



Edition: 1st Edition 2012  
pages: 108  
Images: 188  
Cover: Hardcover  
ISBN: 978-0-86715-515-0  
Stock No.: B5150  
Published: September 2012

**Quintessence Publishing Company, Inc.**

 411 North Raddant Road  
Batavia  
Illinois IL 60510  
United States of America

 +1 (0)630 / 736-3600

 +1 (0)630 / 736-3633

 [contact@quintbook.com](mailto:contact@quintbook.com)

 <https://www.quintessence-publishing.com/usa/en>

## Book information

**Editor:** Yoshie, Hiromasa

**Title:** At the Forefront

**Subtitle:** Illustrated Topics in Dental Research and Clinical Practice

**Short text:**

This volume brings together articles on the topics of bioscience and clinical science, punctuated with striking illustrations, that have been recently published in the Japanese journal *The Quintessence*.

The first half of the book addresses important oral and systemic health topics such as diagnosis of periodontal disease using blood and saliva testing; periodontal tissue, salivary gland, and tooth regeneration; tissue-engineered bone; correlation of periodontal disease with cardiovascular disease, preterm low birth weight, and diabetes; and genetic diagnosis of drug-induced gingival overgrowth.

In the second half, the focus is on clinical issues, including dentinal remineralization and hypersensitivity; effect of whitening procedures on tooth structure; discriminate removal of carious dentin using a caries detector; nerve injury due to tooth extraction or implant placement; morphologic changes to the mandibular canal and maxillary sinus following tooth loss; and identification of vessels and nerves in the maxillary tuberosity for implant placement.

A visually stunning and instructively enlightening compilation of reports on the cutting edge of dental scientific and clinical research.

### Contents

#### Part I: Illustrated Bioscience

Chapter 01. Genetic Predisposition to Periodontitis

Chapter 02. A Diagnostic System for Periodontitis Using Blood IgG Titer

Chapter 03. Analysis of Saliva Periodontal Diagnosis and Monitoring

Chapter 04. Periodontal Tissue Regeneration by Transplantation of Bone Marrow Mesenchymal Stem Cells

Chapter 05. Periodontal Regeneration by Basic Fibroblast Growth Factor

Chapter 06. Periodontal Disease As a Risk Factor for Cardiovascular Disease

Chapter 07. Maternal Periodontal Disease and Preterm Low Birth Weight

Chapter 08. The Current Status of Tissue-Engineered Bone

Chapter 09. Regenerative Medicine for Salivary Glands

Chapter 10. Tooth Regenerative Therapy As an Organ Replacement Regenerative Therapy

Chapter 11. Periodontitis and Diabetes

Chapter 12. Genetic Diagnosis of Drug-Induced Gingival Overgrowth

#### Part II: Illustrated Clinical Science

Chapter 13. Dentin Hypersensitivity

Chapter 14. Dentin Remineralization

Chapter 15. Bioactive Bonding by an Adhesive Containing the Antibacterial Monomer MDPB

Chapter 16. The Effect of Dental Whitening on the Tooth Surface

Chapter 17. Laser Whitening of Teeth: Effects of CO<sub>2</sub> Laser on Enamel Surface

Chapter 18. Caries Dentin and the Composite Resin Restoration

Chapter 19. Nerve Injury: Sensory Dysfunction in the Practice of Dentistry

Chapter 20. Nerve Injury: How Nerve Fibers Are Affected at the Microscopic Level

Chapter 21. Nerve Injury: Curable Versus Incurable Sensory Dysfunction

Chapter 22. Changes in Mandibular Canal Morphology After Tooth Loss

Chapter 23. Morphologic Changes in the Maxillary Sinus in the Edentulous Maxilla

Chapter 24. Vessels and Nerves in the Maxillary Tuberosity Region

**Categories:** [Human Medicine, Periodontics, General Dentistry](#)