

Gedankenprotokoll Mammalian Cell Culture Exam 05.12.2023

- 1) What is the difference between primary cell cultures and cell lines? Where can you get them from?
- 2) What is subcultivation? Describe the main steps for subcultivating adherent cell lines. What flasks are used for adherent cells?
- 3) What procedure would you suggest using if you want HeLa cells to transiently express a fluorescently labeled protein? What methods are there to transiently transfect cells? What are the advantages, what the disadvantages?
- 4) Which aspects should be taken into account if you want to do in vitro metabolic assays?
- 5) What is cell differentiation? Can it be reversed?
- 6) What are the main advantages of 3D cell cultures?
- 7) True or false:
 - a. Cells should be cooled as fast as possible
 - b. Stem cells cannot be proliferated indefinitely
 - c. BSL2 protects probe and environment and has HEPA filters
 - d. Something regarding PBS used during cultivation (exact wording not known anymore)
 - e. Most used buffer system: Bicarbonate, CO₂ buffer
 - f. +1 more