



a letter from the director

A glance through this Annual Review proves once and for all that the time has come to slav the myth that science stories are in a media ghetto, buried on specialist pages or relegated to the 'And Finally' section at the end of the news. Science is headline news, and 2009 will be remembered as much for swine flu and the sacking of David Nutt as it will for the MP expenses scandal. And the Science Media Centre should know! Set up with the explicit aim of helping the scientific community to engage with the media more effectively when science hits the headlines, we've had a bumper year. On swine flu, the HPV scare, flooding in Cumbria, climate change and COP15, the SMC has done what it does best - ensured that scientists get their voices and expertise heard loud and clear amidst the clamour of people with something to say.

It is exciting to see just how much better the scientific community now is at responding to breaking science stories than when we were set up in 2002. When Professor David Nutt was sacked as Chair of the Government's Advisory Council on the Misuse of Drugs, we were able to

get comments from some of the UK's most distinguished experts into the media immediately the news broke late on a Friday afternoon. And when the entire media splashed the news that a teenage girl had died shortly after receiving the HPV vaccine, we persuaded leading specialists to drop what they were doing and speak to journalists; a strategy that echoed directly in headlines such as, "Cancer jab is safe, say the experts", which appeared in the Daily Mail.

Away from the headlines, there were other events that made 2009 a special year for the SMC. In July, we joined over 900 reporters from around the world at the 6th World Conference of Science Journalists (WCSJ). As Chair of the Programme Committee, I was delighted to discover from the conference organisers that it was the noisiest conference they had ever run, as passionate debates about the future of science journalism erupted at almost every session. Many of those debates fed into another major highlight this year, when the Science Minister Lord Drayson invited me to chair one of five working groups set up to develop a Science and Society strategy for the UK.







Hype, hope and hybrids Science, policy and media perspectives of the Human Fertilisation and Embryology Bill Edited by Dr Geoff Watts FMedSci

Stepping back from the news frontline, in order to examine broader issues facing science in the media as a whole, and at such a dramatic time of change, has been a privilege and a great challenge.

The blossoming of international SMCs has also continued apace, and in September I was invited to Ottawa to open the new Canadian Science Media Centre. Denmark and Japan appear to be close to setting up Centres, and there has been significant interest in Israel and South Africa. 2009 also saw the first international SMC collaboration, on climate change and the COP15 meeting in Copenhagen, with a press officer from the Australian SMC attending the meeting to work on behalf of all of us.

And finally, the subject of my letter in last year's Annual Review – the scientific community's proactive collaboration to inform the media and public of the need for research on human-animal hybrid embryos – became the focus of a new booklet called "Hype, hope and hybrids", edited by Geoff Watts and published by the Wellcome Trust, Medical Research Council, Academy of Medical Sciences and SMC. A unique combination of academic research on the media coverage of the story, along with personal essays by those involved, it's not only a great read but also a historical record of a controversial science story that went well.

While I often get the credit for the success of the SMC, this year shows just how much that success relies on the incredible skill of my team of staff. Owing to my leading roles at the WCSJ and on the Government working group, the team have handled some of the biggest science stories of the decade one member of staff down, yet in 2009 we have received more positive comments than ever before from the scientists, press officers and journalists we work with; you can read just some of them in the pages to come.

Fiona Fox Director, Science Media Centre

responding to breaking news

Rapid Reactions & Round-Ups

A major component of the Science Media Centre's services is issuing expert responses to the biggest news stories of the day. When a science or engineering story hits the headlines, comments and information are gathered from experts working in relevant fields and sent out to journalists as Rapid Reactions. We also issue statements to journalists when we know a story will soon appear in the news. These Round-Ups are designed to give reporters the general background and context to an issue and may be quoted directly in their articles.

In 2009, the SMC issued 165 Rapid Reactions and Round-Ups, each of which contained an average of 3 or 4 quotes; with over 520 individual expert comments sent out across the whole year. An average of 4 or 5 expert quotes were used in the media for each release issued in 2009, and they regularly resulted in experts being requested for follow-up interviews. Approximately 80% of all releases received media coverage, and 12% were used widely across outlets.

