

# Lab3: Preparation of media and sterilization.

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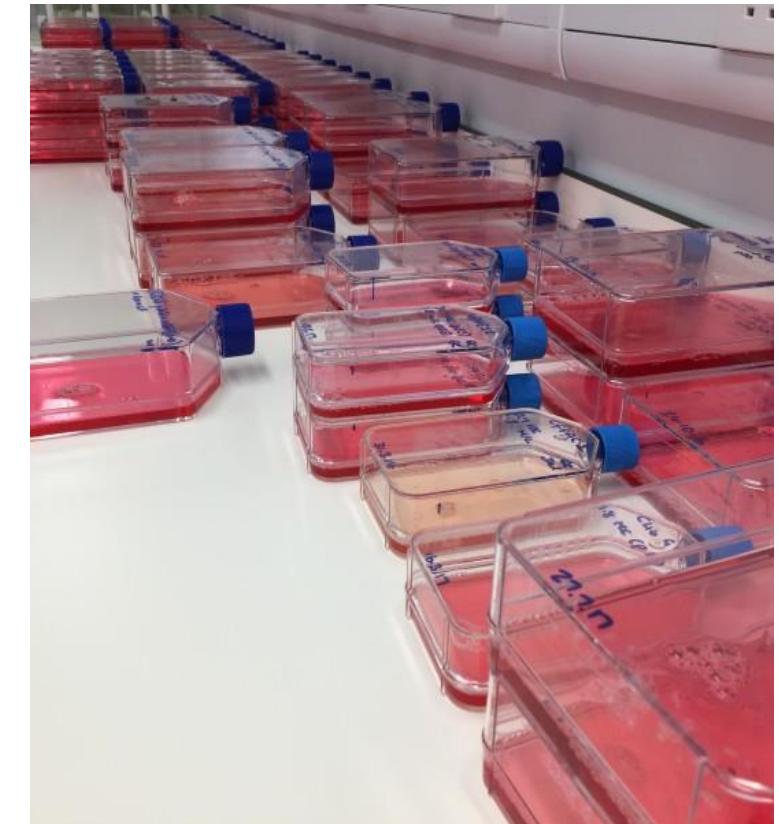


## **Culture medium**

It is the environment provided for the growth of the cells in the laboratory, similar to those conditions that the cells have been exposed to *in vivo*.

# Culture media consists of

- **Physical media:** a support or matrix ex:Ph O<sub>2</sub>,H<sub>2</sub>O ,heat
- **Chemical media:** appropriate nutrients, hormones and stromal factors.ex : Cytokines IL-6.Growth factors SCF



## **The major functions of serum as a culture medium are**

- The major functions of serum as a culture medium are: to provide nutrients, hormones, growth factors, attachment and spreading factors, binding proteins, vitamins, minerals, lipids, protease inhibitors and pH buffer

## Disadvantages of serum:

- Virus, fungi and bacteria may contaminate the serum easily
- Some enzymes presents in serum can convert the cell secretion s into toxic compounds



Now there are three types of artificial culture media:

1. Serum -free culture medium
2. Protein- free culture medium
3. Chemically defined media



# Expected Results



# Thank you

