Set up in 2002 after things went very wrong:

- MMR & autism
- GM crops
- BSE
- Animal research
Do we give our children more jabs than their bodies can cope with?

We facing an MMR: The Truth

For years, doctors poo-holed parents' fears over the MMR jab. When cases of autistic children rocketed by around 270%, statistics were dismissed as fantasy. But now the evidence is growing too strong to ignore.

Frankenstein food? You'll be made to like it

I'd rather risk them being deaf or blind than becoming autistic

Doctors make sure their children avoid MMR jab

FURY OVER GM CROP GO-AHEAD
**Vision**  
Policy decisions and public debate informed by accurate, evidence-based scientific information in the news media

**Mission**  
To make it easier for journalists to access the best science when stories hit the headlines and to ensure that more scientists engage with the media when stories hit the headlines

**Values**  
Reliable, fast, accurate, authoritative, independent, media savvy
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January 2018

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Engaging with the media

If you don’t speak to the media, then someone else will

The 2014 BIS Public Attitudes to Science survey found:

- 89% adults say traditional media is one of their two most important sources of information about science: i.e. newspapers, TV, radio and news websites

- Only 6% adults say the same of social media, but this rises to 21% for 16-24 year olds

▼ The public need to hear from the experts in mainstream media
Veracity Index 2017 – all professions overview

“Now I will read you a list of different types of people. For each would you tell me if you generally trust them to tell the truth, or not?”

Nurses: 94%
Doctors: 87%
Teachers: 91%
Professors: 94%
Scientists: 85%
Judges: 76%
Weather Forecasters: 74%
The Police: 81%
Television news readers: 67%
Clergy/priests: 64%
The ordinary man/woman in the street: 64%
Civil Servants: 62%
Lawyers: 59%
Pollsters: 54%
Charity chief executives: 50%
Trade union officials: 50%
Local councillors: 45%
Bankers: 38%
Business leaders: 36%
Estate agents: 27%
Journalists: 27%
Professional footballers: 26%
Government Ministers: 19%
Politicians generally: 17%

% trust to tell the truth

Base: 998 British adults aged 15+, fieldwork 20 - 26 October 2017
### The five most trusted professions, 2017

<table>
<thead>
<tr>
<th>Profession</th>
<th>% trust to tell the truth</th>
<th>2016 score</th>
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<tr>
<td>Nurses</td>
<td>94%</td>
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<td>Doctors</td>
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<td>Scientists</td>
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Trust in scientists has gone up 20 points since 1997
SMC Philosophy

"We’ll get the media to ‘DO’ science better when scientists ‘DO’ media better"
How?

• Inject best science into every aspect of science reporting

• See science in the headlines as opportunity, as well as a threat
Main Strategies

**Rapid Reactions** - responding to breaking stories

**Round-ups** - putting research into context

**Media Briefings** - scientists set the agenda
The SMC has pioneered ways of injecting more good science into breaking news
Rapid Reactions

responding to breaking stories
Rapid Reaction - July 2017

Charlie Gard and mitochondrial disease
Pope considers 'giving Charlie Gard a Vatican passport' to overcome rulings preventing treatment in Italy

Charlie Gard: Devastated parents launch court appeal to stop doctors withdrawing sick baby's life support

Charlie Gard: Pope shows solidarity with parents of critically ill 10-month-old

Charlie Gard: Life support to be turned off, parents say

Charlie Gard: Doctors can stop providing life support for sick baby as parents lose Court of Appeal fight

Outpouring of grief worldwide for Baby Charlie Gard as his parents say 'their last goodbyes' to their son as doctors switch off his life support after eight-month battle
This was a story whether we liked it or not

- A dying child and desperate parents
- A (perceived) race against the clock
- Story developing day by day
- World leaders weighing in
- Most importantly: Conflict
  - A media story always sets up sides
  - This is not always fair – but it’s what we face
  - The public needed to be informed
There were also some difficult questions that needed answering

- *If the alternative is death, surely any treatment is worth a go?*

- *Why not let the parents take him to the US? They have raised the money after all*

These were not unreasonable for reporters to ask.
Prof Dominic Wilkinson, Director of Medical Ethics at the Oxford Uehiro Centre for Practical Ethics, University of Oxford, said:

“Any court decision is based on the evidence that is presented. The High Court made an ethically sound decision that Charlie Gard should not receive requested experimental treatment and that life support should be withdrawn. This was on the basis of convincing expert testimony that such treatment had no realistic prospect of helping him.

