FEBS SPECIAL SESSIONS

Monday 9 July
15:30–17:30, South Hall 2B

Education – Bioethics education in molecular life sciences

FSS.Edu-3
Why teaching of bioethics matters & developing case studies in bioethics

C. Willmott[1], J. Bryant[2]
[1]*University of Leicester, Leicester, United Kingdom,* [2]*University of Exeter, Exeter, United Kingdom*

With the pace of developments in molecular bioscience, the curriculum gets more crowded, and the distance from school-level science to the cutting edge gets ever greater. Under those circumstances, surely there's not time to fit in discussion of ethics as well? In part 1 of this session, Chris Willmott will argue that some consideration of the implications of bioscience is more important than ever. Case studies in a variety of styles are established ways to get students engaged with the ethical consequences of developments in molecular biology. In part 2, building on from the initial talk, Chris Willmott and John Bryant will lead a workshop offering some advice and training on developing case studies for use with bioscience students.

FSS.Edu-2
Introduction of bioethics into molecular life science education: a timely requirement or just a personal opinion?

R. Heumann
Faculty of Chemistry and Biochemistry, Ruhr-Universität Bochum, Bochum, Germany

Gaining new insights is a major driving force for research activity in molecular life science. Although, recent advances made by the arrival of new techniques such as CRISPR/Cas9 give rise to hopes for curing genetic diseases, its possible implementation in germline editing of plants, insects, mammals and man raise fundamental ethical questions. At the same time frame a balanced public response such as the establishment of suitable funding criteria, distribution of knowledge about novel therapies, evaluation of environmental risks and changes in legislation is difficult to achieve. In order to bridge the communication gap between scientists working in the laboratory and the acceptance of a new technique in the public who is critical about anticipated adverse outcomes, we suggest to enhance the awareness of scientists themselves for ethical topics. As students in life sciences are starting to participate in the establishment of techniques and their applications mentioned above, they should be educated as early as possible to evaluate the consequences of their experiments not only for their own career but also for human welfare. Here we present in more detail how we work on selected topics in "Bioethics" in a credited course within the Bachelor program of biochemistry at the Ruhr-University of Bochum. The course is performed in collaboration with the department of applied ethics, faculty of philosophy and educational research. Specific ethical topics are presented in plenary lectures by supervisors followed by presentations from a group of 3 students each defending pro- and contra- aspects and ending with a general discussion. Taking together, recent developments in molecular biology imply the possibility of germline modification calling for a global debate also from within the scientific community. In collaboration between professionals in applied ethics and biochemists the implementation of ethical topics in molecular life science education is encouraged.

FSS.Edu-1
Institutional policy to implement bioethics principles in graduate education

S. H. Orer
Koc University School of Medicine, Istanbul, Turkey

In an increasingly globalized research enterprise, institutions are responsible for establishing an ecosystem where integrity is crucial. Since the knowledge is the most valuable commodity, it is essential to assure the added-value of research by increasing transparency in funding, declaring the conflict of interests and safeguarding the bioethical principles. Besides the deliberate violations, involuntary or unforeseen risks may compromise the research outcome in life sciences. Universities and other research institutions should always hold the moral high-ground, and the top-administration is liable for the creation of a culture that nurtures the academic freedom and integrity as well as promotes the principles of bioethics in a broader context. Graduate education is instrumental in the production of both new knowledge and researchers. It thus provides with an ideal vantage point to monitor the infiltration of the bioethical principles in institutional culture. New groundbreaking discoveries may create unexpected bioethical problems that are hard to solve and graduate education may be the very first medium to discuss these issues. In old institutions with stiff traditions, callous institutional procedures may not be able to assess the breach in bioethics unless specific whistle-blowing mechanisms exist. Furthermore, stretching the rules for the sake of success jeopardizes the safe and responsible research. Also, in countries with a varying degree of integration into global science the implementation of bioethics into graduate education may be perceived differently. In most countries, ethical review committees exist, however, their scope is limited to the protection of human and animal subjects. Both top-down and bottom-up approaches are needed to increase awareness about bioethics, biosafety and, social and environmental impact of the research. An overarching policy that encompasses bioethics, research priorities, and institutional practices is also necessary.

Tuesday 10 July
15:30–17:30, Club B

Gender issues in science

FSS.WiS-3
The importance of advancing development and use of methods of sex/gender analysis

E. Pollitzer
Portia, London, United Kingdom

The aim of this presentation is to draw attention to the importance of sex/gender analysis in research content and process. Three novel perspectives are currently driving the gender discourse. In the social sphere, discussions of gender inequality have

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