Views from the front line

smc Science Media Centre

where science meets the headlines

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Editor's foreword

Geoff Watts, science writer and broadcaster

Maybe I'm entirely the wrong person to have collated these reflections on the Science Media Centre (SMC). A decade ago, when I first heard of the proposal to set up another body to help science journalists do their job properly (which was how I then perceived it), I really couldn't see the point. Didn't we all have our own contact lists? Hadn't every university and every research institute got a press office eager to alert us to their latest findings? Didn't science and medical journalists already get enough press information from enough organisations without another body clamouring for our attention and telling us what we should speak and write about?

Of course, from a different viewpoint (the joy in Heaven over the sinner that repenteth) it could also be said that I'm just right for the task because repent I certainly did. As the SMC got into gear it began to demonstrate that there was a niche to be filled, and that it was well able to fill it. In my own defence (and, more important, in tribute to SMC chief executive Fiona Fox) the role the Centre established was not quite the one which had had advance billing. The part it now plays was not authored by others, but is one of the SMC's own creation.

Even within the sphere of scientific research there are those who remain unaware of the SMC and what it does. Outside that domain it's even less known. To say that this is really as it should be may sound harsh, particularly to the staff who keep the show on the road. And one drawback to relative invisibility is that some individuals and organisations, who might benefit from what it has to offer, may still miss out. But what is done is, in the end, more important than who does it. The SMC exists to give a louder public voice to science, not to itself.

That said, an anniversary is surely a licence to break the usual rules. The SMC is justified in taking this opportunity to celebrate its own existence. And in this publication it's doing just that – mainly through the words of others. What follows are the recollections and reflections from some of the large and rising number of people within the scientific community who've benefitted directly from what it offers.

Principal among these beneficiaries are, of course, the scientists, doctors and engineers with a story to tell the public of new research, or of some endeavour that needs to be advanced, or defended. Then there are the press officers, mainly but not exclusively of academic institutions, who find that with the help, experience and contacts of the SMC they can achieve much more than they would if working by themselves. The third group are the journalists whose interests are served by first-hand briefings from experts who might otherwise be difficult to pin down and contact.

Last, but most important are the indirect beneficiaries of so much behind-the-scenes effort: the reading, listening and viewing publics who get a clearer, more accurate and more comprehensive picture of scientific developments and achievements.

Academics and other experts become involved with the Centre for a variety of reasons. These range from the publication of their own research through to distant events of which they have the specialised knowledge or understanding required to offer authoritative comment. Many of the issues tackled by the SMC are important not only for the science involved, but because that science has an impact on society. This is clearly so of the topics chosen for this booklet.

As many of the authors of the following accounts are keen to emphasise, even those among them who were initially apprehensive about meeting the media have found the experience unthreatening and even enjoyable. Some have completely changed their minds about the value of talking to journalists. Several say that what has been achieved - whether by publicising a research project, trying to change an attitude, or exposing an injustice of some kind - would have been harder if not impossible without the backing of the Centre.

They have learned that it has no agenda save that of being on the side of science and trying to ensure it gets a hearing. They have even discovered that journalists are not nearly as bad as some of them had clearly imagined.

Several contributors not only praise the SMC for what it's done in the past, but hope it will continue to do more of it in the future. With the exception of some core funding from the Wellcome Trust, the SMC has a policy of not taking more than five per cent of its budget from any of its financial supporters. The net, in other words, has to be cast wide.

Organisations with some spare cash and an interest in ensuring that science continues to receive a hearing might care to take the hint.

Fiona Fox

Chief Executive

Now we are ten. It seems to **Fiona Fox**, the Science Media Centre's founding director, a long time since she sat in front of a daunting interview panel of eminent scientists including a Baroness, a Lord, and the editor of Nature - and managed to persuade them that they should not allow her lack of a science background to blind them to her other talents.

She has, she says, many reasons to thank them for their confidence. She looks back on the past decade as the most stimulating, challenging and fulfilling of her working life. She is proud of the SMC's achievements and to have played her part in changing the culture of science in such a way that the public and policy makers now hear more from scientists than at any other time.

Getting a hearing: a decade of achievement

This brochure recounts a handful of the kind of stories in which the SMC has been involved. The personal perspectives of the scientists, journalists and press officers we have worked with reveal what has, more than anything else, defined the SMC: our belief that scientists should get more engaged proactively.

When former *Guardian* science editor Tim Radford told a roomful of eminent plant scientists that the GM controversy that raged throughout 1999 and 2000 was a god-given opportunity for them to showcase their science, many thought he must be joking. A year's worth of headlines like "Frankenfoods kill" had left most plant scientists bewildered and hostile to the media. But Radford was absolutely right. With a small number of exceptions the media were not hostile to GM researchers. They just found it hard to access them.

When I got the job as director of the SMC I went for a drink with a general news reporter at the BBC whom I had worked with throughout my career. When I asked her who she called for interviews on GM she reeled off a list of green campaigning groups. When I politely suggested an element of bias she laughed and explained there was no bias involved - just the reality that campaigners, unlike scientists, gave her their mobile numbers and never refused a media opportunity. That evening I felt a real clarity about what the SMC needed to do. We had to make it as easy for the media to access the UK's best scientists as it already was for them to get hold of media-savvy NGOs and protest groups.

Ten years on I can say with confidence that the SMC has met that ambitious goal. On every major science story of the last decade the Centre has presented journalists with a list of scientists willing and available to engage. The most recent example of this was the saga of the Fukushima reactor. The SMC galvanised a group of about 30 leading nuclear experts who worked tirelessly to ensure that the public and politicians heard the best, most accurate information about the risks it posed. In the context of a complete information vacuum from Japan, government curbs on "arm's length" bodies speaking out, and pro- and anti-nuclear groups seizing on the crisis to promote their own agendas, the SMC ran three emergency press briefings, issued up to five press releases a day, put out three fact sheets, and set up hundreds of live broadcast interviews.

When I presented the SMC's work at the Commons launch of a new Education Media Centre modelled on the SMC, former Education Minister Estelle Morris said that while she had been previously unaware of the SMC's role, she recognised many of the experts we had fielded and felt she had learned more from them about the effects of radiation than at any time in her formal science education.

That every crisis which propels science into the headlines is an opportunity as well as a threat is one of the two central ideas that underpin the SMC's work. The other is that "The media will 'do' science better when scientists 'do' the media better".

Regrettably the conviction that scientists can improve the coverage of controversial science stories by getting stuck in does not always sit comfortably with scientists themselves. I will always remember the call I received from an official in the Department of Health telling us that we could not run our first ever briefing - a backgrounder on multiple vaccines - because of the risks of kick-starting a new debate on MMR. We went ahead with the briefing, educated a key group of journalists on some complex science, and got an accurate message about multiple vaccines to a mass audience. Even more important, we realised that having the freedom and independence to arrive at our own judgments would confer a responsibility to be brave, and do the media work that many in science had previously feared. Or, as author and journalist Matt Ridley said when consulted on the opening of the SMC, we should aim to be the provisional wing of the scientific community.

We have tried to use that independence to full effect, ensuring that the media always have access to scientists, even on issues that some institutions have felt were just too hot to handle. At a recent talk on animal research

> *You know that feeling of 'how did we ever do without them'? People often say that about mobile phones but it's also true of the Science Media Centre. Just indispensable. Essential.*
>
> Lawrence McGinty, Science and Medical Editor, ITV News

I showed slides of six separate SMC briefings and stories (including the recent one on the intimidation of companies transporting animals for research) that some in science had urged us not to do. None of their worst fears had been realised; all six stories produced beautiful coverage packed full of key messages. One of the lessons of the SMC's first 10 years is that being paralysed by fear of what can go wrong results in missed opportunities. If the SMC were ever to appear in the *Guardian*'s Pass Notes it would conclude: "Do say, 'Remember to factor in the risks of not engaging'. Do not say, 'Let's not fan the flames'."

In the Centre's evidence to the Leveson Inquiry we boldly asserted that the vast majority of science journalism is excellent and the scientific community owes a debt of gratitude to the UK's specialist science reporters for daily bringing complex, messy science stories to a mass audience.

Some baulked at that claim. But we feel that the experience of the SMC's ten years can tell us something about the state of science in the media. If you were to believe the exclusively negative narrative that some still present, you would expect the SMC to have hundreds of nightmare stories of misreporting, and scores of scientists who will never again set foot in a newsroom. After all, the SMC only deals with the really messy, politicised science stories and we only deal with national news media - surely a toxic mix. But instead the SMC has hundreds of stories of scientists who braved media feeding frenzies and lived to tell a positive story. There are, however, some important things to fix in the reporting of science, and the SMC has submitted guidelines on those to the Leveson Inquiry. But we celebrate our 10th birthday feeling incredibly positive about what can happen when great scientists join with great press officers and work with the best science reporters.

As you can see from this brochure the productivity of the SMC has been phenomenal. In previous press office jobs I have organised one or two press conferences a year. At the SMC it is not unusual to run four in a week, and these briefings attract an average of ten national news journalists. One thing the statistics do not capture is the cumulative effect of bringing so many scientists face-to-face with key journalists: something that simply would not otherwise happen as ever busier journalists struggle to find time to visit scientists around the country.

When the Centre opened we were lobbied by some to run events intended to educate journalists on issues such as communicating risk and understanding a scientific paper. But busy national news journalists have little time for training events, and resent the idea that they need educating. However I have taken huge pleasure over the past ten years in watching scientists skilfully using SMC briefings on a new report or study to convey broader messages about the way science works. The educational role of SMC briefings matters even more when long-serving science specialists move on to make way for reporters who have not previously covered science. In his first few months as a science specialist for the BBC *Ten O'Clock News*, David Shukman, a former foreign affairs reporter, came regularly to SMC briefings. He is one of many who have told us they were invaluable in his early days on the science beat. As giants of science reporting like Mark Henderson and Roger Highfield have moved into big communications jobs, we have also enjoyed supporting the young new journalists who have stepped into their shoes.

Another feature of the SMC's work is the so-called "round-up" of third party comments on a new study. The Centre now gets privileged access to many of the world's most influential embargoed journals including *Nature, Lancet, NEJM, BMJ* and *PLoS*. It's our job to identify the studies most likely to make headline news, fuel existing contentious story lines, or fall prey to over-selling by media that love nothing better than a scare story or a "breakthrough". These third party comments provide invaluable context for journalists, often emphasising that studies have only been done in animals, or are very preliminary, or conflict with previous evidence and do not merit the front page as "a cure for" or "a cause of" anything. Journalists and press officers appreciate this service. Both groups may ask for an SMC round-up on a new study if they fear a risk of overselling by excitable newsdesks.

The emails that don't show up in our statistics are those from journalists letting us know that they relegated a scare story or a breakthrough from the front page to the inside pages after reading comments issued by the SMC. Some studies are so small or weak that the best outcome would be no coverage at all. Some of my favourite moments are seeing colleagues punching the air when a journalist calls to say that an SMC round-up has served to convince editors not to run a story.

This year we have added an important new service in support of this aspect of our work. "Before the Headlines" mimics the much loved "Behind the Headlines" service run by NHS Choices, the latter helping the public to interpret big health claims made by the media. The SMC's "Before the Headlines" uses a network of volunteer statisticians to provide simple and accessible statistical analyses of new studies pointing to their strengths and weaknesses and offering objective commentary on how well their data justify the claims made by authors or press releases. Combined with the quotes from experts this service means that national science news reporters, many of whom are writing three or four stories a day, are armed with everything they need to report in a more measured and accurate way.

Let me finish this with perhaps the most important ingredient of the Centre's success: its staff. Having taken a risk on me ten years ago my employers offered me the job on condition that I recruited someone with impeccable scientific credentials - and quick! In fact one of the huge joys of the job has been working with incredibly bright science graduates for whom working at the SMC has been a way to indulge their passion for science. Most people now know that no-one gets a job at the Centre unless they give the right answer at interview to the question, "Do you shout at the radio when science is covered badly?"

These colleagues have to put up with the boss getting all the credit for the success of the SMC; but they all know, and know that I know, that what makes the Centre work is the intelligence, integrity, skill, passion, courage, anger and humour that these individuals bring to the Centre every day. It is a huge privilege to work with them. And while I weep when they move on, I also take great pride in watching them flourish in new roles.

Climate of crisis

The affair that became known as Climategate began in November 2009 when a large number of emails and other documents were stolen from the Climatic Research Unit (CRU) at the University of East Anglia (UEA). The emails comprised private correspondence between the CRU director and his staff and many other leading climate scientists around the world.

Their publication created consternation among these scientists, and among CRU staff in particular, because their contents were used to suggest that they had been less than honest in their handling of data, had been hiding some of it, and had been using various other underhand ploys to frustrate the efforts of those who disputed the general view of climate change and its causes.

Throughout one of the biggest episodes in its history the SMC provided the media with a huge range of experts from across the climate science community, issuing hundreds of quotes and running several press briefings including all three of the inquiries into Climategate. Here, **Simon Dunford**, UEA's media relations manager, **Prof Phil Jones**, research director of the CRU, and **Mike Hanlon**, science editor of the Daily Mail during the period, reflect from their different perspectives on what it was like to have been at or near the eye of the Climategate storm. They also recall how the SMC eventually proved a valuable forum through which to put UEA's side of the story.

Professor Phil Jones

I am a scientist. I like to measure things. But it's difficult to quantify the shock I experienced when Climategate hit the headlines. The hacking itself felt a bit like being burgled: that sense of violation. But then things got much, much worse.

My life's work was suddenly being trawled by the global media, and I was accused of fiddling the results. My private emails were being quoted out of context in an attempt to prove that global warming was a giant conspiracy of which I was the chief con man. After only four days the Guardian's George Monbiot was calling for my resignation.

"They should read my scientific papers, not my emails," I kept saying. But no-one was listening. This was too good a story. Too good, in fact, to be true. And my part seemed to be that of pantomime villain.

Within a day or two reporters were outside my house, knocking on my neighbours' doors, digging for dirt. I got hundreds of abusive and threatening emails. They said I should be killed. They knew where I lived, they knew my family, and we should expect a knock at the door.

I had absolutely no doubt that my science was rock solid. Two US groups had got almost exactly the same results. I knew the accusations were nonsense. But as someone used to being in control I buckled at the loss of it. My health deteriorated. I found it difficult to sleep and eat. I was under intense, spiralling pressure and felt I was falling to pieces. Looking back I suppose I was having some kind of nervous breakdown.