“However, given the claims of new evidence about the possible effectiveness of this treatment it is appropriate, indeed vital, that the decision is reviewed. The court needs to urgently assess whether there is, in fact, a realistic chance of helping Charlie with this treatment. If a review of this new evidence means that this treatment would be in Charlie’s best interests it should be provided, but that is by no means certain.”

Dr Dan Hawcutt, Senior Lecturer in Paediatric Pharmacology at the University of Liverpool, said:

“This is clearly a horrendous situation, and my every sympathy goes out to the young boy, his family, and the medical and nursing teams looking after him.

“I am a paediatric pharmacologist (so specialise in children’s drugs and treatments). I do not work in GOS, am not an expert in mitochondrial illnesses, and do NOT know any more about this patient than is in the press (summarised nicely in the GOS FAQ webpage).

“Apart from the doctors treating him, the parents, and the courts who have had access to his medical data, no one knows how severely affected by his condition this young boy is. The condition he has can cause irreversible damage to his brain (and other organs) – by which I mean are the cells there now dead, and no therapy can help. In order for the courts to make a decision, they will have had all this evidence presented to them. On each occasion it has been presented to a court, they have considered what is in his ‘best interests’ - and after all the evidence, decided it is not something that will help him.

“The team who signed the letter, while having great expertise in mitochondrial illness, do not have any additional information about the patient than any other member of the public. As such, speculating about the potential impact of this treatment on him is problematic. It is very positive that GOS have once again looked to get the courts to help support such a difficult decision.

“It would seem that this could be easily solved by giving out more information about his condition, but the clinical team cannot, and rightly have not done this. This would strip him of his confidentiality. It is therefore important to remember that this is not a PR battle. I cannot contribute to the debate, beyond repeating these generalities and commenting on public domain documents. No-one can.”
Prof Alastair Sutcliffe, Professor of General Paediatrics at UCL, said:

“Poor Charlie has a very rare disease in which the organelle which provides energy source used in daily cell life, called the mitochondrion, has a gene defect. The reason mitochondrial diseases are rare is because they are usually fatal. They show up in babies or young children more often than in later life. If not fatal they are progressive and cause serious neurological illnesses which cannot be cured.

“Charlie has one of those most severe of mitochondrial diseases and is untreatable. Medicine is advancing at a wonderful speed but some illnesses are still fatal.

“Gene therapy is in its infancy and is a promising field of human endeavour. But there are 6000 inheritable recessive conditions in humans – the prospect of them being cured is some time off.

“When a decision to withdraw life support is made for a baby this is not taken lightly and there are often tears in the medical and nursing staff looking after such a baby. But ultimately there is not a cure for many rare diseases. 40% of all rare diseases are in children under age 5 years, and of those most are fatal. The combined burden of such conditions in the UK is such that 1 in 300 people have a rare disease.

“Scientists and medical technology companies are making strides to find cures or treatments for many conditions. But alas, in the case of poor little Charlie, there are simply limits to medicine as we know it.”

Prof Jonathan Montgomery, Professor of Health Care Law at University College London, said:

“The court will quite probably want to consider whether there is new evidence that suggests there might be a significant chance of successful treatment for Charlie.

“However, it is not clear whether this evidence is new or whether the letter only offers a more optimistic assessment of previously available evidence. At least one signatory has indicated that his evidence was available to the family at the time of the trial. The judge may conclude that there is nothing to justify a reconsideration.

“Second, the court will be concerned that the prospect of benefit may be excessively and cruelly inflated. It is unclear how an estimate of a 10% chance could be made in relation to an untried treatment for a condition that has been said to affect only 16 people, and in relation to which no research has been undertaken, even in mice.”
Professor of medical ethics at the University of Oxford, Dominic Wilkinson, says: "The principle is that if parents' decisions risk significant harm to their child then they should not be allowed to make those decisions. But the state doesn't intervene every time parents don't make the best decision."

The concept of parental responsibility is set out in law. The Children Act 1989 describes it as "all the rights, duties, powers, responsibilities and authority which, by law, a parent of a child has in relation to the child and his property."
Alastair Sutcliffe, professor of paediatrics, said that the 11-month-old’s severe mitochondrial disease is ‘untreatable’ and that gene therapy ‘is in its infancy’.
Jonathan Montgomery, professor of health care law at University College London, said there could be a case for a judge stipulating that a medical expert must see the patient before giving their opinion in court.

Hirano gave evidence to the high court in April in front of Mr Justice Francis. “Should the judge have directed that the expert needed to see the patient?” Montgomery asked.

We will never know whether or not it would have changed the evidence he gave at that time, but it would give us more confidence in that evidence if he had come and examined Charlie himself,” Montgomery said.

