1. **Robert Appel - Class of 2014**  
   Faculty Mentor: Dr. Catherine Demko  
   Department of Community Dentistry &  
   Dr. Jean Iannadrea Department of Comprehensive Care  
   
   *Patient Recall of Oral Cancer Screening Examinations*  
   
   I examined patient recall of oral cancer screening examinations (OCS)  
   compared to chart review during admitting visits to a dental school clinic.  
   Compared to other procedures during the admit visit, the concordance  
   between patient recall and charting for OCS was lowest.

2. **Nate Buckner and Brian Cope - Class of 2012**  
   
   *Special Presentation: International Outreach by CWRU Dental Students*  
   
   We traveled to Peru with a group of thirteen students and four faculty and  
   were able to treat 300 people in four days. We plan to improve our program  
   and return annually to continue offering dental care to people in severe need.

3. **Michael Davis - Class of 2014**  
   Faculty Mentor: Dr Lance Vernon - Biological Sciences  
   
   *Examining Barriers to Use of Dental Services in HIV-Infected Adults in  
   Cleveland, Ohio - A Quantitative Study*  
   
   This project examined barrier to oral health care that HIV+ patients face  
   while seeking care. These included discrimination, transportation, finances  
   and others. Overall we found that patients did have barriers that hindered  
   their care, such as transportation and locating dentists who accept their  
   insurance.

4. **Chris Fraccaro - Class of 2014**  
   Faculty Mentor: Dr. Leena Palomo - Department of Periodontics  
   
   *Periodontal Benefits of Supplementation and Exercise in Post-Menopausal Women*  
   
   Are the outcomes of non-surgical periodontal therapy better in post-  
   menopausal women who use bone sparing supplements and exercise versus  
   those who do not. Healthier groups prior to treatment had a clinically better  
   oral health status, however, the non-healthy control group showed the greatest  
   improvement in periodontal health.

5. **Janice Jun - Class of 2014**  
   Faculty Mentor: Dr. Ge Jin - Biological Sciences  
   
   *NOS2 induction by human beta defensin-3 (hBD3) in macrophages*  
   
   This project explores the induction of NOS2 in THP-1 macrophages by  
   hBD3. This implicates a mechanism by which hBD3 may induce a pro-  
   tumorigenic environment via tumor macrophages, a key inflammatory  
   modulator in the pathogenesis of cancer.
6. Adam Kennedy - Class of 2014
   Faculty Mentor: Dr. Santosh Ghosh - Biological Sciences

   **Ontogeny of salivary human beta defensin-1 and lactoferrin**

   Objective: to explore the association of salivary AMPs, hBD-1 and lactoferrin with age in a cross-sectional study.

7. Velizar Petrov - Class of 2014
   Faculty Mentor: Dr. Scott Sieg and Dr. Aaron Weinberg - Department of Biological Sciences

   **Beta-defensin 3 and Cathelicidin-mediated Chemokine Induction in Monocytes and Macrophages**

   I investigated the ability of two antimicrobial peptides to modulate molecule expression and chemokine production by monocytes and macrophages in vitro. Results support a role for both hBD-3 and, to a lesser extent LL-37, influencing expression of peptides that regulate immune function.

---

1. Ahmed Alzahrani, DDS, MSD - Periodontics Class of 2012

   **Changes in Systemic Inflammatory Markers After Treatment of Chronic Gingivitis**

   This study evaluates changes in the levels of the tumor necrosis factor α (TNF-α) and C-reactive protein (CRP) in gingival crevicular fluid (GCF) after treatment of chronic gingivitis, in otherwise healthy subjects.

2. Thomas R. Bigelow D.M.D - Endodontics Class of 2013
   Faculty Mentor: Dr. Andre Mickel, DDS, M.S.D. - Department of Endodontics

   **Influencing Factors in Endodontic and Implant Litigation: A Descriptive Study**

   This project utilizes the Westlaw Database to analyze lawsuits regarding dental implants and endodontics. This information was used to determine if dentist's are at a greater legal risk by placing dental implants vs. performing root canal therapy.

3. Karl A. Cunningham, DMD
   Faculty Mentor: Dr. Gerald Ferretti - Department of Pediatric Dentistry

   **Oral Rehabilitation Under General Anesthesia – A Review of 50 Cases**

   A retrospective review of 100 charts of patients who received oral rehabilitation under general anesthesia in 2010 was done. Data describing patient characteristics including gender, age, behavior rating and ASA physical status was analyzed. Patient compliance with post-operative follow-up, recall appointments and additional dental intervention was also assessed.
4. **Tracey E. Davies, DDS - Pediatric Dentistry 2012**  
   Faculty Mentor: Dr. Gerald Ferretti - Department of Pediatric Dentistry  
   
   *Achieving a Predictable Result Through Diagnostic Wax-Up for an Orthodontic Patient with Congenitally Missing Teeth*  
   
   This is a case report of a 19 year old male patient with clinically and radiographically missing and malformed teeth. Using a pre-orthodontic diagnostic wax-up technique will provide proper guidance for restoring form and function in a patient with congenitally missing and malformed teeth.

