Cell Biology Tutorial «Happy Cell» – Book Club
CTS/KSL 7606

Dates: As a rule, start in spring and/or autumn, according to sufficient interest
Time/Duration: Tuesdays, 16h00-18h00, once a month for one year (except July/August)
Organizer: Graduate School for Cellular and Biomedical Sciences (GCB)
Tutors: Senior scientists (see table)
Venue: Various (see table)

Textbook:
(see also http://www.garlandscience.com/product/isbn/9780815344322). You should have your own book and bring it along to the tutorial sessions.

Course Description:
19 chapters of the book will be discussed in 10 tutorial sessions – see table below. It is important that you come well prepared to each session: You are expected to read the respective chapters being discussed prior to each session and to be able to discuss figures and contents of chapters. The tutorial will be held in English and chaired by ten senior scientists (tutors). You should not expect any regular teaching. Rather, the tutorial is designed as a self-study group.
At the beginning of each session, the tutor will select one or more student as discussion leader(s). The discussion leaders are expected to moderate the discussion, making sure that everybody participates and that the topics are thoroughly discussed.

In order to qualify for the 5.0 ECTS, you need to attend at least 8 sessions. – If you have to miss out a session, you are requested to inform the organizers (info@gcb.unibe.ch) in advance, if possible at least one week ahead of the date.

Limitation: 6-12 students
Credits: 5.0 ECTS
Registration & Organization: Registration is by e-mail to info@gcb.unibe.ch, indicating your current study program (e.g. PhD student of the GCB) and your matriculation number.

No registration required in the CTS/KSL.
Final Examination:

- The oral, c. 45 min. examination will take place two to three months after the last session of the tutorial. The exam will be on two sessions (two topics) of the tutorial.
- You will be invited by e-mail to suggest your three preferred topics (please note: three topics or three sessions, not three chapters); the GCB will choose one of them for the examination.
- A further topic will be assigned to you by the GCB.
- Moreover, basic knowledge in Cellular and Molecular Biology will be expected.
- Exam topics and examiners will be selected after the last session of the tutorial.
- Exam dates will be organized individually and are subject to the availability of the examiners.
- You are expected to be available for the suggested exam date; temporary professional absences during the prospective exam period have to be communicated to the organizer in advance (info@gcb.unibe.ch).
- Each exam will be conducted by two examiners, usually selected from the team of tutors.

Rules for Withdrawal from Examinations:

- The successful completion of all courses and examinations listed as «mandatory requirements» in the Doctoral Agreement is an indispensable requirement to continue with the PhD program of the GCB. A failed mandatory examination may be repeated once. If failed twice, the PhD program cannot be continued (see «Promotionsreglement», Art. 9² and Art. 19¹).
- Withdrawal from a scheduled examination later than 14 days before the examination date is only accepted if caused by important reasons, such as severe health problems of the candidate or other exceptional circumstances such as bereavement in the close family. Withdrawals due to health problems must be supported by a medical certificate.
- In cases of insufficient or missing justification for absence at an examination, the examination will count as failed.
### Session 1: Cells and Genomes
- Date: 18.02.2020
- Tutor: PD Dr. R. Lyck
- Topics/Chapters:
  - #1: Cells and Genomes
  - #2: Cell Chemistry and Bioenergetics
  - #3: Proteins
- Venue: Clubroom, 2nd floor, Theodor Kocher Institute, Freiestrasse 1

### Session 2: Cell Chemistry and Bioenergetics
- Date: 02.06.2020
- Tutor: Prof. C. Peinelt
- Chapters:
  - #4: DNA, Chromosomes, and Genomes
  - #5: DNA Replication, Repair, and Recombination
  - #12: Intracellular Compartment and Protein Sorting
  - #13: Intracellular Membrane Traffic
- Venue: IBMM Lecture Room 001, Gertrud-Woker-Str. 5

### Session 3: Proteins
- Date: 25.05.2020
- Tutor: PD Dr. E. Ontsouka
- Topics/Chapters:
  - #10: Membrane Structure
  - #11: Membrane Transport of Small Molecules and the Electrical Properties of Membranes
- Venue: IBMM Lecture Room 001, Gertrud-Woker-Str. 5

### Session 4: DNA, Chromosomes, and Genomes
- Date: 12.05.2020
- Tutor: Prof. C. Peinelt
- Chapters:
  - #6: How Cells Read the Genome: From DNA to Protein
  - #7: Control of Gene Expression
  - #14: Energy Conversion: Mitochondria and Chloroplasts
- Venue: IBMM Lecture Room 001, Gertrud-Woker-Str. 5

### Session 5: DNA Replication, Repair, and Recombination
- Date: 09.06.2020
- Tutor: Prof. S. Leidel
- Chapters:
  - #6: How Cells Read the Genome: From DNA to Protein
  - #7: Control of Gene Expression
- Venue: IBMM Lecture Room 001, Gertrud-Woker-Str. 5

### Session 6: Membrane Structure
- Date: 15.09.2020
- Tutor: Prof. C. Peinelt
- Chapters:
  - #10: Membrane Structure
  - #11: Membrane Transport of Small Molecules and the Electrical Properties of Membranes
- Venue: IBMM Lecture Room 001, Gertrud-Woker-Str. 5

### Session 7: Membrane Transport of Small Molecules and the Electrical Properties of Membranes
- Date: 14.10.2020
- Tutor: Prof. T. Kaufmann
- Chapters:
  - #15: Cell Signaling
- Venue: Seminar Room F-703, Institute of Pharmacology, Inselspital, INO-F (floor F), 3010 Bern

### Session 8: The Cell Cycle
- Date: 11.11.2020
- Tutor: Prof. B. Suter
- Chapters:
  - #17: The Cell Cycle
  - #18: Cell Death
- Venue: Seminar Room C159, 1st floor, Institute of Cell Biology, Baltzerstr. 4

### Session 9: The Cell Cycle
- Date: 15.12.2020
- Tutor: PD Dr. R. Lyck
- Chapters:
  - #16: The Cytoskeleton
  - #19: Cell Junctions and the Extracellular Matrix
- Venue: Clubroom, 2nd floor, Theodor Kocher Institute, Freiestrasse 1

### Session 10: Energy Conversion: Mitochondria and Chloroplasts
- Date: 13.01.2021
- Tutor: Prof. S. Yousefi
- Chapters:
  - #20: Cancer
  - #22: Stem Cells and Tissue Renewal
- Venue: Seminar Room F-703, Institute of Pharmacology, Inselspital, INO-F (floor F), 3010 Bern

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*Chapters # 8, 9, 21, 23, 24 will not be treated*

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*Takes place on Wednesday*

**Date still needs to be confirmed**