University of Minnesota – Graduate Program in Orthodontics

**Past and Present Research Topics:**

**2014**

Amanda Cheng  
Patient Preferences and GDP Referral Preferences for Specific Orthodontic Practices in Minnesota.

Brandon Huang  
A Novel Role of Bone Morphogenetic Protein in Osteoclastogenesis.

Kyra Iwen  
Measuring Skeletal and Dental Asymmetry in Class II Subdivision Patients with Cone Beam Computed Tomography.

Natalia Menjivar  
The Relationship Between Resident Selection Criteria and Performance in Orthodontic Residency.

Geoffrey Sudit  
Debonding and Adhesive Remnant Cleanup: An In Vitro Comparison of Bond Quality, Adhesive Remnant Cleanup, and Orthodontic Acceptance of a “Flash-free” Product.

**2013**

Janice Cho  
HDAC7 Expression and Localization during Osteoclast Differentiation.

Omar Issa  
The Systemic Effect of Local Injection of Clodronate on Orthodontic Tooth Movement in Rats.

Vladimir Leon-Salazar  
Association of Occlusal Factors and RDC/TMD Axis I TMD Diagnoses: A Case-Control Study.

Shawn McCarthy  

Christopher Teeters  
Optimal Head Position: A New Frame of Reference for Cephalometric Analysis.

**2012**

Benjamin Allen  
Reduced HDAC7 Expression Results in Increased Osteoclastogenesis.

Ketti Boller  
Twisted Gastrulation and its Effects on BMP Signaling In Osteoclast Differentiation.
Carlos Caballero  Class II Subdivision Malocclusions treated Non-Extraction with Symmetrical Forces.


Nishant Patel  Accuracy, Reproducibility, and Time-Efficiency of Dental Measurements Using Different Technologies.

**2011**

Elizabeth Dowd  The Effect of Tenofovir on Bone Remodeling.

Christopher Vaubel  The Effectiveness of SureSmile™.

Kathryn Vo  The Effect of Tenofovir on Bone Mineral Density and Bone Cell Gene Expression.

Gregory Tolmie  The Relationship Between Occlusal and Skeletal Characteristics and Lower Incisor Wear.


**2010**

Adam Ostby  Evaluation of Using a Self-etching Primer During Indirect Bonding Under Dry and Contaminated Conditions.

Gary Warner  White Spot Lesion Regression Using Casein Phospho-Peptide Amorphous Calcium Phosphate Complexes Alone or Combined with Microabrasion.

Amanda Romsa  HDAC3 and HDAC7 Have Opposite Effects on Osteoclast Differentiation.

Matthew Sievers  Asymmetry Assessment Using Cone Beam CT: A Class I and Class II Patient Comparison.

Dustin Hollevoet  Using an Eye-Tracker to Measure Panoramic Interpretation Efficiency Between Experienced and Newer Clinicians.

Jacquelyn Schieck  Dosimetry of a Next Generation i-CAT CBCT Machine as Compared to a Digital Panoramic and Lateral Cephalogram in Patient Diagnosis and Treatment at the U of M Division of Orthodontics.
2009
Melissa Chin Decision-Making and Information-Seeking Preferences among Patients Ages 11–17 and Their Parents.
Luke Carlson An Analysis of Truncations in Digital Dental Models with Interdental Spacing.
Kelly Espe Bone Morphogenetic Protein-2 (BMP2) Upregulates Osteoclast Gene Expression.
Kraig Kottemann A Comparison of Condyle Positions Using Hand Articulated Plaster Models on a SAM® Articulator to Digitally Articulated Models Using Geodigm’s eModel™ Software.

2008
Rick Fuchs Comparison of Resistance to Sliding between Esthetic Brackets.
Oana Honey Prevalence of Open Gingival Embrasures in Post-Orthodontic Patients.
Sunny Leong The Accuracy of Indirect Bonding.
Lindsay Schuster Decision-Making and Information-Seeking Preferences among Adult Orthodontic Patients.
Robert Taylor The Effect of Bone Morphogenic Proteins on Osteoclast Differentiation in a Knockout Mouse Model.
Scott Wenande Soft Tissue Changes Associated with Rapid Maxillary Expansion.

