2014-2015 Research Opportunities

Name: Roland Arnold, PhD
Department: Diagnostic Sciences / Dental Research
Title: Professor
Telephone: 919-537-3165
Mailing Address: CB #7457
Chapel Hill, NC 27599-7457
Office: Rm. 3043 Old Dental Building
Lab: 3030 Old Dental
Email: roland_arnold@UNC.EDU
Lab URL: 

Description of Research: Our interests include host-pathogen interactions at mucosal surfaces including the oral cavity and the respiratory and gastrointestinal tracts. Our studies examine both innate and acquired soluble host defense factors that are delivered to mucosal surfaces by exocrine secretions. We are also interested in the strategies of both pathogens and indigenous (normal flora) microbes for evading these host defense factors. As professional phagocytic cells such as the polymorphonuclear neutrophilic leukocytes employ similar antimicrobial agents to that found in secretions, we are interested in how these function in the cell. In order to understand the importance of these functions, we are interested in patient populations that have selective dysfunctions in discrete components of either exocrine secretions (e.g. IgA deficiency, cystic fibrosis, Sjogrens, ionic cofactors) or in neutrophils (e.g. chronic granulomatous disease, specific granule deficiency, lactoferrin, defensins, myeloperoxidase, adhesins, elastase). We are interested in specific pathogens associated with periodontal diseases, caries, chronic inflammatory diseases, respiratory pathogens including cystic fibrosis, COPD, lung transplants. These pathogens include among others Streptococcus mutans, Lactobacillus acidophilus, Porphyromonas gingivalis, Fusobacterium nucleatum, Prevotella intermedia, Tannerella forsythia, Aggregatibacter actinomycetemcomitans, Pseudomonas aeruginosa and Burkholderia cepacia. We also have expertise in the evaluation of efficacies of antimicrobials to a variety of target microorganisms.

Keywords: Antimicrobial agents/inhibitors, Biofilm, Caries organisms, Cell biology, Host-microbial interactions, Infection, Inflammation, Mucosal diseases, Periodontal organisms, Saliva

