HSDM OFFICE OF RESEARCH

B U L L E T I N

Mar/Apr 2005

UPCOMING PROJECTS:

EUN-JIN PARK, DDS, PHD

Prosthodontics Fellow, Restorative Dentistry & Biomaterials Sciences

Optimization of platelet-rich plasma for stem-cell basted bone tissue engineering

The Academy of Osseointegration/3i Implant Research

Mentor: Dr. David Mooney, Harvard University

NADEEM KARIMBUX, DMD, MMSC

Associate Professor of Oral Medicine, Infection & Immunity

A Phase 3, multicenter, randomized, blinded, controlled study of NV-101 for efficacy and safety in patients undergoing simple mandibular dental procedures

Novalar Phamaceuticals Inc.

SHIGEMI NAGAI, PHD, DDS

Instructor, Restorative Dentistry & Biomaterials Sciences

Efficiency of instrumental shade matching technique with a newly developed spectrophotometer compared to perceptional technique

Olympus Corporation

Are you conducting patient-care research including medical record/chart reviews at HSDM?

If "yes" then you must be HIPAA compliant. Please learn about HIPAA and review the **HIPAA Training Links** at the HMS/HSDM Human Studies' website at:
http://www.hms.harvard.edu/orsp/human_guidelines.html

THANK YOU FOR YOUR HIPAA COMPLIANCE!

PUBLICATIONS:

If you are interested in participating in the **HSDM Journal Club**, our researchers meet every Wednesday from 12-1pm in REB Room 302.

Antonarakis SE, Reymond A, Menzel O, Bekkeheien RC, Fukai N, Boye E, Kosztolanyi G, Aftimos S, Deutsch S, Scott HS, Olsen BR, Guipponi M. A response to Suzuki et al. "How pathogenic is the p.D104N/ endostatin polymorphic allele of COL18A1 in Knobloch syndrome?" *Hum Mutatations* 2005;25(3):316.

Beniash E, Simmer JP, Margolis HC. The effect of recombinant mouse amelogenins on the formation and organization of hydroxyapatite crystals in vitro. *J Structural Biology* 2005;149(2):182-190.

Gaetzner S, Deckers MM, Stahl S, Lowik C, Olsen BR, Felbor U. Endostatin's heparan sulfate-binding site is essential for inhibition of angiogenesis and enhances in situ binding to capillary-like structures in bone explants. *Matrix Biology* 2005;23(8):557-61.

Haffajee AD, Japlit M, Bogren A, Kent RL Jr, Goodson JM, Socransky SS. Differences in the subgingival microbiota of Swedish and USA subjects who were periodontally healthy or exhibited minimal periodontal disease. *J Clinical Periodontology* 2005;32(1):33-9.

Ishikawa-Nagai S, Terui T , Ishibashi K, Weber HP, Ferguson M. Prediction of optical efficacy of vital tooth bleaching using regression analysis. *Color Research and Application* 2004;390-394.

Ishikawa-Nagai S, Terui T , Ishibashi K, Weber HP, Ferguson M. Comparison of effectiveness of two 10% carbamide peroxide tooth-bleaching systems using spectrometric measurements. *Journal of Esthetic and Restorative Dentistry*.2004;1-8.

Ishikawa-Nagai S, Ishibashi K, Tsuruta O, Weber HP. Reproducibility of tooth color gradation using a computer color matching technique applied to ceramic restorations. *J Prosthet Dent* 2005;93(2):129-37.

Langberg BJ, Arai K, Miner RM. Transverse skeletal and dental asymmetry in adults with unilateral lingual posterior crossbite. *Am J Orthod Dentofacial Orthop* 2005;127(1):6-15.

Matsuyama T, Kawai T, Izumi Y, Taubman MA. Expression of major histocompatibility complex class II and CD80 by gingival epithelial cells induces activation of CD4+ T cells in response to bacterial challenge. *Infect Immunology* 2005;73(2):1044-51.

Mejia-Maidel M, Evans CA, Viana G, Anderson NK, Giddon DB. Preferences for facial profiles between Mexican American and Caucasians. *Angle Orthodontist* 2005;75(6):763-768.

Peacock ZS, Barnes LA, King WF, Trantolo DJ, Wise DL, Taubman MA, Smith DJ. Influence of microparticle formulation on immunogenicity of SYI, a synthetic peptide derived from Streptococcus mutans GbpB. *Oral Microbiol Immunology* 2005;20(1):60-4.

Razzaque MS, Le VT, Taguchi T. Heat shock protein 47 and renal fibrogenesis. *Cont Nephrol* 2005; 148:57-69.

Stern JN, Illes Z, Reddy J, Keskin DB, Fridkis-Hareli M, Kuchroo VK, Strominger JL. Peptide 15-mers of defined sequence that substitute for random amino acid copolymers in amelioration of experimental autoimmune encephalomyelitis. *Proc Natl Acad Sci USA* 2005;102(5):1620-5.

Treister NS, Richards SM, Lombardi MJ, Rowley P, Jensen RV, Sullivan DA. Sex-related differences in gene expression in salivary glands of BALB/c mice. *J Dental Research* 2005;84(2):160-5.

