science talks and each scientist will identify one poster they feel impresses them most. The winning talk and the selected posters will be invited to present again and represent the UK at the **Express Yourself International Student Conference** in May 2016. Good luck!

Lucy Morris



I am a scientist at the University of Sheffield, researching Lung disease and pneumonia. When I was at school I knew I wanted a scientific job because I loved Biology and Chemistry lessons. At university I studied a BSc in Biomedical Science. I wanted to study further and I am currently in my third year of a PhD, based in a laboratory at Hallamshire Hospital. I design and carry out experiments, learn about cutting edge research and present my own all over the UK and sometimes the world. I also teach and mentor many undergraduates at the university. I find my career challenging at times but incredibly rewarding and fun!

I'm a course leader for a Physiotherapy BSc at Sheffield Hallam. Playing rugby introduced me to the Physiotherapy profession on numerous occasions and I decided to make it my career! It wasn't easy, but I qualified in 2000 as a physiotherapist. In 2008 I moved into higher education, but I still work clinically to this day. I teach internationally in the Middle East and in Europe on a regular basis and am actively involved in research. My job is incredibly varied and I enjoy almost every day, though it can be challenging. The human body is hugely interesting and I learn more and more about its amazing abilities on a regular basis!

Myles Butler



Katherine Inskip



I've wanted to be an astronomer since I was six years old. I studied for an MPhys Physics with Astrophysics degree at the University of Leicester, followed by a PhD on Radio Galaxies at Cambridge. Since then, I've held research posts in Cambridge, Sheffield and Germany, looking at very distant galaxies, weighing them, searching for signs of mergers and young stars, and studying their active central supermassive black holes. Along the way, I've taught more undergraduate students than I can count, and I'm now working as a teaching-specialist in the University of Sheffield's physics department.

After school, I studied an MSc in Immunology and worked in academic research labs and a vaccine company before realising I didn't quite fit! I loved the subject but missed working with people, my personality wasn't suited to a career in science. So, I have moved away from the laboratory and am exploring a career in science communication and public engagement. I work as a part-time tutor in a STEM club and I am volunteer in an arts charity. I love that I'm still working in science but in a people-centric, creative environment.

Anokhee Parikh



Dr Laura Cole



I am an 'academic' doctor here at Sheffield Hallam University and my specialism is Analytical Science mixed with Cancer Biology. Currently, I am a Researcher and I do quite a bit of teaching within the University, especially in laboratory classes. I try to make experiments fun but interesting and memorable! To get where I am I did an 'Access to Higher Education' course then a degree in Biomedical Science and then a PhD and now I constantly get family and friends telling me about their illnesses!

Mootaz Salman



I am a Pharmacist and Researcher PhD student at Sheffield Hallam, researching the identification of new drug targets for brain oedema and Epilepsy. I have become skilled in the use of numerous techniques ranging from standard biochemical and molecular biology to cutting edge micro-array, laser confocal microscopy and mass spectrometry. I am also an International Ambassador at Sheffield Hallam and an active member in a number of scientific societies.

I am a 3rd year PhD candidate at Sheffield Hallam University, working on the development of easy to use detection devices for biological markers that relying on visual colorimetric change. I have published two articles in well cited journals and participated in two International conferences in Turkey and USA. I have worked as a STEM ambassador since 2014 and participated in previous years Chain Reaction project. I am also an active member in the Royal Society of Chemistry and Biochemical Society.

Hasan Aldewachi



Steve Bates



I work in finance... so why am I involved in a science project like Chain Reaction? Outside of work, I'm an avid hill walker and I love mountains, so naturally began to wonder how mountains are formed. From this I started to form an interest in Geology, and since 2008 I have been studying Geology, Natural Science and Environmental Science.

Over the course of sixteen years, I've gone from consciously avoiding every biology course at university to being interviewed on BBC World Service about bird feathers! I'm now a research associate at the University of Sheffield, where I study structural colour. I get to work with biologists, chemists, engineers, artists, geneticists, programmers, and palaeontologists investigating how light interacts with the materials that nature produces. The enormous variety of work that a scientist performs makes it the most interesting and exciting job I can imagine.

Adam Washington



Participants



Ridgewood School

Team 1: EzyGro

Owen Smith
Casey Henderson
Joel Dawson
Lewis Easton
Nathan Williams

Team 2: Grow Ease

Ben Douthwaite
Callum Marsh
Connor Bray

Team 3: Bio-Grow

Jacob Toller
Cameron Routhwaite
Jay Jackson

Team 4: Sub Zero

Hoying Cheung
Hannah Wilkie

Teachers: Jamie Self and Phil Wilson

Outwood Academy Shafton

Two teams presenting
Twelve poster presentations

Teachers: Ash Harness, Vicky Barton, Pete Bargewell and Daniel Syker.