Other Keywords: mucosal immunity, secretory immunity, ecology, innate immunity

Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
Dr. Bencharit is a protein structural biologist specializing in protein X-ray crystallography. He has his research interests in structural biology and its application to human diseases in particular the role of signaling proteins involved in vessel development. In addition he is also interested in the clinical application of salivary proteomics using an advanced mass spectrometry proteomics and systems biology. His main laboratory goals include (1) structural and functional studies of cerebral cavernous malformation (CCM), a genetic disorder resulting in vascular defects in the brain causing hemorrhagic stroke; (2) salivary proteomic analysis and biomarker discovery; and (3) enhancing tissue healing and osseointegration of dental implants.
Name: Lyndon Cooper  
Department: Prosthodontics  
Title: Distinguished Professor  
Telephone: 919-537-3175  
Mailing Address: School of Dentistry  
UNC Chapel Hill  
Prosthodontics  
CB #7450  
Chapel Hill, NC 27599-7450  
Office: 4610 Koury Oral Health Sciences Building  
Lab: 4617D Koury Oral Health Sciences Building  
Email: Lyndon_Cooper@unc.edu  
Lab URL:  
ReachNC Link: http://www.experts.scival.com/reachnc/expert.asp?n=Lyndon+F+Coo per&u_id=5001150  
Description of Research  
Keywords: Bone biology, dental implants  
Other Keywords:  
Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
<table>
<thead>
<tr>
<th><strong>Name</strong></th>
<th>Kimon Divaris</th>
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<tbody>
<tr>
<td><strong>Department:</strong></td>
<td>Pediatric Dentistry</td>
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<tr>
<td></td>
<td>Dental Research</td>
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<tr>
<td><strong>Title:</strong></td>
<td>Research Assistant Professor</td>
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<tr>
<td><strong>Telephone:</strong></td>
<td>919-537-3556</td>
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<tr>
<td><strong>Mailing Address:</strong></td>
<td>School of Dentistry</td>
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<td>UNC Chapel Hill</td>
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<td></td>
<td>Pediatric Dentistry</td>
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<td>CB #7450</td>
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<td>Chapel Hill, NC 27599-7450</td>
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<tr>
<td><strong>Office:</strong></td>
<td>220 Brauer Hall</td>
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<tr>
<td><strong>Lab:</strong></td>
<td>4501F Koury Oral Health Sciences</td>
</tr>
<tr>
<td><strong>Email:</strong></td>
<td><a href="mailto:Kimon_Divas@unc.edu">Kimon_Divas@unc.edu</a></td>
</tr>
<tr>
<td><strong>Lab URL:</strong></td>
<td><a href="http://www.experts.scival.com/reachnc/expert.asp?n=Kimon+Divaris">http://www.experts.scival.com/reachnc/expert.asp?n=Kimon+Divaris</a> &amp;u_id=1980030310</td>
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<tr>
<td><strong>Description of Research</strong></td>
<td>Behavioral science, Caries, Education research, Epidemiology, Fluoride, Genetics, Periodontal disease, Periodontal organisms, Quality of life, Stress, Health services research, health literacy; pediatric dentistry</td>
</tr>
<tr>
<td><strong>Other Keywords:</strong></td>
<td>health services research; health literacy; pediatric dentistry</td>
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<td><strong>Willingness and interest to mentor:</strong></td>
<td>graduate student, undergraduate DDS or DH student</td>
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<tr>
<td>Name</td>
<td>Ibrahim Duqum</td>
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<tr>
<td>Department</td>
<td>Prosthodontics</td>
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<tr>
<td>Title</td>
<td>Clinical Assistant Professor</td>
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<tr>
<td>Telephone</td>
<td>919-843-9440</td>
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<td>Mailing Address</td>
<td>School of Dentistry</td>
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<td>UNC Chapel Hill</td>
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<td>Prosthodontics</td>
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<td>Chapel Hill, NC 27599-7450</td>
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<tr>
<td>Office</td>
<td>337 Brauer Hall</td>
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<td>Lab</td>
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<tr>
<td>Email</td>
<td><a href="mailto:duqumibr@dentistry.unc.edu">duqumibr@dentistry.unc.edu</a></td>
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<td>Lab URL</td>
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<tr>
<td>Keywords</td>
<td>CAD/CAM, Ceramics, Clinical trials, Dental materials, Education research, Esthetics, Implants, Impression materials, Prostheses, Technology</td>
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<td>Other Keywords</td>
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<tr>
<td>Willingness and interest to mentor</td>
<td>undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member</td>
</tr>
</tbody>
</table>
Name: Greg Essick
Department: Prosthodontics
Title: Professor
Telephone: 919 537-3287
Mailing Address: School of Dentistry
UNC Chapel Hill
Prosthodontics
CB #7450
Chapel Hill, NC 27599-7450
Office: 5417H Koury Oral Health Sciences
Lab: 5417H Koury Oral Health Sciences
Email: essickg@dentistry.unc.edu
Lab URL: http://www.dentistry.unc.edu/ce/ahec/biosketch.cfm?employeeid=1947
ReachNC Link: http://www.experts.scival.com/reachnc/expert.asp?n=Gregory+K+Essick&u_id=5000185
Description of Research: Normal orofacial sensation, alterations in orofacial sensation after trigeminal nerve injury, mechanisms underlying chronic pain, the association between poor sleep and chronic pain, obstructive sleep apnea, novel therapies to treat obstructive sleep apnea
Keywords: Assessment, Central nervous system/peripheral nervous system, Clinical trials, Human, Pain, Physiology
Other Keywords: Nerve injury; sleep apnea
Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
Name: Eric Everett
Department: Pediatric Dentistry
Title: Professor & Associate Dean for Research
Telephone: 919-537-3182
Mailing Address: School of Dentistry
UNC Chapel Hill
Dental Research
CB #7450
Chapel Hill, NC 27599-7450
Office: 5501H Koury Oral Health Sciences
Lab: 4417 Koury Oral Health Sciences
Email: everette@dentistry.unc.edu
Lab URL: http://genomics.unc.edu/faculty/webpages/everett.html
ReachNC Link: http://www.experts.scival.com/reachnc/expert.asp?n=Eric+T+Everett&u_id=5002498
Description of Research: Genetic basis for acquired and congenital defect of the oral/craniofacial/dental complex
Keywords: Ameloblasts, Anatomy, Animal Models, Biochemistry, Bone, Cell biology, Enamel, Fluorosis, Gene expression, Genetics
Other Keywords:
Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
Name: Lynn Fox  
Department: Dental Ecology  
Title: Assistant Clinical Professor  
Telephone: 919-966-1446  
Mailing Address: School of Dentistry  
UNC Chapel Hill  
Craniofacial Center  
CB #7450  
Chapel Hill, NC 27599-7450  
Office: 008 Brauer Hall  
Lab:  
Email: lynn_fox@dentistry.unc.edu  
Lab URL:  
Description of Research: Craniofacial team functioning, healthcare literacy, speech and language, stuttering  
Keywords: Cleft lip-palate  
Other Keywords: Speech-Language Pathology, Stuttering  
Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
**Name**: Sylvia Frazier-Bowers  
**Department**: Orthodontics  
**Title**: Associate Professor  
**Telephone**: (919) 966-2762  
**Mailing Address**: School of Dentistry  
UNC Chapel Hill  
Orthodontics  
CB #7450  
Chapel Hill, NC 27599-7450  
**Office**: 271 Brauer Hall  
**Lab**: 4417D Koury Oral Health Sciences  
**Email**: sylvia_frazier@dentistry.unc.edu  
**ReachNC Link**:  

