

大同大學 100 學年度研究所碩士在職班入學考試試題

考試科目:科技英文

所別:生物工程研究所

第1/1頁

註:本次考試 不可以參考自己的書籍及筆記; 不可以使用字典; 不可以使用計算器。

(每題20分)

1. After a century of research, the immune system (免疫系統) has been harnessed (利用) for the development of a revolutionary new treatment approach for cancer. Active cellular Immunotherapy (ACI) is the first class of active specific immunotherapy that uses living cells to mount an attack against cancer. ACI is unique in that it takes advantage of key effector components of the immune system.
2. Emu oil (鸕鶿油) is a commercially available preparation from Western Australia. It is a bright yellow clear liquid without significant solids at room temperature. It was kept in a brown bottle in a cold room until required. One great advantage of emu oils is that they require little refining, unlike plant derived oils, and present a low health hazard, being readily metabolized like most animal fats.
3. Complex living organisms originate from simple elements. Carbon, hydrogen, and oxygen combine to make up many different kinds of biomolecules such as carbohydrates and fatty acids. The addition of nitrogen makes possible the amino acids that combine to form proteins. In turn, added phosphorus provides the ingredients (成分) for making DNA, RNA, and complex lipids.
4. Solid lipid nanoparticles (奈米粒子) have several advantages over other drug delivery systems, such as rapid bio-degradation, high bio-availability, high drug-loading capacity, good tolerability (可忍受性), good production scalability (可擴展性), and a lack of organic solvents in the preparation process.
5. Resveratrol (白藜蘆醇), a naturally occurring phytoalexin (植物性保護素) found in juice and red wines, has been reported to exert a variety of pharmacological effects. It has been shown to reduce the synthesis of lipids in rat liver, to inhibit platelet (血小板) activation and aggregation, to inhibit the activity of some protein kinases (激酶), to exert a strong inhibitory effect on reactive oxygen species produced by human polymorphonuclear leukocytes (多形核白血球), and to have cardio-protective (保護心血管) effects against ischemia-reperfusion (缺血再灌注) injuries in rat hearts.