

- Find out whether you are expected to go into the **studio** or whether you can do an interview over the phone (down the line). Radio stations will prefer doing an interview on a landline rather than a mobile phone if you are not going to the studio.
- Sometimes journalists will ask if you can do the interview through an **ISDN** line (high quality phone line) – your press office may have one of these which may mean you don't have to go to a studio.
- Keep a **pen and paper** with you to make notes (and have your 3 key points to hand), but make sure you don't rustle the papers or make noise during the interview.

TV

- Find out if you need to go to the studio or whether they have the resources to send a **camera crew** to you.
- If a camera crew is coming to interview you, **set some time aside** – it will take longer than you imagine as they will almost certainly do a number of takes.
- Take information to read with you if you are **travelling to the studio** – use this time to decide on your 'key points'.
- Try to **dress neatly** and avoid wearing anything that may be distracting on screen *e.g.* dangly earrings, brightly patterned shirts or cartoon ties.
- Try to keep still during the interview – moving around or waving your hands around will distract the viewer from what you are saying. Smile and try to be aware of your body language (*e.g.* don't cross your arms, gesticulate wildly or slouch in your chair).

"Scientists often worry about whether everything they say is absolutely accurate, but to get the message across to the general public through the media you have to simplify your science. It is important to concentrate on the overall message instead of worrying about the finer details."

Jenny Gimpel, Senior Press Officer, Great Ormond Street Hospital

- What is the journalist's peg for the story – why are they doing this now?
- What is their angle on the story – what is their focus going to be?
- Who else have they spoken to/is there someone else that will be interviewed with you?
- Do they want you to come to the studio? If so, can they organise transport?
- Take all the contact details for the journalist you are dealing with.
- Do they want to do the interview live or pre-recorded?
- How long will the interview last for?
- Can they tell you what the first question will be?
- Before the interview decide what your 3 key points will be.

Remember that if you don't do the interview – the journalist may end up interviewing someone else less qualified. By speaking to journalists you really can improve the way your area of science is covered in the news!

"Journalists try very hard to get what you say right, but that is not to say you won't have to odd bad experience. Despite this remember that engaging with the media is one of the best ways of preventing the scare stories of the future."

Adam Finn, Professor of Paediatrics, University of Bristol

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www.sciencemediacentre.org

or contact: smc@sciencemediacentre.org

The Science Media Centre would like to say a special thank you to Vivienne Parry who had the idea for this leaflet and whose media training advice inspires much of the leaflet's content.

top tips for media work

a guide for scientists

This guide offers tips for those who are new to doing news media work. It gives the main points that you should consider before doing media work and helpful hints that may be useful if you have to do TV, radio or newspaper interviews.

The Science Media Centre also produces guides to prepare you for dealing with more difficult questions around risk, scientific uncertainty and animal research. With preparation you can get across the science even when discussing the most contentious and complex issues.

"Never has science been so much under the microscope of public interest. If scientists want to sustain and improve the relatively high levels of public trust that they enjoy, they must engage. The media still provide the most powerful and effective route for communication with the public. Experience on many topics (from GM foods to embryo research and animal experiments) demonstrates that when researchers work with the media they can get complex and difficult messages across."

Colin Blakemore, Professor of Neuroscience, University of Oxford;
 Professor of Neuroscience and Philosophy, University of London

"87% of the general public get most of their information about science from the media."

Ipsos MORI Public Attitudes to Science survey 2011

For more information contact the Science Media Centre:
 020 7611 8300
smc@sciencemediacentre.org
www.sciencemediacentre.org

- Find your **press officer** – they can give you help and advice on doing media work. Keep their name, office and mobile number to hand in case a journalist calls you. Also, you should get yourself a **mobile phone** and make sure that your press officer has the number.
- If you expect to be doing a lot of media work in the future ask your press officer whether they can get you some **media training**.
- Practice speaking about your work in **jargon free** language to non scientists (try writing about your work in 150 words). Do not use acronyms or measurements that the public may not understand.
- If you have an important paper coming out in a high profile **journal** find out if the journal is going to highlight your work in their press release – if it is, make yourself available for interviews around the date of the press release and publication date.
- Before speaking to a journalist, decide on **3 key messages** that you want to put across in the interview. If you are asked a question that does not relate to your 3 points, try to get back to the subjects you want to cover using phrases such as ‘what we must remember is...’, ‘the really important point is...’, ‘interestingly...’.
- Think about whether anything about your area of research is **controversial** – if there are topics that are tricky to deal with in media interview, you should think how to deal with questions on these issues.
- Get in touch with the **Science Media Centre** if you are interested in doing media work. The SMC offers you the chance to attend our ‘Introduction to the News Media’ event, and give support and advice when your area of science hits the headlines.

