

Oscar Reyna-Blanco, DDS, Receives Colgate Scholarship



Dr. Oscar Reyna-Blanco, orthodontics resident in the Department of Developmental Biology at HSDM, received a Colgate Scholarship from the Hispanic

Dental Association Foundation. This Scholarship is given to four postgraduate residents nationwide. Reyna-Blanco is working with Dr. James Maclaine, attending physician at Children's Hospital, Boston on his project, "Three-Dimensional Assessment of the Timing of Bone-Graft in Cleft Lip Children and it's Effect on Canine Eruption."

Roland Baron, DDS, PhD, Receives Merck Funding



Dr. Roland Baron, professor and chair of oral medicine, infection and immunity at HSDM, and professor of medicine at MGH, received

funding from Merck & Co., for his project, "Role of Cathepsin K in Osteocytes: Responses to Estrogen Deprivation." Dr. Francesca Gori, assistant professor of Oral Medicine, Infection and Immunity at HSDM, is collaborating on this project.

Sook-Bin Woo, DMD, MMSc, Receives Prestigious AAOM Samuel Charles Miller Award



Dr. Sook-Bin Woo, associate professor of oral medicine, infection and immunity HSDM; chief of clinical services at the Division of Oral Medicine and Dentistry at the Brigham and Women's Hospital; and, program director for the Oral and Maxillofacial Pathology advanced graduate education program at HSDM, received the prestigious Samuel Charles Miller Award from The American Academy of Oral Medicine.

Dr. Woo is board certified in both oral pathology and oral medicine, and graduated with a BDS from Singapore University. She received her MS in oral pathology from Indiana University, and completed a fellowship in head and neck pathology at Long Island Jewish Medical Center. Woo earned her DMD from HSDM, and undertook further training in oral and maxillofacial pathology, receiving her MMSc degree. Woo became chief of service and director of the graduate training program in oral and maxillofacial pathology at HSDM. Woo's outstanding contributions as a clinician scientist, provide the foundation for her as a leader in the field of Oral Medicine.





Sang Jin Lee, DMD, MMSc, and Ashley Amini, DMD, PhD, Receive AAID Funding

Dr. Sang Jin Lee, assistant professor and director of Advanced Graduate Education and Director of the prosthdontics program in the Department of Oral Medicine, Infection and Immunity at HSDM, and Dr. Ashley Amini, prosthodontics resident in the Department of Oral Medicine, Infection and Immunity at HSDM, received funding from the American Academy of Implant Dentistry for their project, "Investigation of Bacterial Adhesion to Dental Implant Crowns." In this study, Lee and Amini will investigate bacterial adhesion on four widely-used conventional dental crown materials.

HSDM Visiting Scholars and Graduate Students



Wataru Hatakeyama, DDS, PhD

Dr. Wataru Hatakeyama joined the Department of Oral Medicine, Infection and Immunity as a visiting scholar working with Dr. David Kim and Dr. Masazumi Nagai. Hatakeyama received his

DDS in 2009, and PhD in 2014 from Iwate Medical University, School of Dental Medicine, Japan. Hatakeyama is working at HSDM for one year as the recipient of an Osteology Foundation Scholarship, working on a translational research project focused on osseointegration using bioactive peptides screened though novel biopanning.



Weiqing Liu, DDS

Liu joined the Lanske Lab as a visiting graduate student in the Department of Oral Medicine, Infection and Immunity at HSDM. Liu is from Nanjing, China and received her DDS from West China School of Stomatology, Sichuan University,

majoring in implantology. As a visiting PhD student, Liu's research is focused on the critical role of PTH during chronic kidney disease.



Marina Feigenson, PhD

Feigenson, originally from Israel, moved to the US to pursue her PhD in biochemistry in University of Rochester, NY. She worked with Dr. Regis O'Keefe studying fracture repair and afterwards also spent time as a postdoc at the Mayo Clinic

studying how changes in epigenetic status affect bone progenitor cells differentiation. In the Rosen Lab, Feigenson is a visiting scholar in the Department of Deveopmental Biology at HSDM, studying the cellular and molecular biology of the meniscus.



