# How to write popular science

Dinesh C Sharma

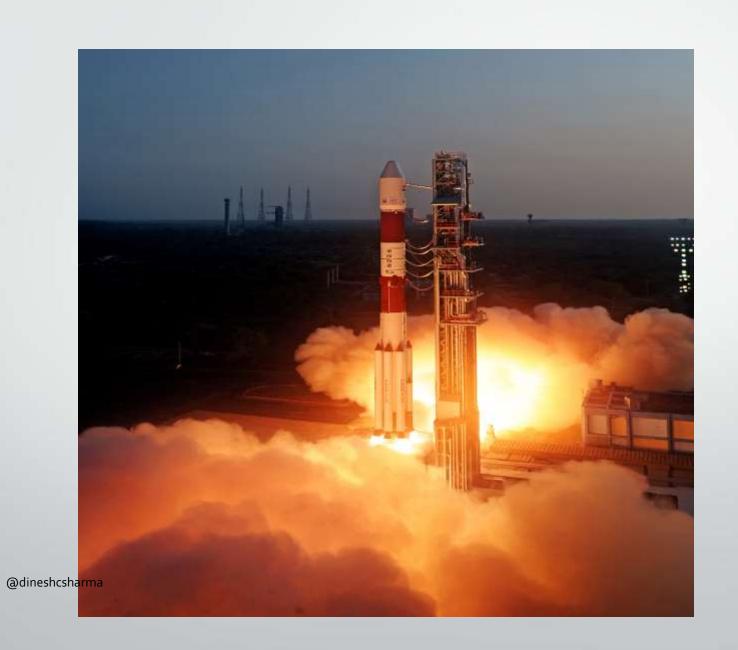
- What is science communication?
- How to write good science articles and features?
- How to get published and where to publish?

#### What is science communication

- Communication of science to public by scientists and non-scientists
- Explaining scientific concepts and ideas to lay public for greater understanding
- SC is important because developments in science and technology touch lives of all people

- Both scientists and non-scientists can engage in SC
- SC takes place through a variety of means – science museums, science exhibitions, books, films, radio and TV shows, newspapers, magazines, online media, lectures, talks
- Science writing

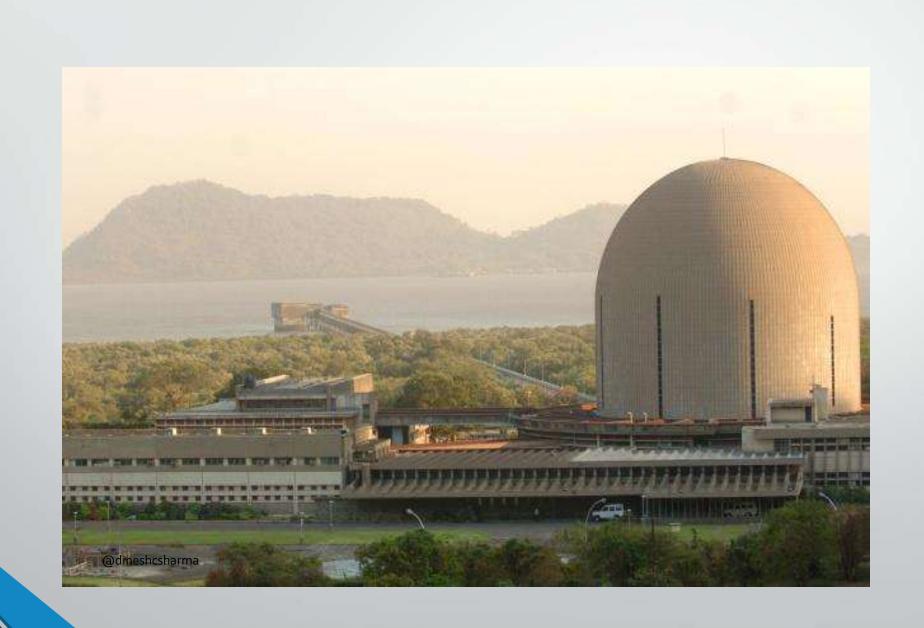
- SC covers a very wide range of topics from Dark Matter to Stem Cells
- Science, health, environment, agriculture