2007
Brianne DeSantis Salivary Dehydroepiandrosterone Levels and Their Relationship to Cervical Vertebral Maturation.
Victor Lee  Cephalometric Changes in Patients with Anterior Open Bite as a Result of Orthodontic Treatment: Extraction vs. Non-Extraction.


2006
Anthony Bonavoglia  A Comparison of Measurements Made on Plaster Models and Digital E-Models; including a Dimensional Analysis of Rapid Prototyped Models.

Alison Fallgater  Molecular Mechanism of Mandibular Distraction Osteogenesis and the Role of Parathyroid Hormone (PTH).

Stephen Hunsaker  The Role of Osteoclasts on the Differentiation and Function of Osteoblasts.

Brandon Owen  An Evaluation of the Effect on the Surface Free Energy when Eucalyptus Oil, Bergamot Oil, or Quaternary Ammonium Salt is Added to Ultra Band-Lok, a Compomer Band Cement.

2005
Jeremy Karras  The Effect of Alendronate Administration on the Rate of Orthodontic Tooth Movement in the Rat.

Brandan LeBourdais  Comparison of Friction and Wear in Esthetic Brackets.

Nancy Leung  Periodontal Pathogens and Streptococci in Plaque and Buccal Epithelial Cells of Orthodontic Patients.

Andrew Wahl  Surface Free Energy of a Resin-Modified Glassionomer Band Cement with Added Constituents.

Ryan West  Accuracy of a Computerized Prediction Program for Maxillary Surgery.

2004
Heather Carr  Cephalometric Findings in Patients with Mandibular Tori.

Emily O'Keiff  Frictional Changes in Retrieved Fixed Orthodontic Appliances.

Andrew Helmich  Accuracy of a Computer-based Visual Treatment Objective Prediction System.
Tiffany Waki  A Comparison Between a Graduate Orthodontic Clinic and Private Practice Treatment Outcomes Using the American Board of Orthodontics Discrepancy Index and Objective Grading System.

Julian Davila  The Effect of Neonatal Capsaicin Treatment on Orthodontic Tooth Movement in the Rat.

2003
Brian DeVoe  Evaluation of the Shear Bond Strength of Orthodontic Brackets Using a Phosphoric Acid/Primer/Adhesive System and a Self-etching Primer/Adhesive System Under Dry and Wet Conditions.

Jeremy Johnson  Assessment of Macrophage Replication and Heterogeneity in Healing Wounds by Flow Cytometry.


Nathan Halstead  Intercanine Width Changes using Natural Form Archwires.

James Miller  The Effect of Neurogenic Inflammation on Orthodontic Tooth Movement in the Rat.

Travis Wille  Surface Properties of Orthodontic Composite Resin After Modification with Essential Oil and a Quaternary Ammonium Compound.

2002
Chris Clarke  Dental Health in the Small Canadian Arctic Community of Sanikiluaq, Nunavut.

Mark Kauppi  Polymerization of Orthodontic Adhesives Using Modern High-Intensity Visible Light Curing Units.

2001
John Aamodt  Quantification of White Spot Lesions in Orthodontic Patients Using Digital Imaging.

Becky Blachowiak  The Correlation Between Amount of Crowding and Lip Retraction in Non-Growing Patients with Four First Bicuspid Extractions.

Brian Landrigan  Class III Treatment Planning in the Mixed Dentition: Factors Leading to Treatment and Inter- and Intra-Clinician Variation.

Theodora Nakou  The Long-Term Effects of an Intraoral Distalizing Appliance (Pendulum).

Stephen Schasker  An Investigation Comparing the Critical Surface Tensions of Bovine Enamel Etched with Conventional Etchant and a New Modified Etchant.

2000
Scott Bowlby  The Effects of Orthodontic Treatment Philosophies on General Practitioner Referral Patterns.

Eric Overby  An Examination of the Role of Mixed Dentition Analysis in Orthodontic Treatment Planning.

Jacqueline De Leon  Shear Bond Strength of Orthodontic Brackets to Dental Amalgam Using Phase II (Reliance, Ortho Products, Inc).

Kim Bohlig  Quantification of Dental Plaque on Orthodontic Patients using Digital Imaging.

