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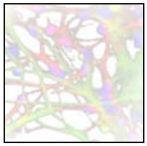
BBSRC Guide to the Media



The Brain Stem Cell image used throughout the booklet is courtesy of Yirui Sun, ISCR.

Contents

The media

The media is an industry and most newspapers and commercial broadcasters exist to make money, with editors and television producers wanting to sell the most papers or win ratings wars.

This does not mean that the media does not fulfil many valuable roles, most obviously, making the public aware of local, national and international issues which affect their lives. Nor does it mean that those individual journalists who make up the media are not passionate about portraying information accurately and for the greater good.

But it is always worth remembering that media outlets are predominately driven by sales – they have their own agenda, their own customers and their own unique selling points. They are not a free service for disseminating information.

Understanding this helps explain why some topics get mass coverage, while others which are arguably as important, if not more so, get very little.

However, economics aside, the media is a very powerful, quick and effective way of communicating messages to millions of people worldwide. Stories covered in the media shape public opinion and influence policy.

And in terms of medical and science stories, it is no exaggeration to say that the reporting of these stories can save or ruin lives.

This is why scientists and journalists have a shared responsibility to ensure that information is reported to the public accurately.

This booklet has been designed to give a brief overview of how the media works, what journalists are looking for and the vital role you can play in communicating science to the public.

Science and the media

Science underpins our everyday lives so it is no surprise that the public are interested in what researches are up to and why they are doing it. Equally, it is no surprise that public opinion is shaped so heavily by what is reported in the media, as for many people, this is the only information they hear or see.

In a survey by the Office for National Statistics[1] 75 per cent of the British public said they were 'amazed' by achievements of science, 72 per cent agreed that even if it brings no immediate benefit, scientific research that advances knowledge is necessary and should be funded by Government" and 66 per cent agreed with the statement that "science and technology are making lives healthier, easier and more comfortable".

In a MORI poll[2] the public were asked how they heard about biological developments and their regulations, 80 per cent said TV news, 74 per cent said national newspapers and 51 per cent said from their local news.

These statistics highlight why it is crucial for scientists to work with journalists to communicate their work to the public.

What is news?

News is not an exact science!

A story that might be newsworthy one day and fill the papers, may not have got a mention had it appeared the day before or the day after. It all depends on national and international events and the scandal of the moment.

But, as the name suggests, news is new! Maybe not always brand new, but a new take on existing information, something topical or something unusual.

Scandal and controversy are virtually guaranteed column inches and, in general, the bigger the human interest angle, the bigger the news is likely to be. We are fascinated by may impact on us, whether it is now, in the future or in the p

Topics which regularly get coverage inclu medical miracles, any form of reproductiv Frankenstein-type things and dinosaurs. S see, with the exception of dinosaurs, they which are all about us.

Science falls into all of the above categori it or not, journalists, and the public, are ve interested to know what you are up to.

What makes a good story?

Although you can't predict what will be on the news agenda on any given day, there are ways of increasing the chances of your research being reported on, certain ingredients that every journalist is looking for.

Firstly, what is the 'hook' - what makes your research newsworthy? Usually for scientists this is the publication of a paper in a peer-reviewed journal or presentation of data at an international conference.

Being awarded funding can also be a hook, but in general the media prefer to know about real outcomes rather than hypothetical ones. So a finished project is likely to get more coverage than a new one.

Secondly, a meaningful soundbite explaining the significance of the research and what the findings mean in day to day terms. Journalists love plain English and short sentences work best.

Thirdly, a bit of science and some digestible facts and figures. While most people are not interested in knowing the detailed methodology, they do like to understand the basics, so use a simple, jargon free explanation of how your findings came about alongside some facts and figures.

Lastly a good picture can work wonders too – what may just be a run of the mill slide shot to you, is often fascinating to the rest of the world.

Construction of a news article

Newspaper articles are constructed very differently to other types of literature.