Dominic Wilkinson, a consultant neonatologist and professor of medical ethics at the University of Oxford, pointed out that every expert who had seen Charlie had sided with the Great Ormond Street team in believing nothing could be done for him. That included an independent medical expert in mitochondrial diseases from Southampton University who was asked by the parents for a second opinion. It also included Charlie’s court-appointed independent guardian. Wilkinson said that if Hirano and the other international doctors who proposed nucleoside therapy for Charlie had actually seen him, “who knows...
Many journalists wanted to act responsibly:

“Views from both perspectives [medical & ethical] would be appreciated. The Trump/Pope interventions has opened up a whole new front, and it would be useful to get some neutral views.”

“We are desperate for outside opinions on the medical/legal/ethical aspects of the case. We'd prefer quotes to opinion pieces.”

“Yes, this definitely isn't going away. So if anyone who actually knows has a view on what the experimental treatment is, how it differs to the one that US kid who was all over TV yesterday, that would be helpful.”

“I want to cover this responsibly but I need experts to do that.”

“I can easily get rentaquotes for the other side but need some good people speaking for the hospital and explaining their position.”
13 August 2008

Prince Charles warns of ‘GM crops catastrophe’

Rapid Reaction
Earth faces GM crops catastrophe, warns Prince

Multi-national firms conducting a ‘gigantic experiment that has gone seriously wrong’
Science Media Centre Press Release

FOR IMMEDIATE RELEASE 13 August 2008

Experts react to Prince Charles' statements about GM

Ian Denholm - Head of Plant and Invertebrate Ecology at Rothamsted Research Institute
Dr Alan M. Dewar - independent entomologist
Dr Giles Oldroyd - Research Group Leader at the John Innes Centre
Professor Alison M. Smith OBE - Research Group Leader at the John Innes Centre
Prof Rosie Hails - ecologist at the NERC Centre For Ecology and Hydrology
Prof Johnjoe McFadden - molecular geneticist at the University of Surrey
Prof Ottoline Leyser FRS - plant geneticist at the University of York
Prof Jim Dunwell - biological scientist at the University of Reading
Prince Charles accused by scientists of abusing his position over GM food comments

By Andrew Pierce and Caroline Gammell
Last Updated: 6:01pm BST 12/09/2008

The Prince of Wales has been plunged into an extraordinary row with scientists after they accused him of seriously abusing his position over his comments on GM food.

- Prince Charles sparks debate over GM crops claims
- Prince Charles warns GM crops risk causing biggest-ever environmental disaster
- The Prince of Wales: 'If that is the future, count me out'

Scientists reacted angrily to the warning from the Prince in his interview in the Daily Telegraph that GM crops risked causing the world's worst environmental disaster.

MPs accused him of being a "luddite" who risked inflicting starvation on millions of people in Africa.

But the Prince will be heartened by the revelation that there is now only one GM trial ongoing in Britain - in Cambridgeshire - and there are no plans to licence any more.

Some 54 have been conducted since they were approved by the government in 2000.

Prof Ottoline Leyser, a plant geneticist at the University of York who is a Fellow of the Royal Society, said: "I am disappointed with the whole environmental movement."

"This is rabid anti-GM. Misguidedly demonising GM results in the real issues being sidelined, creating the very problems that Prince Charles is trying to address.

"There are several issues that have been muddled together, resulting in serious dangers to the future direction of agriculture."
Scientists condemn Prince Charles's attack on GM crops

Experts argue that Prince Charles's response to GM technology is 'showy' 'misses the point' and is 'morally indefensible'.

Staff writers
guardian.co.uk, Wednesday August 13 2008 17:33 BST
Article history

Scientists have lined up to condemn Prince Charles's passionate attack on genetically modified crops and industrial farming.

While his vivid vision of "conducting a gigantic experiment with nature ... which has gone seriously wrong" has garnered support from some, including Friends of the Earth and the Soil Association, researchers have called this "an wildly confused, self-defeating and emotionally-driven" attack. Some scientists have called Prince Charles's position "irrational" and "irresponsible".
Scientists condemn 'ill-informed, negative' Prince over GM crops warning
Round Ups

Putting research into context
- we receive press releases from the top 10-15 journals
- identify stories that can be sensationalised or mis-reported
- seek 3\textsuperscript{rd} party experts to provide context
5 July 2013

Link between protein in cow’s milk and autism

Roundup
New research strengthens link between common cows’ milk protein and serious neurological disorders

British healthcare professionals were warned last night of the dangers of a protein in cows’ milk that has been labelled a ‘devil’ by some academics. At an event held at the Cumberland Hotel, London, a group of over 50 health care professionals, including dieticians, GPs and nutritionists were presented with compelling new research findings which indicate a direct link between consumption of the A1 milk protein and exacerbated symptoms of neurological disorders such as autism and schizophrenia.