“A print journalist will write up to six stories a day. Working to these deadlines while competing with the story of the day, be it a bomb in Iraq or a politician resigning, means we rely on experts who get back to us quickly, can simplify the science and who are prepared to take time to help us get the story right.”

Mark Henderson, former Science Editor, The Times

Firstly, find out why the journalist is phoning, what is the reason for writing this story now (their peg)? You should also check where the journalist is calling from, are they a newspaper, radio or TV journalist? And which programme or publication?

Newspaper

- Find out what the journalist’s **deadline** is – it could be in 10 minutes and they need you to respond immediately.
- You are entitled to **phone the journalist back in a few minutes** to give you time to collect your thoughts – but make sure you phone them back in the time frame promised.
- You don’t have to have the best publication record in the world to comment in the media – for the consumers of national news if you work in the area you are an expert.
- If the enquiry really isn’t in your area, **recommend someone else** who might be suitable – even if you don’t have their contact details the journalists can find them through their press office or the SMC.
- Always take the **journalist’s contact details**, so you can get back in touch if you think of something important later on.
- If you need **more information**, and there is time before the journalist’s deadline, you can ask to see the press release or paper related to the story.
- Because of time constraints and issues surrounding editorial independence print journalists very rarely **check their copy** back with scientists, so don’t expect to see the finished article before it is published.
- Remember that the **tabloids** have very large circulations (2.6 million people read *The Sun* daily while 200,000 read the *Guardian*) so by speaking to them you will be getting your message to a larger audience than by speaking to the broadsheets. In addition, the tabloid journalists produce some of the best and most accurate coverage of science issues in the media.

- Will the interview be **live or pre-recorded**? Although live interviews may sound daunting they have the advantage of not being ‘cut’ before the broadcast.
- If you have to go to the studio the TV/radio station will often **send a car** for you or pay for you to get a taxi.
- Get the **contact details of the journalist** who is organising the interview – you might need to find out why your transport hasn’t arrived or if the camera crew is lost!
- If you are doing an interview on a controversial topic, ask if you will be **head to head** with someone who has an opposing view point. If you are, and have time before the interview, try to find out about their views on the subject.
- Sometimes you can find out the **first question** that you will be asked from the journalist organising your interview. Although they won’t always know what it will be, any advice can help you prepare and boost your confidence at the start of the interview.
- If you are struggling with too many requests for interviews from journalists, ask your **press officer** for help. They should be able to take calls for you and help manage your interview schedule.
- When you are doing an interview try not to repeat back the questions to the interviewer. If possible, you should make your answers stand-alone, succinct statements.

“Remember that news interviews are your chance to share your expertise with the wider British public. It’s heartbreaking how often scientists waste this opportunity to get the best information out there in the public domain because they go into the interview obsessed with impressing their peers, or John Humphrys or the man from the protest group sitting next to them. The best rule of thumb is to ignore all these people and target your main messages at the tens of thousands of people watching or listening at home, many of whom are concerned about the subject and need to hear from the real experts.”

Fiona Fox, Chief Executive, Science Media Centre

communicating uncertainty in a soundbite

a guide for scientists

This guide offers some effective ways for scientists to talk about uncertainty in a brief news interview. It covers the big questions:

- Why is science uncertain?
- Why do scientists disagree?
- Why don't scientists always have the answer?
- Why do scientists change their minds?
- Why can scientific studies appear to contradict each other?

The content of this guide was compiled by a working group of scientists, press officers and journalists.

This guide forms part of the Science Media Centre's *How Science Works* series designed to encourage scientists to use the opportunities provided by a news interview to communicate more about the process of science.

Other guides available from the SMC include: *Top Tips for Media Work*, *When Animal Research Hits the Headlines*, and *Peer Review in a Nutshell*.

For more information, contact the Science Media Centre:
020 7611 8300
smc@sciencemediacentre.org
www.sciencemediacentre.org



What happens if a small study is published which contradicts the mass of evidence?

'It is important to let your listeners know that the vast majority of scientists think X, a small minority think Y.'

'Some scientists think that eating apples will give you cancer but the vast majority of scientists think it won't.'

