Tips for scientific writing for a general audience

As a writer you face the challenge to keep your audience motivated as well as confident – regardless of your background and the message you would like to transmit. Writing for a general audience can be a delightful as well as a dreadful task. In order to get the fun part, here we have written some advice what we think might be helpful to consider.

- Identify your audience, the people you are writing for. Are you preparing a text for a special audience (such as high school students of an advanced biology course) or for the general public? What common level of knowledge do you expect your audience to have? Determining the answer to this question may help you decide how far with the details you may want to get. On the other hand is it necessary to introduce the discovery of the DNA double helix? Does the reader need to understand the physics behind molecular modeling in order to be caught by the beauty of a three dimensional protein structure?

- If possible, choose a particular topic that is of great interest to the public. In that way, you can expect that the public has prior knowledge of the issue for discussion.

- Avoid scientific jargon. Words like ‘receptor mediated endocytosis, nuclear magnetic resonance, nonsense mediated decay’ are OK when talking to scientists, but can cause great confusion to the general public. Try to substitute complex, scientific terms with daily life words or introduce them in an understandable fashion. Try to stick to the same scientific expressions throughout the text.

- Use metaphors and games if you try to explain a difficult and complex issue. For example, we know that it is exciting to describe every component of the notch signaling pathway, but it not necessarily so for the rest of the people. However, you may describe the components of the notch pathway as if they are part of a machine, just like the engine of a car.

- Improvise! Writing a simple, plain text is quite challenging. But how about writing a story, or even more a theatrical dialogue? Try to catch people’s attention. Try to find new ways of communication.

- Originality is the spice of an essay. To be original is to not confine oneself to the boundaries set by one's predecessors. If you are having trouble thinking of something innovative to write, begin by developing a concept, a point if you will, that you want to convey to the reader.

- Don’t be scared that your audience might be bored. In order to surprise even a scientist specialized in the field it might be enough to put your topic into a novel general context. The best generally understood review articles have a broad perspective.

- Edit, edit, edit! The golden rule! Go through your text several times to improve the grammar, syntax and content. Try to imagine what a simple person would think when reading it. Try to anticipate questions that might arise when reading the text and
answer them. If possible, give the text to a non-scientific person and ask for his/her opinion. And finally, get your red marker …. set ….go!

Below you may find some links with more information about scientific communication and the general public:

http://www.embo.org/projects/scisoc/tips.html
A web page with some small tips from the Science and Society program of the European Molecular Biology Organization.

http://www.research-councils.ac.uk/guidelines/dialogue/
A web page of the Research Councils UK about practical guidelines in the dialogue with the public.

http://www.absw.org.uk
The Association of the British Science Writers with some interesting information and links about science writing

http://www.stempra.org.uk
The Science, Technology, Engineering and Medicine Public Relations Association

http://psci-com.org.uk/
A web page from the Wellcome Trust about public engagement to science

http://www.bbsrc.ac.uk/schools
The BBSRC web page for Science through Schools & the Community