I wasn't the only one affected, of course. My colleagues in the CRU and climate scientists around the world were subject to similar abuse, similar pressure. Well aware that the media needed to hear my version of events, I did agree to one or two interviews and issued some written statements. But I couldn't do more. I couldn't think straight enough to explain with any clarity.

Two years later, in November 2011, when the second batch of 5000 stolen emails was released, things were very different. The CRU's science had been vindicated repeatedly by the independent inquiries and by more recent studies. I'd recovered and was feeling strong again.

So when the university press office asked me to give a press conference I agreed without hesitating. The following morning I was at the Science Media Centre taking journalists through the real meaning and the context of the newly released emails. I was slightly nervous, but it felt good to be there and to chat afterwards with reporters, including the Daily Mail science editor. His story the next day was headlined 'Climategate RIP'.

I wish I had been able to respond like this the first time round. But until you get pushed to the edge, you never know how you'll react.

Simon Dunford

I am still asked what it was like in the UEA press office when Climategate broke. "Busy," I say. But that doesn't quite capture it. TV crews were turning up unannounced on campus most days and our phones were alight.

It wasn't just the UK media calling, but journalists from the US, Australia, Russia, China, Japan, Turkey, Germany, Brazil, Iran, India, Poland, Scandinavia... This was a global, non-stop story.

Google hits for the word "climategate" reached 10 million by the end of November 2009, more than for "global warming". We were all experienced ex-journalists, used to the rough and tumble. But this was something different. A siege. And it was close to overwhelming.

The one thing the media wanted was the one thing we could not provide: Phil Jones. It wasn't just the Times, the Daily Mail and the BBC demanding interviews with Phil. It was the Washington Post, Der Spiegel, the Sydney Morning Herald, Fox News...

"I can't do interviews," Phil told us. And clearly he couldn't. His descent was rapid and shocking to all of us. Though incredibly frustrating to many at the time, the university's decision to put its duty of care towards Phil above the obvious urge to put him before the world's press was the right one.

Without Phil we did our best to counter the bewildering and complex allegations. Of fiddling the data. Of hiding data. Of losing data. Of corrupting peer review. Of bullying, lying and fraud. Most originated on a handful of climate sceptic blogs, and we were bemused by the willingness of some in the mainstream media to provide credence to a coterie of partisan amateurs.

By the time of Climategate 2.0, as the second release of hacked emails last year was soon dubbed, we were able to give the media what it always wanted: an instant, no-holds-barred London press conference with Phil Jones.

The brilliant team at the Science Media Centre dropped everything to stage this for us. Within 24 hours of the story breaking Phil was taking questions from a packed room of specialist science reporters. Clarifying, explaining, giving the context, giving the facts.

There has been a lot of water under a lot of bridges since November 2009. The flood of Freedom of Information requests to UEA continues unabated, but the science remains watertight. Global warming is real and dangerous. This simple, alarming fact should never have been in any doubt. The Science Media Centre played a key role in explaining to the world exactly why.

Mike Hanlon

That the 2009 leakage of emails stored on the University of East Anglia's servers would become known as Climategate had a weary inevitability. And, like all "gates" since the Big One, there was both more and less to the story than met the eye.

For me it was, at first, a nightmare. There were several tens of thousands of emails that were supposedly "out there" but which were, in reality, accessible only through some obscure Russian site and then only in an unreadable gobbledegook format and probably riddled with viruses to boot. It was a trying technological experience, like being transported back to 1987.

Having them all neatly laid out in a text-searchable Word document so that we could do a simple hunt for terms like "conspiracy" and phrases such as "Ice Age on the way chaps, but don't let on!" would have been wonderful. Sadly the world doesn't work like that.

Anyway, after lots of shouting and stabbing of keyboards and a Great Deal of Help from the computer-literate operatives at the SMC we (sort of) got there in the end. We had something to search through.

Daily Express

And stories there were - at least at first glance. Even George Monbiot admitted that some of the emails did not paint the climate researchers in a terribly good light. But scratch and sniff as we did there was still no smoking gun, no line that would show there had been a conspiracy to fabricate a Great Untruth.

The decision to withhold some key data on the grounds of confidentiality, copyright, national sensitivities or even commercial sensitivity was questionable. Some people had written some silly things. There was some unfortunate phraseology. We all remember the excitement over the allegedly damning "Mike's Nature Trick" - although I for one have forgotten what this trick actually was. And indeed whether this was Hockey-Stick Mike [a reference to the hockey stick shape of someone's curve] or some other Mike in the story. But that was it.

This was probably the biggest ever story to hit the UEA, and the press office was clearly overwhelmed. What we all needed as the alleged scandal rumbled on was a lot of help. As ever the SMC deserved the Order of Something or Other for rounding up numerous climatologists and meteorologists and exposing these poor critters to the glare of Her Majesty's press.

What we most needed of course was the Main Man, the Climatic Research Unit's beleaguered Phil Jones, to talk to us and make sense of it all. During Climategate 1.0 Professor Jones sensibly stayed out of the limelight. But Lo! After a second tranche of emails was released two years later there he was, at the SMC.

He looked tired and harassed, because he was. But he gave a competent performance and more or less put the story to bed. Not that that was the end of it. Not by a long way. There were more emails. And then more. But, as with Wikileaks, the effects diminished with each iteration. (Of course, say the conspiracy theorists, that was their plan all along . . .)

Many developments in science and technology catch the interest of the public, and some can fire its collective imagination. But certain topics, and the policies that govern their development and use, are perennially controversial. Two of the longest running and most fiercely debated in this category are nuclear power and genetically modified crops. Almost every statement is contested, every action repudiated by someone.

It was GM crops that put **Prof Chris Pollock,** sometime director of the University of Aberystwyth's Institute of Grassland and Environmental Research, into the line of fire. Here he describes how it came about, and what the SMC was able to do to help the press sift fact from fiction."

GM on trial


Facts and fiction: Separating the wheat from the chaff

The Independent

> *Science is communication (see Fermat's Last Theorem for proof of that). Too often, though, it is communication only within the scientific family - and the Science Media Centre has done a superb job in getting the family out of the laboratory and into the wider world.*
>
> Professor Steve Jones, Geneticist, University College London

Professor Chris Pollock

Until 1994 I had led a (comparatively) blameless life in Aberystwyth, watching grass grow and studying how it managed such a difficult task. Then I was asked to chair the independent steering committee for the farm scale trials of GM crops. My life changed.

I accepted the job because it involved a big agro-ecological experiment which interested me hugely, and because the rest of the committee were such experts that I felt I would benefit personally from the process. What I didn't realise was that within weeks of taking on the task the GM debate in the UK would really catch fire, driven by Monsanto's decision not to label its GM imports as such. An interesting and novel scientific experiment suddenly acquired political, social and media overtones for which I was completely unprepared. Hence the foreboding I felt about being directly responsible for the successful delivery of a £5million project, and for presenting the outcomes.

We decided, in initial discussions with the people who would actually carry out the trials, that to be statistically valid the experiment would have to run for its full three years. And we agreed (much to the annoyance of ministers, the press and some in the industry) not to give out any results until the trials were complete and papers had been published in peer-reviewed journals. This would give us a breathing space while we considered the challenges of the endgame.

After a year or so we realised that, despite the best efforts of Peter Melchett and his NGO allies, the contractors were going to complete the trials with enough replicates to give us confidence in the data. It was time to plan exactly how we were going to release the results.

As an independent group we felt that it was important for the credibility of the experiment that we ourselves should manage the release of the results rather than the sponsoring government department, the industry or others who had contributed to the trials. Around this time I became aware of the recently established Science Media Centre and arranged a meeting.

We had a useful discussion and agreed to meet again for a more detailed consideration of what the SMC might do to help. However, shortly after this the BBC transmitted its conspiracy thriller "Fields of Gold". This featured the investigation of sinister connections between government, big business and biotechnology.

The drama generated an almighty row, and the Centre became deeply involved in the subsequent fire-fighting. Until this died down contact was limited to phone calls. When I met Fiona Fox again it was obvious that the Centre favoured a high profile science-led occasion rather than piecemeal responses to a deluge of anti-GM articles and broadcasts.

The help on offer, backed by an impressive list of contacts, convinced me that this was indeed the way forward. After a slightly tense meeting with officials at which I told them what was being planned, we went ahead. The SMC team organised everything from the formal press conference at the Royal Institution to an extensive programme of background briefings for journalists. Rehearsals for those of us who were going to be involved were carried out in an atmosphere of constructive criticism which involved the SMC staff shouting at us when we were too technical or long-winded. KISS (keep it simple, stupid) was the watchword.

Media interest grew more intense as the day of publication approached. Rumours about the results abounded. Ministers wanted an inside track and were annoyed that they were not getting one. We did background interviews, carefully organised by the SMC. As the proud possessor of a radio face I kept away from TV. My strongest memory is of doing a Today programme phone interview at 7.15AM in the nude, having just emerged from the shower in a scruffy hotel in Swindon. Because of the Centre's hard work we were beginning to get the underlying science across - at least in the broadsheets. In the tabloids there was still a storm of anti-GM publicity.

We held our press conference on the day our results were published. It was an invitation-only event with journalists, scientists involved in the trials, and representatives of the sponsors. Politicians were not invited and Fiona Fox had the task of ejecting one protesting former minister from the building.

Walking into the press conference was the most frightening thing I've ever done. But I was well supported by the other scientists, and our extensive rehearsals allowed us to present a strong summary of the evidence. After an hour or so I was hauled off to see the minister, while the others remained to give interviews, and a series of detailed scientific presentations to a more academic audience (including a few rather stony-faced opponents). When we left the Royal Institution in the evening it was with the feeling of a job well done.

The outcome was in many respects pretty positive. Despite some slightly hysterical headlines, almost all the dailies (apart from the Mail) presented well-summarised accounts of the experiments and their significance for agriculture. Equally satisfactory was most of the radio and TV coverage. On the negative side the studies did little to resolve the political issues surrounding the cultivation of GM crops. Years later these remain contentious.

Overall we had learned that with the kind of help the Centre could provide it was possible to ride the media bronco without being thrown off, and to get complex messages across in a way that suited the media while still allowing us to maintain scientific credibility.

We couldn't have done this without the help of the SMC. It does exactly what it says on the tin. It is indeed at the heart of UK science's relationship with the media, and I am confident it will continue to fulfil a valid and important role.


The Daily Telegraph
MOURINHO
Earth faces GM crops catastrophe, warns Prince

Daily Telegraph

GM on trial again

> *If we are to tackle the complex challenges we face in the UK and globally we need to have an informed public. This requires good, balanced, and accurate science journalism. The SMC has done excellent work to promote this cause, and has championed a real shift in the quality of science reporting in the last ten years. I have particularly valued their role in launching the Foresight reports, in covering emergencies in a balanced way and more recently facilitating a sensible discussion in the media about shale gas extraction.*
>
> Professor Sir John Beddington, Chief Scientific Advisor

Following the events described previously by Chris Pollock the GM debate began to calm down. It made fewer appearances in the headlines and, when it did, the story captured rather less interest and aroused less emotion. But any hopes that the debate was becoming less polarised were dashed by subsequent events at Rothamsted Research. The man who found himself in the hot seat on this occasion was **Dr Darren Hughes**, head of communications at Rothamsted. In spite of the best efforts of the scientists, it felt like history was about to repeat itself.

Dr Darren Hughes

A decade of working in some high profile areas of central government had, I thought, prepared me to deal with most things. Not so - as I discovered in the spring of 2012. Trying to manage the PR for the Rothamsted experiment on wheat genetically engineered to resist aphid attack took my colleagues and me into a place none of us had envisaged when Defra first gave us approval to conduct a field trial.

My scientific colleagues at Rothamsted Research had combined their expertise in the natural chemistry of plant and insect interactions with cutting edge molecular biology. They'd created a wheat plant capable of emitting an alarm pheromone to repel aphids and attract their natural enemies. Aphids (greenfly and blackfly) are unwelcome visitors that damage crops and spread plant diseases. The aim was to use this novel approach to pest management as part of our scientific strategy of finding new ways to promote environmentally friendly agriculture through reducing the use of pesticides.

Our use of genetic modification (GM) to make this experimental wheat plant and test it under field conditions created a level of interest I had not anticipated. It pushed the GM debate back into the headlines.

A decade or two previously GM had been in the news for all the wrong reasons. A combination of poorly judged commercial PR together with scientific messages that got lost in a heated sociopolitical debate meant that rational discussion based on science and evidence had become almost impossible.

To avoid a repetition of this scenario we decided to put science on the front foot. We were fully aware that the experiment might be controversial, and therefore wanted to ensure that the public knew about it and the reasons for it. Working with colleagues at the BBSRC, which was funding the trial, and with other partners, notably the John Innes Centre, we chose a proactive approach with the media. We organised public engagement activities to ensure that conversations about our work were led by science rather than prejudice.

The easy way would have been for our scientists to keep their heads down and hope the trial went unnoticed. But this was never considered as an option because the scientists themselves favoured an open and transparent approach, and were anyway proud of what they were doing.

This proactive approach did help us to dispel some of the myths developing around the work, notably that it was a secret government trial, that wheat is wind pollinated, that the plants would contain animal genes, and that the project was commercially-sponsored. None of these claims was true.

Being proactive also allowed us to communicate other key messages: for example that GM technology had advanced significantly in the last 10-20 years, and that this specific application was using natural mechanisms to help plants defend themselves by affecting the behaviour of insects rather than through the toxic action of insecticides. The decision to use genetic engineering came after years of unsuccessful experiment in using other means of dispersing the aphid alarm pheromone.

Our scientists engaged with the local community. We met with local people, schools and colleges, MPs, Friends of the Earth and bee keepers. We wanted everybody in the community to know that this was a GM experiment and the reason for doing it. We produced information leaflets and set up a dedicated website.

We also wanted to talk to the public at national level. So in early January I spoke to the Science Media Centre explaining that we might have a bit of really interesting science here. They agreed. They got all the science journalists together and held a classic SMC briefing. Without the SMC's support it's unlikely that the strategy of open engagement on the science would have happened.

It was after this that the publicity really got started. The media coverage was substantial and the science journalists wrote it up well. My colleagues and I at Rothamsted Research are still indebted to many of them for their balanced reporting.