Fulbright Scholar, Sami Gritli, MD, PhD, Joins the Olsen Lab

Since the age of 5, Dr. Sami Gritli has always wanted to become a doctor to save lives and alleviate

patient suffering. After medical school, Gritli completed a residency in medical genetics at the Pasteur Institute. He went on to earn his PhD degree in cell and molecular biology from Harvard Medical School/University of Nice-Sophia Antipolis in 2009. Gritli has an appointment in the Department of Pathology, Charles Nicolle Hospital and Faculty of Medicine of Tunis, Tunisia.

He was awarded a 2016-2017 Fulbright Fellowship and joined the laboratory of Dr. Bjorn R. Olsen in the Department of Developmental Biology at HSDM. Since the moment Gritli read Olsen's work on the molecular link between cleidocranial dysplasia and the Runx2 gene, a master regulator in bone development, he wanted to join his Lab. Now at HSDM, Gritli is working on a similar genetic disorder called GAPO syndrome, the pathophysiology which is yet to be determined. His aim is to decipher GAPO syndrome molecular defects using patient DNA samples and cell lines, as well as mouse and zebrafish transgenesis. Gritli stated, "I am excited to continue my career in academia as an extension of taking care of patients; doing basic science research, and teaching genetics and developmental biology are a great privilege and a total fulfillment for me."



Chenhe (Andy) Zhou, MS

Zhou joined the Baron Lab as a visiting graduate student in the Department of Oral Medicine, Infection and Immunity at HSDM. Zhou received his Bachelor's Degree in 2011, and his Master Degree in 2013 from Zhejiang University, China. As a visiting PhD student,

Zhou's research is focused on the role of cathepsin K in osteocytes in response to various metabolic challenges such as lactation and estrogen deprivation.

HSDM Publications

DEVELOPMENTAL BIOLOGY

Connelly C, Cicuto T, Leavitt J, Petty A, Litman A, Margolis H, Gerdon A. Dynamic interactions of amelogenin with hydroxyapatite surfaces are dependent on protein phosphorylation and solution pH. *Colloids and Surfaces B: Biointerfaces* 2016;148:377-384.

Hu K, Olsen BR. Vascular endothelial growth factor control mechanisms in skeletal growth and repair. *Development Dynamics* 2016; Oct 17.

Kuek V, Yang Z, Chim S, Zhu S, Xu H, Chow S, Tickner J, Rosen V, Erber W, Li X, An Q, Qian Y, Xu J. NPNT is expressed by osteoblasts and mediates angiogenesis via the activation of extracellular signal-regulated kinase. *Science Reports* 2016;6:36210.

Masoud M, Bansal N, Castillo J, Manosudprasit A, Allareddy V, Haghi A, Hawkins H, Otarola-Castillo E. 3D dentofacial photogrammetry reference values: A novel approach to orthodontic diagnosis. The *European Journal of Orthodontics* 2016; Nov 9.

Salazar V, Ohte S, Capelo L, Gamer L, Rosen V. Specification of osteoblast cell fate by canonical Wnt signaling requires Bmp2. *Development* 2016; Oct 17.

Wilmes B, Ludwig B, Vasudavan S, Nienkemper M, Drescher D. The t-zone: Median vs. paramedian insertion of palatal mini-implants. *Journal of Clinical Orthodontics* 2016;50(9):543-551.

Yuan J, Cha J, Deng W, Bartos A, Sun X, Ho H, Borg J, Yamaguchi T, Yang Y, Dey S. Planar cell polarity signaling in the uterus directs appropriate positioning of the crypt for embryo implantation. *Proceedings of the National Academy of Science USA* 2016; Nov 28.

MULTI-DEPARTMENTAL

Dau M, Edalatpour A, Schulze R, Al-Nawas B, Alshihri A, Kämmerer P. Presurgical evaluation of bony implant sites using panoramic radiography and cone beam computed tomography - influence of medical education. *Dentomaxillofacial Radiology* 2016; Oct 19.