'A study of 2 million children in Sweden suggests that there is no link between eating crisps and intelligence. A study of 15 children in Paris suggests there is a link.'

'When you have a huge body of convincing evidence, you would need something equally huge to successfully challenge that and change your conclusions.'

'This is initial research, a small study which shows us where more work needs to be done in the future, but at the moment we can't draw any wider conclusions.'

'The whole question 'is GM safe?' cannot be answered by any single experiment. Specific studies can answer specific parts of that question but alone cannot answer the whole question.'

"Science is about uncertainty. We do not yet know the answers to most of the important questions – nature is smarter than we are. But if we are patient, and not in too much of a hurry, then science gives us a good way to find the answers."

Freeman Dyson, Emeritus Professor of Physics, Institute for Advanced Study, Princeton

"The scientist has a lot of experience with ignorance and doubt and uncertainty, and this experience is of very great importance, I think. When a scientist doesn't know the answer to a problem, he is ignorant. When he has a hunch as to what the result is, he is uncertain. And when he is pretty darned sure of what the result is going to be, he is in some doubt. We have found it of paramount importance that in order to progress we must recognise the ignorance and leave room for doubt. Scientific Knowledge is a body of statements of varying degrees of certainty – some most unsure, some nearly sure, none absolutely certain"

Richard Feynman, Nobel Prize-Winner (1918-1988)

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? **Why is science uncertain?**

'Science moves from observation to observation and you get scientific progress. There is no end point.'

'Doing science is like trying to bake a cake without a recipe; you keep trying things and eventually find a way that works.'

'Science is a leap from not understanding how something works to having a view about how something works. This is very rarely achieved in one step so people try out lots of different things until it works.'

'Science is rarely about absolute certainties. It is a process of assessing evidence and coming to the best conclusions that we can.'

? **Why do scientists disagree?**

'It is the nature of scientists to disagree with each other – that's how science moves on.'

'We often advance by picking holes in someone else's work.'

'Scientists meet and discuss what they think, and then disagree and debate. And that is how they find the next step forwards.'

'Disagreement happens in science. There are lots of bubbling disagreements at the edges that eventually deposit something of a general consensus into the middle.'

'Scientists may differ over the evidence when it is limited, but as more facts accumulate, it is likely that there will be less disagreement.'

'Scientists agree about most things – otherwise we wouldn't be able to teach science in school. It's mainly at the cutting edge where there's disagreement.'

"Our disputes and uncertainties are an essential part of the concept of science, and are not an indication of disagreements between individuals."

Sir Colin L Berry, Emeritus Professor of Pathology, Queen Mary, University of London

"We continue from era to era of growing understanding, always with uncertainty at the leading edge."

Sir John Sulston, Nobel Prize-Winner

? **Why don't scientists always have the answer?**

'Scientists don't know everything. If they did, there would be no need for any more science.'

'Science works in shades of grey, not black and white.'

'Science doesn't always have the answer – we're scientists, not politicians.'

'The truth isn't set in stone which is why we carry on asking questions.'

'We shouldn't try to make everything simple but give people the credit for understanding the bigger picture. The public can understand uncertainties.'

'To the best of our knowledge right now, this is the right thing to do. But this is not going to be right for everybody all of the time – further research is necessary.'

'I would... (e.g. eat GM maize, give my baby the MMR jab). I'm not certain, but I'm certain enough.'

'I can't say this is absolutely certain because science cannot give absolutes, but based on the huge body of evidence supporting this, I am 99.9% certain...'

'We live in a society that seeks certainty however it is not always possible for science to provide this. This research is a valid step towards greater certainty...'

'Science is always working to find the answer – we now understand much more about... (e.g. HIV/AIDS, vCJD/BSE, SARS).'

? **Why do scientists change their minds?**

'Science moves in gradual steps towards certainty, accumulating evidence. This may involve what looks like a change of mind along the way.'

'If I wasn't prepared to change my mind in the light of compelling new evidence, I wouldn't be a good scientist.'

'Huge changes in scientific opinion do not happen all the time, but sometimes new evidence does cause us to change our minds. This is usually a gradual process although it may appear to happen suddenly to those outside science.'

'The hallmark of a bad scientist is they don't challenge their knowledge or entertain the possibility that it may be wrong – uncertainty is a sign of good science.'

"Scientific knowledge grows through a never-ending quest for a better understanding, providing us with more certainties in some areas, and more uncertainties in others."

*Lord Bob May,
ex-President of the Royal Society*