But with this proactive stance came more publicity and an increased threat from protest groups intent on "decontaminating" (destroying) the experiment. It was at this point that the Rothamsted scientists ventured into uncharted territory. Their initial advances having been ignored, they took their public engagement to another level and appealed directly to the protest group and their supporters by writing them an open letter, using Twitter, and recording a video posted on YouTube. Although initially a little uncomfortable with this unorthodox approach, I was quickly convinced and threw in all my support. I was swayed by the passion and sense of injustice shown by our scientists.

Our key point was that, as scientists, we know we do not have all the answers. But by destroying the experiment the protestors would deny us knowledge which Rothamsted had pledged to make public to help people reach informed decisions. The scientists wanted to make clear that GM must be considered on a case by case basis, and that they were neither for nor against the commercialisation of GM crops. In fact, destroying publically-funded research would actually push the science towards the big multinational companies and therefore further exacerbate the issues the protesters were worried about. Sadly, even to this day, the protest group refuses to talk directly to the scientists.

The SMC sent the open letter to national journalists and, along with the video, it created a tidal wave of interview requests. Thankfully the Centre sent a member of its own team down to help with some of the scores of journalists who wanted to meet the scientists and see the crops. They also sent out comments from independent researchers, and set up interviews with others when ours were already flat out. We had to balance our commitment to being open and proactive with the need to ensure the experiment was not destroyed. For example, we allowed the press to film within the field trial fences, even though we knew nothing of the true intent of the protesters.

Looking back, I do wonder how we managed it physically and emotionally. We are after all scientists, not PR professionals. I think the support we received from individuals within the scientific community and from members of the public made the difference. I'm personally indebted to the SMC and BBSRC for their press support through this period. And the organisation Sense About Science deserves a mention for generating a petition which amassed over 6000 signatures in less than a month.

The scientists too should be congratulated. Their plea was unprecedented and brave. Despite abusive emails, threats to destroy their work, and cyber-bullying they never gave up.

Only time will tell how much our approach has affected the GM debate. But I hope it's encouraged more scientists to be more proactive. My colleagues and I believe that many more people are now neutral about GM, so a more rational debate can be had. We need agricultural science to help us find solutions to global food challenges. The GM wheat trial at Rothamsted is one of those solutions.

Media meltdown

On March 11, 2011 at 14:46 local time in the NW Pacific Ocean there was an undersea earthquake of magnitude 9. Its epicentre was approximately 70 km east of the Oshika Peninsula of Tohoku , Japan. It lasted about six minutes. The nearest big city, Sendai, was on the coast some 130 km from the epicentre. The upthrust of the ocean floor caused a 5-8 metre tsunami that did immense damage and cost many lives along the Pacific coastline of the northern islands of Japan.

Following any large earthquake you can expect comment from earth scientists. There are discussions of the fault line responsible for the movement, of the mechanisms involved, and likelihood of aftershocks. On this occasion, though, experts from a different scientific discipline were in demand. So too were engineers. The earthquake and the tsunami that followed it had wrecked a coastal power station. A nuclear power station.

Prof Paddy Regan, professor of nuclear physics at the University of Surrey, was one of the experts called to explain what had happened and, more chillingly, what might happen. Reuters' health and science reporter **Kate Kelland** was among the journalists reporting regularly on the events happening on the far side of the world. Both found themselves grateful to the SMC.

Professor Paddy Regan

Like many others, the first I heard of the Japanese earthquake of March 11, 2011 was on BBC Radio. My initial thoughts were of the risk to people. I immediately emailed academic colleagues and friends in the country to find out whether they were safe and what was happening.

One friend, a professor of nuclear physics at the University of Tokyo, replied to thank me. "We are fine," he wrote. "But many people cannot go home because transportation in Tokyo is still stopped. The earthquake is the biggest I have ever seen. I even fear a building in the university is collapsing. I really hope everything is fixed soon."

The story, at this early stage, was still of the earthquake and the devastation caused by the subsequent tsunami which had hit the eastern coast of Japan, ultimately taking the lives of more than 15,000 people. But within 24 hours this changed. The world's focus had shifted to the stricken nuclear reactors at the Fukushima Daiichi plant.

Although the nuclear reactors had, as designed, shutdown automatically following the earthquake, the flooding caused by the tsunami had knocked out the power supply required to keep water circulating through the cooling system of the reactor cores. This was serious. Unless this cooling could be restored there was the likelihood of a dreaded meltdown in the reactor cores.

By virtue of the job I have at the University of Surrey, and because I also run an MSc course on radiation protection, I was contacted by the Science Media Centre to comment on the quickly evolving situation at Fukushima Daiichi.

I had worked with the SMC before on radiation related issues and was happy to do so. I knew I could trust them in their handling of any comments I made, and I was aware of their role as a focal point for the media. What I did not anticipate at the start of this process was just how big the Fukushima story would be become, and how it would dominate the pages of the national papers for so many weeks.

The fascination, I suppose, grew out of established fears of radiation, and also had a direct link to the ongoing debate about the place of nuclear power in future energy policy of the UK and elsewhere. Following a couple of days of interviews with an array of media outlets including ITN, Sky News, the BBC, RTE, Radio New Zealand, US National Public Radio, CNN, Al-Jazeera and the Australian Broadcasting Corporation it had become abundantly clear that this was a science story on a global scale.

The period I spent dealing with the press on Fukushima and radiation-related issues, courtesy of the SMC, was rewarding on a personal level. The SMC had brought together experts in other areas of nuclear and radiation science, and I enjoyed the scientific interaction and discussion I had through working with them. One highlight was sharing a BBC Breakfast sofa with biologist Professor Gerry Thomas of Imperial College London. Besides being well versed in her own subject (the biological effects of radiation following Chernobyl) she was calmness and charm personified. The experience of discussing nuclear physics under these circumstances was surreal.

I also enjoyed taking part in one of the SMC's press briefings before a room of TV, radio and newspaper journalists at the SMC's old offices in Albemarle Street. Experiencing something like this, together with experts from applied nuclear science (Laurence Williams, Malcolm Sperrin and Francois Perchet), epidemiology (Richard Wakeford) and volcanism (David Rothery) was a privilege.

I was also impressed by the journalists who interviewed us and asked insightful questions as they got to grips with the science involved. It brought home the importance - indeed, to my mind, the duty - of scientists and engineers with some knowledge of esoteric topics to provide analysis and comment as events of this kind occur.


Inside Sport 8-page guide to buying tickets for the Olympics

The Daily Telegraph

Nuclear meltdown alert

The Daily Telegraph

The SMC did its usual workmanlike job of co-ordinating comments, not making judgements themselves, but simply and effectively acting as a conduit between the media and the experts during this fast developing news story.

The SMC is a great asset to this country. I cannot praise their professionalism enough.


Nuclear fear grips Japan

Fight to contain overheating reactors ● $85bn injected into economy as markets fall

The Times

> ***The SMC's staff were outstanding in their coordination of the expert commentary as the Fukushima nuclear accident developed in 2011. Their insight into the areas of public concern, links with nuclear experts, and proactive approach to working with the media ensured factual and scientific reporting.***
>
> Professor Andrew Sherry, Director, Dalton Nuclear Institute, University of Manchester

Kate Kelland

Japan's Tohoku earthquake and the devastating tsunami that followed it were shocking in their scale and impact. Yet almost as shocking was the speed with which the global media shifted their focus away from these human tragedies to concentrate so intently on a possible nuclear meltdown.

Within a day or two of the tsunami, which killed thousands of people and swept away whole towns, stories about this death and destruction were rapidly eclipsed by reports of looming nuclear crisis at Fukushima. Rumours about global radiation risks spread, a European Commissioner predicted an "apocalypse", and several countries said they were delaying or cancelling their nuclear power programmes.

To me this shift was disconcerting. But given human nature - and more particularly the nature of newsrooms - it also made some sense: there are few things more newsworthy than a potential nuclear disaster. Because the radiation risks were largely unknown in the early stages of the event, and the fear of radiation is heightened by its invisibility, anyone with a nose for news was keen to learn more.

Reuters' bureaux in Asia were staffed around the clock, pumping out hundreds of stories a week about the earthquake, the tsunami, and the developing Fukushima crisis. With a lack of Japanese experts available or willing to talk about the nuclear consequences, it fell to our team of health, science, environment and energy reporters in Europe and the United States to step in.

It became a daily event for me to call round British and European expert scientists, or meet them at the Science Media Centre's briefing room, to talk through what was happening then and what might happen next. The SMC's factsheets and background briefings became invaluable. The likes of Jim Smith of the University of Portsmouth (who was often speaking on a mobile from Chernobyl when I called), Paddy Regan at Surrey University, and Malcolm Sperrin at the Royal Berkshire Hospital quickly became people I felt able to call again and again with more and more questions.

I'm not ashamed - though maybe I should be - to say I was pretty much in the dark to begin with. I'd been on the health and science beat at Reuters for just over a year, and was beginning to get to grips with the complexities of cancer drugs, swine flu vaccines and malaria. But nuclear crises are (thankfully) few and far between, so this was the first time I'd had to use the words "millisievert" or "radioisotope" in any copy.

I knew, however, that what we needed was to be able to put scores of sometimes simple, sometimes tricky questions to experts who could give us honest answers about the potential risks. We also needed to be able to quiz those experts about their credentials. Who were they working for? What was their experience of nuclear disasters? Did they have any connections with the nuclear industry? Where were they getting their information from?

I remember some guffaws and throwing up of hands in despair when one scientist at an SMC Fukushima briefing answered this last question with breathtaking honesty. He said that for the moment at least, Sky News was one of his main sources.

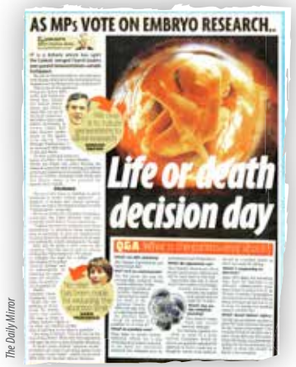
This answer underscored some important points about Fukushima. Data from the plant itself, as well as from the Japanese government, were scarce, patchy and sometimes from sources whose reliability was uncertain. Scientists as well as journalists were desperate to get more, and more accurate, information. The best that reporters stuck here could do was ensure that the scientists we talked to were the best kind of experts giving their best judgment on the best levels of information they could get hold of.

The SMC made that happen. We could not have done it without them. Yes, we could have gone through the same motions, and certainly we could have made the same number of phone calls and asked the same questions every day. But I have no doubt that the people we would have talked to would have had less credibility and fewer answers. Our sources would have been less intelligent, less scrutinised, and less newsworthy.

One afterthought: I do hope the European Commissioner read the report of the World Health Organisation's investigation in May. It found that no-one has died from radiation since the Fukushima crisis, and that spikes in radiation caused by the Fukushima nuclear disaster were below cancer-causing levels in almost all of Japan.

Embryonic fears:
getting ahead of the game

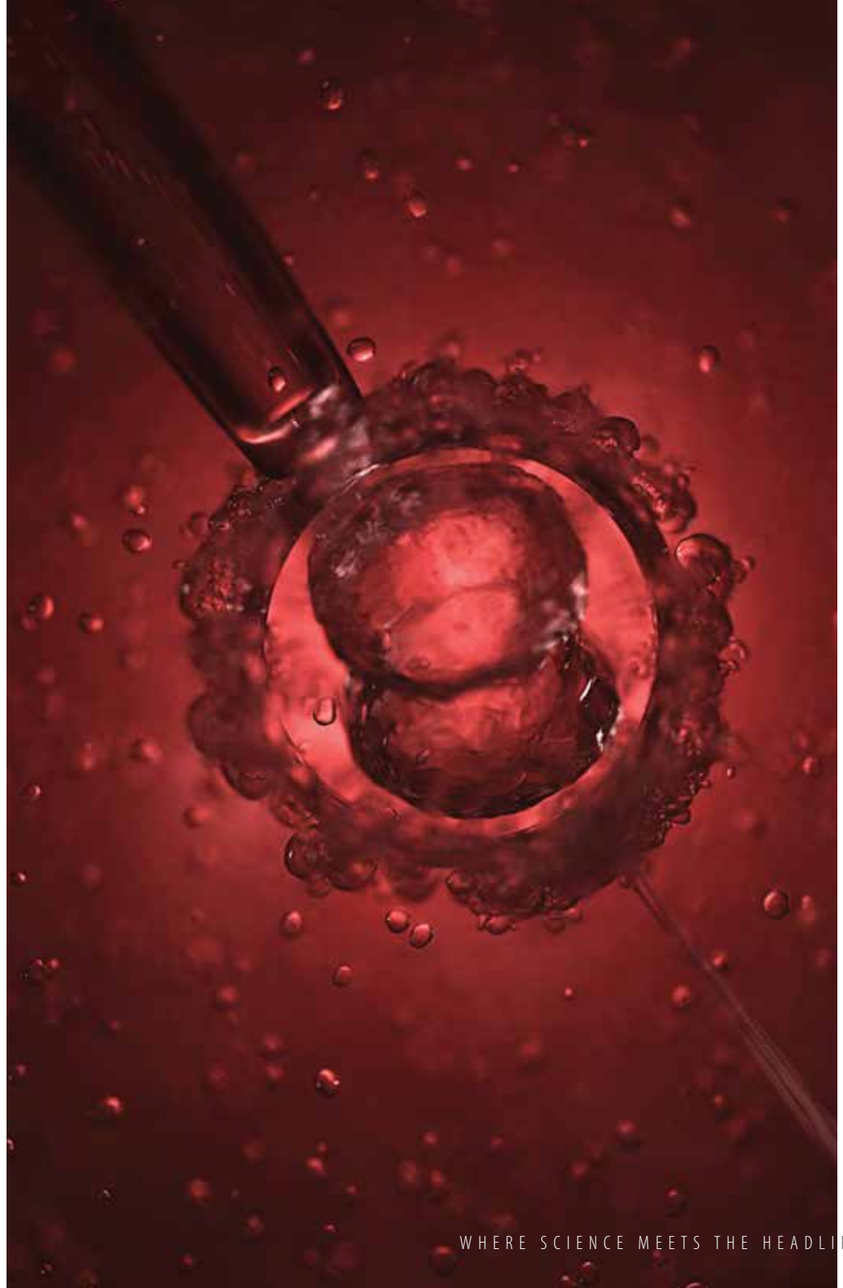
A great deal of what the SMC does is necessarily reactive. Something that's happened in science needs to be explained. But occasionally, beneath the often hectic flow of day-to-day affairs, it's possible to work proactively and to a longer time scale: to discern a pattern of events that's set to emerge, not today or tomorrow, but over the coming months or even years. If the topic is potentially controversial, there's valuable time in which to think how best to present it to the public. There's an opportunity to identify likely pitfalls, and to work out how to deal with unwarranted fears, or even calm them before they've had a chance to flourish.


