Genomics for Clinical Dentistry

Lecture Course
Ostrow School of Dentistry of USC
Saturday, April 26, 2014
9:00 a.m. - 5:00 p.m.
Online registration at www.uscdentalce.org

Upcoming Events

CHRONIC OROFAcial, ORODENTAL AND HEADACHE PAINs FOR THE DENTIST
Friday - Saturday, January 31 - February 1, 2014

ORAL SURGERY FOR THE GENERAL PRACTITIONER
Saturday, February 1, 2014

IMPLANT CPR! SUCCESSFUL MANAGEMENT OF PROSTHETIC IMPLANT COMPLICATIONS
Module I - Lecture: Friday, February 7, 2014
Module II - Hands-On: Saturday, February 8, 2014

EMERGING DISEases, INFECtion CONTROL AND CALIFORNIA DENTAL PRACTICE ACT
Saturday, February 8, 2014

MASTERING MOLAR ENDODONTICS
Friday - Saturday, February 21 - 22, 2014

PORCELAIN VENeERS: OPTIMIZING RESULTS USING SUPRA-GINGIVAL PRINCIPLES, AND UNDERSTANDING ADHESION AND OCCLUSION
Friday, February 28, 2014

IMPLANT THERAPY IN THE ESTHETIC ZONE
Friday - Sunday, February 28 - March 2, 2014

SURGICAL AND PERIODONTAL PERSPECTIVES ON IMPLANT TREATMENT PLANNING
Friday, March 7, 2014

USC RUTH RAGLAND 28TH DENTAL HYGIENE SYMPOSIUM
Saturday, March 8, 2014

FUNDAMENTAL PRINCIPLES OF RESTORATIVE IMPLANT DENTISTRY FOR THE SINGLE MISSING TOOTH
Part I - Lecture: Friday, March 14, 2014
Part II - Lecture & Hands-On: Saturday, March 15, 2014

LAS VEGAS TRAVEL & LEARN PROGRAM:
PERIODONTAL SURGERY AND SUTURING TECHNIQUES FOR THE GENERAL PRACTITIONER - A HANDS-ON COURSE
The Cosmopolitan Las Vegas, NV Saturday, March 15, 2014

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The profound advances in fundamental human and microbial genomics coupled with direct applications to health care now provide members of the oral health team the opportunity to examine innovative tools for diagnosis, treatment planning, and outcomes of treatment. Remarkable progress has been made since the unraveling of sequences of the Human Genome, and Microbial Genomes of numerous pathogens, that have laid the foundation for an era of “-omics” such as transcriptomics, proteomics, metabolomics, pharmacogenomics, diseasesomics and phenomics. Genotype to phenotype correlations have taken on new meaning.

This course serves as a primer that focuses on genomic applications to clinical dentistry.

Topics to be covered:

- Fundamentals of human and microbial genetics and genomics.
- Development of the craniofacial-oral-dental complex and related diseases and disorders.
- Emergence of clinical gene-based assays for diagnostics for birth defects, tooth decay, periodontal diseases, chronic facial pain, and head and neck cancers.
- Innovations to “rescue” or “eliminate” the phenotype from Mendelian inherited genetic diseases.

Upon completion of the course participants should know:

- Know the fundamentals of human and microbial genetics and genomics.
- Recognize the key principles of craniofacial development and the distinction between inborn errors of metabolism versus inborn errors of development.
- Become familiar with the current methods used to identify single as well as multiple gene mutations as well as gene-environment issues (epigenetics) directly related to human diseases and disorders.
- Know the critical importance of clinicians’ descriptions of clinical phenotype.
- Understand the opportunity and value of salivary diagnostics.
- Understand the field of personalized medicine and dentistry, which relies on both genetic and clinical patient characteristics to inform individualized treatment.

All speakers must disclose to the audience any proprietary, financial or other personal interest of any nature or kind, in any product, service, source and/or company, or in any firm beneficially associated therewith that will be discussed or considered during their presentation. The Ostrow School of Dentistry of USC does not view the existence of these interests or uses as implying bias or decreasing the value to participants. The Ostrow School of Dentistry of USC, along with ADA CERP, feels that this disclosure is important for the participants to form their own judgment about each presentation.