



## General Information

<b>Module Title</b>	<b><i>Good Scientific Practice</i></b>
<b>Tutor Name(s)</b>	<i>U. Dirnagl</i>
<b>Location where module takes place</b>	<i>Humboldt Graduate School Luisenstraße 56 10117 Berlin Ballroom Monday 14 September 2009, 14:00 to 17:00</i>

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<b>Suitable for the tracks</b>	<input checked="" type="checkbox"/> <i>Biology/Biochemistry Track</i>		
	<input checked="" type="checkbox"/> <i>Chemistry/Physics/Engineering Track</i>		
	<input checked="" type="checkbox"/> <i>Clinical Scientist</i>		
<b>Type</b>	<i>Lecture</i>	<b>Level</b>	<i>beginner</i>
<b>Days</b>	<i>1</i>	<b>Max. Participants</b>	<i>no limit</i>

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## Objectives this module

"The most dangerous of all falsehoods is a slightly distorted truth." *G.C. Lichtenberg (1742–1799)*

GSP is an attitude of mind that becomes an attitude to work. It is about the way in which research is planned and conducted, the results are recorded and reported, and the fruits of research are disseminated, applied and exploited. It allows ready verification of the quality and integrity of data, transparent basis for the investigation of allegations.

Spectacular cases of scientific fraud, like Hwang's claim to have cloned human embryos, have received broad coverage in the media. Is big scale fraud in science just the tip of the iceberg of a much wider problem? In a paper in *Nature*, Brian Martinson, and colleagues reported the results of a survey of the ethical habits of American biomedical scientists. In this, the first large study of its kind, they found that 33% of respondents admitted committing at least one professionally dubious act in the previous three years (Martinson BC, Anderson MS, de Vries R (2005) Scientists behaving badly. *Nature* 435:437-438).

When does the deletion of a band on a blot constitute misconduct, or even fraud? What about selecting and reporting a very unusual result as being representative of the data? How should I react if I have the suspicion that scientists in my laboratory environment are 'behaving badly'?

In our seminar we will discuss the topics listed below. My ultimate goal for this seminar is to sensitize you to the issue of good scientific practice, and explore what it means for your own work.

### Topics:

*Responsibilities of Research Supervisors and Trainees*

*Data Management (including image manipulation)*

*Publication Practices*

*Authorship*

*Peer Review and Privileged Information*

*Collaborations*

*Human Subjects Research*

*Financial Conflicts of Interest*

*How to react in case of suspected misconduct ('whistleblowing')*

*Institutional guidelines and ombudsmen*

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**Which course materials, software, or instruments do students use in this module?**

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**What are the prerequisites for taking this subject?**

*Readings*

NIH guidelines: <http://www.nih.gov/campus/irnews/guidelines.htm>

MRC guidelines: [http://www.mrc.ac.uk/pdf-good\\_research\\_practice.pdf](http://www.mrc.ac.uk/pdf-good_research_practice.pdf)

Danish guidelines: <http://forsk.dk/pls/portal/url/ITEM/ED684626F97D6C85E030E00A860128D2>

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