@dineshcsl





@dineshcsharma

# How to write good science articles and features?

# Plan your story

- Hunt for a subject
- Ask the right question
- Do your research
- Plan interviews/ get quotes
- Decide on "news angle"/topicality

# Looking for a subject

- Events versus Issues
- Not the obvious
- Topicality
- Relevance

### Sources of science news

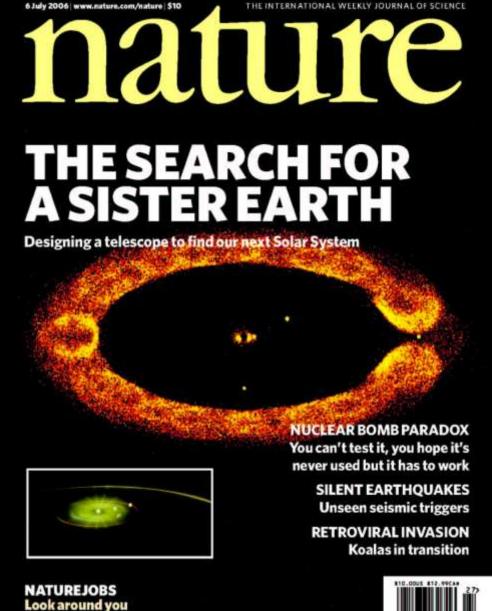
- Scientists
- Institutions
- Scientific conferences
- Scientific journals
- Government departments
- Independent organizations

@dineshcsharma





@dineshcsharma



# **CURRENT SCIENCE**

Volume 104 Number 1

10 January 2013

Rediscovery of India's first dinosaur

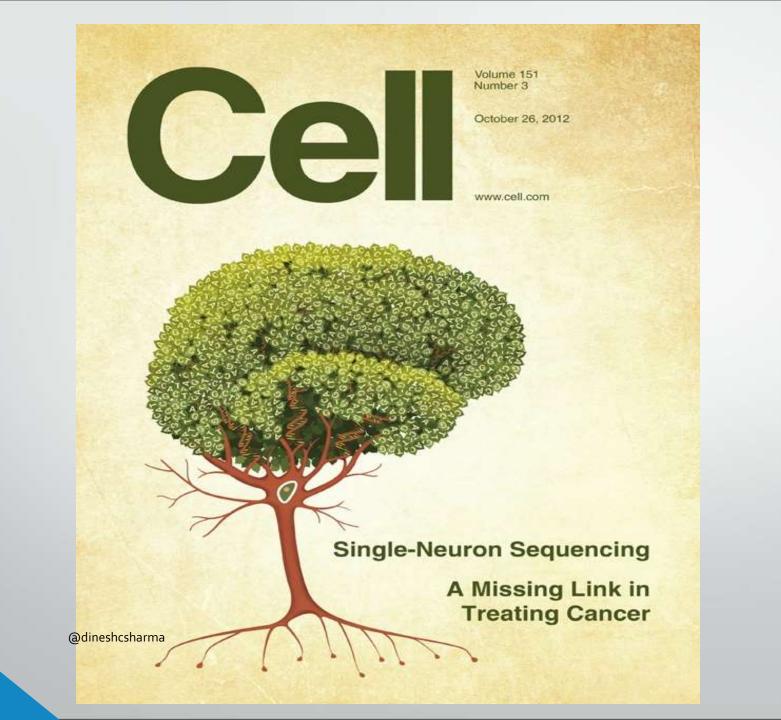
Docking-based virtual screening approaches

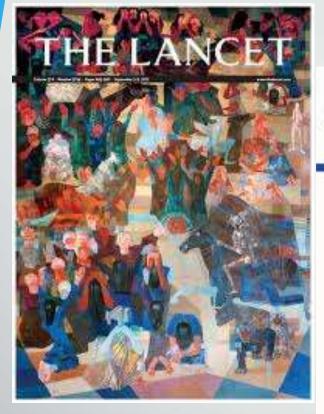
The River Saraswathi was a Himalayan-born river