5. **Mark W. Galsterer, DMD - Endodontics Class of 2012**  
   Faculty Mentor: Andre K. Mickel, DDS, M.S.D. - Department of Endodontics  
   
   *Extraction of Salvageable Teeth Without Endodontic Consultation: An Alarming Trend*  
   
   This project examined teeth that were extracted within the dental school and replaced with implants/FPD's/RPD's and looked for endodontics role in consulting and treatment planning.

6. **John Gerstenmaier, DMD**  
   Faculty Mentor: Dr. Gerald Ferretti - Department of Pediatric Dentistry  
   
   *Enhancing Esthetics and Reversing White Spot Lesions with a Non-Invasive MI Paste Protocol*  
   
   The purpose of this study was to improve the esthetics of young permanent teeth that had been altered by fluorosis and other white spot lesions.

7. **Haley Goldberg**  
   Faculty Mentor: Dr. Gerald Ferretti - Department of Pediatric Dentistry  
   
   *Age Appropriate Dental Prosthesis in a Child with Ectodermal Dysplasia*  
   
   To restore the esthetic appearance and function of a 10 year-old female who presents with multiple congenitally missing and malformed teeth, and a bilateral posterior open bite.

8. **Masahiro Helma, DDS, PhD - Class of 2012**  
   Faculty Mentor: Dr. Gerald Ferretti - Department of Pediatric Dentistry  
   
   *Are Parents Struggling or coping with their Children's Dental Fear? Orthognathic and Facial Cosmetic Surgery from Oral and Maxillofacial Surgeons*  
   
   This research is a cross-sectional survey study about how low income African-American parents struggle with dental fear in their children.

9. **Neema Jahlil, DMD - AEGD Class of 2012**  
   Faculty Mentor: Dr. Fady Faddoul - AEGD  
   
   *A Review of Impression Techniques for Crown and Bridge*  
   
   This project sought to review some of the major impression techniques for the final fixed restorations reported by two surveyed sample groups of practitioners (new graduates vs. practitioners with greater than five years in practice). Overall, packing cord was the most favorable method reported by both groups though new graduates utilized more options available to them.
10. **Sheetal S. Kalokhe, BDS - Endodontics Class of 2012**  
   Faculty Mentor: Andre K. Mickel, DDS, M.S.D. - Department of Endodontics  
   
   *Pain and Infection Management Regimens for Patients Receiving Dental Implants by Different Specialties: A descriptive Cross-sectional study*  
   
   The purpose of this study was to evaluate the preferences of postdoctoral program directors (PD's) from different specialties for prescribing analgesics and antibiotics in management of post-operative pain and infection in patients receiving implants. The results of this study revealed that in patients receiving implants, OMFS PD's routinely used NSAIDs + opioids for pain management while others routinely used NSAIDs. In case of postoperative swelling more than 60% of the PDs prescribed antibiotics and performed surgical drainage.

11. **Ryan L. Reese, DMD - Endodontics Class of 2012**  
   Faculty Mentor: Andre K. Mickel, DDS, M.S.D. - Department of Endodontics  
   
   *Endodontist's Recognition of the Influence of Demographics and its Effects on Patient Selection of Endodontic Therapy Versus Implant Placement*  
   
   This project examined the role of patient demographics on their decision to select endodontic therapy, or implant therapy. Overall, a patient's decision to select endodontics or implants was affected by their demographics.

12. **Madhavi Setty DDS - Endodontics Class of 2013**  
   Faculty Mentor: Andre K. Mickel, DDS, M.S.D. - Department of Endodontics  
   
   *Decision Making By Patients Regarding Endodontics Versus Implants: A University Based Retrospective Observational Cohort Study*  
   
   This study focused on how patient's previous dental treatment affected their decision making on future treatment options. Our results indicated that regardless of the initial treatment chosen, patients were more likely to choose the same treatment in the future therefore it is incumbent upon the practitioner to make the initial experience as pleasant as possible.

13. **Amberlee Taylor, DMD**  
   Faculty Mentor: Dr. Gerald Ferretti - Department of Pediatric Dentistry  
   
   *E-Gasket Partial Overdenture Fabrication for a Patient with Ectodermal Dysplasia*  
   
   The purpose of this project was to fabricate a prosthesis for an 8 year old child with ectodermal dysplasia that provided better retention than his previous conventional overdenture.