Jesin M, Rashewsky S, Shapiro M, Tobler W, Agarwal S, Burke P, Salama A. Predictors of mortality, hospital utilization, and the role of race in outcomes in head and neck trauma. *Oral Surgery Oral Medicine Oral Pathology Oral Radiology* 2016;121(1):12-16.

Lan T, Cheng K, Ren T, Arce S, Tseng Y. Displacement correlations between a single mesenchymal-like cell and its nucleus effectively link subcellular activities and motility in cell migration analysis. *Science Reports* 2016 Sep 27;6:34047.

Movila A, Mawardi H, Nishimura K, Kiyama T, Egashira K, Kim J, Villa A, Sasaki H, Woo SB, Kawai T. Possible pathogenic engagement of soluble Semaphorin4D produced by $\gamma\delta T$ cells in medication-related osteonecrosis of the jaw (MRONJ). *Biochemical and Biophysical Research Communications* 2016; Oct 5.

Nalliah R, Thompson L, Wellman L, Swann B. The role of academic institutions in fostering interprofessional educational models. *Compendium of Continuing Education in Dentistry* 2016;37(10):e9-12.

Shi P, Goodson J, Mumena C, Haq A, Razzaque M. Dietary phosphorus burden increases cariogenesis independent of vitamin D uptake. *Steroid Biochemistry and Molecular Biology* 2016; Nov 3.

Tokede O, Ramoni R, Patton M, Da Silva J, Kalenderian E. Clinical documentation of dental care in an era of electronic health record use. *Evidence Based Dental Practice* 2016;16(3):154-160.

ORAL HEALTH POLICY AND EPIDEMIOLOGY

Burke S, Maramaldi P. Variability in clinical and anatomical manifestation of velocardiofacial syndrome presents diagnostic and policy uncertainty. *Fetal Pediatric Pathology* 2016; Oct 12:1-9.

Butler K, Hirsh D, Petrusa E, Yeh D, Stearns D, Sloane D, Linder J, Basu G, Thompson L, de Moya M. Surgery clerkship evaluations are insufficient for clinical skills appraisal: The value of a medical student surgical objective structured clinical examination. *Journal of Surgical Education* 2016; Sep 27.

Zaid H, Mahdi A, Tamrakar A, Saad B, Razzaque M, Dasgupta A. Natural active ingredients for diabetes and metabolism disorders treatment. *Evidence Based Complementary Alternative Medicine* 2016; 2965214

RESTORATIVE DENTISTRY AND BIOMATERIALS SCIENCES

Furuya J, Tamada Y, Sato T, Hara A, Nomura T, Kobayashi T, Sakai M, Kondo H. Wearing complete dentures is associated with changes in the three-dimensional shape of the oropharynx in edentulous older people that affect swallowing. *Gerodontology* 2016;33(4):513-521.

Martins C, Sasaki H, Hirai K, Andrada A, Gomes-Filho J. Relationship between hypertension and periapical lesion: an in vitro and in vivo study. *Brazilian Oral Research* 2016;30(1):e78.

Roque M, Gallucci G, Lee S. Occlusal pressure redistribution with single implant restorations. *Journal of Prosthodontics* 2016; Oct 5.

Sugawara S, Maeno M, Lee C, Nagai S, Kim D, Da Silva J, Nagai M, Kondo H. Establishment of epithelial attachment on titanium surface coated with platelet activating peptide. *PLoS One* 2016;14;11(10):e0164693.

Adam Hamilton, BDSc, DCD, Appointed Interim Director of the Division of Regenerative and Implant Sciences



Dr. Adam Hamilton has been appointed interim director of the division of regenerative and implant sciences and lecturer on restorative dentistry and biomaterials sciences at HSDM. Hamilton completed his general dental education at the University of Western Australia and has a doctorate degree in clinical dentistry specializing in

prosthodontics from the University of Melbourne, Australia. Hamilton was the recipient of an International Team for Implantology (ITI)scholarship through which he completed a fellowship in oral and maxillofacial surgery at University of Florida's Center for Implant Dentistry. He has conducted research into the fit of CAD/CAM implant abutments and has a special interest in dento-facial esthetics and implant rehabilitation of the edentulous patient. Hamilton practices at the Harvard Dental Center focusing on prosthodontic and surgical implant treatment.