AS MPs VOTE ON EMBRYO RESEARCH..
Life or death decision day
Q&A

The Daily Mirror

The passage of a Parliamentary bill governing medical and research activities in the field of reproduction is always likely to throw up controversy. A bill scheduled for 2008 included reference to the research use of embryos comprising a mixture of animal and human material. This had all the potential for a public outcry that might derail the ambitions of scientists hoping to develop this approach in the study of human disease. That much of the public debate, when it happened, was relatively low key and often restrained is testament to the value of being proactive.

Prof Robin Lovell-Badge of the MRC National Institute for Medical Research, **Katrina Nevin-Ridley,** head of communications at the Wellcome Trust during the events described, and BBC medical correspondent **Fergus Walsh** were all, in their different ways, involved.



Prof Robin Lovell-Badge

It's a long time since I've been to a funfair, but my favourite ride was always the roller coaster. Perhaps this is why, perversely, I enjoyed the whole media and political experience around the idea of scientists making early embryos that would be a mix of animal and human material. It began in 2005 at a Science Media Centre briefing. The ensuing debate reached a formal ending with the passing into law of the much-revised Human Fertilisation and Embryology Act at the end of 2008 - although to an extent it rumbles on to this day. Throughout all this time it was the SMC that kept the wheels of the public debate, and my own, on track.

I was in at the beginning. Some time earlier I had visited a lab in Shanghai where rabbit eggs with nuclei from the somatic cells of human donors were used for so-called "therapeutic cloning" experiments. The aim was to derive patient-specific embryonic stem cells from early cloned embryos, and use them for research into diseases and for developing therapeutically useful cell types.

They had wanted to use human eggs, but could not find a source. They had lots of rabbits, however, and eggs from these seemed to work well. They claimed to be able to derive early embryos and then embryonic stem cell lines that carried DNA identical to the donor. It was a good idea: why waste precious human egg cells when it was so simple to obtain eggs from rabbits or cows? But more work was needed. Indeed it was critical for other labs to repeat the work, and to test the normality and usefulness of the new cell lines. Hence the plan to do this work in the UK - and with it a media frenzy.

From then on the roller coaster gradually built up speed. The initial decision by government was to ban this type of work. But with enormous help from Fiona Fox and others at the SMC, and with scientists, sympathetic politicians, ethicists, medical research charities and patients we were able to gain both public and political support.

This persuaded the government not only to reverse the decision on these so-called cytoplasmic hybrid embryos, but to reconsider other aspects of human embryo research involving human/animal mixtures.

In the UK this is now permitted under a license from the HFEA (Human Fertilisation and Embryology Authority). The ethical dilemma was solved, at least for most people, by making it illegal to allow these hybrids to develop very far, and certainly not to use them to establish a pregnancy in women or in animals.

The story demonstrates the importance of scientists being proactive, of raising the issues for public debate, of taking time to explain the rationale behind experiments at briefings with our superb UK science journalists, and of ensuring that the language used is appropriate for non-scientists, especially when the issues are - as they were in this case - technically complex. None of this would have happened without the SMC.

When some new story broke and the ride got fast and bumpy it was the SMC that stepped in to arrange the expert comment. Perhaps the most dramatic occasion was Easter 2008 when some in the Catholic Church decided to vilify the science and scientists, and to ignore our moral imperative to help those suffering from disease or trauma. There were few scientists around, and I spent almost all that long Easter weekend in radio and TV studios. But it was the SMC working behind the scenes that made it happen.

Of course science does not stand still and researchers have been distracted by other exciting technical developments. Most have careened off into other directions, such as induced pluripotent stem cells as an alternative way of deriving patient-specific cell types for research. But this does not matter. What we have in the UK is a regulatory system that makes it possible for someone with a justifiable project - and good ideas abound - to do many types of experiment that can't be done elsewhere. It makes it possible for them to be done in a way that the public can be assured will stay within clearly defined limits.

By providing the conduit between scientist and journalist and ensuring a better-informed public as a result, the SMC deserves much of the credit for this.

Katrina Nevin-Ridley

There are some emails you dread opening and some that bring a smile to your face. A "wine-fuelled brainstorm" invitation from the SMC falls into the latter category.

In the wake of some fierce campaigning against the proposed HFE bill there was a real need for scientists at the time to step up to the mark, and to win the support of the public rather than merely preaching to the converted within the scientific community.

There were only a handful of scientists at the time who were prepared to talk to the media. Explaining the science in simple terms posed a real challenge. Policy colleagues were working hard, but something needed to be done to inform the media coverage - and this meant increasing the pool of spokespeople we could field.

I had been bemoaning the lack of joined-up thinking and coordination between the various press offices working on the bill. As I told Fiona Fox, we always seemed to find out that other teams had things planned or were fielding the same people either by accident or coincidence. It was frustrating at times to be duplicating efforts, with the risk of reducing our impact by putting out potentially inconsistent messages and having everyone spending valuable time producing different resources.

No sooner bemoaned than sorted. But while we were fine with respect to the science, the ethics and the policy implications, what was missing was the human side of the story. We needed "people"; and we needed to answer the "why should I care?" question for an average viewer or reader browsing the news.

A meeting was set up to bring together funders, charities, patient groups and individual institutions involved.

Joining forces was a great idea. I remember the rather dingy grey press room of the SMC's old premises in the Royal Institution, and the slight tension in the room as we eyed up our contemporaries and waited while Fiona finished a loud and long telephone conversation in the next room. I wondered if I had been lured out of the office under false pretences...there was no wine.

What ensued was some frank and frustrated discussion that I think marked a turning point among the scientific community in the media handling of the HFE bill. Put together more than fifteen feisty, passionate press officers, each feeling their organisation has the most crucial part of the story, and you get quite a heated debate.

A few policy officers who were also there looked on anxiously, taking careful notes.

It took time to thrash out and concede that, despite all our individual efforts, the media effort from the science side could be better. And it took a little more time to agree that we needed to pool all the elements of the story that the media would need. The issue at stake here was clearly more important than the profile of any one organisation.

For me, this outlook is one of the key achievements of the SMC. Collaborative working runs through the SMC like "Brighton" through a stick of rock. It has brought some of the unlikeliest bedfellows together on shared panels to give journalists the best information out there. It gives them a neutral platform that allows them to get to the heart of some really contentious issues. The SMC's contribution has drastically improved the quality and positioning of the country's science media coverage.

On the HFE bill they facilitated a way of working that pulled competing charities and institutions together, providing the voices of scientific experts, patients, and eminent figureheads who could paint the whole picture and enable the public to make up their own minds about the science.

As for the wine-fuelled brainstorm… the eventually successful passage of the bill through Parliament gave us ample cause to celebrate.

Fergus Walsh

I have used quite a few visual props over the years to illustrate complex stories, but none weirder than a pot of cow ovaries, fresh from the slaughterhouse.

It was November 2006, and I was in Newcastle with BBC medical producer Rachael Buchanan to report on the work of Dr Lyle Armstrong of the University of Newcastle's Institute of Human Genetics.

The occasion was one of several key moments in the media coverage of the hybrid embryos debate. Those ovaries helped me to explain what the scientists wanted to do, and why. Human eggs for research were in desperately short supply - yet here was a limitless source of animal eggs on which they could do embryonic stem cell research.

Pretty much everyone I spoke to – even many of the scientists – had an instinctive yuck response to the idea of fertilising a cow's egg with human sperm. Digging my hand into the pot of ovaries I felt a good deal of sympathy with this view. But once the science was carefully explained, most people recognised that the aim was to advance research and eventually to treat disease.

A month later, in December 2006, the government announced - in response, it said, to "public unease" - that it would ban the research. And so a major ethical and scientific controversy got underway.

The Science Media Centre played a crucial and influential role during the hybrid embryo debate. It encouraged and cajoled scientists to step forward and express a view, and do it in language which non-scientists could understand.

I've been around long enough to remember a time when it was difficult to get scientists to leave their labs and explain their own work, let alone address wider areas of controversy.

With the hybrid embryo debate the SMC was at the heart of coordinating responses, and had been organising briefings since August 2005. Back then the research was so novel that scientists couldn't agree even on what to call the resulting embryos. We used the term "chimeras", and maybe even "cybrids", but eventually opted for hybrid embryos.

This was a story that developed over a number of years. During that time most of the reporting was done by specialist correspondents who had a reasonable grasp of the science. Even the shock headlines were often followed by balanced reports.

I remember a Sun headline "Docs to create mootant cells" with a helpful accompanying picture of Simon COW-ell, a man with a cow's head. The copy went on to explain that the embryos were 99.9 percent animal and would be destroyed after a few days to recover their stem cells.


You are wrong on embryo Bill, Catholic scientist tells Church

The Times

The Medical Research Council, the Association of Medical Research Charities, the Wellcome Trust and the Academy of Medical Sciences all gave their backing to the research, as did several Nobel laureates. We reflected this, while also reporting the opposition of the Catholic Church and some campaign groups.

It is not my role to take sides in a debate. It is my job to explain complex research and put it into context. I also have to make it clear when an issue has overwhelming support within the scientific community.

The SMC continues to encourage scientists to find their voice and help journalists to explain their work.

> *"The SMC is tremendously useful to me, not just for the briefings it organises on current issues - often in a very timely manner - but also because of the help I seek and get for stories I am personally interested in. Its staff will go to a lot of trouble to find scientists who not only have the answers but also can explain complex issues to me in a comprehensible and reportable way. I am certain I get access to the experts I need more quickly and easily because of their intervention. I am a big fan."*
>
> Sarah Boseley, Health Editor, Guardian

Threats of persecution

There are still many illnesses in which the cause is unknown or disputed - and this usually acts as a spur to further research aimed at achieving a more complete understanding. But there are a handful of disorders in which some patients become convinced that they already know the cause: so deeply convinced that alternative explanations are seen not merely as false but as put forward with malicious intent. Researchers who are investigating or merely discussing these alternatives, they believe, must at all costs be silenced. And "all costs", in this context, can mean taking action against them as individuals.

Dr Esther Crawley is a senior lecturer at the University of Bristol and a consultant paediatrician with a special interest in chronic fatigue syndrome/myalgic encephalopathy (CFS/ME). She's based at the Royal National Hospital for Rheumatic Diseases in Bath where she runs a clinical service for children. CFS/ME is one of those illnesses plagued by violently to irrational prejudices about cause and cure. Here Dr Crawley describes her predicament, and how she overcame it with the help of the SMC and the science reporter for BBC Radio 4's Today programme, **Tom Feilden**

Dr Esther Crawley

For years we had felt, I think, like victims. I was quite new to it all but even I had started to wonder whether I should give up. I was doing research that children and families wanted: investigating treatments for CFS/ME; trying to find how common it was in children; and exploring possible risk factors. Yet I was being subjected to an unrelenting attack from a minority of patients, none of whom I had ever met.

It had started with emails, letters and phone calls. Some were benign; they merely suggested I change research projects. Some were more malevolent. Some were threatening. I switched phone numbers, filed the letters and the emails and talked to the police. Then the attack became a little more co-ordinated. There were frequent and repetitive Freedom of Information (FOI) requests. A scan of blogs quickly showed where these had come from.

This was followed swiftly by complaints to the National Research Ethics Service and the General Medical Council. The complaints again looked identical, were based on defamatory allegations and were clearly part of a co-ordinated attack. The allegations of affairs, money making and conspiracy made my life seem much more interesting than it really was (or is). The Bristol University authorities were shocked but supportive. The allegations made my husband laugh.

BBC Radio 4, Today programme.

Around this time, I started to talk to the SMC about why they were finding it hard to work with people in this field. This, I learned, was one of a handful of areas in which researchers did not engage with the SMC out of a fear of being persecuted.

The damaging consequences of this reluctance were widespread. Nationally we had developed a culture of not talking about CFS/ME research, not engaging in studies with the potential to cause problems, and not commenting on other peoples' research. Journalists that dared to report or discuss CFS/ME were inundated with complaints, and many refused to write about it again. Maybe it *was* time to do something different.

The SMC organised a meeting so we could discuss what to do to protect researchers. Those who had been subject to abuse met with press officers, representatives from the GMC and, importantly, police who had dealt with the animal rights campaign. This transformed my view of what had been going on. I had thought those attacking us were "activists"; the police explained they were "extremists".

The tactics of using threats and abuse, and then trying to prevent research using FOIs and reviews, had all been seen before. We discussed whether somebody at the top of one of the leading charities might be behind much of it, relying on others with a lower profile to take the abusive actions. We were told that we needed to make better use of the law and consider using the press in our favour - as had researchers harried by animal rights extremists. "Let the public know what you are trying to do and what is happening to you," we were told. "Let the public decide."

A few weeks later the SMC emailed to ask whether any of us would be interested in talking publicly about what had happened. There was a debate among those who had been harassed over whether it was the right thing to do. The arguments against were that it would give more air space to those causing the abuse (the BBC traditionally reports both sides), and might end up doing as much harm as good. Personally I felt I had nothing to lose. I also felt that the children and the families for whom I was doing research deserved to know what was happening.

The SMC suggested that we talk to the BBC's science reporter Tom Feilden. It is hard to trust again when you've been hurt, but the SMC was insistent that he was one "of the best". They would trust him with anything, they said. He was a fair and responsible reporter. Tom visited for about an hour, listened to the research we were doing and recorded an interview. The piece was broadcast on the Today programme, and the response was unbelievable.

I took part in quite a few interviews that day, and have done since. I was also inundated with letters, emails and phone calls from patients with CFS/ME all over the world asking me to continue and not "give up". The malicious, they pointed out, are in a minority.

The abuse has stopped completely. I never read the activists' blogs, but friends who did told me that they claimed to be "confused" and "upset" - possibly because their role had been switched from victim to abuser. "We never thought we were doing any harm..."