Focus On: Swine Flu

2009 saw the emergence of the swine flu pandemic that dominated the headlines for much of the year. As soon as the story broke in April, the SMC was proactively helping reporters covering this story, offering experts to interview, background information and answers to their many and varied questions. One fifth of all media enquiries received by the SMC in 2009 concerned swine flu, and we sent out 18 Rapid Reactions and Round-Ups in response to this issue alone. We also held 5 different press briefings for the science and health correspondents covering swine flu – on emergency pandemic procedures, antiviral drugs and vaccination – in addition to producing a fact sheet and glossary of terms.

"The SMC has been a huge support to me throughout the swine flu pandemic. Many times, just as I was reaching for the phone to get some reaction or analysis, up would pop some expert opinion gathered by the SMC. It is a huge help to specialist journalists, and I firmly believe the SMC helps ensure editors keep their news agenda within the realms of reality."

Fergus Walsh, Medical Correspondent, BBC



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Other stories that the SMC responded to in 2009

Earthquake in Italy In April, an earthquake measuring 6.3 on the Richter Scale hit central Italy, with powerful aftershocks throughout the week that followed.

Human cloning Maverick would-be cloner Panayiotis Zavos claimed once more that he is able to clone human beings, although many scientists remain sceptical.

Transgenic monkeys New research in *Nature* reported the creation of genetically modified monkeys that glow in the dark, a trait which was passed to their offspring.

Loss of Air France plane An Air France Airbus 330-200 was lost over the Atlantic on its way from Rio de Janeiro to Paris with no immediate clues as to the cause.

Artificial sperm Newcastle University scientists reported in the journal *Stem Cells and Development* the creation of sperm-like cells from human embryonic stem cells. **HPV vaccine** In September a schoolgirl died soon after receiving the Cervarix vaccine, which protects against the human papillomavirus (HPV), prompting scares over vaccine safety.

David Nutt Professor David Nutt was sacked from his position as Chair of the Advisory Council on the Misuse of Drugs (ACMD), the independent expert body advising the Government on drugrelated issues.

Alcohol reduces heart disease Research published in the journal *Heart* suggested that higher levels of alcohol intake may actually protect against heart disease.

Flooding in Cumbria Record rainfall in the northwest of England caused devastating flooding, resulting in extensive damage to homes, roads and bridges.

Climate email leak Emails illegally obtained from the University of East Anglia Climate Research Unit were leaked, causing speculation they contained evidence that data had been manipulated to make the case for human-made climate change.





Number of Rapid Reactions and Round-Ups issued by the SMC in 2009

setting the agenda

Press Briefings

The Science Media Centre holds regular briefings for the UK national news media, allowing experts to inform reporters about what are often the most controversial areas of science. Just over half of all briefings at the SMC in 2009 were *News Briefings*, focusing on the latest developments within research, and around a third were *Background Briefings*, designed to introduce journalists to a complex issue that might hit the headlines in the future. We also held a number of *Expert Encounters*, giving journalists an opportunity to meet leading experts, including Sir Gordon Conway and Professors David Nutt, David Webb, Robert Langer and Mike Hulme.

The SMC held 78 Press Briefings in total in 2009, each of which was attended by an average of 8 or 9 journalists. Approximately 96% of briefings resulted in media coverage, with News Briefings receiving the most coverage, as would be expected. On average, each News Briefing resulted in 6 or 7 articles and interviews appearing in the press, and one quarter were covered widely across outlets.

Focus On: Climate Change

The continuing debates around climate change kept this issue high on the media agenda in 2009, particularly leading up to the 15th Session of the Conference of the Parties (COP15) to the United Nations Framework Convention on Climate Change (UNFCCC) in December. Throughout the year, the SMC helped experts to brief journalists on the status of climate science, engineering and energy research. We held a total of 16 separate press briefings on climate change and related areas, and issued 18 Round-Ups. We were also on hand throughout the COP15 meeting, providing journalists with regular updates and information from experts working in relevant areas.

"Knowing that there's another safe, reliable and supportive route for getting the [scientific] information reported in a responsible way helps me sleep better at night." Natasha Martineau, Head of Research Communications, Imperial Colleae London



Daily Mail, 05.03.09

Key press briefings in 2009

Hygiene hypothesis Leading experts briefed the media on whether the increased incidence of allergies in recent times is attributable to changes in hygiene practices.

Role of vitamin D in MS The authors of new research published in *PLoS Genetics* described their work examining the interaction between vitamin D and a particular gene associated with multiple sclerosis.

Viruses cause diabetes Scientists reported their findings that certain viruses might be involved in triggering type 1 diabetes, as published in the journal *Diabetologia*.