ORAL AND MAXILLOFACIAL SURGERY

Gordon S, Donoff RB. Problems and solutions for interprofessional education in North American dental schools. Dental Clinical of North America 2016;(4):811-824.

Kim M, Chuang S, August M. Antibiotic resistance in severe orofacial infections. *Journal of Oral and Maxillofacial Surgery* 2016; Nov 9.

Resnick C, Daniels K, Flath-Sporn S, Doyle M, Heald R, Padwa B. Physician assistants improve efficiency and decrease costs in outpatient oral and maxillofacial surgery. Journal of Oral and Maxillofacial Surgery 2016;74(11):2128-2135.

Resnick C, Williams W. Commentary: Does mandibular distraction vector influence airway volumes and outcome? Journal of Oral and Maxillofacial Surgery 2016; Sep 13.

Shaefer J, Barreveld A, Arnstein P, Kulich R. Interprofessional education for the dentist in managing acute and chronic pain. Dental Clinics of North America 2016;60(4):825-842.

Soni N, Reyes L, Keyt H, Arango A, Gelfond J, Peters J, Levine S, Adams S, Restrepo M. Use of ultrasound guidance for central venous catheterization: a national survey of intensivists and hospitalists. Journal of Critical Care 2016;36:277-283.

ORAL MEDICINE, INFECTION AND IMMUNITY
Ansermet C, Moor M, Centeno G, Auberson M, Hu D, Baron R,
Nikolaeva S, Haenzi B, Katanaeva N, Gautschi I, Katanaev V, Rotman
S, Koesters R, Schild L, Pradervand S, Bonny O, Firsov D. Renal fanconi syndrome and hypophosphatemic rickets in the absence of xenotropic and polytropic retroviral receptor in the nephron. Journal of the American Society of Nephrology 2016; Oct 31.

Boisen I, Bøllehuus Hansen L, Mortensen L, Lanske B, Juul A, Blomberg Jensen M. Possible influence of vitamin D on male reproduction. The Journal of Steroid Biochemistry and Molecular Biology 2016; Sep 28.

deAndrés-Galiana E, Fernández-Martínez J, Sonis S. Sensitivity analysis of gene ranking methods in phenotype prediction. Journal of Biomedical Informatics 2016;64:255-264.

ElSalhy M, Söderling E, Honkala E, Fontana M, Flannagan S, Kokaras A, Paster B, Varghese A, Honkala S. Salivary microbiota and caries occurrence in mutans Streptococci-positive school children. European Journal of Paediatric Dentistry 2016;17(3):188-192.

Hondroulis E, Sabhachandani P, Movila A, Sarkar S, Cohen N, Kawai T, Konry T. A droplet-merging platform for comparative functional analysis of M1 and M2 macrophages in response to E. coli-induced stimuli. Biotechnology and Bioengineering 2016; Oct 10.

Ji Y, Aboalela A, Villa A. Everolimus-associated stomatitis in a patient who had renal transplant. British Medical Journal Case Reports 2016; Oct 19.

Kanzaki H, Makihira S, Suzuki M, Ishii T, Movila A, Hirschfeld J, Mawardi H, Lin X, Han X, Taubman M, Kawai T. Soluble RANKL cleaved from activated lymphocytes by TNF-α-converting enzyme contributes to osteoclastogenesis in periodontitis. Journal of Immunology 2016; 197(10):3871-3883.

Konermann A, Van Dyke T, Kantarci A, Jäger A. GABA receptors as modulating target for inflammatory responses of the periodontal ligament. Cellular and Molecular Neurobiology 2016; Nov 3.

