

Module Name Seminar Molecular and Developmental Genetics						
Type of Module ○ Basic Module				Module Code Genetics Seminar		
Identification Number MN-B-G 2	Workload 180 h	Credit Points 6 CP	Term 1 st term of studying	Offered Every Winter term	Start Winter term only	Duration 1 term
1	Course Types Seminar (incl. Tutorial)		Contact Time 60 h	Private Study 120 h		Planned Group Size 24 students
2	Module Objectives and Skills to be Acquired Students who successfully completed this module <ul style="list-style-type: none"> • have acquired detailed knowledge of molecular genetics and the cellular repertoire to respond to stress, environmental signals and developmental programs operating at different levels in the cell from gene expression to protein function and signaling. • are able to independently address and solve biological problems, including choice of accurate methods, appropriate data analysis and processing of data for publication. • have learned how to present research results in oral and written form and to critically discuss scientific publications related to the topic of the module on a professional level. • are able to transfer skills acquired in this module to other fields of biology 					
3	Module Content <ul style="list-style-type: none"> • Genetic screens, mutant selection and gene targeting in model organisms • Spatial control of protein localization • Transcriptional and post-transcriptional regulation, post-translational regulation by protein modification • Selective proteolysis and protein quality control • Addressing and solving scientific problems 					
4	Teaching Methods <ul style="list-style-type: none"> • Interactive tutorials; Seminar; Guidance to independent research, Training on presentation techniques in oral and written form 					
5	Prerequisites (for the Module) Enrollment in the Master´s degree course "Biological Sciences"; Simultaneous participation in the lecture module "Principles of Molecular Genetics, Development and Aging"					
6	Type of Examination Oral presentation with written elaboration (100 % of the total module mark)					
7	Credits Awarded Regular and active participation; Oral presentation with written elaboration at least "sufficient"					

8	Compatibility with other Curricula None
9	Proportion of Final Grade 7.5 %
10	Module Coordinator Prof. Dr. Niels Gehring, phone 470 3873, e-mail: ngehring@uni-koeln.de
11	Further Information Participating faculty: Dr. V. Böhm, Prof. Dr. J. Dohmen, Prof. Dr. N. Gehring, Prof. Dr. M. Hammerschmidt, Prof. Dr. K. Hofmann, Dr. M. Kroiher, Dr. H.-M. Pogoda, Prof. Dr. S. Roth, Prof. Dr. K. Schnetz Literature: <ul style="list-style-type: none">Information about textbooks and other reading material will be given on the ILIAS representation of the course (https://www.ilias.uni-koeln.de/ilias/goto_uk_cat_2815610.html) General time schedule: Weeks 1-14: Seminars/tutorials and oral presentations (starting at 2:00 p.m. at different dates, more details will be given in the introduction to the module). Introduction to the module: October 18, 2021 at 2:00 p.m., online (further information/link will be sent to your Smail-Account); for preparation to the module before this introduction see ILIAS link under literature.