**Description of Research**: My research interests include understanding the genetic basis of craniofacial anomalies relevant to the field of orthodontics. Specifically, I investigate the genetic basis of dentofacial variation in the skeletal Class III dentofacial phenotype (1-5% prevalence); tooth agenesis (congenitally missing teeth) and primary failure of eruption (PFE). My current efforts focus on gene discovery and phenotype dissection of dentofacial variation using 1) 2/3 dimensional methods for rigorous clinical characterization, 2) genotyping and linkage analysis and 3) mutational analysis using the candidate gene approach. This translational research program has grown over the past six years and inspires a paradigm shift in orthodontics from “how to move teeth to how teeth move.” My recent genetic studies in PFE represent the quintessential translational research product; knowledge of a PTH1R mutation a priori prevents the futile attempt at early orthodontic interventions saving the practioner and patient time and money.

**Keywords**: Bone, Cephalometric analysis, Diagnosis, Genetics, Malocclusion, Orthodontics, Osteoblasts/osteoclasts  

**Other Keywords**: Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
Name: Jan Holland
Department: Dental Ecology
Title: Adjunct Associate Professor
Telephone: 919-966-2800
Mailing Address: School of Dentistry
UNC Chapel Hill
Dental Ecology
CB #7450
Chapel Hill, NC 27599-7450
Office: 3220 Old Dental
Lab:
Email: jan_holland@dentistry.unc.edu
Lab URL:
ReachNC Link:
Description of Research: Caries prevention and detection, enamel remineralization, alternative methods of controlling caries and other dental diseases, oral hygiene
Keywords: Biofilm, Caries, Clinical trials, Demineralizations, Mineralization, Oral hygiene, Preventive dentistry
Other Keywords:
Willingness and interest to mentor: graduate student, undergraduate DDS or DH student, and junior faculty member
<table>
<thead>
<tr>
<th>Name</th>
<th>Asma Khan</th>
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<tbody>
<tr>
<td>Department</td>
<td>Endodontics</td>
</tr>
<tr>
<td>Title</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Telephone</td>
<td>919-537-3389</td>
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<tr>
<td>Office</td>
<td>1170 Old Dental Building</td>
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<tr>
<td>Lab</td>
<td>Koury Oral Health Sciences, 5617C</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:asma_khan@DENTISTRY.UNC.EDU">asma_khan@DENTISTRY.UNC.EDU</a></td>
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<tr>
<td>Lab URL</td>
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<tr>
<td>Description of Research</td>
<td>Pain mechanisms and management. Role of microRNA in inflammation and pain. Regenerative Endodontics; Development of new diagnostics</td>
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<tr>
<td>Willingness and interest to mentor</td>
<td>Undergraduate, DDS and Grad students</td>
</tr>
</tbody>
</table>
Name: Mark Kutcher
Department: Dental Ecology
Title: Associate Professor
Telephone: 919 537-3140
Mailing Address: School of Dentistry
UNC Chapel Hill
Dental Ecology
CB #7450
Chapel Hill, NC 27599-7450
Office: 5405C Koury Oral Health Sciences
Lab: 
Email: kutcherm@dentistry.unc.edu
Lab URL: 
ReachNC Link: http://www.experts.scival.com/reachnc/expert.asp?n=Mark+J+Kutcher&u_id=5001266
Description of Research: Diagnosis and management of oral diseases such as viral, fungal, ulcerations etc.; facial cancer; dental management of medically compromised patients;
Keywords: Antimicrobials, Clinical trials, Halitosis, Mucosal diseases, Neoplasia, Oral mucosa, Pathology, Teaching, Viruses
Other Keywords: ulcerations; fungal; cancer; facial; dermatologic
Willingness and interest to mentor: graduate student, undergraduate DDS or DH student, and junior faculty member
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<tr>
<th><strong>Name</strong></th>
<th>Jessica Lee</th>
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<tbody>
<tr>
<td><strong>Department:</strong></td>
<td>Pediatric Dentistry</td>
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<tr>
<td><strong>Title:</strong></td>
<td>Distinguished Professor</td>
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<tr>
<td><strong>Telephone:</strong></td>
<td>919-537-3271</td>
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</table>
| **Mailing Address:** | School of Dentistry  
UNC Chapel Hill  
Pediatric Dentistry  
CB #7450  
Chapel Hill, NC 27599-7450 |
<p>| <strong>Office:</strong> | 4501C Koury Oral Health Sciences or 228 Brauer Hall |
| <strong>Lab:</strong> | 4501 Koury Oral Health Sciences |
| <strong>Email:</strong> | <a href="mailto:leej@dentistry.unc.edu">leej@dentistry.unc.edu</a> |
| <strong>Lab URL:</strong> |  |
| <strong>Description of Research:</strong> | Health Services Research, Epidemiology, Health Disparities, Healthy Literacy |