> *"The Science Media Centre is a most extraordinary thing: it is highly valued by scientists and journalists alike. It somehow allows the realities and uncertainties of research to be communicated in even the most controversial of topics while fitting in with the needs of the media machine. Working with the Science Media Centre is always positive and comes with the added benefit that you know science correspondents will always sit up and take note of anything coming from the SMC!."*
>
> Jonathan Wood, Press Officer, University of Oxford

Tom Feilden

Although I knew that chronic fatigue syndrome was a controversial illness that provoked strong opinions, I wasn't aware that the health care professionals and scientific researchers working on the problem were the ones at the eye of the storm. Nor was I prepared for the level of vitriolic abuse or the campaign of intimidation that was being waged against them.

The original idea for the story came from my editor, Ceri Thomas. At an SMC meeting he'd heard something about doctors being targeted at conferences and on the internet, and thought it might be worth looking into. I contacted the Centre. It was clear from the reaction to my call that we had a big story.

Yes, they did know about it and, yes, it was a serious problem. But the scientists and medics being targeted were worried about what might happen if they talked to the media. If they spoke out, wouldn't that draw more attention to them, inviting more abuse to be heaped on their shoulders, and exacerbating the problem? Also, weren't the media just interested in a good punch up? On the other hand there was a clear understanding at the SMC that this was an important issue that needed to be aired. Could I leave it with them - at least for a while?

Reluctantly I agreed. But I set about researching the issue on the internet. At its heart seemed to be the classification of CFS as a psychiatric condition. The assumption underpinning much of the most vociferous comment from a small cabal of campaigners seemed to be that this amounted to an attempt to dismiss sufferers as either mad or malingerers. The real cause was an, as yet, undiscovered virus, and anyone who demurred was involved in an elaborate conspiracy.

Armed with more information, and the names of some of the doctors and academics that had popped up on websites and in internet chat rooms, I went back to the SMC.

It was clear that they had been busy too, and had come up with a number of researchers who were willing to speak out. Did I want to go to the Centre for Child and Adolescent Health in Bristol and meet Esther Crawley?

As well as offering clinical treatments for CFS sufferers, Dr Crawley is involved in research into the causes of the condition and its socio-economic impact. She's a well respected academic working in a field crying out for further analysis, and one whose results are regularly published in the peer reviewed scientific literature.

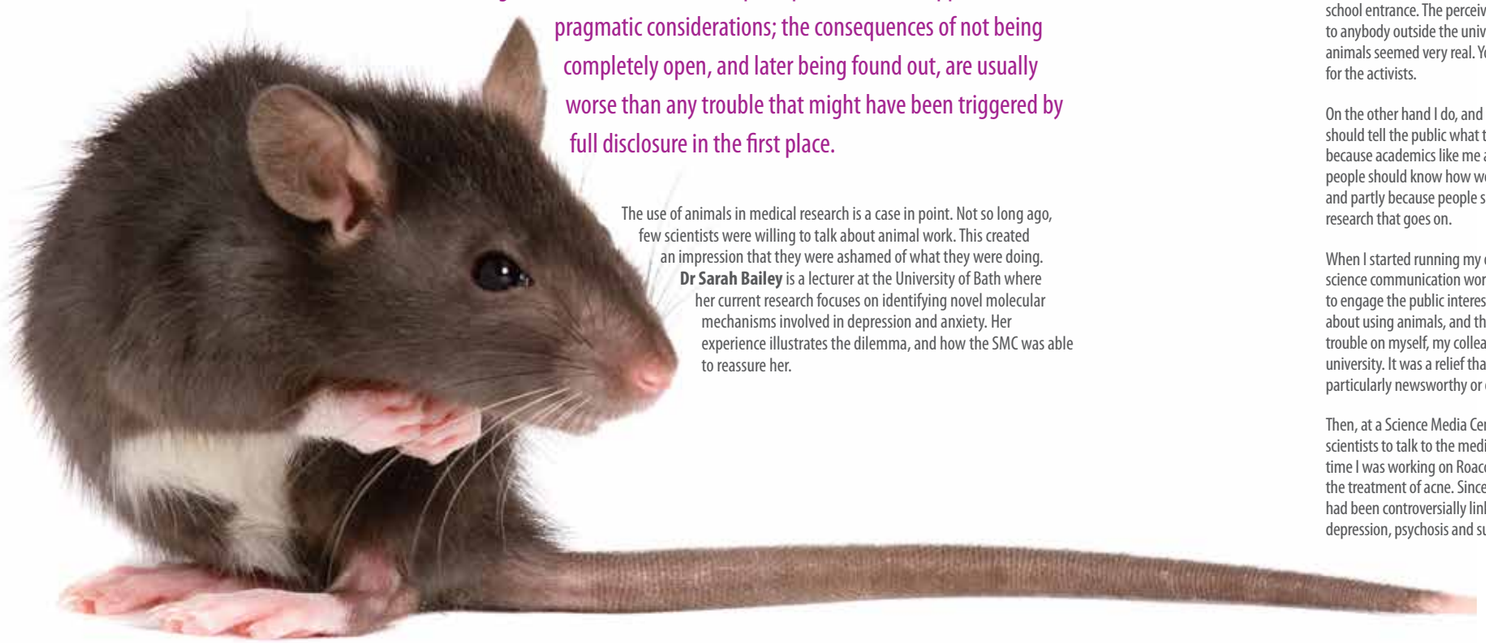
But it was when she got involved in a study to assess the efficacy of one particular treatment, a therapy known as the lightning process, that the trouble started. Vilified on internet websites Dr Crawley was subjected to a vicious email hate campaign, and was also the subject of a series of formal complaints alleging both personal and professional misconduct.

None of the complaints - to the University, the ethics committees overseeing her research, or the GMC - was upheld, but the campaign did cause Esther Crawley to question whether it was worth continuing her work on CFS. After all, there are plenty of other important areas of medical research that desperately need to be addressed and don't attract this level of abuse and intimidation.

We could, and would, have run the story without the help of the SMC. But it would have been without the personal insights or reflections of those at the sharp end of the controversy. It was the SMC that had persuaded, supported and prepared the scientists to speak out on Today. Without this we would have been on the outside looking in, and the story would have been the lesser for it.

Open about animals

From the outset the SMC has banged the drum for openness. It has emphasised the importance of giving the public an honest account of new research findings and how they have been discovered, even if those findings and methods are potentially controversial. The underlying principle is clear enough: honesty is an essential ingredient of science. But that principle finds close support in more pragmatic considerations; the consequences of not being completely open, and later being found out, are usually worse than any trouble that might have been triggered by full disclosure in the first place.



The use of animals in medical research is a case in point. Not so long ago, few scientists were willing to talk about animal work. This created an impression that they were ashamed of what they were doing. **Dr Sarah Bailey** is a lecturer at the University of Bath where her current research focuses on identifying novel molecular mechanisms involved in depression and anxiety. Her experience illustrates the dilemma, and how the SMC was able to reassure her.

"The Science Media Centre is an absolutely critical link in the communications chain between the British Pharmacological Society and the public on issues involving the safe and effective development and delivery of medicines. Over many years of collaboration, Fiona and her gifted team of press officers have enabled us to proactively state the case for pharmacology through their unrivalled access to the country's leading science writers, who share with our scientists a profound trust in the SMC's honesty, integrity and vision."

Jonathan Brüün, Chief Executive, British Pharmacological Society

Dr Sarah Bailey

My research has always involved animals. As an undergraduate, using isolated tissue in pharmacology laboratory classes, I was already aware that using animals for research was something you simply did not talk about in public.

In the 1990s, following the bombing of Bristol University property and of individual animal researchers, thoughts of such outrages were still fresh in peoples' minds. On my first day as a postdoctoral researcher at the university, animal rights activists were hanging effigies of scientists from the medical school entrance. The perceived threat from mentioning to anybody outside the university that you worked with animals seemed very real. You might be the next target for the activists.

On the other hand I do, and did, believe that scientists should tell the public what they are doing. This is partly because academics like me are often publicly funded and people should know how we're spending their money, and partly because people should be aware of all the great research that goes on.

When I started running my own lab I went to a number of science communication workshops. But if my work were to engage the public interest I knew I would have to talk about using animals, and therefore bring down a world of trouble on myself, my colleagues, my department and my university. It was a relief that I never felt my research was particularly newsworthy or earth shattering.

Then, at a Science Media Centre event to encourage scientists to talk to the media, I met Fiona Fox. At the time I was working on Roaccutane, a drug prescribed for the treatment of acne. Since its introduction Roaccutane had been controversially linked to an increased risk of depression, psychosis and suicidal behaviours, particularly in adolescents. We developed the first animal model to show that chronic treatment with Roaccutane did indeed increase depression-like behaviour in young adult mice. This was important; it offered a new starting point to try understanding how Roaccutane might be causing depression in humans.

We were just about to publish this work, and I asked Fiona whether she thought our research would interest the media. Lots of questions followed. How could I tell the story without mentioning animal research? Or do so without it being picked up and used by people interested in bashing big pharmaceutical companies? Or by special interest groups extrapolating our small study to represent something more than it was? Or causing such a panic among Roaccutane users that they stopped taking their medication? I had plenty of anxieties!

Fiona assured me that the question of animal research at least was not an issue. Journalists would not challenge me about the rights and wrongs of using animals; they would be interested only in the research itself. She advised me to let the SMC hold a briefing with invited journalists where I could tell the story as I hoped it would be reported. That way I would have a chance to influence the agenda, and reduce the risk of my anxieties becoming realities.

After several email exchanges and phone calls I agreed to do the briefing in London. I had never previously done any print, radio or TV work, but was guided by my university press office and supported by staff at the Centre. The next day was a total whirlwind. It was the most exhilarating 24 hours of my career: exciting and terrifying in equal measure.

All the major broadsheets reported our research, and told the story in a measured way without any extrapolation or sensationalist anti-pharma headlines. I did national and local radio interviews, and telephone interviews with journalists in New Zealand, Rio de Janeiro and Brussels. In the evening a car took me to BBC Bristol to do a BBC News 24 item. It was all a million miles away from my usual day in the office.

Most important for me, there were no negative comments or queries about using animals in my research in any of the newspaper reports. In the internet age you are accessible to the public as soon as you put your head above the parapet; I feared my inbox would be full of messages from animal rights activists. But that did not happen.

One positive outcome - a surprise to me - was to receive many emails and phone calls from people who'd themselves been on Roaccutane saying how fantastic it was that we were doing our research. They wanted to tell me their stories of being on the drug. It left me with the feeling that what we were doing was not only worthwhile, but might eventually make a difference to people. That kind of external validation doesn't happen often in a scientific career.

I am now a total convert. I will happily talk about my research to anybody and everybody who is willing to listen. I have also started working with the organisation Understanding Animal Research, going into schools to talk about the use of animals in laboratories.

In the past decade the political climate surrounding the use of animals has changed. Science reporting now features the research rather than reruns of the debate about the rights and wrongs of animals in the lab.

Next time I complete a piece of newsworthy research, I'll certainly be on the phone to the SMC.

Financial Times

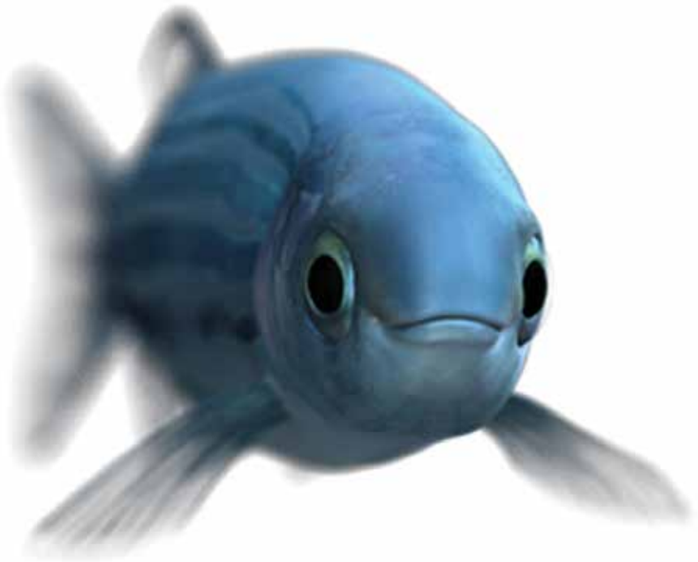


Image courtesy of British Heart Foundation

Animals: the European dimension

While the SMC is sometimes described as a PR outfit for science, this belies the fact that the Centre often persuades scientists to speak out on issues that some would rather keep hidden. When scientists decided to use the Better Regulation process and a new European Directive on Animal research to argue for the reduction of some of the more onerous regulations hampering medical research, most felt this should be done behind closed doors. Some feared that animal rights activists would misrepresent this as scientists demanding the deregulation of animal research. But the SMC was having none of it, arguing to all concerned that it was far better to proactively brief science journalists on how over-regulation was harming medical science and even the animals themselves, rather than run the risk of the media 'finding out' that scientists were lobbying for change in secret.

Here **Prof Clive Page,** chair of the Society of Biology's Animal Science Group and professor of pharmacology at King's College London, describes why, despite annoying some in science, he stands by his decision to be open with the media on this issue.

Professor Clive Page

The use of animals in research remains controversial; but with the help of the Science Media Centre it is an area of science far better understood than it was ten years ago. We have moved from a position in which the media wanted only to report "bad" stories about cruel scientists inflicting unnecessary suffering on animals to the regular reporting of stories about valuable advances relying on animal experimentation.

That this has come about is due in part to the outstanding efforts of Fiona Fox and her colleagues, and their regular press briefings. These provide a forum for constructive dialogue between scientists and the media about the continuing necessity for animal work. As the chairman of the Society of Biology's Animal Science Group (ASG), I invited Fiona to join us (a decision which I believe at the time raised eyebrows in some quarters). This allowed her to hear first hand about some of the problems experienced by UK scientists who use animals in their research.

One such appeared around the time that Fiona joined the ASG, and concerned the impending arrival of the EU Directive on animal work and the changes it might bring to scientists' working practices. In the UK we rightly pride ourselves on the high standards we maintain in all aspects of animal welfare, and on the legal framework covering animal experimentation. We were determined to ensure that the new EU legislation did not weaken it.