Dr Malav Trivedi, an award winning researcher at NorthEastern University, Massachusetts, presented his findings for the first time in the UK at the event, and added an exciting new argument to the debate around the negative health implications of A1 beta casein protein, which is present in the majority of cows’ milk consumed in the UK. Dr Trivedi’s research focused in particular on the proven effects of BCM7, a naturally occurring substance produced by the A1 protein, on the neural pathways, and proposed that eliminating A1 protein from diets could dramatically reduce the symptoms of autism and other inflammatory disorders.
Science Media Centre Roundup

UNDER EMBARGO UNTIL 00.01 UK TIME on FRIDAY 5th JULY

Expert reaction to press release on non-peer reviewed research that suggests a link between protein in cow’s milk and autism

A spokesperson for the National Autistic Society said:
“There is little scientific evidence demonstrating the efficacy of restrictive diets in supporting people to directly ‘manage’ their autism, rather than to treat other conditions.
“Dietary restrictions can lead to poor nutrition, and so should only be adopted following advice from a medical professional.”

Prof Mick O’Donovan, Deputy Director of Cardiff University’s MRC Centre for Neuropsychiatric Genetics & Genomics, said:
“The work mentioned in this press release does not seem to have been published so it is impossible to assess the claim in any detail. Not being published, it has also presumably not been tested by peer review...”

Prof Dorothy Bishop, Professor of Developmental Neuropsychology, University of Oxford, said:
“People should be extremely sceptical of any press release that discusses a major health issue like autism yet fails to reference any verifiable data that back up the strong public health claims. It is impossible to evaluate the dramatic claims that are made by Dr Trivedi in the absence of any peer-reviewed data...”
Prof Jeremy Turk, Consultant Child & Adolescent Psychiatrist, Southwark Child & Adolescent Mental Health Neurodevelopmental Service, said:
“I have never heard of this suggestion, know of no scientific evidence to support it, and would be extremely sceptical about the proposed link. Cow’s milk is an extremely nutritious and important component of our diet, is generally well tolerated, and I would fear the possible adverse effects of reductions in its consumption as a consequence of publicity associated with the reported suggested research.”

Prof Jean Golding, a Medical Research Council funded researcher based at University of Bristol, and Emeritus Professor of Paediatric & Perinatal Epidemiology, said:
“These findings were presented at a non-scientific seminar. Obviously if cow’s milk represents any kind of health risk this is important - but without strong evidence, preferably in the form of a randomised controlled trial, it is dangerous to take this seriously...”
Coverage: 0
Journalists comments in response to the Roundup:

“FYI I'm not touching this with a barge pole…”

“Ha, how extraordinary! Thank you... I have just hit delete!”

“Good response. Pretty sure we've all agreed to kill it off, so the experts should hopefully be assured by that.”

“Wasn't surprised to see that he was funded by A2 Milk. Was my suspicion but didn't see that when I looked at his profile.”
9 September 2015

Human transmission of amyloid-Beta pathology as published in Nature

Roundup
Evidence for human transmission of amyloid-β pathology and cerebral amyloid angiopathy

Zane Jaunmuktane\textsuperscript{1}, Simon Mead\textsuperscript{2,3,4}, Matthew Ellis\textsuperscript{3}, Jonathan D. F. Wadsworth\textsuperscript{2,3}, Andrew J. Nicoll\textsuperscript{2,3}, Joanna Kenny\textsuperscript{2,4}, Francesca Launchbury\textsuperscript{3}, Jacqueline Linehan\textsuperscript{2}, Angela Richard–Loedt\textsuperscript{3}, A. Sarah Walker\textsuperscript{5}, Peter Rudge\textsuperscript{2,4}, John Collinge\textsuperscript{2,3,4} & Sebastian Brandner\textsuperscript{1,2,3}