Mitochondrial DNA diversity and origin of Bos frontalis

@dineshcsharma

Current Science Association Indian Academy of Sciences

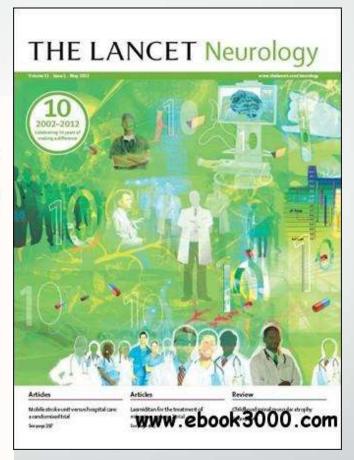




# THE LANCET

"The New Stop TB Strategy and the Global Plan, with the important new developments outlined in this issue, present an ideal opportunity to turn the tide against tuberculosis."





# Putting it all together

- Keep it simple
- Humanise it
- Highlight interesting information
- Don't overload with information

- Do not use any jargon
- Avoid too much explanation or encyclopedic information
- Use proper/ qualitative quotes

- Give all sides of a story
- Mention the journal where it was reported
- Report funding of study, if necessary
- Study done in humans/animals
- Sample size, population groups
- Potential risks

- Do not create hype "breakthrough"
- Examine claims carefully
- Balance it out in case of a controversy
- Put it in a context
- Include necessary background
- Take special care of numbers

- Don't write a list of facts but a "story" with threads
- Check facts
- Get quotes right
- Revise, re-read, improve

#### How to write readable articles

- Be clear about what you want to say
- Use smaller sentences, more paragraphs
- Organise the content logically
- Use quotes at appropriate places
- Avoid cross-references, jargon

# The 3D printed HEART: Scientists could soon build replacement organs using a patient's own cells

- Scientists from the Cardiovascular Innovation Institute in Louisville, Kentucky, are able to print parts of hearts including blood vessels
- They think it will be possible to print an entire heart in three to five years' time and for it to be tested in humans in less than a decade
- The finished product would be called the 'bioficial heart' a blend of the natural and artificial
- Bioficial hearts are desirable as they could solve the rejection problem some patients have with donor organs or an artificial heart



From a human ear, to perfectly functioning valves, 3D printers are already being used in medicine, but now scientists in the U.S. are attempting to build a whole human heart using the versatile piece of kit.

Their ultimate goal is to create a new heart for a patient using their own cells that could be transplanted.

It is an ambitious project to first make a heart and then get it to work in a patient and it could be years - perhaps decades - before a 3D printed heart would be put in a person in a standard operating theatre.



## Lead

From a human ear, to perfectly functioning valves, 3D printers are already being used in medicine, but now scientists in the U.S. are attempting to build a whole human heart using the versatile piece of kit.

@dineshcsharma

Their ultimate goal is to create a new heart for a patient using their own cells that could be transplanted. It is an ambitious project to first make a heart and then get it to work in a patient and it could be years - perhaps decades - before a 3D printed heart would be put in a person in a standard operating theatre.

The technology, though, is not all that futuristic.
 Researchers have already used 3D printers to make splints, valves and even a human ear.

 So far, the University of Louisville in Kentucky has printed human heart valves and small veins with cells, said Stuart Williams, a cell biologist leading the ambitious project. They have also successfully tested the tiny blood vessels in mice and other small animals and Professor Williams believes scientists will be able to print parts and assemble an entire heart in three to five years.

The finished product would be called the 'bioficial heart'
- a blend of the natural and artificial. The biggest
challenge is to get the cells to work together as they do
in a normal heart, said Prof Williams, who heads the
project at the Cardiovascular Innovation Institute.

- Dineshcsharma.wordpress.com
- Twitter: @dineshcsharma