

***Graduate Program in Molecular Cell Biology and Oncology:  
MCBO Methods Courses***

Special Lecture/Course in: 041539, Genome Editing

Lecturer: Stephan Geley, Sebastian Herzog

Number:

Type: VO VU ECTS: 1,5

Character:

Time/Date: 8.6. -19.6

Location: CCB 2<sup>nd</sup> floor

Limited number of places YES, number of places 5-10, registration necessary YES

For registration or questions please contact [stephan.geley@i-med.ac.at](mailto:stephan.geley@i-med.ac.at);  
[sebastian.herzog@i-med.ac.at](mailto:sebastian.herzog@i-med.ac.at)

Aim:

Introduction to genome editing
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Description/contents:

<p>We will give an overview of genome editing technologies and perform experiments using CRISPR-CAS9 technology. The course will include:</p>
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| <ul style="list-style-type: none"><li>- Theoretical background in genome editing</li><li>- Selection of suitable guide RNAs</li><li>- Cloning of gRNA and Cas9 expression vectors</li><li>- Lentiviral gene expression technology</li><li>- genome editing (knockout and knockin)</li><li>- Verification of genome editing (PCR, sequencing)</li></ul> |
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Additional:

<p>Students are encouraged to submit proposals for genome editing project relevant to their on PhD work. If submitted well in time (1 month before start of the course) we will incorporate the design and construction and if possible the application of the tools for the respective projects.</p>
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