| <strong>Keywords:</strong> | Access to Care, Behavioral science, Delivery systems, Health Policies research, Public Health Dentistry |
| <strong>Other Keywords:</strong> |  |
| <strong>Willingness and interest to mentor:</strong> | undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member |</p>
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<thead>
<tr>
<th>Name</th>
<th>Sally Mauriello</th>
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<tbody>
<tr>
<td>Department:</td>
<td>Dental Ecology</td>
</tr>
<tr>
<td>Title:</td>
<td>Professor</td>
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<tr>
<td>Telephone:</td>
<td>919-966-2800</td>
</tr>
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</table>
| Mailing Address:| School of Dentistry  
|                 | UNC Chapel Hill  
|                 | Dental Ecology  
|                 | CB #7450         
<p>|                 | Chapel Hill, NC 27599-7450 |
| Office:         | 3320 Old Dental |
| Lab:            |                 |
| Email:          | <a href="mailto:sally_mauriello@dentistry.unc.edu">sally_mauriello@dentistry.unc.edu</a> |
| Lab URL:        |                 |
| Description of Research: | My research interests are in the areas of: dental radiology, geriatric dentistry, examiner calibration, root caries, dental hygiene. |
| Keywords:       | Access to Care, Aging, Cardiovascular disease, Caries, Clinical trials, Elderly, Gerontology, Gingivitis, Periodontal disease, Preventive dentistry, Clinical examiner calibration |
| Other Keywords: | Clinical examiner calibration |
| Willingness and interest to mentor: | undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member |</p>
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<tr>
<th><strong>Name</strong></th>
<th>Michael Milano</th>
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<tbody>
<tr>
<td><strong>Department:</strong></td>
<td>Pediatric Dentistry</td>
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<tr>
<td><strong>Title:</strong></td>
<td>Clinical Associate Professor</td>
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<tr>
<td><strong>Telephone:</strong></td>
<td>(919) 966-2739</td>
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<tr>
<td><strong>Mailing Address:</strong></td>
<td>School of Dentistry</td>
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<td>UNC Chapel Hill</td>
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<td>Pediatric Dentistry</td>
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<td>CB #7450</td>
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<td>Chapel Hill, NC 27599-7450</td>
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<td><strong>Office:</strong></td>
<td>228 Brauer Hall</td>
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<td><strong>Lab:</strong></td>
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<tr>
<td><strong>Email:</strong></td>
<td><a href="mailto:milanom@dentistry.unc.edu">milanom@dentistry.unc.edu</a></td>
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<td><strong>Lab URL:</strong></td>
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<tr>
<td><strong>Description of Research:</strong></td>
<td>The dental needs of children with special health care needs. The use of sedation in children in order to provide dental care.</td>
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<tr>
<td><strong>Keywords:</strong></td>
<td>Access to Care, Anxiety, Behavioral science, Children, Cleft lip-palate, Education research, Infants</td>
</tr>
<tr>
<td><strong>Other Keywords:</strong></td>
<td>graduate student, undergraduate DDS or DH student, and junior faculty member</td>
</tr>
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</table>
My lab integrates molecular genetics, animal models, and clinical epidemiologic measures to better understand the neurobiological processes underlying chronic pain. My research objectives are to 1) identify and characterize signaling processes that drive persistent pain conditions, 2) evaluate the potential functionality of common genetic polymorphisms that interact with environmental events to produce persistent pain conditions, and 3) identify biological markers predictive for the development of persistent pain conditions, including the severity and duration of the disorder as well as optimal management strategies for different individuals.
Name: Tung Nguyen  
Department: Orthodontics  
Title: Assistant Professor  
Telephone: (919) 537-3764  
Mailing Address: School of Dentistry  
UNC Chapel Hill  
Orthodontics  
CB #7450  
Chapel Hill, NC 27599-7450  
Office: 264 Brauer Hall  
Lab: Old Dental 2080  
Email: nguyentu@dentistry.unc.edu  
Lab URL: https://www.dentistry.unc.edu/research/orofacial_imaging_lab/  
ReachNC Link: http://www.experts.scival.com/reachnc/expert.asp?n=Tung+T+Nguyen&u_id=5002535  