More than two hundred individuals developed Creutzfeldt–Jakob disease (CJD) worldwide as a result of treatment, typically in childhood, with human cadaveric pituitary-derived growth hormone contaminated with prions\textsuperscript{1,2}. Although such treatment ceased in 1985, iatrogenic CJD (iCJD) continues to emerge because of the prolonged incubation periods seen in human prion infections. Unexpectedly, in an autopsy study of eight individuals with iCJD, aged 36–51 years, in four we found moderate to severe grey matter and vascular amyloid-β (Aβ) pathology. The Aβ deposition in the grey matter was typical of that seen in Alzheimer’s disease and Aβ in the blood vessel walls was characteristic of cerebral amyloid angiopathy\textsuperscript{3} and did not co-localize with prion protein deposition. None of these patients had pathogenic mutations, \textit{APOE} ε4 or other high-risk alleles\textsuperscript{4} associated with early-onset Alzheimer’s disease. Examination of a series of 116 patients with other prion diseases from a prospective observational cohort study\textsuperscript{5} showed minimal or no Aβ pathology in cases of similar (Wijhlemi) was common to all patients who developed iCJD and size-exclusion chromatography, used in non-Wijhlemi preparation methods, may have reduced prion contamination\textsuperscript{1}. As of 2012, a total of 450 cases of iatrogenic CJD have been recognized worldwide after treatment with c-hGH or gonadotropin (226 cases), transplantation of dura mater (228) or cornea (2), and neurosurgery (4) or electroencephalography recording using invasive medical devices (2)\textsuperscript{2}. In France, 119/1,880 (6.3%) recipients developed iCJD, in the UK 65/1,800 (3.6%) and in the USA 29/7,700 (0.4%)\textsuperscript{2–14}.

Since 2008, most UK patients with prion disease have been recruited into the National Prion Monitoring Cohort study\textsuperscript{2}, including 22 of 24 recent patients with iatrogenic CJD (iCJD) related to treatment with c-hGH over this period, all of whom necessarily have very long incubation periods. Of this group of patients with iCJD, eight patients (referenced no.s 1–8, Supplementary Information) aged 36–51 years, with an incubation period from first treatment to onset of 27.9–38.9 years (mean 33 years) and from last treatment to onset of 18.8–30.8 years (mean 23 years) have been described in this study.
This study

• Good science

• But only studied eight autopsied patients

• Findings were “suggestive” so the study would need to be replicated

• We feared that the coverage result would be that “Alzheimer’s is catching” headlines
Expert reaction to evidence for human transmission of amyloid-Beta pathology, as published in Nature*

Prof Nigel Hunt, Dean of the Faculty of Dental Surgery, said:
“This study alone does not provide any conclusive proof that Alzheimer’s disease can be transmitted from person to person. Dental practice carries no more risk than any invasive clinical procedure. This is new research in a field of relatively recent scientific enquiry that needs to be taken seriously with further research to inform any changes to all clinical and dental practice.
“In dentistry patients are protected from infection risks through the widespread use of single use instruments. All dental instruments that are reused are covered either by guidance from NICE or guidance about decontamination in primary care dental practices. The findings from today’s study must be considered by all relevant organisations to ensure current guidance is as robust as it needs to be.”

Prof. David Allsop, Professor of Neuroscience, University of Lancaster, said:
“I can imagine that this might result in a lot of misleading headlines. What the paper shows is that some people treated with human growth hormone who subsequently went on to develop CJD also show evidence of β amyloid deposits, a key feature of Alzheimer’s disease, in their pituitary glands. What the paper does NOT demonstrate is whether these people would have gone on to develop Alzheimer’s disease had they lived long enough (they died of CJD) or that their pituitary β amyloid deposits were caused by contamination of growth hormone with a ‘rogue’ form of β amyloid. One possible (and indeed likely) explanation is that deposition of the ‘prion protein’ in CJD can result, in some cases, in the co-accumulation of β amyloid.
“It is very well known from other studies that one type of rogue protein (in this case the prion protein) can predispose to accumulation of another (in this case β amyloid). There is no evidence that Alzheimer’s disease can be transmitted from one person to another, or through use of contaminated surgical instruments, and these results should be interpreted with a great deal of caution.”
Dr Tara Spires-Jones, Reader and Chancellor’s Fellow, Centre for Cognitive and Neural Systems, University of Edinburgh, said:
“This study does not imply that Alzheimer’s could be transmitted via dental procedures. The study was based on 8 people NONE of whom had Alzheimer’s. Compare that to the thousands of people who have been studied finding no link of Alzheimer’s being transmissible. I can find zero reports in the scientific literature of this type of Alzheimer’s pathology being present in teeth roots so it is highly unlikely that there will be seeds present on dental instruments. This study is scientifically important as it suggests that if exposed to brain tissue from patients with Alzheimer’s pathology, there is a possibility of seeding that type of brain pathology in other people, but even this possibility will need to be confirmed in other studies. And this pathology alone is not Alzheimer’s disease, only one of the associated brain changes.”

Prof. Masud Husain, Professor of Neurology & Cognitive Sciences, University of Oxford said:
“There is no reason based on these findings to worry about catching Alzheimer’s disease from dental procedures.”

Dr Eric Karran, Director of Research at Alzheimer’s Research UK, said:
“While it will be important for further studies to explore any potential implications of today’s research, there is currently no evidence to suggest that the amyloid protein could be passed through dental surgery or blood transfusions.”