Kumar Grandhi  The Shear Bond Strength of Stainless Steel Orthodontic Brackets, Bonded Using a Moisture-insensitive Primer (Transbond MIP).

Robert Miller  The Effects of Over-The-Counter Analgesics on the Local Production of Prostaglandins.

1999
David Resch  The Effect of a Polymer Bonded to Enamel on Plaque Accumulation: Streptococcus Mutans and Lactobacillus Adherence and Enamel Decalcification in Orthodontic Patients.


Jeffrey Loveless  Effect of Short Term Analgesic Usage on the Rate of Orthodontic Tooth Movement.

Rosecler Marmentini  Correlation of Antegonial Notch and Gonial Angle to Different Craniofacial Measurements in Long-Face Patients.
Alan Schneider  Evaluation of Maxillary Dental Changes Following Treatment with the Pendulum Appliance.

Krestine Tiziani  A Survey of Practicing Orthodontists’ Awareness of, Use of and Beliefs Relative to the AAO’s Clinical Practice Guidelines.


1998
Paula Baby  A Comparison of Three Different Extraction Modalities on the Soft Tissue Profile of the Borderline Patient.

William Becker  Color Measurements of In Vivo White Spot Lesions.

Karen Reese  Informed Consent in Orthodontics.

1997
Catherine Aurouze  Area of the Cleft Palate and Success Rate of the Secondary Alveolar Bone Grafting.

Dinesh Reddy  The Magnitude and Mechanism of Adhesion of Various Cements for Orthodontic Bonding.

Jaime Rojas  Bonding Orthodontic Brackets to Resin Composites.

Christine See  Treatment Outcome Comparison of Two Different Extraction Modalities.

Kevin Theroux  Efficiency in Orthodontics: Biochemical and Biomechanical Approaches.

1996
Michelle Bergsrud  An Outcome Comparison of Two Treatment Methods for Class II Malocclusions.

Stephen Colby  Orthodontic Finishing: A Comparative Analysis.

Jennifer Jankowski  The Effect of Model Presentation on Orthodontic Treatment Planning.

Scott Rensch  The Effects of Coaxial, Twist-Flex, and Elgiloy Wires and Transbond LR, Concise, and Panavia on the Bond Strength of Bonded Retainers.
Diana Rose  
A Study on the Efficacy of a Computerized Treatment Planning Service.

Marites Yap  

1995  
Julie Cassaidy  
Panel Perception of Profile Change Following Orthodontic Treatment.

Steven Henseler  

Richard Jones  
Long-Term Stability after Le Fort I Advancement of the Maxilla Using Rigid Fixation.

Lorne Koroluk  
Dynamic Mechanical Analysis of Adhesive Resins during Thermal Debonding of a Ceramic Orthodontic Bracket.

Stephen Nelson  
Settling of the Occlusion Following Orthodontic Treatment: A Three-Year Follow-Up Comparison of Adults and Adolescents.

Nicole Nieto  
The Prevalence of Orthognathic Surgery Recommendations in Patients with Cleft Lip and Palate.

Robert Skopek  
Human Dental Plaque Development on a Fluoride-releasing Orthodontic Composite Bonding Agent.

1994  
Todd Anderson  
Profile Changes Secondary to Orthodontic Treatment and Growth.

Trudy Bonvino  
The Effect of Analgesic Agents on Orthodontic Tooth Movements.

Monica Castillo  
Measurement of Interleukin-1 Alpha, Interleukin-6, Interleukin-8, and Interferon Alpha in Gingival Crevicular Fluid of Patients with Chronic Adult Periodontitis.

Idil Kolday  
A Comparative Study on TMJ ID with Reduction: How Effective is Conservative Treatment?

Jeffrey Phillips  
A Comparison of Six Third Generation Dental Adhesives.

Jeff Sturdivant  
A Comparison of Three Intraoral Appliances Used to Treat Patients with TMJ Internal Derangements with Reduction.
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<td>Effect of Carbamide Peroxide Bleaching on Orthodontic Bracket Bond Strength.</td>
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<td>Use of a Dentinal Bonding Agent as an Intermediary to Enhance Bonding of Orthodontic Brackets in a Contaminated Field.</td>
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