## Science Communication: are we making progress?

**Colin Blakemore** 

Medical Research Council & University of Oxford

## The rise of PUS in Britain: science communication as a duty

1985 Public Understanding of Science (Bodmer Report)

"Learn to communicate with the public, be willing to do so and consider it your *duty* to so so"

- 1986 Establishment of COPUS
- 1993 Realising Our Potential (OST White Paper)
- 1995 The Wolfendale Report
  - "Scientists, engineers and research students in receipt of public funds have a *duty* to explain their work to the general public"
- 1997 Corporate Plan of PPARC
  - "We believe that those engaged in publicly funded research have a *duty* to explain their work to the general public"

#### A proliferation of PUS activities

- Science Book Prizes
- Media training & Media Fellowships
- MSc Courses
- Westminster Fellowships
- Grants for activities
- Michael Faraday Award
- AlphaGalileo website
- Young Engineers
- BAYS, CREST
- Science Clubs

#### A series of controversies

- Radioactive waste disposal
- Mad Cow Disease/variant CJD
- Embryo research
- Animal rights
- Ozone depletion
- Climate change
- GM foods
- Genetic testing
- Cloning & stem cells
- Xenotransplantation
- Mobile 'phones
- Nuclear power & energy supply
- MMR vaccination and autism
- Foot and mouth disease
- Nanotechnology

### A new agenda: dialogue

2000 House of Lords Report on Science and Society

"Society's relationship with science is in a critical phase"

"Crisis of confidence"

"Crisis of trust has produced a new mood for dialogue"

#### Trusted to tell the truth?

	%
Doctors, Priests	91
Teachers	85
Scientists	64
Police	59
Person in street	54
Civil servants	45
Business leaders	25
Politicians	19
Journalists	13

(MORI 2002)

#### Trusted to tell the truth

Doctors 87%

Teachers 85%

Clergymen 78%

WHY SUCH HIGH TRUST?

#### Trusted to tell the truth

**Journalists** 

13%

Television news readers

71%

Trust depends on paymasters

Sci	enti	sts i	from	
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**University** 

<b>Environment</b>	groups

**Government** 

**Industry** 

Climate cha	Mobile pho	Radioactive	GM Foods
71	74	68	67
71	69	69	63
42	46	48	37

**30** 

36

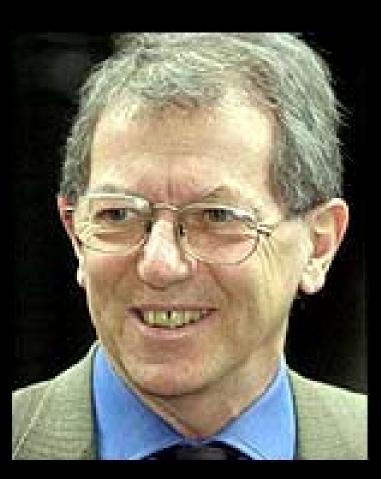
36

31

(UEA/MORI 2003)

### Do you trust this man?

- Professor (77%)
- Scientist (64%)
- Civil servant (45%)
- Government scientist (37%)



### Trust depends on context

Fraction of the pubic with 'a lot' of trust in statements by scientists about:

GM food	10%
Cloning animals	12%
Mobile phones	28%
New medicines	37%
Organ transplantation	57%

Guardian CM poll 2000

#### Risks and benefits

#### **Risk**

Mobile 'phones - small

GM foods - small

#### **Benefit**

Mobile phones - great

**ACCEPT** 

GM crops - small

**REJECT** 

## Public attitudes to animal experimentation

1999 New Scientist Poll

2000 MORI Poll

Childhood leukaemia, only on mice:

Any research: as long as no alternatives

32% agree

No pain 83% agree
Death 69% agree
Pain 63% agree

Medical research: no unneccessary suffering

84% agree

# Study gives MMR jab the all-clear

HERE is no evidence that MMR or single measles vaccines are linked with autism or inflammatory bowel disease, researchers announced yesterday.

A team carried out the most

#### By JULIE WHELDON

Muthu and information scientists at Clinical Evidence concluded the Wakefield study was retrospective, small, lacking in a control group and was selec-

measles itself causes acute fever in all infected children.

The National Autistic Society (NAS) said yesterday's research repeated work done in previous reviews, most recently the Medical Research Coun-

New Letter (Northern Ireland) 12 June 2002

### MMR 'may be linked to certain type of autism'

By David Derbyshire SCIENCE CORRESPONDENT

A BRITISH researcher believes he has identified a sub-group of autism that could be linked to the MMR vaccine.

Dr Paul Shattock, director of the Autism Research Unit at Sunderland University, said one in 10 autistic children appeared to have the distinctive form of the disease.

had an abnormal gait and were friendlier than other autistic children.

But crucially, there were also differences in the chemicals found in their urine. Around 80 per cent of all people with autism have high levels of the compound indolyl acrylol glycine in their done sensibly." urine, thought to be produced when the body breaks down the amino acid tryptophan.

autism. We believe it may be measles in the intestine which causes inflammation and permeability of the intestines," Dr Shattock said.

"Nobody has suggested that MMR is the only factor in the rise in autism cases. We are pro vaccine, but it needs to be

He stressed that more research was needed. "The numbers here are quiet small

Daily Telegraph 28 June 2002

# One in every 1,500 MMR jabs 'could be causing autism'

By **Beezy Marsh** Medical Reporter

ONE in every 1,500 MMR injections could trigger autism, it was suggested yesterday.

The figure emerges from a study of 4,000 children with the condition, and will compound the fears of parents about the so-called triple jab.

need to know for certain whether these things are connected.'

One theory is that chemical differences in the urine could be caused by the measles virus lodged in the guts of children with a particular form of autism which some parents claim is caused by MMR.

Other studies have shown the presence of the measles virus from the MMR vaccine in the guts of children with autism and a rare form of nary samples from the ten per cent of children whose parents blame their condition on the jab were very different from samples provided by the 90 per cent whose parents did not think there was a link.

There were other differences too, he added.

'There are three things. First of all, the clinical differences. The children appear subtly different to typical forms of autism,' he said.

"The clinical history is different for the children and there

Daily Mail 28 June 2002

# Danger of an By Tim Utton and Beezy Marsh

A DRAMATIC increase in measles cases brought calls last night for a public inquiry

The number of children catching the disease has quadrupled as parents shun the triple vaccination amid fears of a link to autism. into the MMR jab.

Mike Stone, chief executive of

Daily Mail 1 July 2002