Wara-Aswapati N, Krongnawakul D, Jiraviboon D, Adulyanon S, Karimbux N, Pitiphat W. The effect of a new toothpaste containing potassium nitrate and triclosan on gingival health, plaque formation and dentine hypersensitivity. *J Clinical Periodontology* 2005;32(1):53-8.

Wawersik S, Evola C, Whitman M. Conditional BMP inhibition in Xenopus reveals stage-specific roles for BMPs in neural and neural crest induction. *Developmental Biology* 2005;277(2):425-42.

Young CS, Kim SW, Qin C, Baba O, Butler W, Taylor RR, Bartlett JD, Vacanti JP, Yelick PC. Developmental analysis and computer modelling of bioengineered teeth. *Arch Oral Biology* 2005;50(2):259-65.

Zavras AI. Post-marketing drug safety in the era of genomic medicine. *J Dent Res* 2005;84(2):105-6.

Zelzer E, Olsen BR. Multiple roles of vascular endothelial growth factor (VEGF) in skeletal development, growth, and repair. *Current Topics In Developmental Biology* 2004;65:169-87.

RESEARCH FOCUS:

Vicki Rosen, PhD, New Chair of Oral and Developmental Biology

We are pleased to announce that Vicki Rosen, PhD has accepted the position of Chair of the Oral and Developmental Biology Department at HSDM. Dr. Rosen is succeeding Dr. Bjorn Olsen, who for the past eight years has served as Chair of the Department and Acting Dean of Research. Dr. Olsen has agreed to accept the position of Dean of Research effective July 2005.

Dr. Rosen, a Professor in the Department, is internationally recognized as a pioneer in cell and developmental biology. Her contributions to the molecular cloning and characterization of the large bone morphogenetic protein (BMP) family helped establish a whole new field of cytokine signaling. Her extraordinary achievements in science are matched by her accomplishments as a strategic thinker, leader, and mentor. Dr. Rosen's relationship with HSDM dates back more than a decade. As a distinguished Research Scientist and Director at the Genetics Institute, Dr. Rosen worked with Drs. Howell and Fiorellini on various clinical research projects.

Research in the Rosen Lab includes projects include defining the physiological role of BMP-2 in the skeleton; delineating the mechanism by which BMP-3 acts as a negative regulator of bone mass during skeletal development and aging; studying the cell populations and signaling molecules critical for joint morphogenesis and function; and identifying novel regulators important for the repair and regeneration of tendons and ligaments. Dr. Rosen will be moving her Lab from The Forsyth Institute to HSDM REB 5th floor starting April 2005.

THE ROSEN LAB:

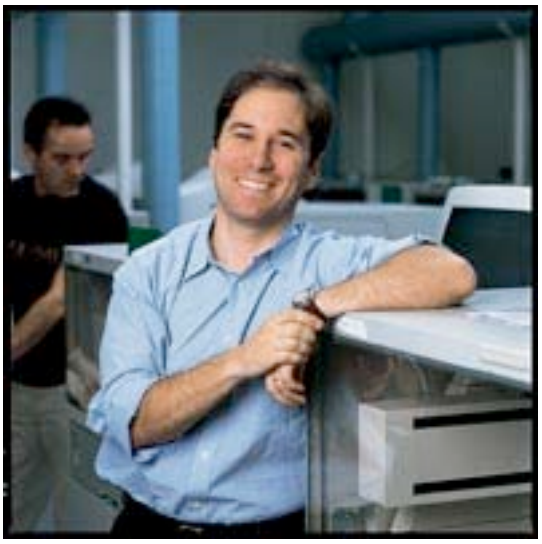
VICKI ROSEN, *Professor and Chair of Oral and Developmental Biology*
KAREN COX, *Research Associate*
LAURA GAMER, *Instructor of Oral and Developmental Biology*
JOHN NOVE, *Research Associate*
KUNIKAZU TSUJI, *Instructor of Oral and Developmental Biology*

Please join us every Friday from 2-3pm in the REB Auditorium for our **Weekly Research Data Presentations**.

GRAND ROUNDS

David Altshuler, MD, PhD

"Human genome variation and the genetic basis of common disease"



April 25, 2005 □ REB Classroom 108

Dr. Altshuler is a human geneticist and clinical endocrinologist whose research uses tools and information from the Human Genome Project to investigate the genetic causes of common human diseases. He is Associate Professor of Genetics and of Medicine at Harvard Medical School, and a member of the Department of Molecular Biology and Attending Physician in the Diabetes Unit at Massachusetts General Hospital. He is also Director of Medical and Population Genetics at the Whitehead Institute/MIT Center for Genome Research, and an Affiliate Member of the Whitehead Institute for Biomedical Research.

Dr. Altshuler is one of the world's leading scientists on the study of human genetic variation and its application to disease. Among his discoveries is the finding that a common genetic variant increases the risk of contracting type 2 diabetes. His study helps explain why some people are more likely than others to contract diabetes and provides a blueprint for analyzing the role of genetic variations in disease.

Dr. Altshuler received his BS in Life Sciences in 1986 from MIT, his PhD in 1993 from Harvard University and his MD in 1994 from Harvard Medical School.

QUESTIONS? COMMENTS? SUGGESTIONS?

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If you have questions regarding this Bulletin, please contact Dawn DeCosta.