Description of Research: My research interests include growth modification of Class III malocclusions using skeletal anchorage. The ultimate goal of my research is to develop and refine a protocol that will help reduce the need for orthognathic surgery in this population of patients. We recently expanded our protocol to include craniofacial cleft and syndromic patients and started a multi-center study. My lab is involved in the development of 3-D imaging software and methodology to help assess growth and treatment changes. Lastly, I’m interested in CAD/CAM and digital technology to increase the effectiveness and efficiency of orthodontic treatment.

Keywords: Adolescence, CAD/CAM, Cephalometric analysis, Cleft lip-palate, Digital image analysis, Growth & development, Orthodontics, Technology  

Other Keywords:  

Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
Name: Beatriz Paniagua
Department: Psychiatry (main appointment), Orthodontics, Computer Science (adjunct)
Title: Assistant Professor
Telephone: 919-843-9497

Mailing Address: Medical School Wing C, third floor, suite 356
                Campus Box CB 7160
                CHAPEL HILL, NC
                27599-7160
Office: Medical School Wing C, suite 356

Lab: 2080 Old Dental (Ortho) 355 Medical School Wing C (Psychiatry)

Email: beatriz_paniagua@med.unc.edu or Beatriz_Paniagua@unc.edu

Lab URL: http://www.med.unc.edu/psych/research/niral and
         https://www.dentistry.unc.edu/research/orofacial_imaging_lab/

ReachNC Link: http://www.experts.scival.com/ReachNC/expert.asp?n=Beatriz+Paniagua&u_id=1980033241

Description of Research: I have always been interested in how computational sciences can be used to address biological questions. My research background is in statistical shape analysis applied to brain morphometry and craniofacial morphology, deformable registration applied to shape, image processing, free-open source software development for the biological and medical sciences.