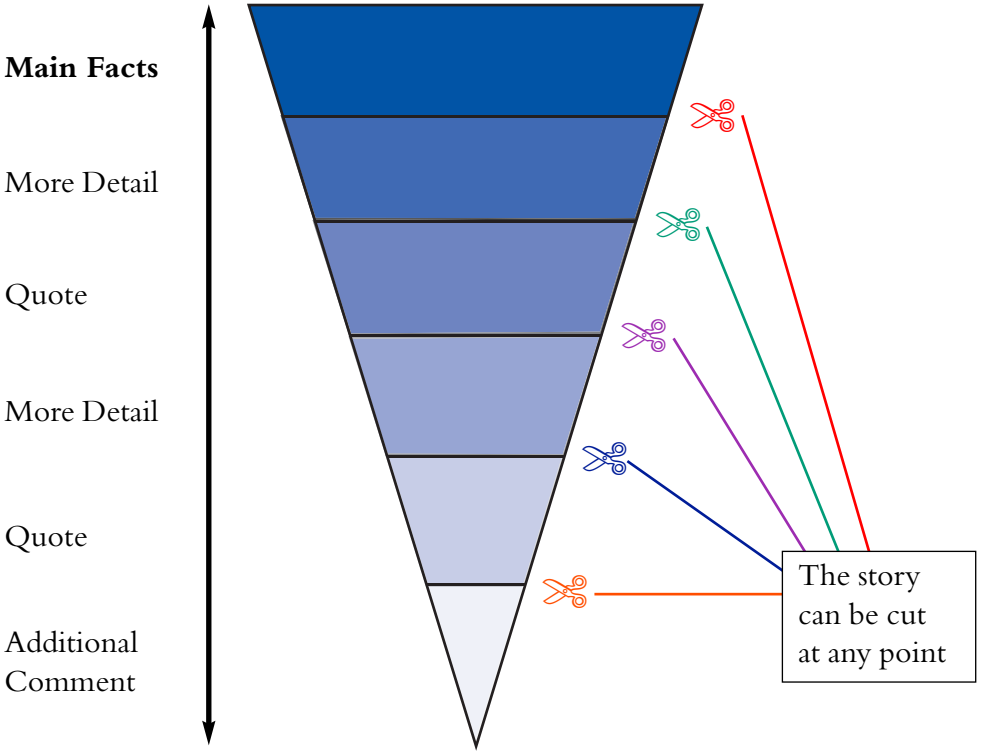
Because of the fast-changing nature of news, an editor never knows how much space they will have in the paper for any given article, and while they plan a rough layout, if a big story breaks other news will get cut. This can result in a 500 word article about your research being relegated to a 50 word news in brief article.

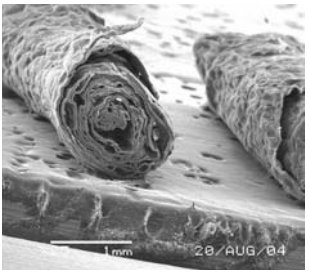
The model used to do this is very simple and often referred to as the 'Inverted Triangle,' where all the vital information is contained in the first paragraph, while all subsequent paragraphs are used to elaborate.

To ensure everything is included in the first paragraph, virtually all news articles answer the five Ws in the first few sentences – Who, What, When, Where, Why.

- **Who** has done something?
- **What** have they done?
- **When** did they do it?
- **Where** did they do it?
- **Why** is it important?

The Inverted Triangle





The five Ws

To cater for such severe editing, journalists need to make sure that regardless of whether their article is one paragraph or 20 paragraphs, it still makes sense.

The article to the right could be cut at any point by the sub-editors and still read as a full story.

World first equine clone

Scientists from the University of Idaho have successfully cloned a mule for the first time, which they hope will help advance the understanding of the causes of cancer in humans according to an article published in Science today.

Who

Where

What

Why

When

This 30 word news in brief could originally have been a substantial half page article (right).

World first photocopy mule could hold cancer key

Scientists from the University of Idaho have successfully cloned a mule for the first time, which they hope will help advance the understanding of the causes of cancer in humans according to an article published in Science today.

The baby mule named Idaho Gem, was born on the 4 May and is reported to be the first clone of a hybrid animal. Researchers believe that the same chemistry that led to the successful cloning of Idaho Gem may also help explain what causes specific cancers in humans, particularly prostate cancer.

Gordon Wood, Professor of Animal and Veterinary Science at the University of Idaho, said: "The contrasts and similarities between humans and horses at the cellular level provide a number of insights about how the relationship of certain chemicals in the body affect both normal and abnormal cell activity."

Woods, who led the study, acknowledged that their success in cloning a mule could have commercial significance for the horse-industry, but said the main breakthrough lies in providing a new animal-model for advancing understanding in human cancer.

