Graduate training in Science at the Masters and Ph.D. levels has changed in recent years, especially involving increasing focus on soft skills and career diversification in a global world. Taking advantage of a fifteen-year experience in the distinct philosophies of the Masters in Biochemistry (MBq), Masters in Biology (MB), Masters in Molecular Cell Biology (MBCM), Ph.D. in Biosciences (PDBsc) and Ph.D. in Experimental Biology and Biomedicine (PDBEB) at the University of Coimbra, several of these aspects will be brought into focus via examples throughout the talk.

Of course, a strong basis in key scientific skills, and the ability to adequately and creatively address all the modern technological and conceptual innovations in each field is still paramount, and should never be neglected as the most important aspect of graduate training. Exposing students to distinct sub-fields and speakers with distinct styles and experiences is also crucial to ensure breadth of training, but avoid formatting. In parallel, students should get solid exposure to complementary skills including aspects related to intellectual property, industry connections and entrepreneurship, bioethics, science policy/lobbying, or scientific writing, among many others. Notably, the importance of societal issues and science engagement activities with different kinds of audiences has increased, with attention being paid to proper science dissemination and communication strategies. It is crucial that students be made aware of ever changing options in terms of career development, for example via positive reinforcement using examples of program alumni with diverse experiences, and that, besides outstanding science, have gone on to other relevant activities. In parallel, the main pitfalls in proper career development should also be highlighted, so that students can make informed decisions. Perhaps the main issue is the recognition that one size does not fit all, and that there are several noteworthy pathways that can be successfully pursued.

Keywords: science dissemination, communication strategy, graduate training