Prof. David Allsop, Professor of Neuroscience, University of Lancaster, said:
“There is no evidence that Alzheimer’s disease can be transmitted from one person to another, or through use of contaminated surgical instruments, and these results should be interpreted with a great deal of caution.”

Prof. Masud Husain, Professor of Neurology & Cognitive Sciences, University of Oxford said:
“While this is a beautiful piece of investigative medicine, we have to keep the findings in context. They concern a rare group of people who sadly developed CJD. They didn’t die of Alzheimer’s disease and the findings in their brains show only some of the features observed in Alzheimer patients. These results certainly do not provide sufficient evidence to believe Alzheimer’s disease is a transmissible illness. The authors argue that the prion (CJD) pathology and the amyloid (‘Alzheimer’) pathology are effectively independent. In other words, they suggest that the prion transmission did not trigger the deposition of amyloid. Stronger evidence would be required to accept such a proposal. Crucially, a previous analysis of a population of patients who developed CJD in this unfortunate way has not revealed a higher risk of developing Alzheimer’s disease.”
But Alzheimer's Society research director Dr Doug Brown insisted: “There remains no evidence the disease can be transmitted via medical procedures.”
'SEEDS' OF ALZHEIMER'S 'MIGHT BE TRANSFERRED ON MEDICAL INSTRUMENTS'
By John von Radowitz, Press Association Science Correspondent

Seeds of Alzheimer's disease can potentially attach to surgical instruments and be transferred from one person to another during certain medical procedures, a study suggests. The findings provide the first evidence of dementia transmission in humans via microscopic protein fragments. Health officials and experts were quick to reassure the public after the highly controversial research was reported in the leading journal Nature. However, the findings prompted speculation about the safety of some medical procedures, including dental treatments. Blood donations are not considered a meaningful risk, but should be investigated as a precaution, say the researchers.

British scientists stumbled on the discovery while investigating a rare form of 'iatrogenic' Creutzfeldt Jakob Disease (iCJD), a brain-destroying condition known to be spread by contaminated surgical instruments and procedures.

Dr Eric Karran, chief scientist at the charity Alzheimer's Research UK, said: "The biggest risk factor for Alzheimer's is age, along with genetic and lifestyle factors. If further research was to confirm a link between historical tissue contamination and Alzheimer's, it would only likely be relevant to a tiny proportion of the total number of people affected."

Dr Doug Brown, director of research at Alzheimer's Society, said: "Injections of growth hormone taken from human brains were stopped in the 1980s. There remains absolutely no evidence that Alzheimer's disease is contagious or can be transmitted from person to person via any current medical procedures."
Dr Eric Karran, director of research at Alzheimer's Research UK, said: "While the findings sound concerning, it's important to remember that human-derived hormone injections are no longer used and were replaced with synthetic forms since the link to CJD was discovered in the 1980s. "Current measures in place to limit contamination with the prion protein and minimise CJD risk from hospital procedures are very rigorous and the risk of developing CJD from surgical contamination is extremely low.
"The biggest risk factor for Alzheimer's is age, along with genetic and lifestyle factors. If further research was to confirm a link between historical tissue contamination and Alzheimer's, it would only likely be relevant to a tiny proportion of the total number of people affected."
Richard Kerr, president of the Society of British Neurological Surgeons and a consultant brain surgeon, said: ‘This is new information in a field of highly complex scientific enquiry that needs to be taken seriously. With such a small study, however, further research is needed.’

Dr Doug Brown, of the Alzheimer’s Society, said the findings were ‘interesting’ but contain ‘too many unknowns’. He added: ‘There remains absolutely no evidence that Alzheimer’s disease is contagious or can be transmitted from person to person via any current medical procedures.’
Roger Morris, professor of molecular neurobiology at King’s College London, said the Alzheimer’s seeds had spread through a very specific medical procedure that had not been carried out in Britain for 30 years.

“Does this Nature paper . . . presage a new era in which Alzheimer’s disease changes from being an isolated disease of each individual as they age to becoming infectious and able to attack everyone, young and hold? No,” he said.
Media Briefings
Background briefings
News briefings
Expert encounters
Emergency briefings
As the row about statins continued to brew, the SMC thought:

“Right – let’s bring the best evidence and the best scientists to bear on it.”
1\textsuperscript{st} July 2014

The Science of Statins

\textit{Background Briefing}
The row over the *BMJ* claims about side effects of statins and the angry response from some to NICE’s proposal to extend the drugs to people with a lower risk has led one columnist to refer to 'the Statin Wars'. But has the truth become the first casualty of this particular war? As some doctors make claims about risks of patients on statins developing diabetes, cataracts, muscle disease etc, others argue the benefits of these cheap drugs outweigh the risks. In the middle of this dispute lie the public and patients confused about where the evidence actually lies.