Keywords: Shape analysis, brain morphometry, craniofacial morphology, image processing, software development

Other Keywords:

Willingness and interest to advise/mentor: graduate student (MS and PhD) interested in computer-based orofacial imaging research
Name: Jongbae Jay Park  
Department: Endodontics, Center for Pain Research and Innovation  
Title: Clinical Assistant Professor  
Telephone: 919 537 3286  
Mailing Address: CB#7455. 385 South Columbia St.  
Center for Pain Research and Innovation, School of Dentistry,  
UNC-Chapel Hill  
Koury Oral Health Sciences Building 5417P,  
Chapel Hill, NC 27599-7455  
Office: Koury Oral Health Sciences Building 5417P  
Lab:  
Email: Jongbae_park@med.unc.edu  
Lab URL: http://www.med.unc.edu/phyrehab/faculty/jongbae-jay-park-kmd-phd  
ReachNC Link: http://www.experts.scival.com/reachnc/expert.asp?n=Jongbae+Jay+Park&u_id=5002737  
Description of Research: Acupuncture is proven to clinically improve TMD related pain. The mechanism by which acupuncture improves TMD related pain, however, is largely unknown. My research aims at finding any correlation between clinical outcomes and the profiles of cytokines and growth factors in TMD following acupuncture, and elucidating the role of circulating cytokines and growth factors in mediating the putative analgesic effects of acupuncture. My translational research involves observational study, clinical trial, and literature study method.  
Keywords: Mechanism of acupuncture, Temporomandibular Disorders, Orofacial pain, Chronic pain  
Other Keywords: Integrative medicine, Asian Medicine, Clinical research method, blinding  
Willingness and interest to advise/mentor: undergraduate/college student, graduate student
Name: Lauren Patton
Department: Dental Ecology
Title: Professor
Telephone: 919-9662787
Mailing Address: School of Dentistry
UNC Chapel Hill
Dental Ecology
CB #7450
Chapel Hill, NC 27599-7450
Office: 467A Brauer Hall
Lab:
Email: lauren_patton@dentistry.unc.edu
Lab URL: ReachNC Link: http://www.experts.scival.com/reachnc/expert.asp?n=Lauren+L+Patt on&u_id=5000394
Description of Research: Clinical trials for mucosal disease treatment or prevention / Oral cancer prevention and early diagnosis / Management of patients with systemic disease / Oral and systemic disease interaction / HIV infection and AIDS patient dental care, access to care, oral lesions / Health services research, outcomes research, and public health dentistry topics / Systematic reviews to assess evidence base for dental treatment processes
Keywords: Clinical trials, Diagnosis, Epidemiology, HIV infection, Health Policies research, Mucosal diseases, Public Health Dentistry, Salivary dysfunction, Systematic review, Tobacco, Oral cancer/Medically complex patients
Other Keywords: Oral cancer / Medically complex patients
Willingness and interest to mentor: graduate student, undergraduate DDS or DH student, and junior faculty member
Name: Ceib Phillips
Department: Orthodontics
Title: Professor
Telephone: 919-537-3373
Mailing Address: School of Dentistry
UNC Chapel Hill
Orthodontics
CB #7450
Chapel Hill, NC 27599-7450
Office: 3120 Old Dental
Lab: 2090 and 2080 Old Dental
Email: ceib_phillips@dentistry.unc.edu
Lab URL: https://www.experts.scival.com/reachnc/expert.asp?n=Ceib+L+Phillips&u_id=5000306
ReachNC Link:
Description of Research:
Clinical Trial Methodology / Preparation for and Recovery from Surgery - Patient Centered Outcomes / Access to Care - Patient /Caregiver Centered
Keywords: Access to Care, Assessment, Cleft lip-palate, Clinical trials, Effectiveness, Methodology, Orthodontics, Outcome (Health), Quality of life, Surgery
Other Keywords:
Willingness and interest to mentor: graduate student, undergraduate DDS or DH student, and junior faculty member
Name: Luiz Pimenta  
Department: Dental Ecology  
Title: Clinical Professor  
Telephone: 919 537-3691  
Mailing Address: School of Dentistry  
UNC Chapel Hill  
Dental Ecology  
CB #7450  
Chapel Hill, NC 27599-7450  
Office: 001 Brauer Hall  
Lab:  
Email: pimental@dentistry.unc.edu  
ReachNC Link:  
Description of Research: Clinical research in cleft lip/palate and craniofacial anomalies. Also, clinical and lab research in cariology  
Keywords: Assessment, Biofilm, Bone repair, Caries, Cariology, Cleft lip-palate, Clinical Trials, Esthetics, Fluoride, Prostheses  
Other Keywords:  
Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
Name: Andre Ritter
Department: Operative Dentistry
Title: Professor
Telephone: 919-843-6356
Mailing Address: School of Dentistry
               UNC Chapel Hill
               Operative Dentistry
               CB #7450
               Chapel Hill, NC 27599-7450
Office: 441 Brauer Hall
Lab: 
Email: rittera@dentistry.unc.edu
Lab URL: 
Description of Research: Caries risk assessment and management / Dental materials and adhesion / Esthetic Dentistry
Keywords: Adhesion, Biomaterials, Caries, Composites, Esthetics
Other Keywords:
Willingness and interest to mentor:
undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
Name: Michael Roberts
Department: Pediatric Dentistry
Title: Henson Distinguished Professor
Telephone: 919-966-2739
Mailing Address: School of Dentistry
UNC Chapel Hill
Pediatric Dentistry
CB #7450
Chapel Hill, NC 27599-7450
Office: 228 Brauer Hall
Lab: 
Email: mike_roberts@dentistry.unc.edu
Lab URL: 
Description of Research:
2. Basal metabolism index (BMI) percentile and caries incidence.
3. Dental implications associated with medically compromised children.