Sirius Academy

Team 1

Harry Pougher
Kyle Scott
Kavita Hembury
Eve Blackman
Joshua Cole

Team 2

Caitlin Cursons
Alex Everson
Danielle Waters
Declan Hill

Team 3

Benjamin Shipton
Chloe-Jane Jarvis
Scarlett Furmage
Matthew Coulter
Megan Hall

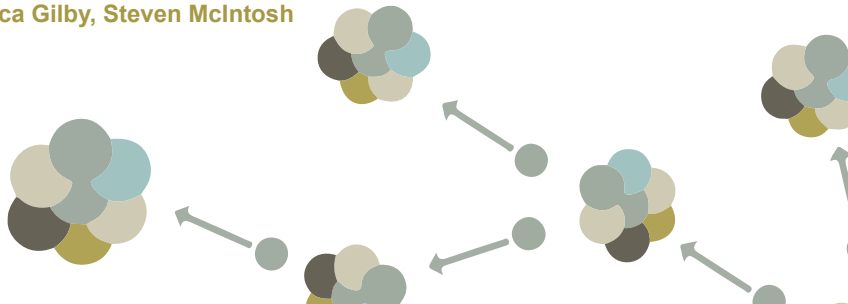
Team 4

Daniel Morais
Chloe Barnes
Alisha Pearson
Niamh Moffat
Lauren Chadwick

Team 5

Isla Cardy
Keila Allen
Terri Sainty
Rachel Hardy

Teachers: Rebecca Gilby, Steven McIntosh



Thornleigh Salesian College

Team 1

Scott Cartwright
Ruby Yates
Amy Greenhalgh
Lucy Jackson

Team 2

Miran Khan
Sana Thagia
Mia Gordon
Georgia Mather

Team 3

Tobias Bentley
Connor O'Neill
Kiegan Wilcox
Veronica Razaghi

Team 4

Tia Patel
Emma Loftus
Thomas Grant
Francis Krupa

Team 5

Catie Birch
Kadie Gallagher
Amy Hupton

Team 6

Maliha Tania
Robyn Simner
Charlotte Cleary
Elle Grime

Team 7

Lucy Loughran
Lucy O'Mara
Grace Williams

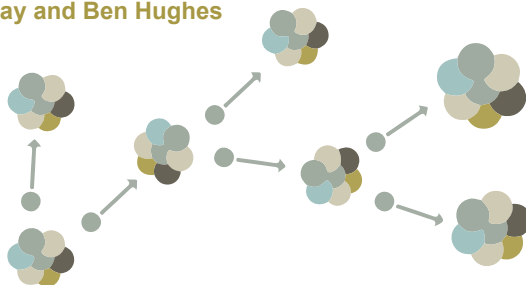
Team 8

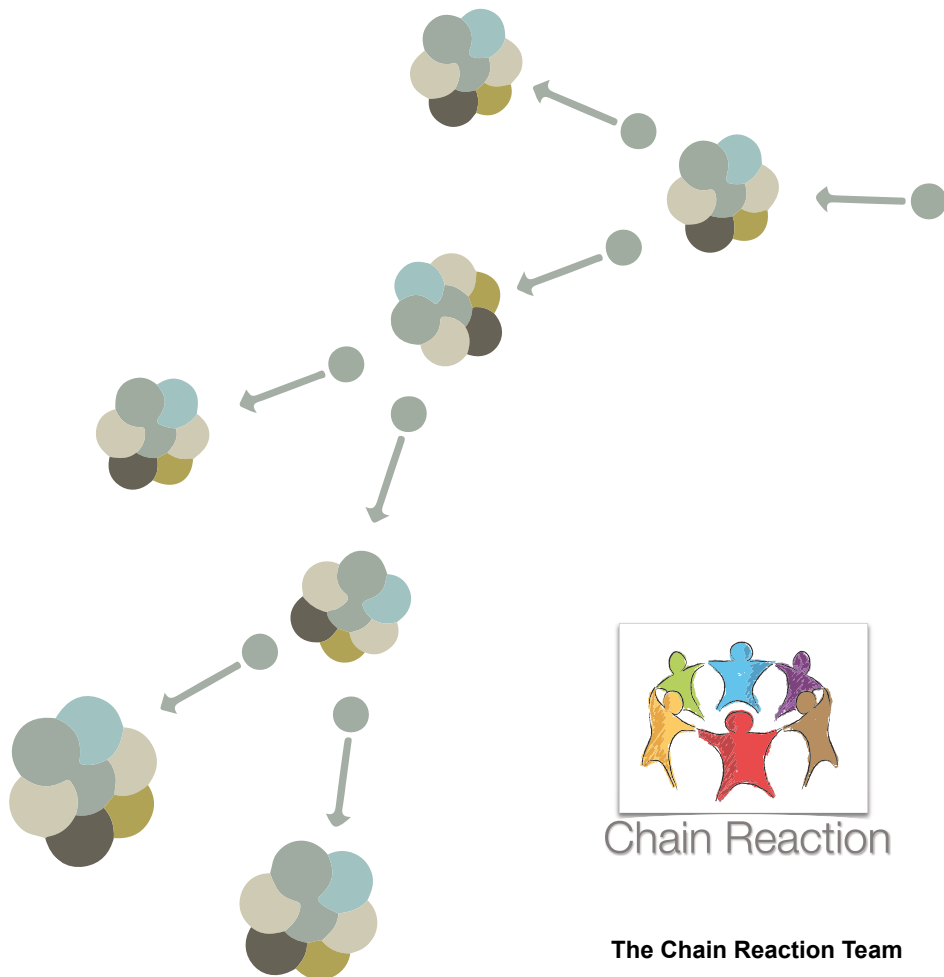
Ellie-Jo Stanley
Danny M'bolo

Team 9

Flinn Spencer
Lucie Oddi
William Pojasyk

Teachers: Melissa Finlay and Ben Hughes





Chain Reaction

The Chain Reaction Team

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