

1. Please describe in details the evidences that *Porphyromonas gingivalis* may be an etiologic agent of destructive periodontal diseases (20%).
2. Please describe the biological evidences linking periodontal disease and cardiovascular disease (15%).
3. There are many reasons to believe that interleukin-1 β might be an important mediator of connective tissue destruction in the gingiva and periodontal ligament, as well as of bone resorption. Please describe in details the possible **signal transduction pathways** by which *Porphyromonas gingivalis* induce interleukin-1 β expression. (25%).
4. Please write a scientific proposal that you are planning to do in your graduate study. (It should include Aims, Background, Materials & Methods and anticipated results.) (40%).

試題隨卷繳回