



Harvard School of Dental Medicine

OFFICE OF RESEARCH BULLETIN

March/April 2007



DMD STUDENTS RECEIVE HOWARD HUGHES/NIH HONORS



KIRSI HAKKINEN, DMD CLASS OF 2009

has been accepted into the HHMI-NIH Research Scholars Program (Cloister Program). The Cloister Program brings selected medical and dental students to the National Institutes of Health for a year of full-time intramural biomedical research training. This exposure to outstanding scientists and demanding laboratory environments has succeeded in strongly reinforcing the students' interest in research. Kirsi has also been awarded a Research Training Fellowship from the Howard Hughes Medical Institute.

After a difficult decision, Kirsi decided to accept the Research Scholars Program (Cloister Program) at the NIH. The Program will run from July 2007 to June 2008 and there are 42 students in the program, from different medical (40 students) and dental (2 students) schools around the country. Congratulations to Kirsi for being accepted into these 2 prestigious research programs.



SOMI KIM, DMD CLASS OF 2009 has been awarded a Research Training Fellowship from the Howard Hughes Medical Institute. Somi received one of the sixty-nine fellowships (from a group of over 200 applications) to be awarded in the 2007-2008 academic year. The fellowship is a one-year award, with a stipend of \$25,000. In April 2008, Somi will present her research at the HHMI Annual Medical Fellows meeting in Chevy Chase, MD. **Somi is working with mentor, Beate Lanske, PhD, Associate Professor of Developmental Biology at HSDM, on her project, Role of IHH during endochondral bone formation in the growth plate. Congratulations to Somi for this prestigious award!**

Congratulations to **SHIGEMI ISHIKAWA-NAGAI, DDS, MSD, PhD**, Instructor in Restorative Dentistry and Biomaterials Sciences who received the 2007 Claude R. Baker Faculty Award for Excellence in Teaching Pre-Doctoral Fixed Prosthodontics. The Baker award, at the American Academy of Fixed Prosthodontics recognizes exceptional dental school junior faculty members involved in pre-doctoral fixed prosthodontic teaching.

Congratulations to **ZEYAD AL-SOWYGH** (2007 DMSc candidate in Prosthodontics) who received the First Prize Award for the poster competition at the 2007 Harvard Forsyth Research Symposium for his project, The Role of Wnts in the enamel organ during amelogenesis.

PUBLICATIONS

Adams DS, Masi A, Levin M. H⁺ pump-dependent changes in membrane voltage are an early mechanism necessary and sufficient to induce *Xenopus* tail regeneration. *Development* 2007 Apr;134(7):1323-35.

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Bellingham PJ. The humanitarian service of dentists in Grenfell's sub-Arctic Labrador: 1910-1930. *J Hist Dentistry* 2006 Winter;54(3):101-7.

Berndt TJ, Craig TA, McCormick DJ, Lanske B, Sitara D, Razzaque MS, Pragnell M, Bowe AE, O'Brien SP, Schiavi SC, Kumar R. Biological activity of FGF-23 fragments. *Pflugers Archives* 2007; Feb 27.

Chen W, Wang Y, Abe Y, Cheney L, Udd B, Li YP. Haploinsufficiency for *Znf9* in *Znf9*(+/-) Mice is associated with multiorgan abnormalities resembling myotonic dystrophy. *Journal of Molecular Biology* 2007 Feb 9.

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Ernst CW, Lee JE, Nakanishi T, Karimbux NY, Rezende TM, Stashenko P, Seki M, Taubman MA, Kawai T. Diminished forkhead box P3/CD25 double-positive T regulatory cells are associated with the increased nuclear factor- κ B ligand (RANKL(+)) T cells in bone resorption lesion of periodontal disease. *Clin Exp Immunol.* 2007 Mar 9.

Goetz R, Beenken A, Ibrahim OA, Kalinina J, Olsen SK, Eliseenkova AV, Xu C, Neubert T, Zhang F, Linhardt RJ, Yu X, White KE, Inagaki T, Kliwer SA, Yamamoto M, Kurosu H, Ogawa Y, Kuro-O M, Lanske B, Razzaque MS, Mohammadi M. Molecular insights into the *klotho*-dependent, endocrine mode of action of FGF19 subfamily members. *Mol Cell Biology* 2007 Mar 5.

Lang NP, Tonetti MS, Suvan JE, Pierre Bernard J, Botticelli D, Fourmouis I, Hallund M, Jung R, Laurell L, Salvi GE, Shafer D, Weber HP; on Behalf of European Research Group on Periodontology (ERGOPerio). Immediate implant placement with transmucosal healing in areas of aesthetic priority: A multicentre randomized-controlled clinical trial I. Surgical outcomes. *Clin Oral Implants Research* 2007 Mar;18(2):188-96.

Lanske B, Razzaque MS. Premature aging in *klotho* mutant mice: Cause or consequence? *Ageing Research Review* 2007 Feb 20.

Levine MH, Goddard AL, Dodson TB. Inferior alveolar nerve canal position: a clinical and radiographic study. *J Oral Maxillofac Surg.* 2007 Mar;65(3):470-4.