Keywords: Access to Care, Caries
Other Keywords: Eating disorders / Basal metabolism index (BMI)
Willingness and interest to mentor: graduate student, undergraduate DDS or DH student, and junior faculty member
Name: Emile Rossouw  
Department: Orthodontics  
Title: Professor and Chairman  
Telephone: 919-966-2761  
Mailing Address: School of Dentistry  
UNC Chapel Hill  
Orthodontics  
CB #7450  
Chapel Hill, NC 27599-7450  
Office: 277 Brauer Hall  
Lab:  
Email: emile_rossouw@dentistry.unc.edu  
Lab URL:  
ReachNC Link:  

Description of Research: Clinical orthodontics in general, but with specific reference to long-term changes and stability, anchorage control with such devices as mini-implant bone anchors, biomechanical effects of appliances, bonding materials to secure appliances to enamel as well as protecting the enamel from such sequelae as decalcification.

Keywords: Biomaterials, Biomechanics, Cephalometric analysis, Clinical trials, Computers, Dental materials, Digital image analysis, Growth & Development, Orthodontics

Other Keywords:  
Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
Name: Anne Sanders
Department: Dental Ecology
Title: Assistant Professor
Telephone: 919-537-3275

Mailing Address: School of Dentistry
UNC Chapel Hill
Dental Ecology
CB #7450
Chapel Hill, NC 27599-7450

Office: 4502 Koury Oral Health Sciences

Lab:
Email: anne_sanders@unc.edu

Lab URL:
ReachNC Link: http://www.experts.scival.com/reachnc/expert.asp?n=Anne+Elizabeth+Sanders&u_id=5002908

Description of Research
Oral epidemiology; social epidemiology; sleep-disordered breathing; pain; periodontal disease; NHANES

Keywords: Population; causality; survey methods; analytic methods

Other Keywords:

Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
Name: Gary Slade
Department: Dental Ecology
Title: Professor
Telephone: 919-537-3273

Mailing Address: School of Dentistry
UNC Chapel Hill
Dental Ecology
CB #7450
Chapel Hill, NC 27599-7450

Office: 4501E Koury Oral Health Sciences

Lab: 
Email: gary_slade@dentistry.unc.edu

Lab URL: 
ReachNC Link: http://www.experts.scival.com/reachnc/expert.asp?n=Gary+D+Slade
&u_id=5001357

Description of Research: Oral epidemiology; Orofacial pain; Oral health related quality of life;
Population prevention of oral disease

Keywords: Epidemiology, Pain, Public Health Dentistry, Quality of life

Other Keywords:

Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS
or DH student, and junior faculty member
Name: Margot Stein  
Department: Dental Ecology  
Title: Clinical Associate Professor  
Telephone: 919.966.1363  