However, the UK bioscience community was also concerned about the possible over-regulation of animal experimentation, and the risk of this increasing further with the January 2013 incorporation of the new EU Directive into UK law. From discussions with Fiona it became clear that the media were largely unaware that this new EU legislation was coming down the track, and that if journalists learned about it only from animal rights groups, their perception might be that scientists' main concern was to loosen regulatory control.

This was absolutely not the case. So as ASG chairman I took the decision to work with Fiona to organise a press briefing about our concerns over the arrival of the EU Directive. I wanted journalists to understand how we wished to use the introduction of this legislation to reduce unnecessary regulatory bureaucracy, little of which has any impact on animal welfare.

The SMC organised a briefing in which three of us could discuss these issues. This generated extensive and positive coverage. But, somewhat to our surprise, these articles were not universally greeted as positive by our scientific peers. In fact I was asked to justify my decision to hold the briefing.

That said, looking back on the event, Fiona was absolutely correct in encouraging us to alert the press about this Directive before it became a news story via some other route. As we approach January 2013, and the imminent arrival of this legislation, the groundwork undertaken with the media has put us in a much better position to explain our viewpoint than would otherwise have been the case.

The SMC has also helped the scientific community in other ways, such as its annual briefings on the Home Office's statistical returns on the numbers of animals used for scientific research. Other helpful briefings have covered difficult issues such as animal suffering and, more recently, the problems of transporting animals into the country for use in medical research.

I strongly believe that without the efforts of the SMC, in particular the leadership shown by Fiona, scientists using animals would not enjoy their current level of support within the media. In turn, the increasing number of scientists willing to talk to the media about animal experimentation illustrates their trust. But much remains to be done, particularly in encouraging more university press offices to openly acknowledge the importance of the animal work in their institutions.


Mail Online

Potential cures for Alzheimer's and cancer threatened by EU red tape

Mail Online

And we must avoid future complacency. The importance of remaining proactive was recently underlined in the title of an article by Matthew Parris in the Spectator: "A moderate case for animal rights fanatics".

Happy tenth birthday SMC. I fear we will continue to need your help in the coming decade.

> ***"The Science Media Centre is now a central part of Britain's knowledge landscape and economy. It links researchers, media, the public and policy makers, providing reliable information and clear-headed advice to all."***
>
> Professor Jules Pretty OBE, Deputy Vice-Chancellor, University of Essex

Turning Greenland white again

Some of the most difficult problems the SMC has to deal with are the consequence of groups or individuals bent on wilfully frustrating science or questioning the actions and motives of its practitioners. But sometimes an honest mistake can be enough to spawn disinformation and misunderstanding.

Errors, of course, happen all the time, and in most cases do no great harm. But if the subject of the error has a direct bearing on the future of climate change, expect fireworks. **Dr Jeff Kargel** of the School of Earth and Environmental Sciences at the University of Arizona recounts what happened when a respected publisher launched a new edition of an even more respected atlas. **Tom Sheldon** of the SMC goes on to put the event in a broader context.

Dr Jeff Kargel

On September 15, 2011, the publisher HarperCollins (HC) kicked off a marketing campaign for the 13th Edition of The Times Comprehensive Atlas of the World. The company advertised it with a statement about the alarmingly high melting rate of Greenland's ice. Much of the microcontinent's permanent glacial ice cover had melted, they said, thus "turning Greenland green" in barely more than a decade.

Its statement elaborated: "For the first time, the new edition of The Times Comprehensive Atlas of the World… has had to erase 15% of Greenland's once permanent ice cover - turning an area the size of the United Kingdom and Ireland 'green' and ice free… Cartographers of the atlas have sourced the latest evidence and referred to detailed maps and records to confirm that in the last 12 years, 15% of the permanent ice cover (around 300,000 sq km) of Greenland, the world's largest island, has melted away.

"This is concrete evidence of how climate change is altering the face of the planet forever – and doing so at an alarming and accelerating rate. Modelling predicts that Greenland could reach a tipping point in about 30 years, and after that little would prevent its ice cap from melting completely."

If true this would have been the most dramatic effect of climate change ever documented. However, the story was actually a huge (though accidental) exaggeration of a real retreat occurring less than one per cent as rapidly. HC ultimately admitted their error, apologised, and at great expense remedied it. They published a new map and made it available free through the internet and as an insert in every new atlas purchased.

To correct this blunder is not to say that Greenland's ice is not melting. In most places Greenland is losing ice –just not as fast as originally claimed by HC. Human activity is disrupting 10,000 years of comparative climatic and biological stability. Serious as this is, it does not help when exaggerations confuse the message that scientists are trying to deliver. Exaggerations of the truth are as bad as unscientific denialism of climate change. Both mislead the public, and neither helps in formulating cost-effective solutions to climate change.


Daily Mail

Exposed: How Times Atlas exaggerated global warming

1999

2011

Extent of ice-cap

GREENLAND

GREENLAND

How the Times Atlas showed a dramatic contraction of the Greenland ice shelf between 1999 and 2011. In fact the

Areas of greatest change

Dr Poul Christoffersen: 'There is no support for this claim'

A detailed history of HC's mistake and its courageous and helpful response is told elsewhere, including in The Cryosphere, and in the blog of the International Glaciological Society. Here I provide a brief personal account, and outline the role played by the Science Media Centre.

Within hours of HC's initial press release the story entered the UK mainstream news media. Colleagues in glaciology relayed the news to one another, and we instantly grasped the errant nature of the claim. Minute by minute, coverage was extending to more news outlets, and through the blogosphere. I alerted members of GLIMS (Global Land Ice Measurements from Space), which had been involved in Greenland research, and appealed to them to take swift action.

This was a misinformation emergency. Having gone viral the Greenland story had the potential to undermine the public understanding of climate change. Alarmists and climate change denialists would soon be exploiting it to attack public confidence in climate change science.

Via Cryolist, an international email list by which those who study ice and snow keep in touch, I appealed for Greenland experts to stir themselves. The response was a swift, self-organising current of activity. In former times the mistake might have spurred only an eye roll and groan of disbelief. But, these are not former times. Unless guided by scientists the public may find it hard to distinguish between an atlas and a scientific book; between cartographic airbrushing and scientific observation; between a book publisher's mistake and a scientific error.

Glaciologists at Cambridge's Scott Polar Research Institute (SPRI) wrote to the Times drawing attention to the error. "Recent satellite images of Greenland," they said, "make it clear that there are in fact still numerous glaciers and permanent ice cover where the new Times Atlas shows ice-free conditions and the emergence of new lands." They added, "We do not disagree with the statement that climate is changing and that the Greenland Ice Sheet is affected by this. It is, however, crucial to report climate change and its impact accurately and to back bold statements with concrete and correct evidence."

The SMC tuned in to the developing crisis and, crucially, helped channel puzzled journalists to the scientists who could explain what had happened. With the scientific community's active response and the SMC as an intermediary, the story shifted within 60 hours from an erroneous 15 per cent disappearance of ice to the scientists' rejection of a false claim by a publisher. A few blogs tried to play the story as a scientific error or a real controversy, but most - along with the mainstream media - got it right.

Addressing the Cryolist and SPRI on Saturday, Sept 17, I tried to captured the sense of a turning tide: "This cartographic fiasco and sad journalistic event is a dark cloud made a little smaller, but there is the silver lining: everybody with striking results, especially new results, should push it to the media and use the Scott Polar letter as a hook. Greenland itself is beautiful, the data are exquisite, the science is sound, the changes are profound, the meaning of it is important to people; and honest journalists…will be wanting answers to the question of what IS happening."

There were lessons to be learned from that week. Foremost for me came from Guardian reporter John Vidal who broke the story, relying on HC's first press release. He was stung by my initial criticism, wrongly directed at the Guardian as well as HC. "It's actually quite hard to know what to do in these circumstances," he said. "We are not academically equipped to sort, sift and judge all the decisions made by the Times's cartographers… I am more than happy to write another piece saying that groups of eminent cryologists are in profound disagreement with the Times atlas … But in this case please don't blame the messenger!" It was a fair point, and one I shall remember.

Over the week following the start of the crisis, numerous Greenland specialists, including some of the biggest names in the field, came forward with maps and data to show what is really happening. Tom Sheldon and others from the SMC became engaged. Sheldon's blogging and press activity was quickly picked up by some of the largest media outfits. This was arguably the single most fruitful consequence of the scientific response to the affair.

The Science Media Centre works; it should be replicated in the US and in other countries.

Tom Sheldon

On September 16, 2011 we at the SMC were alerted to a flurry of activity on the Cryolist discussion group by friends who are setting up an SMC in Norway. Glaciologists around the world, it seemed, were getting steamed up about the Times Atlas "turning Greenland green" because of the alleged effects of climate change. At the SMC we are familiar with bloggers and commentators bleating about "the climate hoax". But Cryolist is no den of deniers; when this group starts to complain, you listen.

In one way the incident was straightforward. A book had been published; an accompanying press release trumpeted its arrival; there were some errors. At the SMC we see this stuff all the time, and it's easily dealt with. So why did this feel different? And why did we get criticism for helping to publicise the error?

Most people who reject the theory of global warming do so on ideological grounds, not scientific ones. They cherry pick the evidence to support their cause, or twist it to suit their conclusions. Science, by contrast, is neutral and not to be used selectively for partisan reasons. The facts are allowed to speak for themselves - and in this case they showed that climate change had not caused the melting indicated by the new maps.

Some scientists were nervous about issuing a conspicuous correction. The noisier climate sceptics might seize the opportunity to denounce it as another climate lie – which the scientists themselves might appear to be accepting. In the wake of Himalayagate and Amazongate we might end up with Greenlandgate.

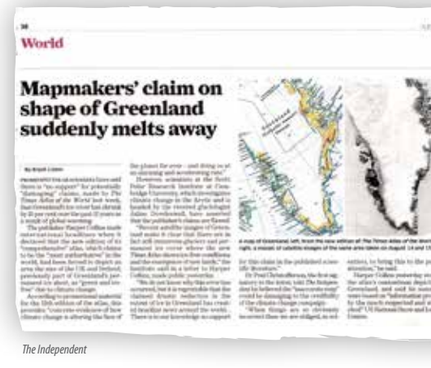
But the alternative would have been for scientists to live in fear of the sceptics, keeping quiet about errors in case they did "damage to the message". This would be wrong in principle, regardless of who might seek to exploit the process of correction. It would also be a bad move for climate science. Keeping quiet would be asking for headlines proclaiming "more dodgy data found in new climate shame". In science there is no place for the "good lie".

In the end, the press coverage turned out to be close to the truth. "The publishers of the world's most prestigious atlas have been caught out by Cambridge scientists exaggerating the effects of climate change," said the Mail. Quotes issued by the SMC appeared throughout the media. The Telegraph quoted glaciologist Graham Cogley as saying, "Climate change is real, and Greenland ice cover is shrinking. But the claims here are simply not backed up by science."

The sceptic movement has damaged climate science by spinning evidence to its own ends. Ironically, the deep green movement has done similar damage by overclaiming for the effects of climate change with messages that prioritise emotion and ideology over fact. It didn't surprise me when one senior climate scientist told me that he hates being seen as part of the climate movement. "I'm not part of any movement," he complained. "I just report what I find. And what I find is that the world is warming, and only CO2 can explain it."

Science is self-correcting. It should also be above politically-motivated bickering or "messaging". If we want the public to respect science, scientists must be honest and neutral. This stance can be difficult to maintain when caught between vitriolic barracking on one side and a politicised green lobby on the other. In this case, by acting quickly and honestly, scientists have done climate science a great service. The SMC is proud to have played a part in the process.

> *"We love working with the SMC – they are unsurpassed as a conduit between our expert engineers and busy journalists who need answers fast. Their briefings also give us a great platform to talk about engineering issues in a focused and newsworthy way."*
>
> Jane Sutton, Communications Manager, Royal Academy of Engineering



World

Mapmakers' claim on shape of Greenland suddenly melts away

The Independent


Daily Mail

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Scientists in revolt over drug adviser's sacking

Cannabis: Has set scientists at war with ministers

MAN IN THE EYE OF THE STORM

PROFESSOR David Nutt specialises in

European College of Neuropsy-

two sons and two daughters between 18 and 26 – had taken drugs'.
He told the Mail on Sunday sure my children have tried c
In fact, some have told me

A friend in need. . .

Neuropsychopharmacologist **Prof David Nutt** of Imperial College London was always the sort of person likely to be a friend of the SMC. A great scientist and media savvy, he was chair of the Advisory Council on the Misuse of Drugs, a position he occupied on account of the reputation he'd established researching, among other things, illicit drugs.

This already firm friendship was further intensified in October 2009 when he was sacked from the Council's chairmanship. For the SMC this was not just another story of science in the headlines. He was sacked because research published in a journal found its way into media headlines: research which happened to conflict with government policy.

As he makes clear, **Prof David Nutt** did not go quietly. This spirited academic stood up for the right of all scientists who advise government to speak out in the media and maintain their independence: a principle important to all in both science and the media.

"The SMC offers invaluable, balanced and independent advice and support, to ensure our research is disseminated responsibly and accurately to and by the media. The SMC is particularly adept at facing controversial issues head on and working with scientists and the media to steer a clear path through these issues. I have worked with the SMC for five years and consider it an essential partner in raising awareness of mental health research."

Louise Pratt, Public Relations and Communications Manager, Institute of Psychiatry, King's College London

Professor David Nutt

It was about 3.30 pm on Friday October 29, 2009 when I received a message from the secretariat of the Home Office's Advisory Council on the Misuse of Drugs (ACMD) asking me if I could access my emails.

The ACMD is a statutory body responsible under the Misuse of Drugs Act (1971) for assessing the harms of drugs, and advising the Home Secretary accordingly. I had been its chair for about a year and already had a run in with the previous Home Secretary, Jacqui Smith, over my scientific paper comparing the harms of MDMA (ecstasy) with those of a fictitious drug equasy (equine addiction syndrome – i.e. addiction to horse riding).

When the email came through I was at an MRC meeting on addiction, and just about to give a talk. The email itself, with a letter from the new Home Secretary Alan Johnson, asked me to resign because my positions on certain aspects of the drug laws were in opposition to government policy. I declined the invitation, pointing out that differences of opinion on the relative harms of drugs such as alcohol and cannabis were the subject of scientific debate and should be made public rather than submerged for the benefit of the Home Office. I was then told I had been sacked!