Ohyama H, Nagai S, Tokutomi H, Ferguson M. Recreating an esthetic smile: a multidisciplinary approach. *Int J Periodontics Restorative Dentistry* 2007 Feb;27(1):61-9.

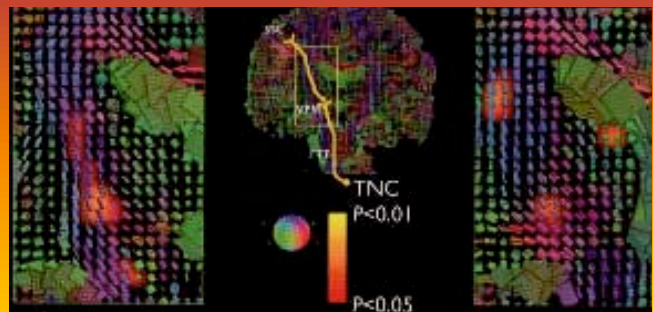
Olsen BR. Anthrax toxin receptors and infantile systemic hyalinosis. *Matrix Biology* 2007 Mar;26(2):73-74.

Reginato AM, Olsen BR. Genetics and experimental models of crystal-induced arthritis. Lessons learned from mice and men: is it crystal clear? *Curr Opin Rheumatology* 2007 Mar;19(2):134-145.

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Woo SB, Challacombe SJ. Management of recurrent oral herpes simplex infections. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2007 Mar;103 Suppl:S12.e1-S12.e18.

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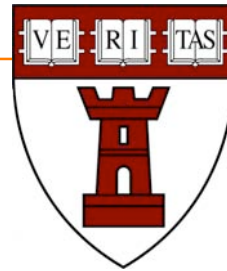


STUDENT RESEARCH



Congratulations to **SEIICHI YAMANO, DDS, PhD, DMD**, Advanced Graduate Student in Prosthodontics who received the 2006-2007 American College of Prosthodontists Education Foundation Research Fellowship Award.

Dr. Yamano's project, "***Molecular analysis of edentulous oral mucosa formation in type 2 diabetes mice***" aims to understand the tooth extraction wound healing process leading to the establishment of edentulous oral mucosa in type 2 diabetes mice.



CONGRAULATONS to the 2007
**KRAKOW HARVARD FORSYTH
ENDOWED ENDODONTIC RESEARCH
FUND** recipients.

DR. EMAD AL SHWAIMI (DMSc 2009)
Key Role of Regulatory T Cells in Periapical Bone Lesions

DR. KUAN-LIANG CHEN
The Effect of Systemic Nicotine Administration on the Development of Periapical Lesions in Rats

DR. OTIS CHONG (MMSc 2008)
Immunization Regimens of Marine Model of Pulpal Infection

DR. JACOB FIMPLE (MMSc 2008)
Phototargeting of Multi-Species Biofilms in the Root Canal System In-Vitro

DR. MATTHEW NEALON (MMSc 2008)
The Presence of Regulatory T Cells in a Marine Model of Pulpal Infection

DR. JARUMA BEAU SAKDEE (DMSc 2008)
Osteogenesis Amplification by Hypoxia

STUDENT RESEARCH (Continued):



Joel Berley (DMD Class of 2009) received a \$10,000 grant from the American Academy of Implant Dentistry Research Foundation for his project, "The effect of nicotine to osseointegration, in vivo study in rats." Joel is working with mentor, Cortino Sukotjo, DDS, PhD, Instructor in Restorative Dentistry and Biomaterials Sciences.

UPDATED WEBSITES & IMPORTANT DATES

Below are important websites and contacts for HSDM investigators and their staff.

HMS/HSDM OFFICE OF RESEARCH COMPLIANCE

Director, Peter Harrington, JD
peter_harrington@hms.harvard.edu
<http://medapps.med.harvard.edu/orc/>

HMS/HSDM OFFICE OF SPONSORED PROGRAMS ADMINISTRATION

Director, Jill Mortali
jill_mortali@hms.harvard.edu
Senior Grants Manager, Barbara Rankin
barbara_rankin@hms.harvard.edu
<http://www.hms.harvard.edu/spa/index.shtml>

HMS/HSDM OFFICE OF TECHNOLOGY DEVELOPMENT

Director of Business Development, Katie Gordon, PhD
katie_gordon@hms.harvard.edu
<http://www.techtransfer.harvard.edu/>

HMS/HSDM OFFICE OF RESEARCH SUBJECT PROTECTION

Director, Carolyn Connelly, PhD
carolyn_connelly@hms.harvard.edu
<http://www.hms.harvard.edu/orsp/index.html>

April 6, 2007

12:00 PM – 1:00 PM
HSDM GRAND ROUNDS
Stephen Krane, MD
Effects of collagenases on skeletal development and remodeling

April 24, 2007

9:30 AM – 2:30 PM
STUDENT RESEARCH DAY

May 1, 2007

DMD Class of 2007
MMSc Class of 2007
FINAL THESES DUE

June 7, 2007

COMMENCEMENT

QUESTIONS? COMMENTS? SUGGESTIONS?

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