EU Clinical Trials Directive Top scientists briefed the media about their concerns regarding the implementation of the EU directive on clinical trials.

Preimplantation genetic diagnosis (PGD)

As the new Assisted Conception Unit and PGD Centre at Guy's & St Thomas' Hospital opened, the SMC invited the IVF experts involved to brief journalists on their vision for the future. Health effects of sunbeds Independent experts from the Committee on Medical Aspects of Radiation in the Environment (COMARE) presented a major report on the health effects of sunbeds and other tanning devices.

Geoengineering The authors of a new report from the Institution of Mechanical Engineers (IMechE) discussed the unchartered area of geoengineering, the large scale manipulation of the environment to counteract global warming.

Asthma inhalers Scientists at the Universities of Brighton and Dundee reported their findings that an individual's genetic makeup may affect their response to commonly used asthma medication.

Animals containing human material The SMC hosted a briefing with the Academy of Medical Sciences, to announce the launch of a new study examining the use of animals containing human material in scientific research.

Antarctic climate change Experts from the Scientific Committee on Antarctic Research (SCAR) briefed journalists on the first comprehensive review of the state of Antarctica's climate and its relationship to the global climate system.

Crackdown on sunbeds to cut cancer danger

Government review after worldwide study shows risk as high as tobacco

Denis Campbell Health correspondent

Ministers are preparing to clamp down on the cosmetic tanning industry after international experts on cancer said sunbeds belonged in the same category of carcinogenic risk as tobacco smoke. The Department of Health said it was reviewing its stance on sunbeds after the International Agency for Research on Canthernational Agency for Research on Can-

ernment action. Jessica Harris of Cancer Research UK said: "Given the dangers of sunbeds we want the government to act now to ban under :88 from using sunbeds, close salons that aren't supervised by trained staff and ensure information about the risk of using sunbeds is given to all customers." People should avoid sunbeds com-

People should avoid sundeds completely for cosmetic purposes, she said. "They have no health benefits and they increase the risk of cancer."



Number of press briefings held at the SMC in 2009

working with the media

Media Enquiries

In addition to reacting to the big, breaking news stories, and holding regular press briefings, the Science Media Centre also responds to daily enquiries from journalists looking for experts to interview and comment on a wide variety of issues. These enquiries range from journalists wanting an expert to appear on *Newsnight*, to needing someone to explain a complex scientific or engineering principle as background to a story. They also involve providing the media with experts who can debunk the myths around a particular issue, preventing potential 'scare stories'.

In 2009, the Centre received over 750 separate enquiries, and was able to help journalists with their requests in over 97% of cases. The majority of these were speculative enquiries, although approximately 10% resulted directly from SMC activity. Half of all enquiries came from broadcast outlets such as the BBC, ITV, Channel 4 and Sky. In particular, one third of all requests came from various sections of the BBC, including television, radio and online news. The UK national newspapers also accounted for a third of enquiries received by the SMC, with the *Daily Telegraph, Guardian, Times* and *Daily Mail* using the Centre most often.

Features and Packages

Most media enquiries involve the SMC finding an expert to take part in an interview or comment on a wide range of topics, from brain scanning to poisonous chemicals to genetically modified crops. However, each year we also assist journalists working on more extensive features and packages, helping them gather information and find several experts to interview over a number of weeks or even months. In 2009 the SMC worked with reporters on 19 such packages, including a feature for the BBC's One Show on animal research, a survey of potential engineering solutions to climate change for Channel 4 News and a feature in the *Daily Telegraph* on the future of UK stem cell science.





Overall spread of media enquiries



National newspapers (269)
BBC: national, regional, specialist (253)
ITN, ITV, Channel 4, more4, five, Sky (122)
Other regional & specialist media (78)
Newswires: AP, PA, Reuters (36)

Top Ten individual outlets

Media Outlet	Number of Enquiries
BBC News*	192
Daily Telegraph & Sunday Telegraph	58
Guardian & Observer	51
Sky News	44
Times & Sunday Times	43
Channel 4 News	40
Daily Mail & Mail on Sunday	35
ITV News	24
Reuters	18
Financial Times	15
* including: BBC television and radio news, BBC TV News Channel, Radio 4's Today programme, Radio 5Live, BBC News website, Newsnight	

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supporting scientists and engineers

The Science Media Centre would be nothing without the thousands of scientists and engineers who have agreed to join our everexpanding database of experts. Without their help (and patience!) we would not be able to respond to enquiries as quickly or as effectively as we do. Throughout the year, the SMC does lots to support those experts in return, by offering our guidance and advice whenever needed, and by always being on hand when scientists find themselves in the media spotlight.