"The mortality rate for horses with cancer is eight per cent for all cancers and 0 per cent for prostate cancer. By comparison, the mortality rate in humans is approximately 24 percent for all cancers, of which 13 to 14 percent are for prostate cancer," Woods said.

Mules, a cross between a female horse and a male donkey, are usually sterile except in extremely rare cases, so cloning is the only option for reproduction. Idaho Gem's DNA came from a foetal cell culture first established at the University in 1998.

The research team spent three years trying to clone the mule, by transferring the nuclei from the mule cells into 134 horse eggs and implanting them into mares. This resulted in two 'false pregnancies' but both failed to proceed past four weeks. In 2001 the team started to focus on the calcium levels in the fluid surrounding the eggs during the cloning procedure.

This, explained Woods, led to "impressive and immediate" results.

Headlines
Don't let these put you off!

The aim of the headline is grab the reader's attention – to sell the story. They have to be catchy, intriguing, funny, shocking or ambiguous in order to compete with all the other stories on the page.

Headlines are usually very clever – but often infuriating, depicting serious research in one flippant line. But it's important to remember that although the headline might be wacky, the article is what counts. Journalists use headlines as a lure. They are snappy and in plain English. Writing headlines is difficult and headline writers on the national tabloids are some of the highest paid journalists around.

It is also useful to remember that headlines and captions are not written by the journalist who writes the article, it is out of their control. It is sub-editors who write headlines and edit articles to fit the available space.

You and the media

It is sensible to be cautious of journalists, but don't see them as the enemy. Most journalists are as keen as you to write an accurate and interesting article. While you have your science in mind, they have their audience in mind, but these differing approaches should be complimentary.

Advantages

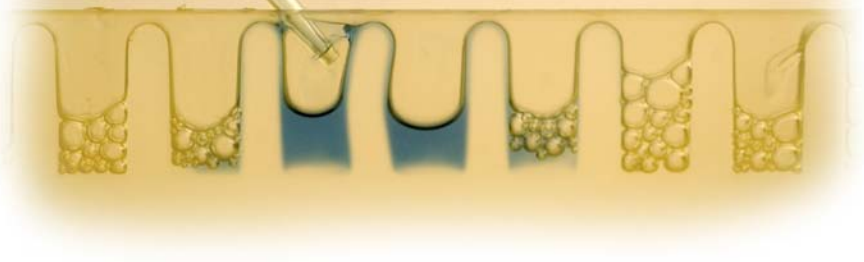
There are many reasons for communicating science to the public, no least because as tax payers, the public are often the main funders of research.

Publicly funded scientists also have a responsibility to engage with the public in order to maintain their license to operate, and the media is a good way to reach a wide audience.

The positive side of publicising science can sometimes be overshadowed by the fear of damaging headlines and misleading information. But the best way to counteract these fears is to work closely with the media.

Publicising the work of the science community can have many benefits including:

- Gaining public confidence
- Generating public/political debate
- Highlighting achievements
- Highlighting areas of need/concern
- Increasing awareness about major social/health/environmental issues
- Informing public opinion/policy
- Generating new funding opportunities
- Encouraging young people into science



Pitfalls

The main problems arise through misunderstanding, fear and hype. All of which can be avoided, or at least minimised by working with the media to dispel myths and provide facts.

Fundamental life sciences research can be difficult to portray as ultimately what journalists and the public want to know is "what does this research mean for me and my family?"

This is an important question to answer, especially when research is publicly funded. People have a right to know how the research being done will affect their lives, but this is where scientists and journalists need to exercise caution avoiding any talk of miracle cures, or deadly dangers.

Getting your message across

Assume the journalist knows nothing. Some journalists come from science backgrounds, but it is unlikely to be in your area and many have no science background, so don't expect them to know much about your research, they may have only glanced at a press release for a couple of seconds before chatting to you.

Remember you are the expert and that is why they are talking to you. Their job is to extract interesting information from you for their audience, not to know about what you do.

Think in advance how to sum up your research in two or three simple sentences, this is especially important when giving a live interview.

Don't feel pressured in to answering the interviewers exact question – they may ask you something not very relevant or be focussing on a very small part of your work, so be confident in broadening out the discussion and talking about the main points you want to cover.

