

I-L1: Ethics and Scientific Integrity

Person in charge and Representative	Seifert
Contact person	BIOMEDAS Office
Semester	1-2
Topic cluster	Interdisciplinary
Duration/Credit	3 x 1,5h
Time	
Place	The lectures can be given using online platforms as WebEx
Prerequisite for the lecture	none
Aim of the lecture	<ul style="list-style-type: none"> ● The lectures will demonstrate how important an professional and honest ethical attitude and scientific integrity are for successful and useful research. The lecture will use many true examples form the scientific world to illustrate these principles. The following topics will be covered: ● The principles of proper professional conduct ● Open and hidden conflicts of interest in science ● Problems associated with the execution of clinical studies ● Different forms of harassment and discrimination and how to deal with these issues ● Data documentation in the laboratory and in scientific publications: The importance of raw data ● How improper graphics can misrepresent data ● Data manipulation and “service” laboratories ● “Whistle-blowing” ● How political systems can encourage scientific misconduct ● What we can learn from case studies of scientific misconduct and fraud ● The problems of fake news and social media for science ● The process of scientific publishing: Focus on data documentation, author contributions, honory authors, peer review, honest errors and scientific misconduct ● Problems associated with the “Impact Factor” (IF) ● The issue of predatory journals ● How to critically read scientific literature ● Ghost-writing companies and paper mills ● Open-access publishing ● The beauty of imperfect data ● The importance of proper communication with the public, politicians and the press for science