

Dr. Rafael Palacios.
Coordinator.
Undergraduate Program on Genomic Sciences.
National Autonomous University of Mexico.

Dear Colleague,

The following describes my assessment of the Undergraduate Program in Genomic Sciences in terms of its curriculum and the quality of the students. As regards the latter, my evaluation stems from my contact with the students on the occasion of my invited lectures on bioethics to the student body and faculty of the Centro de Ciencias Genómicas, UNAM Cuernavaca, in September 2006.

The curriculum is well balanced and corresponds roughly to similar undergraduate curricula I have come across at European Universities. Three aspects of the program seem particularly notable to me and show a genuine effort to equip the students with a broad scientific perspective, that should open them the doors to graduate work in a variety of research settings. The first is the insistence on a rather advanced level of mathematics, comparable to what engineering students would typically receive. I think this is a wise choice, which will help students look beyond the "nuts and bolts" approach to informatics and make them capable to participate in many kinds of modelling tasks. This will also give these students a competitive edge relative to more traditionally schooled biologists. The second interesting element is the major place given to evolutionary theory. This is absolutely essential for genomic scientists, so that they can have a real vision of what they are called to do in research and grow to become reflective scientists, rather than being used simply as computer technicians. Finally - and as a bioethicist, this may sound slightly self-serving! - the significant place given to bioethics and social issues is to be welcomed. Aspiring genomic scientists will work in scientific fields which raise important and complex ethical and legal issues, and sometimes even to societal controversies. They will be expected to be competent opinion leaders and educators in those aspects as well, in addition to the purely scientific side of their profession.

My contact with the student body was rather limited, as mentioned before. Nevertheless it was immediately obvious to me that this was a rather exceptional group of young people. Inquisitive, fast-reacting, "intense", wanting to know ever more: this is how I perceived these really bright students. I left Cuernavaca tired but happy! I noted that the students often show a significant background in the humanities and philosophy, which suggests a high-quality pre-university educational background. In addition, I was impressed with their willingness to learn more and even to take initiatives to enhance their own education in bioethics. To me, they correspond to the new kind of student our universities and our society needs: not the obedient and passive learners of some received dogma, not the consumers of a fixed educational menu, but the active co-operators and co-designers of their own education. I can only wish them well for the future.

With best regards, I remain,
Sincerely yours,

Alex Mauron, PhD
Full professor of bioethics
Faculty of medicine
University of Geneva
Switzerland