A day in the life of a Bioethicist

Dr Silvia Camporesi graduated with a BSc in Biotechnology and a MSc in Medical Biotechnology from the University of Bologna, Italy. She then went on to work as a scientist at the International Centre for Genetic Engineering and Biotechnology in Triest, Italy, investigating animal models of post-infarction. Dr Camporesi holds two PhDs: the first in Foundations of Life Sciences and Ethics (2010) and the second in Philosophy of Medicine (2013). She is now a tenured Senior Lecturer in the Department of Global Health & Social Medicine at King's College London, where she is also the Director of the MSc programme in Bioethics & Society. Lorenza Giannella (Training Manager, Biochemical Society) spoke to her about her work.

How did you get into bioethics?

I worked as a scientist in a gene therapy lab in the UN-funded International Centre for Genetic Engineering and Biotechnology in Triest, Italy. My project involved using adeno-associated viral vectors to carry transgenic copies of vascular endothelial growth factors (AAV-VEGF). We were working on animal (rat) models of post-infarction and investigating whether AAV-VEGF transposed rats would do better than their controls in terms of recovery and functionality after strokes. I got into bioethics as it soon became apparent to me how the same gene transfer technology that we were using to 'treat' rats could be used to 'enhance' performance by enabling better revascularisation of a muscle (heart, or others) in anaerobic conditions. What if we employed the technology to enhance rat functionality beyond their norm, i.e. to get them better than what they were before? Would it be ethically justifiable? What if we did the same in humans, for example, athletes? Indeed, gene transfer technology when applied for the purpose of enhancing athletic performance is referred to as 'gene doping' and is banned by the World Anti-Doping Agency. This and other similar questions led me away from the molecular biology bench to pursue a career in bioethics. It took me a while to switch careers, as I needed formal training in applied ethics/philosophy, but I eventually earned two PhDs in bioethics—one from the University of Milan in collaboration with the European Institute of Oncology in 2010 and one from King's College London in 2013.

Can you describe a typical day?

I am a bioethicist working in academia, based in a social sciences department. My responsibilities are divided between directing the Bioethics & Society postgraduate programme at King's College London, teaching various postgraduate courses in various topics in bioethics, and doing my own research on ethics and emerging biotechnologies, and ethics and sport.

What inspires you about your job?

One of the things I enjoy most about my job is teaching, and the contact with students. We have terrific postgraduate students from different disciplinary and professional backgrounds from around the world who

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join us at King's for one year to study Bioethics & Society. As a result, learning really goes both ways when I teach bioethics to our students. I also take their career ambitions very seriously and support them after they have completed the programme with us. I do not consider my job as programme director fulfilled until I know that my graduates have secured a job in the field.

What do most people not realize about your job?

A bioethicist is somebody who investigates ethical issues related to biomedicine, and life sciences more broadly. It is really somebody who brings together different types of expertise: scientific, and ethical. However, bioethicists are not experts on everything which relates to ethics and biomedicine/the life sciences. We specialize in topics, just as doctors specialize in organs. Some of us work on ethical issues relating to the beginning of life (for example the moral status of human embryos and use of human embryonic stem cells and similar for research), others on the end of life (euthanasia, assisted suicide, advance directives), on topics related to reproduction (prenatal screening and similar), drug testing (clinical and research ethics), or on the impact of new and emerging biotechnologies on other aspects of life. I would add that climate change ethics and environmental ethics also fall under the umbrella of bioethics, although not everybody may agree with me on this point.

What is your advice for someone who would like to pursue a career in bioethics?

A degree in sciences or biomedical sciences or biomedical engineering can be very helpful for someone starting a career in bioethics, and it is a plus when entering the job market it allows bioethicists to relate well with scientists. However, it is not essential, especially since the science progresses so quickly and there is always a 'new' and 'emerging biotechnology' around the corner which probably wasn't covered in your university degree. As long as there is a constant commitment to learn and stay updated with the developments at the frontier of biomedicine and biotechnology, other backgrounds can be very helpful too, including social sciences, law, philosophy or engineering. ■

Job Profile – Bioethicist

A bioethicist investigates controversial issues relating to advancement in medicine and technology. They analyse ethical components of medical actions and decisions, providing an ethical justification in situations of conflicting values.

Qualifications and key skills

Bioethicists work at the interface of science and ethics and need to have an interdisciplinary background. Bioethicists typically hold a bachelor's degree in a scientific, medical or healthcare related subject or in law, philosophy or social science, and a postgraduate degree in bioethics. You don't need a PhD to be a bioethicist unless you want to pursue a career in academia. A constant commitment to keeping up-to-date with developments in biomedicine is necessary, as well as the will to engage in dialogue and debates.

Responsibilities

Bioethicists can work in a variety of settings, such as academia, hospitals and other clinical contexts, biotechnology, pharmaceutical companies and government agencies. Their day-to-day duties therefore depend on their work environment and on their specialization. Typically, they explore how progress in biomedicine and technology relate to society's established values and they interact with a variety of individuals, from scientists and students to policy makers and patients. Bioethicists can also work in think tanks and or science communication and public engagement-related organizations.

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