



## General Information

<b>Module Title</b>	<b><i>Organ culture of human hair follicles</i></b>
<b>Tutor Name(s)</b>	<i>R. Lauster, G. Lindner</i>
<b>Location where module takes place</b>	<i>German Rheumatism Research Center Charité Campus Mitte Virchowweg 12 Charitéplatz 1, 10117 Berlin Please go to the reception of the institute 14 to 18 September, all day Monday finishes earlier for the lecture God Research Practise</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>Practical;</i>	<b>Level</b>	<i>beginner</i>
<b>Days</b>	<i>5</i>	<b>Max. Participants</b>	<i>6</i>

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## Objectives this module

*This practical course focuses on the isolation of primary human hair follicles and the cultivation of the organs. A classical 2D cultivation system will be compared with a newly developed 3D system. For long term survival the stem cell niches need to be kept intact. This is going to be analyzed by hair shaft progression, Immunohistochemistry and 2 photon microscopy.*

*The model aims in the establishment of a cultivation system for functional skin transplants*

*The course is accompanied by lectures and discussions on the stem cell biology of the human skin and the human hair follicle in particular.*

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

*primary human cells , cell culture, 3D culture, FACS, 2 Photon microscopy*

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## What are the prerequisites for taking this subject?

*interest in stem cell biology, tissue engineering and microscopy*