Kudrimoti M, Curtis A, Azawi S, Worden F, Katz S, Adkins D, Bonomi M, Elder J, Sonis S, Straube R, Donini O. Dusquetide: A novel innate defense regulator demonstrating a significant and consistent reduction in the duration of oral mucositis in preclinical data and a randomized, placebo-controlled phase 2a clinical study. Journal of Biotechnology 2016;239:115-125.

Martins F, de Sousa S, Dos Santos E, Woo SB, Gallottini M. PI3K-AKT-mTOR pathway proteins are differently expressed in oral carcinogenesis. Journal of Oral Pathology and Medicine 2016;45(10):746-752.

Momen-Heravi F, Babic A, Tworoger S, Zhang L, Wu K, Smith-Warner S, Ogino S, Chan A, Meyerhardt J, Giovannucci E, Fuchs C, Cho E, Michaud D, Stampfer M, Yu Y, Kim D, Zhang X. Periodontal disease, tooth loss, and colorectal cancer risk: Results from the Nurses' Health Study. International Journal of Cancer 2016; Oct 25.

Scheyer E, Heard R, Janakievski J, Mandelaris G, Nevins M, Pickering S, Richardson C, Pope B, Toback G, Velásquez D, Nagursky H. A randomized, controlled, multicentre clinical trial of post-extraction alveolar ridge preservation. Journal of Clinical Periodontology 2016; Sep 12.

Selvi F, Messina J, Faquin W, Keith D. Relapsing polychondritis concomitant with synovial chondromatosis of the temporomandibular joint. Journal of Oral and Maxillofacial Surgery 2016;74(11):2207-15.

Sonis S, Wright Andreotta P, Lyng G. On the pathogenesis of mTORassociated stomatitis (mIAS) - studies using an organotypic model of the oral mucosa. Oral Diseases 2016; Nov 29.

Treister N, Nieder M, Baggott C, Olson E, Chen L, Dang H, Krailo M, August A, Sung L. Caphosol for prevention of oral mucositis in pediatric myeloablative haematopoietic cell transplantation. British Journal of Cancer 2016; Nov 22.

Villa A, Woo SB. Leukoplakia-A diagnostic and management algorithm. *Journal of Oral and Maxillofacial Surgery* 2016; Oct 26.

Wein M, Liang Y, Goransson O, Sundberg T, Wang J, Williams E, O'Meara M, Govea N, Beqo B, Nishimori S, Nagano K, Brooks D, Martins J, Corbin B, Anselmo A, Sadreyev R, Wu J, Sakamoto K, Foretz M, Xavier R, Baron R, Bouxsein M, Gardella T, Divieti-Pajevic P, Gray N, Kronenberg H. SIKs control osteocyte responses to parathyroid hormone. Nature Communication 2016; Oct 19.

Wolff A, Joshi R, Ekström J, Aframian D, Pedersen A, Proctor G, Narayana N, Villa A, Sia Y, Aliko A, McGowan R, Kerr A, Jensen S, Vissink A, Dawes C. A guide to medications inducing salivary gland dysfunction, xerostomia, and subjective sialorrhea: A systematic review sponsored by the World Workshop on Oral Medicine VI. Drugs in R&D 2016; Nov 16.

Yu P, Hu Y, Liu Z, Kawai T, Taubman M, Li W, Han X. Local induction of B cell IL-10 competency alleviates inflammation and bone loss in ligature-induced experimental periodontitis in mice. Infection and Immunology 2016; Oct 17.

Yu X, Wang Y, Lin J, Hu Y, Kawai T, Taubman M, Han X. Lipopolysaccharides-induced suppression of innate-like B cell apoptosis is enhanced by CpG oligodeoxynucleotide and requires tolllike receptors 2 and 4. PLoS One 2016;11(11):e0165862.

publication of the Office of Research

Bjorn R. Olsen, MD, PhD, Dean for Research Dawn M. DeCosta, Editor and Layout Heather M. Denny, Editing Leanne Jacobellis, Editing Lia Sgourakes, Editing