Speakers will include:

**Prof Peter Weissberg**, Medical Director, British Heart Foundation  
**Prof Liam Smeeth**, Professor of Clinical Epidemiology, Department of Non-Communicable Disease Epidemiology, London School of Hygiene and Tropical Medicine  
**Prof Adam Timmis**, Professor of Clinical Cardiology, Barts and the London NHS Trust  
**Prof Rory Collins**, Head of the Nuffield Department of Population Health and BHF Professor of Medicine & Epidemiology  
**Prof George Davey Smith**, Professor of Clinical Epidemiology, University of Bristol  
**Prof John Deanfield**, BHF Professor of Cardiology, UCL
## Briefing attendees

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<thead>
<tr>
<th>Name</th>
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<td>Jo Willey</td>
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<td>Nigel Hawkes</td>
<td>BMJ</td>
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<td>Helen Briggs</td>
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<td>Jane Dreaper</td>
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<td>Ben Spencer</td>
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<td>John von Radowitz</td>
<td>PA</td>
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<td>Laura Mulholland</td>
<td>BBC Newsnight</td>
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<td>Laura Donnelly</td>
<td>Telegraph</td>
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<td>Chris Smyth</td>
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<td>Tom Feilden</td>
<td>BBC Today</td>
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Daily Express
Statins: Health benefits vastly outweigh the risks, say experts

By Ben Spencer
Science Reporter

OVERWHELMING evidence now shows that the benefits of statins vastly outweigh the risk of side effects, a group of health experts has claimed.

Six professors from British universities yesterday entered the growing debate about the use of statins, the UK’s most prescribed drug.

Many GPs and patients are concerned about their over-prescription, which some say will needlessly expose people to side effects such as muscle pain and diabetes. But the group of leading cardiologists and epidemiologists dismissed fears about side effects as misrepresentative and misleading.

Professor George Davey Smith, clinical epidemiologist at Bristol University, said ‘the jury is no longer out’ on statins.

He said: ‘Trials have shown unequivocally that statins reduce coronary heart disease mortality and there are very low levels of severe side effects. ‘We are not forcing these tablets down people’s throats, we are giving people the evidence on which to make a decision.’

Professor Davey Smith added that a great root of the misunderstanding is that people on statins tend to blame the drug for any minor health problem.

He said: ‘Because people have symptoms they look for an explanation and their doctors look for an explanation, and they attribute it to the tablet.’

Their intervention comes just a fortnight before the National Institute for Health and Care Excellence is due to publish new guidelines that will radically increase the use of the drug.

The medication is currently only available to those at a 20 per cent risk, which is estimated to increase the number on statins by up to ten million.

The planned shift to ‘pre-emptive’ prescribing has led some GPs to warn that many people will be given the drugs who do not need them.

Dr Kallash Chand, deputy chairman of the British Medical Association, said: ‘Statins are very useful for people at high risk, those who have had a stroke or heart attack.

‘But to prescribe these drugs to those at low risk prompts a real concern we are over-medicalising and over-statinising Britain.

‘Statins definitely have side effects – that is what I have seen after 30 years of prescribing them as a GP. To say otherwise is just not true.’

But Oxford University professor Sir Rory Collins said trials have definitively shown that taking statins over five years increases the risk of side effects by less than 1 per cent.

He added: ‘It isn’t irrelevant to have a heart attack, it is a major life-changing event.

‘For many people a stroke is a life-changing event. To avoid these is important.

‘If one looks at the absolute risk, which is less than 1 per cent, and you look at the absolute benefit, the benefits in those terms outweigh the risk.’
Don’t be scared of statins, say heart doctors

By Laura Donnelly, Health Editor

PEOPLE could be frightened off taking statins because of “prejudice, belief and anecdote” used to attack the drugs, leading scientists and heart experts have said.

Controversial draft NHS guidelines to increase the number of people taking the pills have come under fire in recent months amid concerns over their side-effects and the “medicalisation” of swaths of the public.

But a panel of six leading cardiologists and scientists yesterday insisted that “the jury was no longer out” about the benefits of the drugs in preventing stroke and heart attacks, compared with risks which have been over-stated.

Last month a group of doctors wrote to Jeremy Hunt, the Health Secretary, expressing concern over the recommendations, saying too many of those involved in drawing them up had financial ties to companies which produce the drugs.

