



# Teaching the General Public About Microbes and Antibiotics Through e-Bug at Science Fairs

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 The e-Bug roadshow has been funded by BSAC



## Background Information

Antimicrobial resistance remains one of the key problems within community and hospital settings in Europe.

e-Bug, an educational resource pack and accompanying website, sponsored by DG-SANCO of the European Commission and involving 18 EU countries, was designed to enhance student knowledge at primary and secondary school levels on four key areas:

- Introduction to Microbes
- Transfer of Infection
- Treatment of Infection
- Prevention of Infection

The public plays an important role in controlling the emergence and spread of antibiotic resistance. A large British survey showed that there is still public misunderstanding about microbes and antibiotics.

## Objectives

Through 2007, e-Bug interactive road shows were held at science festivals across Britain with the main aim of taking the key e-bug messages to families.

## Methodology

3 science festivals were visited across Britain with e-Bug stands participating at the family day or school day events at each.

- Cheltenham Science Festival
- Glasgow Science Festival
- The BA Festival of Science, Liverpool

5 interactive stalls, emphasising specific hygiene or antibiotic issues were created. Each stall comprised of a 3X2m backing stand with background information, an interactive activity and discussions with a scientist

## Interactive Health and Hygiene Activities

Stall title	Activity description
Microbe mania	Participants examine a series of microbial images and use these as a basis to make models of microbes in petri dishes
Horrid hands	Using a fluorescent powder, participants see how difficult it is to wash away unwanted microbes from your hands
How clean is your kitchen	Participants make a chicken salad from playdough and get an unexpected surprise when they see how far the microbes have spread across other food
Super Sneezes	A giant head and snot gun show participants how far their sneezes really travel and how a tissue reduces spread
Antibiotic Awareness	Participants enter a true/false quiz on a touch screen on the topic of antibiotics



## Cheltenham Science Festival

- 5 day science festival
- Situated in the 'free admission' Discovery Zone
- 3 days dedicated to visiting schools
- 2 days set aside for Family Days

## Glasgow Science Festival

- 2 day science festival
- Situated in the 'free admission' Huntarian Science Museum
- 1 day dedicated to visiting schools
- 1 day set aside for Family Days

## The BA Festival of Science, Liverpool

- 2 day science festival
- Situated in the 'free admission' World Museum
- 2 days dedicated for Family Days

## Comments

- *This is an excellent idea to promote science to our future generation!* – Teacher, Glasgow.
- *The workshops were excellent; pupils really enjoyed the microbes.* – Teacher, Glasgow.
- *Can I take one of these kitchen flyers home to put on our fridge? I think my wife could learn a thing or two!* – Participant, Cheltenham.
- *Daddy, your hands are dirtier than mine (after washing), you'd better wash them again* – Child to a very embarrassed parent, Liverpool.
- *Your stand is the best at the whole festival* – Student referring to the Snot Gun activity, Cheltenham.

## Conclusion

Over 20,000 people visited the three science festivals. The Cheltenham festival took over 10,000 visitors over a 5 day period, 9618 visited the science museum in Liverpool with 2600 participants visiting the Glasgow festival. Visitor Feedback was very positive.

The roadshow approach was extremely successful with audience members returning to the stalls for more information. The science festival environment allowed key messages to be presented to a large target audience with ages ranging from 4 – 74.

## Outcomes

The roadshow has secured funding from the British Society for Antimicrobial Chemotherapy (BSAC) for a second year.

We are planning to collaborate in the future with Ecsite-UK a network of Science discovery centres, to create displays that can tour the UK centres and will include 7 main areas :

- HCIs and antibiotic resistance
- blood-borne infections
- sexually transmitted infections
- vaccine preventable diseases
- tuberculosis
- pandemic influenza
- Chemicals, poisons and radiation



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## Developmental Team:

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