My first response was to contact the Science Media Centre and the BBC. Within an hour there were three TV crews in the central square of Imperial College, and news of my sacking was reverberating around the UK and beyond. The SMC immediately went into action, seeking reactions from the scientific community. This resulted in a large number of scientists writing in my support. These scientists, including former head of the MRC Professor Colin Blakemore, made repeated and vociferous protests to the Home Office, pointing out that the code of conduct for government scientific advisors had been badly breached.

Over the next few days I was in near constant contact by phone and email with the SMC. This gave me a great sense of being supported in a difficult and stressful time, as well as providing me with useful advice and guidance on my strategy.

The following week the SMC organised a press conference at which I was able to tell my side of the story. It was exceptionally well attended - standing room only - with three TV crews as well as journalists from all the major daily newspapers and the science press. With few exceptions the reporting was supportive. The Centre also hosted a gathering at which university media people could meet me and discuss how my experiences at the science-politics interface might be relevant to other such issues in their own institutions.

Eventually, along with other bodies such as Sense about Science, we managed to get the code of practice altered to minimise (thought sadly not fully eliminate) the likelihood of another sacking like mine.

The Centre also provided me with another press conference a few weeks later to report the founding of a new Independent Scientific Committee on Drugs (ISCD) to provide properly independent evaluations of the harms of all recreational drugs, including alcohol and tobacco. The ISCD has proved very effective, and we have since produced a number of reports publicised by the SMC through its now legendary press conferences.

In fact the SMC has been influential in my life for several other reasons. Before the sacking, and my first contact with the organisation, there was a press conference on depression at which I supported Helen Mayberg, a neuroscientist from the USA who had performed the first study showing that deep brain stimulation (DBS) was effective in depression.

This was my first meeting with Helen, and one which led eventually to my exploring an alternative to DBS in depression: the psychedelic drug psilocybin. This produces the same regional brain changes as DBS stimulation of the part of the organ known as the anterior cingulate cortex.

Another press conference, held earlier this year, saw the launch of my new book for the general public on the science of drugs, Drugs: without the hot air. It's testimony to the credibility of the SMC that even newspapers antipathetic to me, such as the Mail and Sun, still send journalists to SMC conferences at which I am speaking. And previously the SMC provided high quality coverage of our 2010 Lancet report on the relative harms of drugs, in which we used a newly developed 16-point harm scale to show that the most harmful drug in the UK today is alcohol.

It will be obvious that I am a great fan of the SMC, a feeling that seems to be shared by all who have come into contact with it. The European College of Neuropsychopharmacology (ECNP) is particularly enthused about the help SMC has given in promoting their reports on the burden of brain disorders in Europe and the results of their "Neuroscience in Danger" summit.

For these reasons, this year has seen the SMC winning the first ECNP media prize. It will be handed over at the organisation's annual congress in Vienna. A reward richly deserved.


THE INDEPENDENT
FREE TODAY
Brett Anderson compilation album
Sacked – for telling the truth about drugs
The Independent

The timeliness of much science reporting is, at root, quite arbitrary. This or that development is reported on this or that day because that's when the research is published by Nature or the Lancet or whichever journal it happens to be. But in other cases circumstances dictate the timing. Volcanoes, earthquakes, accidents at nuclear power plants and other events with a science element just happen when they happen. They follow a timetable of their own. Events unfold unpredictably and at varying rates.

Outbreaks of infectious disease fall into this category. Some of them may be anticipated for months or even years - but no-one can predict which month or which year. Pandemic flu is a case in point. And the public mood can switch rapidly between unjustified nervousness, and equally unjustified indifference.

As director of the Centre for Respiratory Infection at the National Heart and Lung Institute of Imperial College London, **Prof Peter Openshaw** has had firsthand experience of dealing with media interest in pandemics.

News about flu

Professor Peter Openshaw

Most journalists and many scientists are gregarious people. We like talking to one another, and we like telling people about our work. And in the latter case we need to. Scientists depend on the public for funds, and virtually all the information the public gets about science arrives via the media. News outlets are not only the best tool we have for communicating our knowledge, ideas and enthusiasm, but also help to let our peers and funders know what we are doing. But from experience I know that public engagement can be a roller coaster.

I learned this around ten years ago following the disastrous failure of a promising and scientifically novel flu vaccine that had been tested in Swiss volunteers in 2000-2001. The vaccine, given as a nose spray, worked well in pre-clinical testing and in small scale trials. However, when tested more widely a few individuals developed a facial paralysis or Bell's palsy, characterised by a drooping of the eyelid and lip on the affected side and difficulty in eating and speaking.

One of the unfortunate victims was a local journalist. He catalogued the day-to-day progress of this personal disaster in his newspaper column. A promising, and expensive vaccine programme was terminated - permanently.

> *What an incredible team. With a lot of hard work, the SMC has built a bridge between the scientific community and journalists. It is a gateway to informed opinion on the stories that matter. Their rapid response service is first-class.*
>
> Emma Little, Health and Science Editor, The Sun

As these events were unfolding I attended a conference in Berne at which a journalist had been asked to explain the differences between what he and a scientist would be looking for. He said that he wants a straightforward story with appeal to the readers and a simple message of right or wrong. In the case of a vaccine it's either safe or it's a disaster. Scientists, on the other hand, know that things are not always just "true" or "untrue".

The journalist, Clive Cookson, spoke of the remarkable increase in stories about vaccines. Between 1997 and 2000 the annual number rose from 800 to 1,400 and 39 per cent of the stories were about vaccine safety. These go down well with the public, particularly when supported by strong opinion, quotable expert comments, and personal stories. This toxic brew worked wonderfully during, for example, the MMR vaccine and autism saga.

This is the context in which the Science Media Centre emerged. Our various institutions have their own press offices, but a central clearing house that can put scientists with exactly the right expertise in touch with journalists working to tight deadlines is a valuable addition that helps both parties.

The workings of the SMC are well illustrated in the way it co-ordinated the response to the 2009/10 swine flu pandemic. The news reports coming out of Mexico City in April and May 2009 were alarming. They described hospitals inundated with severely ill patients, often needing mechanical ventilation. Many people were dying, and it seemed only a matter of time before the disease would spread to Europe.

No one at that stage knew how bad swine flu was. Because none of the existing tests worked with swine flu there was no way of telling whether people had had an infection but recovered. New tests had to be developed and this would take several months.

Swine flu arrived in the UK in early May 2009. There was a surge in influenza cases seen by GPs, and also in patients needing hospital admission and intensive care. The spread declined rapidly following the summer closure of schools, but returned in the autumn.

During this second wave hospitals again filled with influenza patients. The number of relatively young people requiring intensive care mushroomed. Approximately one in five of the admitted patients needed it, and of these almost one third died. In the age group of 17 to 39 there was a 37-fold rise in admissions compared with an ordinary winter of seasonal flu. This was quite different from seasonal flu, which normally affects the old and the weak.

Throughout the pandemic the UK's Chief Medical Officer, Sir Liam Donaldson, held weekly press conferences to give authoritative and honest information to the public. In addition, the SMC performed a key role in providing journalists with contacts in the scientific community when they needed an independent voice or additional information. This reassured people that the Department of Health was following the best scientific advice, and helped to quash false rumours.

By the end of 2009 it was becoming clear that many people had been infected but had not suffered a serious illness. This was reassuring, and the message that we could all relax went out strongly – perhaps too strongly. The response of some sectors of the media was to accuse the government of having overreacted. The return of a really vicious influenza season in the winter of 2010/11 showed that such accusations were ill-founded. More patients died in this so-called third wave than during the two previous ones - in part perhaps because the pandemic arrangements had been stood down, and influenza management had reverted to the ordinary seasonal policy.

Through working with journalists during the swine flu pandemic, the avian flu scare and SARS, I learned a number of useful lessons. First, think carefully what you want to say, and stick to it. Say it clearly, and say it again. Answer questions honestly. People soon sense evasion.

Scientists should also aim to build mutual respect and understanding with journalists and with the public. They should put risks in perspective. They should say nothing that might lead to a sensational headline and cause panic. They should not be emotional or over-interpret emerging data.

They should also be available. Journalists often work to tight deadlines and need a comment within hours, not days. They want a simple story - but not oversimplified. News media need to entertain and engage, and there is nothing wrong in scientists helping them do this, as long as no truth is violated.

It has been a pleasure to have the professionalism of the SMC supporting me through some communication minefields. Few things generate more public excitement than the fear of a disease out of control, and there will be more such events in the future. Moderating public fear by providing accurate and timely information is a real art; there is more to science than just the facts.

For scientists with a gregarious personality, engaging with the media can be great fun. More seriously, to avoid trouble I recommend enlisting expert guidance.

Daily Mail

And finally,
a taste of one's own medicine

Edzard Ernst, Emeritus Professor at the University of Exeter, is widely known for his critical investigations into the oddly assorted bundle of therapies known as complimentary or alternative medicine. As he explains, having first viewed his relations with the media as a necessary evil, he came to realise that that they were, if anything, a necessity to confront evil. Instrumental in bringing about this change of heart was his contact with the SMC. Although he applauds its creation and its continued existence, he also suspects that one Important Personage may not share his admiration…

> *With 24 hour news, the SMC has now built a strong bridge between the scientific community and journalists, which is invaluable. Its emphasis on scientific evidence, the ability to get leading journalists linked to vetted technology experts, and assuring a balanced approach has been needed on many occasions, and when put to the test the SMC has delivered.*
>
> Mike Short, President, Institution of Engineering and Technology

Emeritus Professor Edzard Ernst

Academics are notorious for inhabiting a cosily protected place known as the ivory tower. After graduation we quickly learn to be cautious when communicating with outsiders, particularly with the press. There is little to be gained by talking openly to journalists, you're warned - and much to be lost. If you doubt this time-tested wisdom you'll be told horror stories of some poor chap losing his reputation or even his job after a newspaper dragged him through the mud. If such caution fails to turn you into a "media-phobe" it's concluded that you're incorrigibly reckless. Sooner or later, it's said, you will have to pay the price.

I may be exaggerating a little, but almost 20 years ago it was with roughly this mind-set that I became the chair of complementary medicine in the University of Exeter. This was the first such position anywhere, so the press were never far from my doorstep. "What a nuisance," I kept thinking as I tried to keep the perilous journalists at bay. This ivory tower strategy was, of course, as silly as it was doomed to fail. So, somewhat reluctantly yet with increasing frequency, I agreed to be interviewed about this or that alternative therapy. It was a burden that came with the job and just had to be endured, I concluded.

Some ten years into my Exeter post I met Fiona Fox at a conference where I was lecturing on dangerously misguided alternative practitioners who were instructing their patients to use "homeopathic vaccination" instead of effective immunisations. A study we had just conducted on this subject had prompted a complaint by homeopaths. Unbelievably, my university administration felt this was a good enough reason for conducting an investigation into my allegedly "unethical" research.

Apparently impressed by my determination to stem the tide of pseudo-science, Fiona invited me to give a presentation for journalists at the Science Media Centre. Sensing even more trouble, I was less than taken by her idea. What was the SMC anyway? Why did they want to get involved in my work? How could they possibly help me?

The answers to these questions not only changed my attitude towards communicating with the press, but also boosted the impact of my research. The SMC, I learned, provided a much-needed buffer between typically withdrawn scientists and often sensation-hungry journalists. Scientists can be almost autistically focussed on their subject; they are keen to test hypotheses, delighted to publish their results in inaccessible journals, and generally quite unfazed about what the public makes of their findings.

This attitude may be satisfactory for researchers investigating matters such as the sexual eccentricities of the Malayan pit viper. But for science that impacts more directly on society it seems antiquated and inadequate.

At the time, some of my research addressed the risks associated with alternative medicine, particularly indirect risks that are rarely visible: the product of groups such as the raving lunatics of the alternative "anti-vax" brigade or those self-appointed experts who happily promote bogus treatments to vulnerable patients. Once Fiona had explained the aims and actions of the Centre I realised its value to research of the kind I was doing. I needed the popular press to help me reach the general public. And to deal with the press I needed the guidance of experts who understood both the sensitivities of scientists and the ways of journalists.

What followed was the most fruitful co-operation outside the academic world I have ever experienced. Repeatedly (and even gladly) I gave presentations to invited journalists at the centre. The SMC advised me on numerous occasions and together we formulated several press releases about my research. Our work led to hundreds of newspaper articles and interviews in the UK and further afield which, in turn, informed the public and so minimised the harm from dangerous claims by proponents of pseudoscience.

Prince Charles, seemingly driven by odd beliefs rather than by rigorous science (he once admitted to his pride in being an "enemy of the Enlightenment"), takes a keen interest in alternative medicine. In 2005 he commissioned a report for health politicians on the cost-effectiveness of alternative medicine. It concluded that many millions of NHS pounds could be saved if GPs would replace conventional asthma treatments with homeopathy. To me, such advice seemed to come straight from the dark ages; and it had the potential to kill hundreds every year.

It was thanks to the SMC's skilful interventions that the report was discredited before harm ensued. The Times was alerted, I was interviewed by its then science editor Mark Henderson. He published his critical comments, and the Smallwood report thus remained blissfully inconsequential.

When I retired from my Exeter post Fiona asked me to summarise my two decades of research into alternative medicine for an invited audience of journalists. My presentation repeatedly mentioned that, "in alternative medicine, snake-oil salesmen are everywhere". As one of several examples I mentioned Prince Charles's Duchy Originals Detox Tincture and explained that this herbal mixture does certainly not eliminate toxins, as the word "detox" implied. At the end of my talk one journalist asked, "Do you believe that Prince Charles is a snake-oil salesman?"

I did not have long to reflect on this leading question. My answer had to be monosyllabic and to the point: "Yes." Most UK papers carried the story the next day, and the day after that. Many international ones did likewise.

As a self-declared enemy of the Enlightenment, Prince Charles can surely have no overwhelming enthusiasm for the Science Media Centre. Rational thinkers, however, should be pleased that this body exists. I for one am most grateful to Fiona and her staff for getting me out of the ivory tower, and for ensuring that our findings have become more widely available. This process, I hope, has reduced the incipient dangers of bogus health-claims.

From my perspective the Centre has made an important contribution to public health during the last ten years. Long may it continue!