It is useful to bare the five Ws in mind to help focus your comments when talking to journalists about your work:

- **Who** are you and who paid for your work?
- **What** have you done and what effect will this have on people's lives?
- **When** did you do it?
- **Where** did you do it and where is it published?
- **Why** is what you have done important?

Giving interviews

Prepare two or three key points – many more than this can lead to confusion, especially when talking on radio and television. Most interviews only last a couple of minutes and can be as short as 30 seconds, so make sure you know the main points you want to make.

Use plain English as if talking to a friend.

so instead of saying: "Our research is looking to verify existence of viable biota indicated from Viking Lander data."

say: "We are looking for life on Mars."

Sound enthusiastic about your work and make it as personal as possible, so that people can see the relevance to their lives.

Although the thought of an interview can be very daunting, remember you are the expert and most interviewers want to get the best out of you.

You may be in a situation where two people are being interviewed to cover both sides of the argument, don't let this phase you. Remember the points you want to make and try to get them across positively.

Make your science personal and real

Avoiding jargon

When you are working in a highly specialised field, it is easy to forget that a lot of the terms you use daily mean nothing to the average member of the public.

Don't confuse using simple language to explain your research with dumbing down your work, you can still get across the complexity and importance of your work without using jargon.

Sometimes it is inevitable that there will be technical terms you need to use, this is fine as long as you explain clearly what the term means at the outset.

Science speak	Plain English
Endeavour	Try
Erroneous	Wrong, false
Facilitate	Help
Necessitate	Need, require
Obtain	Get
Supplementary	Extra, more
Approximately	About
Sufficient	Enough
Validate	Confirm
Mechanisms	Systems
Methodology	Process, way

Painting pictures

Try and make your work as visual as possible. Use analogies and metaphors to help explain complex processes and liken things to everyday situations.

Topic	Possible descriptions
Infection, diseases, corrosion	Warfare, invasion
Diagnostics, monitoring	Espionage, surveillance
Energy flow, processes	Financial savings, expenditure
Chemical analysis and transformations	Food recipes, menus

Communicating risks and benefits

It is important to convey research findings and implications fairly, neither exaggerating potential application or potential risks, and where there is controversy, it is best to be open, honest and realistic about it.

It is always best to be transparent. If you are carrying out research in a controversial area then acknowledge this – you don't have to dwell on it, but this is your chance to put your research in perspective to help the public understand the risk and the advantages.

A recent report from The Royal Society[3] concludes that many of the biggest controversies in science over the past few years have arisen partly from problems in the process of communicating research to the public.

Keep things in perspective. If you are talking about a breakthrough, make sure people know it might be 20 years away. Likewise, if you are talking about risk, put it in context, such as;

"Travelling in a car is more dangerous than…"

"You are more likely to be trampled by an elephant than…"

If you are publicising work which you know may be seen as controversial, think about some of the questions that may be raised and think about how best to answer them.

It is also good to have some facts and figures to help put the need for your research in context, such as;

"Seven million people in the UK are affected by Parkinson's Disease."

"Embryonic stem cell research could lead to the development of therapies which could one day help over 128 million people in America alone."

Dos and Don'ts check list

Do know what messages you want to get across.

Do ask about the article, the angle being taken or if you are giving an interview, who else is being interviewed.

Do ask questions.

Do respect journalists' deadlines, they may only have a couple of hours to work on a story – they are not trying to be awkward.

Do get the contact details of the journalist and the publication, you may think of something you forgot to mention in an initial interview or you may wish to contact them in the future about your work.

Do ask when it likely to be published or broadcast. With some papers and broadcasts there are different editions, so your work may feature in the early morning edition, but by lunchtime is nowhere to be seen.

Do think about the audience and use simple language – you want to tell as many people about your research as possible.

Do keep your press office posted – they may be able to offer advice or useful information and it also helps them build relationships with journalists as well as giving them an idea of possible follow-up phone calls they might get as a result of the coverage.

Don't be afraid to say you can't answer a question or that it is not your area.

Don't be drawn in to discussions you are not comfortable about or that you know little about.

Don't feel you have to comment straight away. If a journalist calls unexpectedly asking you to provide a quote, you don't have to say something immediately. Take the journalists details and call them back once you have had time to think of what you want to say or to chat to colleagues.

Don't talk 'off the record' or 'unofficially'. Only say what you are happy to be quoted as saying, that way you minimise the risk of any nasty surprises!