Before that academic papers published in the British Medical Journal questioned the widespread use of the medicines, claiming that they cause harmful side-effects. But the statements were withdrawn.

Risks and benefits

Guidelines dogged by controversy

1980s: Statins first licensed in the UK.

2000: New NHS standards for heart disease care recommend statins should be given to patients assessed with a 30 per cent risk of a heart attack or stroke within a decade.

2005: National Institute for Health and Clinical Excellence cuts threshold to 20 per cent.

February 2014: Nice publishes draft plan to cut threshold to 10 per cent, meaning one in four adults would be advised to take statins.

March: British Medical Journal publishes articles suggesting one in five people on statins will suffer side-effects such as liver disease and kidney problems.

May: BMJ withdraws the statements and launches an investigation into whether the full articles should be retracted.

June: Nine doctors and academics write to Jeremy Hunt, the Health Secretary, saying the guidelines will lead to the “medicalisation of five million healthy individuals”.

July: Nice final guidance due.

Drawn after they were found to have misrepresented figures on levels of side-effects. The National Institute of Health and Care Excellence is due to publish final recommendations on the prescribing of statins later this month.

Draft proposals suggest cutting the “risk threshold” in half, meaning the vast majority of men over 50 and most women over 60 would be advised to take the drugs to guard against strokes and heart disease.

The panel said the weight of evidence – including 27 clinical trials – demonstrated that the benefits of the pills outweigh any side-effects. Less than one per cent of patients would suffer side-effects, they said, while those who took statins would typically reduce their risk of heart attack and stroke by 40 per cent.

Prof Peter Weissberg, medical director of the British Heart Foundation and a member of the panel, said: “The biggest threat to good medicine is prejudice, belief and anecdote.”

Prof George Davey Smith, professor of clinical epidemiology at the University of Bristol said: “The jury is no longer out on the cost/benefit ratio for taking these tablets.”
Opposition to statins based on ‘prejudice, belief and anecdote’

The row over the safety of statins intensified yesterday after leading cardiologists and researchers accused doctors of acting upon “prejudice, belief and anecdote” in opposing plans to prescribe them to millions more people.

New proposals which could see the cholesterol-lowering drugs prescribed to anyone with even a low risk of heart attack or stroke have been attacked as the “medicalisation of society”, while Government advisers have been accused of underestimating the side effects of the drugs.

However, a panel of six experts yesterday said statins are “very effective and safe”, and gave their staunch backing to the new draft guidance from Nice, which would see them prescribed to anyone with a one in 10 risk of a heart attack or stroke in the next 10 years – potentially up to 10 million patients.

Peter Weissberg, cardiologist medical director of the British Heart Foundation, said that, in terms of “medicalising society”, the use of statins in such a large group was no different to vaccinations being given to entire populations.

Statin treatments are given to around seven million people, and are recommended for anyone with a one in five or higher risk of heart attack or stroke in the next 10 years, or who have already suffered a major cardiac event.

“The biggest threat to good medicine is prejudice, belief and anecdote,” Professor Weissberg said. “As human beings we’re all influenced by our own personal experience. That is why in medicine we need objective evidence to guide our prescribing – that comes from randomised controlled trials.”

Professor Sir Rory Collins, co-director of Oxford University’s Clinical Trial Service Unit, which has carried out major studies into statins, said data showed that the benefits well outweigh the risks.

He said recent claims in an article in the British Medical Journal, later withdrawn, that 20 percent of patients suffered side effects may have “put off high-risk patients from taking their treatment”. Data from randomised controlled trials showed that taking statins led to only a 0.05 per cent increased risk of serious muscle pain or haemorrhagic stroke, he said. By contrast, the risk of heart attack fell by between 6 and 12 per cent for high risk patients, and 3 to 5 per cent for lower risk.

Dr Aseem Malhotra, a cardiologist who has spearheaded calls for the new Nice guidance to be scrapped, agreed statins had a role in treating patients at high risk, but it was “clear” statins would not extend life in low-risk groups. The British Medical Association and senior figures including the president of the Royal College of Physicians have also spoken out against the new guidance.
Some other briefings we’ve held:

- Brexit: now what for science? - Wednesday 29 June 2016

- The facts about antidepressants - 10.30am Wednesday 11th January 2017

- UK first - Results of genome editing in human embryos - 10.30am Tuesday 19th September 2017

- Can gene drives offer a more human approach to pest control? – 10:30am Monday 4th December 2017

- The increasing burden of multiple illnesses – a report from the Academy of Medical Sciences – 10:30am Thursday 19th April 2018
Take home messages:

• You can’t complain if you do not engage

• Engaging does change what the public sees and hears