The Centre has continued to produce information leaflets giving advice to experts who are considering engaging with the UK national news media, including *Top Tips for Media Work*, *Communicating Risk and Uncertainty*, and *When Animal Research Hits the Headlines*. In 2009, we also organised a number of off-therecord 'brainstorms' with leading experts and press officers, to discuss how the scientific community could coordinate its media relations more effectively on controversial issues. These were put together specifically to address issues that were receiving increasing amounts of media coverage and public interest, such as swine flu and genetically modified crops.

The SMC also continues to run its hugely popular Introduction to the News Media event, designed to give those considering media work an idea of how the UK national news media operate. The Centre ran 3 such events in 2009: one regional event in Cardiff in collaboration with Cardiff University, one specifically for plant scientists in collaboration with the Biotechnology and Biological Sciences Research Council (BBSRC), and one general event in London for scientists and engineers working on controversial or 'hot' topics. These events were well attended as always, and resulted in many lively debates about why experts should even consider engaging with the media - with attendees leaving feeling much more supported and more comfortable about doing so.

"It was really nice to see what is being done in terms of communicating science, the role of the media and the challenges involved. It has comforted me working in science, knowing the level of support out there which I would not have known if it were not for this event."

Fidel Anaya, University College London Institute of Neurology



supporting journalists

The Science Media Centre offers impartial support to the specialist science, health, environment and technology correspondents working within the UK's national news outlets. It puts them in touch with experts who are willing and able to comment on important controversial news stories, and issues individual experts' reactions to the big stories of the day. The SMC also advises reporters on the significance and credibility of breaking stories and runs regular briefings where journalists can meet new experts or improve their background knowledge of a topic. It also runs an essential out-of-hours service reacting whenever a major story hits the headlines – even if it's on a Saturday night.

In 2009 the SMC issued 14 different *Fact Sheets* giving reporters reliable key facts and figures on the latest news topics. They covered issues as varied as perfluorinated chemicals, energy-saving light bulbs, epigenetics, nanoparticles and reproductive medicine. The Centre also held a number of *Background Sessions* at the request of the journalists we work with on a regular basis. In March, Professor David Spiegelhalter, Winton

Professor of the Public Understanding of Risk from the University of Cambridge, worked with journalists on how to understand and accurately report on risk. And in October, we organised a background session with leading experts ahead of the American Society for Reproductive Medicine annual meeting that many reporters were planning to attend. "The SMC is a lifesaver on many occasions when a story breaks and we have to scramble to get reactions from experts, for an early deadline. A good recent example was when severe flooding hit the northwest – the SMC gathered together a wide range of experts with opinions on flooding, the UK's natural climate, climate change, and other closely related issues. The SMC's help was invaluable."

Fiona Harvey, Environment Correspondent, Financial Times

Funding

The Science Media Centre currently has approximately 80 funders, reflecting the diversity of organisations that feel they benefit from the improved climate for science reporting that the Centre promotes in the UK. These include scientific institutions and universities, science-based companies, media organisations and government bodies with a stake in science.

In order to maintain independence from its funders, donations are capped at 5% of the running costs of the Centre, making the maximum single donation £20,000. The Wellcome Trust is the only exception to this, granting the Centre £30,000 per annum of core funding.

The Science Media Centre is also indebted to Mr John Ritblat and family for making the capital development of the Centre possible.

Funders

Abbott Laboratories Alzheimer's Research Trust Associated Newspapers Ltd including Daily Mail. Mail on Sunday. Evenina Standard and Metro Association of Medical Research Charities (AMRC) AstraZeneca Bayer Biotechnology and Biological Sciences Research Council (BBSRC) Boots UK Ltd BP International Ltd British Computer Society (BCS) British Geological Survey (BGS) British Psychological Society (BPS) Cancer Research UK (CRUK) Chemical Industries Association Chilled Food Association CNAP Artemisia Research Project Coca-Cola Colgate-Palmolive Dept for Business, Innovation and Skills (BIS) Diamond Light Source Economic and Social Research Council (ESRC) Monsanto UK Ltd Elsevier **Emergent Biosolutions Inc** Engineering UK **Environment Agency**

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