

Examen technologie-analyse 24-01-2007 Medical Biotechnology

1. Formulation is an important issue for an electronic device intended for the controlled parenteral application of therapeutic proteins. Name the possible components of the formulation and their function.
2. What type of analytical methods do you recommend for the quality control of the protein to be delivered by the device? Also describe what properties of the protein are determined by the analytical methods recommended.
3. Interferon beta is being considered as a possible protein drug to be delivered by the electronic device. Describe the properties of this proteins, the areas of indication, the supposed mode of action and the most important side effects.
4. Another possible class of drugs for the device are the monoclonal antibodies (mabs), Initially the mabs were murine derived. The present monoclonals are completely human. What technologies are used to develop human mabs? Which intermediates were used before the completely human mabs were available and how were/are these intermediates developed?
5. How are peptide and protein drug eliminated from the body?