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| Course title | From molecules to cells |
| Code |  |
| Value | 4 ECTS |
| Availability | One semester course, winter semester |
| Prerequisites | General knowledge in biology and chemistry |
| Teacher | **Prof. Hans Bluijssen** (coordinator) |
| Teaching method | lectures: 20h; journal club: 10h |
| Course description | The course is thought of as a brief survey of the concepts of contemporary molecular and cellular biology and biotechnology. It is composed of 9 independent topics leading the student from the structural basics of life, through the molecular machinery of the cells to some organismal aspects of biology. The topics include:25/11: Introduction (online via TEAMS) Prof. Hans Bluijssen02/12: DNA and replication Prof. Krzysztof Lesniewicz 07/12: Zebrafish: A vertebrate model organism in research and drug discovery Dr. Savani Anbalagan 14/12: Molecules and mechanisms of epigenetics Prof. Piotr Ziółkowski 21/12: Stem cells Prof. Małgorzata Borowiak04/01: Ligand-transport pathways in proteins Dr. Jan Brezovsky 11/01: The energy of life and death Prof. Hanna Kmita, Prof. Wieslawa Jarmuszkiewicz 18/01: RNA life cycle Dr. Magdalena Maslon25/01: Signaling in inflammation and cancer Prof. Hans Bluijssen 01/02: Genome medicine Prof. Hans Bluijssen |
| Assessment method | Written exam (multiple choice test) |

Lectures: Fridays (25.11-02.12; hours: 16.45-19.00) + Wednesdays (07.12-01.02; hours:)

Meeting 1: 25.11.2022, Teams;

Meeting 2: 02.12.2022, Sala Owalna: 16.45-19.00

Meeting 3-10: 07.12-01.02, Sala Parter: 16.00-18.15

Procedure per topic/presenter: 2h (90 min.) lecture + 1h (45 min.) journal club\*

\*The articles for the journal club are available at:

www.dhmg.amu.edu.pl/ under amu-pie, journal club