L.M. Golub, J.B. Payne, R.A. Reinhardt, and G. Niernan

The authors conceptualize a "two-hit" model of chronic destructive periodontitis.

CRITICAL REVIEWS IN ORAL BIOLOGY & MEDICINE

Innate Immune Signaling and Porphyromonas gingivalis-accelerated Atherosclerosis

This review discusses the association between periodontal disease and the increased risk for heart disease and atherosclerosis, with particular emphasis on putative mechanisms linking P. gingivalis infection to the acceleration of atherosclerosis.

The Role of Heparan Sulfate and Perlecan in Bone-regenerative Procedures

The authors review the heparan-sulfate-decorated extracellular biomolecule named perlecan and the research relative to its potential as an adjunct in bone-regenerative procedures.

BIOMATERIALS & BIOENGINEERING

Reduced Antigenicity of Type I Collagen and Proteoglycans in Sclerotic Dentin

The authors investigate the hypothesis that alterations in the antigenicity of type I collagen and proteoglycans occur in sclerotic dentin under caries lesions.

BIOLOGICAL

Cloning, Sequencing, and Expression of the Amelogen in Gene in Two Scincid Lizards

This is the first study to use in situ hybridization with a specific probe in a non-mammalian species to demonstrate that reptilian ameloblasts express amelogenin during amelogenesis.
Amelogenin-mediated Regulation of Osteoclastogenesis, and Periodontal Cell Proliferation and Migration

The authors discuss the potential functions of M 180 and leucine-rich amelogenin peptide in periodontal cells, especially in osteoclastogenesis and in the proliferation and migration of cementoblast/periodontal ligament cells.

Differential UPA Expression by TGF-β3 in Gingival Fibroblasts

Stimulation of urokinase production by TGF-β(31 is involved in the responses of activated fibroblasts to tissue injury.

Rosiglitazone Reduces the Evolution of Experimental Periodontitis in the Rat

This study provides the first evidence that rosiglitazone causes a substantial reduction of ligature-induced periodontitis in rats.

Articaine is more effective than Lidocaine or Mepivacaine in Rat Sensory Nerve Conduction Block in vitro

The authors discuss the effectiveness of different anesthetic solutions in rat sensory nerve conduction block in vitro.

CLINICAL

Origin of the Deciduous Upper lateral Incisor and its Clinical Aspects

The authors investigated the origin of the deciduous upper lateral incisor in normal human embryos to elucidate the reasons for its developmental vulnerability.

Fluoride Varnish Efficacy in Preventing Early Childhood Caries

Fluoride varnish added to caregiver counseling is efficacious in reducing early childhood caries incidence.

Mutans Streptococci Dose Response to Xylitol Chewing Gum

The aim of this study was to determine the relationship between dose and effects on mutans streptococci for adults chewing xylitol gum.

The Transmission of Anaerobic Periodontopathic Organisms

The authors studied the prevalence of BANA-positive species in young children and their parents, seeking evidence of the potential transmission of periodontal pathogens between parents and their children.

Coordination of Tongue Pressure and Jaw Movement in Mastication

The tongue plays a series of important roles in the total sequence of mastication of gummy jelly, by moving in coordination with jaw movement as well as controlling pressure against the hard palate.