Defining moments

2002

- Claims from maverick cloners
- First clones of xenotransplantation using pigs
- IVF mix-ups
- *Fields of Gold* broadcast
- First SMC briefing on vaccines and overloading

2003

- Government crackdown on animal rights extremism; Oxford animal labs
- Cloning claims by Zavos
- Avian flu
- Boxing Day tsunami in Indonesia
- Ian Wilmut gets cloning licence
- ACRE report on Farm Scale Evaluations
- First SMC briefing on endocrine disruptors (e.g. BPA)
- Grey goo - Prince Charles on nanotech

2004

- London bombings
- Buncefield oil disaster
- Dr Hwang Woo-Suk cloning controversy
- Climateprediction.net
- CJD tissuebank launched
- First smc briefing on chimeras and hybrids
- UK heatwaves
- Final results of GM Farm Scale Evaluations

2005

- Northwick park clinical trial disaster
- Avian flu arrives in the UK
- Alzheimers decision from NICE
- Stern Report on climate change
- Poisoning of Litvinenko
- First SMC briefing on Home Office animal stats
- Weatherall report on primates
- Tyndall report on new nuclear build
- Duff report on Northwick Park

2006

- Ricin terror alert
- Dolly the sheep dies
- SARS
- REACH chemical regulations from EU
- TV drama on MMR
- Introduction of the human tissue bill
- Bioterror post 9/11
- Iraq war, oil spills and fires
- Hashmi 'designer babies' case
- Launch of gm farmscale evaluations

2007

- HFE BILL & hybrid embryo debate
- Prince Charles on GM
- Government allows new nuclear build
- Heathrow plane crash
- Organ donation and presumed consent
- Michael Reiss row over creationism
- ACMD report on cannabis
- Westlakes radiation and health study
- First artificial trachea
- Health risks of carbon nanotubes

2008

- IPCC reports onclimate change
- UK floods
- Foot and mouth outbreak
- Bluetongue virus outbreak
- Jim Watson race row
- Defra report on badgers and TB
- MTHR report on mobile phones
- SMC briefing on animal regulation

2009

- Swine flu pandemic
- Zavos claims of a human clone
- Death following HPV vaccine
- David Nutt sacked
- Climategate starts with leaked emails
- AMS report on animals containing human material

2010

- Volcanic ash cloud from Iceland
- Oil spill in Gulf of Mexico
- Cloned cow meat and milk on sale in UK
- Geron stem cell trial
- Science budget and Comprehensive Spending Review
- Andrew Wakefield, the GMC and Lancet retraction
- Craig Venter synthetic cell announced
- Interphone report on mobile phones
- Vitamin D consensus statement
- EU ban on bisphenol A
- All three climategate inquiries
- Simon Singh libel case
- GM mosquitoes

2011

- Fukushima nuclear disaster
- XMRV retraction and the PACE trial
- PIP breast implants and metal hip implants
- *E. coli* outbreak in Germany
- Phil Jones and climategate 2
- Shale gas
- Miscarriages diagnosis
- Norway killings and forensic psychiatry
- Mitochondrial DNA transfer
- Bateson report on primates
- SPICE geoengineering project
- Times Atlas error on Greenland
- London riots
- GM chickens
- Weightman report on Fukushima

2012

- GM wheat at Rothamsted
- Transport of animals for research
- Higgs boson
- Schmallenberg virus outbreak
- Mental health - DSMV publication
- Launch of UK biobank
- Open access and the Finch report
- The Olympics: drug testing and engineering

Vital statistics

A decade in numbers

19 Introduction to the News Media events, training **2470** scientists

We have run **691** press briefings

On average **10** national news journalists attended each briefing

1236 sets of comments sent out as **Round-ups** and **Rapid Reactions**

We worked with:

2400 science and engineering experts **1195** press officers and **340** news journalists from national broadcasters, newspapers and news agencies

Team SMC

With huge thanks to more than 100 volunteers who have helped us over the years

Dr Fiona Lethbridge, Press Office Assistant

Dr Ed Sykes, Senior Press Officer

Lyndal Byford (2006 – 07)

Fiona Fox, Chief Executive

Dr Mark Peplow (2002 – 03)

Dr Claire Bithell, Head of Mental Health

Amy Lothian, Events Officer

Dr Helen Jamison, Deputy Director

Nancy Mendoza (2006 – 07)

Simon Levey (2005 – 09)

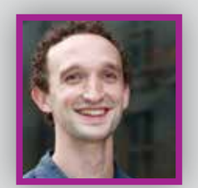
Becky Purvis (2003 – 05)

Becky Morelle (2001 – 05)

Selina Hawkins, Office & Finance Manager

Dr Joseph Milton (2011 – 2012)

Tom Sheldon, Senior Press Officer



Robin Bisson, Science Information Officer

Will Greenacre (2007 – 12)

Jonathan Webb (2011 – 12)

A brief history of the SMC

February 2000	House of Lords Select Committee on Science and Technology publishes third report on 'Science and Society' recommending an initiative on the interface between science and the media
June 2000	Baroness Susan Greenfield takes a lead on setting up the SMC and establishes an Advisory Council
November 2001	Fiona Fox is appointed as founding director
April 2002	Doors open for business at the SMC, based in the Royal Institution with two staff
July 2002	First SMC briefing and horizon scanning sessions for journalists
November 2004	First 'Introduction to the News Media' event for 220 scientists from across the UK
March 2006	The SMC moves to cover engineering with a dedicated engineering press officer
January 2010	The Department of Business, Innovation and Skills publishes the report 'Science and the Media', the result of a working group chaired by Fiona Fox
May 2010	The SMC submits evidence to the independent review by Dame Deirdre Hine on the 2009 influenza pandemic
June 2010	The SMC hires its first dedicated mental health research press officer
April 2011	The SMC demerges from the Royal Institution, becomes a fully independent charity, and moves into the Wellcome Trust's Gibbs Building
June 2011	First Global SMC Network Meeting in Doha
July 2011	BBC Trust publishes impartiality review on science, on which the SMC was consulted
January 2012	The SMC submits written evidence to the Leveson Inquiry and is called to give oral evidence
June 2012	The SMC holds its first AGM as an independent charity
July 2012	The Leveson Inquiry publishes the SMC's guidelines for science and health reporting on its website
October 2012	The SMC, with 9 staff and 1 volunteer, celebrates its 10 year anniversary

We would like to give a special mention to Sir Richard Sykes, Chairman of the Royal Institution, who was instrumental in enabling the SMC to become a charity in its own right.

The SMC goes global

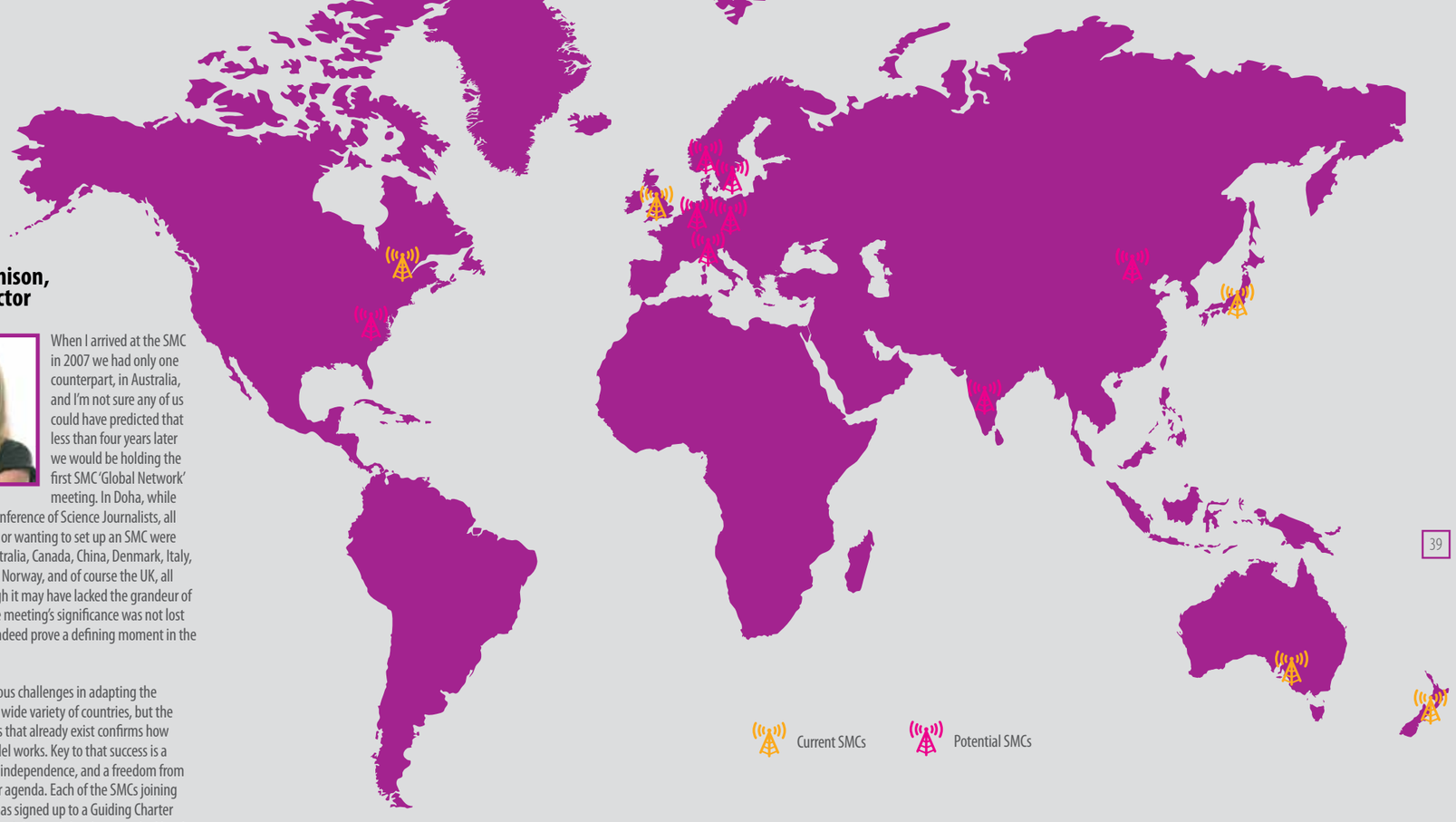
In the age of information, where news spreads across the internet in a matter of minutes, it's easy for any press office to claim they have global impact. But for the SMC, international reach has truly become one of the most exciting aspects of our work. The emergence of a network of sister centres is rapidly gaining credibility on a worldwide stage, with SMCs now well-established in Australia, New Zealand, Canada and Japan. And as we continue to welcome interest from around the globe, from the US to India, the family looks set to grow.

Dr Helen Jamison, Deputy Director

When I arrived at the SMC in 2007 we had only one counterpart, in Australia, and I'm not sure any of us could have predicted that less than four years later we would be holding the first SMC 'Global Network' meeting. In Doha, while at the 2011 World Conference of Science Journalists, all those either running or wanting to set up an SMC were assembled, with Australia, Canada, China, Denmark, Italy, Japan, New Zealand, Norway, and of course the UK, all represented. Although it may have lacked the grandeur of a UN Convention, the meeting's significance was not lost of any of us; it may indeed prove a defining moment in the SMC's history.

Clearly there are serious challenges in adapting the SMC model in such a wide variety of countries, but the success of the centres that already exist confirms how well this unique model works. Key to that success is a core commitment to independence, and a freedom from institutional brand or agenda. Each of the SMCs joining the global network has signed up to a Guiding Charter underlining these principles, and they have worked hard to earn the trust of journalists and scientists alike. They are therefore able to fulfil the crucial need to inject accurate, evidence-based information into the headlines when science is in the eye of the storm.

This growing network of SMCs, operating independently but in collaboration, is proving invaluable and providing a wealth of opportunities not just for ourselves. Working together we help scientists reach a wider audience and journalists access the best experts of the day, wherever they may be. Now when we send out the latest scientific comment on climate change or radiation, it's amazing to see it sent on in Australia or Japan; when neuroscientist Adrian Owen left Cambridge for a post in Ontario we ran our very first joint web briefing with Canada; and when we submitted our Guidelines on Science Reporting to the Leveson Inquiry, they were blogged about in New Zealand. Our work on the Times Atlas Greenland error simply would not have happened without international collaboration, and how different would the global media coverage of Fukushima have been had we had a US SMC?



The international interest the SMC has received has also placed us very firmly under the microscope. At the World Conference of Science Journalists, the annual conference of the American Association for the Advancement of Science, and at meetings organised by those considering replicating the model in Germany and across Europe, our work has been dissected and scrutinised by those at the top of international science journalism. Can we really be completely independent? Are we not just 'PR for science'? Aren't we responsible for encouraging lazy journalism? The chance to address those concerns, and to explain why it's a little more complicated than that, is an opportunity to listen to our critics and to ensure we remain faithful to our original remit. That we should be grilled on these issues is also absolutely right, after all no one advocates openness more than the SMC.

The global network of Science Media Centres, although perhaps not envisaged in those tentative early days of the UK SMC, is an extremely challenging and exciting development to be part of. For a small charity just 10 years old, it is also very humbling. There is no doubt that it will continue apace to present opportunity and obstacle, and with such an international platform comes huge responsibility. But if we were afraid of a challenge then we wouldn't be the SMC.

www.sciencemediacentre.net

Governance

Being part of the Board of Trustees or Advisory Committee of the Science Media Centre is a role not for the faint-hearted! We are incredibly indebted to the following people, who have given huge amounts of their time and expertise, often on some of the most difficult or sensitive issues. The SMC simply would not be able to operate without their unfailing support and insight, and the fact we are able to reflect on the successes of our first 10 years is a testament to their wisdom and guidance.

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Ceri Thomas, Editor, Today, BBC Radio 4

Bob Ward, Policy and Communications Director, LSE Grantham Research Institute on Climate Change

Alan Winter (Former member), Chief Operating Officer, Royal Ballet School

With huge thanks to everyone who has funded us over the past 10 years

The SMC is funded principally by donations from trusts and foundations, science bodies and other organisations, companies, charities, and government and related agencies. It has received support from over 100 organisations and individuals, reflecting the number and diversity that recognise the benefits of the improved science media landscape the centre enables. The SMC maintains its independence by capping the donations it receives, the vast majority of which are equivalent to less than 5% of its running costs.

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