Using your press office

Most organisations have a press office. You will probably find that you have access to a couple – one at the institution where you work and one at the body you receive your funding from. So while it's important to have an understanding of the media process, don't forget you have people to help you handle the press.

Press officers are there to help!

Press officers work as gatekeepers to individuals and organisations, guiding journalists to the people they need to talk to, making sure communications run smoothly and managing the production and distribution of press releases.

Press officers work reactively and proactively – responding to an array of queries from journalist as well as contacting journalists directly about the work of the organisation.

What your press office can do for you:

- Provide media support and advice
- Write press releases to publicise your work
- Provide formal or informal media training

What you can do for your press office:

- Let them know if you have a forthcoming publication, where possible giving at least two-weeks notice
- Let them know if you are presenting at a conference
- Offer to be an 'expert' on your given topic if a journalist needs a quote about a specific area
- Provide photos and images
- Let them know if a journalist has been in touch

Making your voice heard

If you feel outraged at how a topic is being represented in the media, remember that you do have a voice and you are an expert in your field.

You may want to comment on how an article about your work has been reported or you may wish to comment on a debate about a particular area.

Talk to the journalist

If it is following an interview you have given, the first thing to do may be to talk to the individual journalist, give them a chance to explain what happened, it may have been poor reporting or it may have been poor editing which is out of their control.

Talk to the Editor

Editors tend to take complaints very seriously and, depending on the scenario, may print a correction, an apology, or may dedicate some space to the issue so that a follow-up article can be written.

Letter to the Editor

This can be a very powerful way of airing your views publicly. The letters pages of national newspapers are read by many influential decision makers. As an expert in your field, you may want to add your views to a debate.

Press Complaints Commission

The Press Complaints Commission is an independent body which deals with complaints from members of the public about the editorial content of newspapers and magazines.

Always talk to your press office first as they can offer support and guidance.

Contacts

BBSRC Media Office

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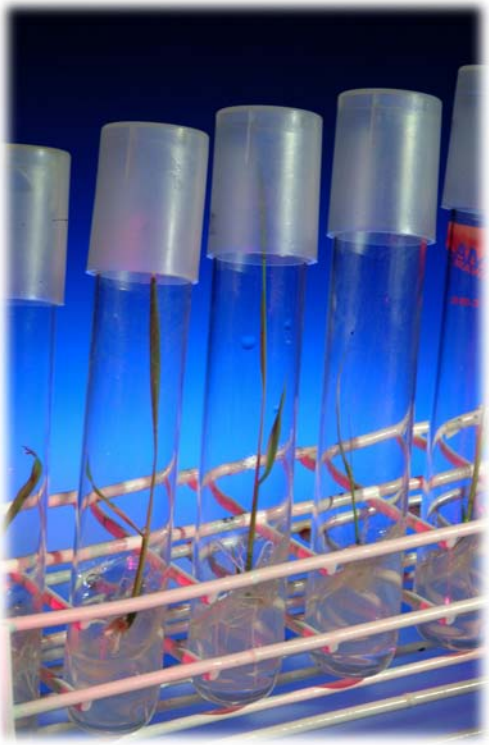

Image courtesy of John Innes Centre

Useful Resources

Your Press Office

Science Media Centre

The Science Media Centre is an independent venture working to promote the voices, stories and views of the scientific community to the news media when science is in the headlines.
Tel: 020 76702980
www.sciencemediacentre.org

The Royal Society

The independent scientific academy of the UK dedicated to promoting excellence in science.
Tel: 02074512500
www.royalsoc.ac.uk

The BA

The BA is a charity which exists to advance the public understanding, accessibility and accountability of the sciences and engineering.
Tel: 0870 7707101
www.the-ba.net

Further Reading

Guidelines on Science and Health Communication (2001) Prepared by the Social Issues Research Centre, in partnership with the Royal Society and the Royal Institution of Great Britain.
ISBN 0 85403 570 2
www.sirc.org

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1. OST and Wellcome Trust (2000) *Science and the Public: A Review of Science Communication and Public Attitudes to Science in Britain.*

2. MORI (1999) *Annual Business and the Environment study and Environment Journalists survey.*

3. The Royal Society (2006) *Science and the public interest – Communicating the results of new scientific research to the public.*

This booklet was compiled on behalf of the Biotechnology and Biological Sciences Research Council by Tracey Jewitt. June 2006