**M Sc Molecular Life Sciences**

**Special qualification Cell and Molecular Biology**

Program for spring semester

-> Please always check KSL for details and actual dates!

<table>
<thead>
<tr>
<th>KSL Nr.</th>
<th>Eligible for special qualification module CMB (or for general module)</th>
<th>ECTS</th>
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</thead>
</table>
| 405520  | Genomics of microorganisms, Tue 16-18, DCB  
Prof. N. Polacek | 1.5  |
| 2221    | Colloquium on Host-Pathogen Interactions, Fri 16.30-18.30, monthly, IZB  
Prof. I. Roditi et al | 4  |
| 415819  | Cell and gene therapy, Wed 14-16, IZB  
PD Dr. A. Marti | 1.5  |
| 2226    | Membrane biochemistry, Wed 16-18, IBMM  
Prof. M. Hediger et al. | 3  |
| 11502   | Molecular Life Sciences Journal Club, Thu 9-10, biweekly, IZB  
Dr. A. Eberle | 2  |
| 25847   | Colloquium in Neuro- and Developmental Biology, module A and B. 1 whole day per module (each 1.5 ECTS); Retreat module C. 2 whole days (1 ECTS)  
Prof. P. Meister, Dr. B. Egger | 1.5  |
| 25848   | 1.5  |
| 25849   | 1  |
| 2217    | **"Omics": Practical introduction to genomics and transcriptomics, block course during the summer break (end of June); Registration by email to lecturer Prof. C. Largiadèr | 2.5  |
| 430236  | Bioenergetics – from archaeal sorcery to human diseases, Tue 10-12, week 1-7, DCB  
Prof. Ch. Von Ballmoos | 1.5  |
| 4537    | Molecular biology of inflammation, Thu 14-16, DCB  
Prof. B. Engelhardt et al. | 3  |
| 4540    | Selected topics in clinical immunology, Thu 16-18, IZB  
Prof. S. von Gunten | 3  |
| 4544    | Molecular pathology, Fri 9-11, Institute of Pathology  
Prof. E. Vassella | 3  |
| 11474   | Stem cells and regenerative medicine, Tue 16-17.30  
PD V. Enzmann et al. | 2  |

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<th>KSL Nr.</th>
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<th>ECTS</th>
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| 2228    | * Plant metabolism, lectures: Thu 10-12, practicals: Thu 13-17, IPS  
Profs. U. Feller, J. Fuhrer, D. Rentsch | 5  |
| 9577    | Lipid biology, a major research target of the post-genomic era, Tue 16-18, DCB  
Prof. A. Stocker | 1.5  |
| 2806    | Molecular Parasitology, Fri 11-13, IZB  
Profs. I. Roditi et al | 3  |
| 3456    | Advanced medicinal chemistry - from target to drug, Fri 10-12, DCB  
PD J. Hunziker | 1.5  |
| 3457    | Nucleic acid analogues, Fri 10-12, DCB  
Dr. P. Küpfer, Dr. M. Hollenstein | 1.5  |
| 406196  | Applied MS spectroscopy, Thu 13-15, DCB  
PD S. Schürch | 1.5  |
| 26795   | Therapeutic Proteins and Peptides, Fri 13-15, DCB  
Prof. J.-L. Reymond | 3  |
| 8172    | Molecular plant ecology, Mon 9-10, IPS  
Prof. C. Kuhlemeyer | 2.5  |
| 27340   | Disease & Repair in the CNS, Thu 12-13, IZB  
Prof. H.R. Widmer, PD V. Enzmann | 1.5  |
| 27339   | Beyond genetic inheritance: epigenetic gene regulation, chromatin structure and nuclear organization, Tue 10-12, IZB  
Profs. P. Meister, M. Nowacki | 3  |

The special qualification module (SPQ-CMB) must comprise 15 ECTS points from the learning units shown in boldface.

For the general module (GEN), additional credits can be accumulated from master courses of all five specialisations. This module may also contain up to 10 ECTS points in learning units from the BSc programs in Biology, Biochemistry and Molecular Biology, or Chemistry and Molecular Sciences. If a learning unit is not already programmed in KSL, students should ask the head of studies for approval (admin.mls@lists.unibe.ch). On request, learning units from outside institutions and other programs (e.g. UNIFR or the Swiss Institute for Bioinformatics) may also be included.

The total number of credits of both modules must be at least 30 ECTS points.

Additionally, while the students are enrolled in the program, they must follow two hours per week of seminar series according to recommendations made by the prospective MSc supervisor.

* Please note that space restrictions may apply to lab courses.

N. Polacek / A. Hochuli, 24.03.2017
Time table for spring semester

Learning units shown in dark blue qualify for the module SPQ-CMB

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
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<th>Friday</th>
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<tbody>
<tr>
<td>08.15-09.00</td>
<td>Lipid biology</td>
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<td>09.15-10.00</td>
<td>Molecular plant ecology</td>
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<td>Molecular Life Sciences Journal Club (biweekly)</td>
<td>Molecular pathology</td>
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<tr>
<td>10.15-11.00</td>
<td>Bioenergetics – from archaeal sorcery to human diseases</td>
<td>Beyond genetic inheritance</td>
<td>Plant metabolism (lectures)</td>
<td>Advanced medicinal chemistry – From target to drug</td>
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<td>11.15-12.00</td>
<td>Cell biology seminars</td>
<td>Disease &amp; Repair in the CNS (biweekly)</td>
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<td>Nucleic acid analogues</td>
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<td>12.15-12.30</td>
<td>Cell biology progress reports</td>
<td>Advanced genetic inheritance</td>
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<td>12.30-13.00</td>
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<td>Disease &amp; Repair in the CNS</td>
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<tr>
<td>13.15-14.00</td>
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<td>Applied MS spectroscopy</td>
<td>Therapeutic Proteins and Peptides</td>
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<tr>
<td>14.15-15.00</td>
<td>Cell and gene therapy</td>
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<td>Molecular biology of inflammation</td>
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<td>15.15-16.00</td>
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<tr>
<td>16.15-17.00</td>
<td>Genomics of microorganisms</td>
<td>Stem cell and regenerative medicine</td>
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<td>17.15-18.00</td>
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<td>Colloquium on host-pathogen interactions</td>
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