

Lecture: good cell culture practice

## **Serum-free cell culture: the serum-free media interactive online database**

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Fetal bovine serum (FBS) is an ubiquitously used essential supplement in cell culture media. However, there are serious scientific and ethical concerns about the widespread use of FBS concerning its harvest and production. During the last three decades, FBS could be substituted through other supplements or by the use of defined chemical components in serum-free cell culture. A number of serum-free media formulations have been described for continuous mammalian and insect cell lines as well as for primary cultures. However, switching to serum-free media still needs a time-consuming literature survey and manufacturer search for appropriate media formulations, respectively. In order to make the search for serum-free media easier, we present the second collection of commercially available serum-free media in an updated free accessible unique interactive online database<sup>5</sup>. Serum-free media and continuous cell lines already adapted to serum-free culture can be searched for by means of different criteria. Searchable criteria in the database are the degree of chemical definition, e.g. serum-free (SFM), animal-derived component-free (ADCF) or chemically defined (CD), and the kind of medium, e.g. basal media, media supplements, or full replacement media. In order to specify the cell lines that are adapted for serum-free media, search terms like organism, organ, tissue, cell type and disease can be used. All serum-free media and adapted cell lines commercially available at present are included in the database. Despite extensive search for serum-free media and adapted cell lines, there is still a lack of detailed informations by companies and suppliers, that are specifically highlighted. It is intended to open the database for interactive exchange of informations and experiences by experts in the field in order to continuously improve and extend the serum-free online database. The database will be accessible at <http://www.zet.or.at>

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