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.