



An Interview with Lesley Anson: Establishing Yourself in the Science Editing World

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A crucial step in a scientific manuscript's publication, scientific editors find themselves at the intersection of the science and business world. They remain in touch with the innovative culture of science, while staying away from the lab bench, making this job sector a perfect environment for people with a keen interest in science, but who want to leave the white coat behind.

Scientific research papers are the primary way in which scientists communicate their findings to the wider community. However, a critical process of reviewing and editing occurs before these papers are finally published in scientific journals. So, scientific editors work closely with the paper's authors to improve their scientific manuscripts, with the final goal of producing a final product that clearly portrays the scientific findings to the readers.

Recently, I had the pleasure of interviewing Lesley Anson, who has established herself in the world of science editing and communication. By working as a scientific editor at Nature, managing her own established journal and more recently starting up her own freelance consulting company Anson Scientific, Lesley has been able to develop critical analytical skills and see this sector from every possible angle.

Before she had even aspired to enter the world of scientific editing, Lesley had learned how to critically review scientific papers in her undergraduate degree studying Physiological Sciences at Newcastle University. During her undergraduate degree, she spent an entire module on reviewing and editing scientific manuscripts, which was invaluable to her career.

'I didn't know then, but I was actually developing a key skill, which I had to use every day when working at Nature,' Lesley said. 'I actually think this was one of the main reasons I landed my first job as a scientific editor.'

After her undergraduate degree, Lesley started a PhD in Auditory Biophysics at the University of Bristol. Throughout her 3-year PhD, she researched the mechanisms of how our brains recognise and translate sound. She did this by focusing on which chemical neurotransmitter signals transfer auditory information from the first point of contact, the cochlear inner hair cells, into the rest of our brains. Lesley's early work, published in the *Journal of Physiology* in 1995, supported the hypothesis that the excitatory neurotransmitter glutamate was essential for the first steps of this transduction pathway. [Characterising these complex signaling pathways is crucial for the development of hearing loss therapeutics](#)



Photo courtesy of Lesley Anson.

[agents](#), as hearing loss is often caused by overstimulation of these auditory receptors (Raphael 2002).

From her PhD, Lesley found that she had a keen interest in neurobiology and glutamate signal transduction. She continued her research within this narrow avenue, by taking a postdoctoral position at University College London, researching the ionic glutamate receptors: N-methyl-D-aspartate (NMDA) receptors, publishing these findings in the *Journal of Physiology* in 1998.

She fully enjoyed this experience, as she enjoyed the fast-paced working environment of lab work and getting to consistently learn new techniques. Yet, she knew that in the long term she did not want to pursue a career in academia.

'When I was looking to change the direction of my career, by chance I saw an advert for a position at Nature as an editor of their molecular neurobiology manuscripts,' Lesley said. 'I applied and got the job! I would definitely say I fell into this new working chapter of my life, but it allowed me to continue being close to the parts of science that I loved. Learning about new interesting scientific findings and still being interconnected with the scientific community, without being in the lab.'



Lesley explained how when she approached a new paper she had to keep in mind two major questions. The first looked at: 'Is this paper suitable for the journal?' Nature for example was looking for big, surprising findings, which would apply to multiple scientific fields. She then also had to make a technical decision, looking at both the experimental design and the solidness of the conclusions concerning the presented results. This process involves a highly stringent, peer-reviewed process, which includes getting opinions from other experts in the field.

'When I was a Scientific Editor, the job was highly interconnected and diverse,' Lesley said. 'I had to establish strong relationships with my colleagues at Nature, the paper's authors, and the expert reviewers in the field, so we could all work together to improve the manuscripts.'

After working as a scientific editor at Nature for 10 years, Lesley then started up a new side journal called Nature Communications. Unlike the main body of Nature manuscripts, Nature Communications published submissions from specialised research areas. The journal grew in a way that Lesley never imagined. Her original team of a mere 3 editors grew to 40 in just 6 years.

After leaving Nature Communications to start up her own independent business venture, Lesley would still definitely say that Nature Communications has been one of the highlights of her career. The journal received almost 1,900 submissions in her last month as Editor-in-Chief. Also, the journal achieved an impact factor of an impressive 12. Contextually, in the 2017 Journal Citation Report by Clarivate Analytics, which reviewed over 12,000 different journals' impact factors, they found only the top 1.9 percent of journals received an impact factor of 10 or above.

Now, she manages her own freelance consulting company called Anson Scientific. While running her business she is able to rekindle with the primary scientific literature, as she is able to provide editing advice on scientific papers destined to be submitted for publication.

As the founder of Anson Scientific, Lesley has been able to edit publications from establishments such as Harvard Medical School and Imperial College London while also providing training for individual researchers and institutions in manuscript editing and writing.

Lesley's career is an example of how opportunities arise and can steer you in a direction you never imagined. The important thing however, is that you keep in touch with your key interest, which for Lesley was the ever-evolving environment of science. The important thing however, is to remain in touch with your key interest, which for Lesley was the ever-evolving environment of science.

'Do something you love, as you spend a lot of time doing it,' Lesley concludes.

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