14. **Brandon J. Webb, DDS - Endodontics Class of 2012**  
   Faculty Mentor: Andre K. Mickel, DDS, M.S.D. - Department of Endodontics  
   
   *A Five-Year Retrospective Analysis of Dental School Implant Placement: Location, Type and Department Preference*  
   
   With the continual surge of dental implant placement in undergraduate and graduate programs patients are readily seeking implants. The advances in implantology have led to implant placement by most dental departments at the School of Dental Medicine.
15. **O. Jeremy Wilde, DMD - Endodontics Class of 2012**  
Faculty Mentor: Andre K. Mickel, DDS, M.S.D. - Department of Endodontics

*Incidence of Ailing, Failing and Failed Implants in a University Setting: A Five Year Retrospective Study*

The project involved the survival and failure rates for dental implants placed in a University, and describe the systemic conditions, and demographics associated with implant failure.

16. **Shweta Ujjaney, MDS; Meeyoung Rhee, DMD; Neema Jahdi, DMD; Mahmoud Qabazawd, DDS; Mohamed Ochman, BDS**

*Sleep Dentistry*

This presentation will illustrate the dental treatments and Appliances for patients with sleep apnea.

---

1. **Noor Almudlilal - Class of 2014**  
Faculty Mentor: Dr. Leena Palomo - Department of Periodontics

*Does a woman’s periodontium respond to exercise like a man’s*

This project’s objective was to research if post-menopausal women who exercise respond to non-surgical periodontal therapy differently than age-matched men who exercise. Although non-surgical periodontal therapy is beneficial for both post-menopausal women who exercise and men who exercise, there was no significant difference between men and women.

2. **Robert Appel - Class of 2014**  
Faculty Mentor: Dr. Catherine Demko Department of Community Dentistry & Dr. Jean Iannadrea Department of Comprehensive Care

*Patient Recall of Oral Cancer Screening Examinations*

I examined patient recall of oral cancer screening examinations (OCS) compared to chart review during admitting visits to a dental school clinic. Compared to other procedures during the admit visit, the concordance between patient recall and charting for OCS was lowest.
3. **Paul Bermudez - Class of 2015**  
Faculty Mentors: Zhimin Feng - Senior Instructor in Biological Sciences and Aaron Weinberg - Associate Dean for Research

*Using WHIM syndrome-like cells to study hBD3 induced CXCR4 internalization*

Our objective was to determine the effect of hBD-3 on the internalization of WHIM syndrome-like CXCR4 mutants. Results suggest that hBD-3 induced internalization of CXCR4 may occur via a similar mechanism as seen with SDF-1, and that an intact CXCR4 cytoplasmic tail is important in this event.

4. **Nicole Apollon Chirouze - Class of 2014**  
Faculty Mentor: Dr. Lance Vernon, Department of Biological Sciences

*Receiving Dental Care: A Qualitative Assessment by HIV + Adults*

The project examined HIV + adults past and future expectations concerning dental care utilization in order to identify internal and external barriers that may prevent oral health care seeking behaviors among this population. Overall HIV + patients desired more effective communication by dentists.

5. **Michael Davis - Class of 2014**  
Faculty Mentor: Dr. Lance Vernon - Biological Sciences

*Examining Barriers to Use of Dental Services in HIV-Infected Adults in Cleveland, Ohio - A Quantitative Study*

This project examined barrier to oral health care that HIV+ patients face while seeking care. These included discrimination, transportation, finances and others. Overall we found that patients did have barriers that hindered their care, such as transportation and locating dentists who accept their insurance.

6. **Chris Fraccaro - Class of 2014**  
Faculty Mentor: Dr. Leena Palomo - Department of Periodontics

*Periodontal Benefits of Supplementation and Exercise in Post-Menopausal Women*

Are the outcomes of non-surgical periodontal therapy better in post-menopausal women who use bone sparing supplements and exercise versus those who do not. Healthier groups prior to treatment had a clinically better oral health status, however, the non-healthy control group showed the greatest improvement in periodontal health.
7. **Ying-Hsien Huang - Class of 2014**  
Faculty Mentor: Dr. Russell Wang - Department of Comprehensive Care

*Quantification of edentulous jaw bones using cone-beam computed tomography (CBCT) images*

The purpose of this study was to quantitatively evaluate jaw bone quality by CBCT images. Twenty completely edentulous patients were selected; among them, cortical bone thickness, cortical and trabecular bone mineral density using Hounsfield unit were measured.

8. **Janice Jun - Class of 2014**  
Faculty Mentor: Dr. Ge Jin - Biological Sciences

*NOS2 induction by human beta defensin-3 (hBD3) in macrophages*

This project explores the induction of NOS2 in THP-1 macrophages by hBD3. This implicates a mechanism by which hBD3 may induce a pro-tumorigenic environment via tumor macrophages, a key inflammatory modulator in the pathogenesis of cancer.

10. **Adam Kennedy - Class of 2014**  
Faculty Mentor: Dr. Santosh Ghosh - Biological Sciences

*Ontogeny of salivary human beta defensin-1 and lactoferrin*

Objective: to explore the association of salivary AMPs, hBD-1 and lactoferrin with age in a cross-sectional study.