Mailing Address: School of Dentistry  
UNC Chapel Hill  
Dental Ecology  
CB #7450  
Chapel Hill, NC 27599-7450  

Office: UNC Craniofacial Center  

Lab:  
Email: steinm@dentistry.unc.edu  

Lab URL:  

Description of Research  

Keywords: Access to Care, Anxiety, Assessment, Behavioral science, Children, Cleft lip-palate, Learning, Psychology, Quality of life, Teaching, Ethics, professionalism  

Other Keywords: Ethics, professionalism  

Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
Name: Peter Tawil  
Department: Endodontics  
Title: Assistant Professor  
Telephone: 919-966-2707  

Mailing Address: School of Dentistry  
UNC Chapel Hill  
Endodontics  
CB #7450  
Chapel Hill, NC 27599-7450  
Office: 1150 Old Dental  

Lab:  
Email: peter_tawil@dentistry.unc.edu  
Lab URL:  
ReachNC Link:  

Description of Research: Periapical Microsurgery: retrofilling materials, healing, success, pain control, corticosteroids / Endodontic file systems: designs, compositions, protocols, sterilization, outcomes / Obturation techniques / Trauma and revascularization / Endodontic Jurisprudence  

Keywords: Clinical trials, Infection, Inflammation, Pain, Root, Root canal fillings, Surgery, Technology, Trauma-fracture, Wound healing  

Other Keywords:  

Willingness and interest to mentor: graduate student, undergraduate DDS or DH student, and junior faculty member
Name: Inna Tchivileva  
Department: Endodontics  
Dental Research  
Title: Research Assistant Professor  
Telephone: 919-537-3291  
Mailing Address: School of Dentistry  
UNC Chapel Hill  
Dental Research  
Center for Neurosensory Disorders  
CB #7450  
Chapel Hill, NC 27599-7450  
Office: 5417J Koury Oral Health Sciences  
Lab: 1038 Tarrson Hall  
Email: chivilei@dentistry.unc.edu  
Lab URL: http://www.experts.scival.com/reachnc/expert.asp?n=Inna+Tchivileva&u_id=710758721  
Description of Research: My research objectives are to identify genetic variants influencing pain sensitivity, the likelihood of developing chronic pain diseases, and the response to pain therapy. I am interested in developing and conducting pharmacogenetic clinical trials translating basic research findings into clinical practice. Recently, my efforts have concentrated on studying the effect of catecholamine-O-methyltransferase gene polymorphism on response to beta-adrenergic blocker therapy in patients with temporomandibular joint disorder.  
Keywords: Central nervous system/peripheral nervous system, Gene expression, Genetics, Human, Magnetic Resonance Imaging, Neuroscience, Outcome (Health), Pain, Pharmacology, Psychology Clinical Trials  
Other Keywords: Clinical trials  
Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student
<table>
<thead>
<tr>
<th>Name</th>
<th>Ray White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Oral &amp; Maxillofacial Surgery</td>
</tr>
<tr>
<td>Title</td>
<td>Professor</td>
</tr>
<tr>
<td>Telephone</td>
<td>919-966-1126</td>
</tr>
</tbody>
</table>
| Mailing Address | School of Dentistry  
|               | UNC Chapel Hill  
|               | Oral and Maxillofacial Surgery  
|               | CB #7450  
|               | Chapel Hill, NC 27599-7450 |
| Office        | 115 Brauer Hall |
| Lab           | |
| Email         | ray_white@dentistry.unc.edu |
| Lab URL       | |
| Description of Research | Clinical research topics related to orthognathic surgery, 3rd molar management |
| Keywords      | Biofilm, Clinical trials, Periodontal disease, Quality of life, Surgery |
| Other Keywords: | |
| Willingness and interest to mentor: | undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member |
Name: John Timothy Wright  
Department: Pediatric Dentistry  
Title: Bawden Distinguished Professor  
Telephone: 919-966-2739  
Mailing Address: School of Dentistry  
UNC Chapel Hill  
Pediatric Dentistry  
CB #7450  
Chapel Hill, NC 27599-7450  
Office: Koury Oral Health Sciences 4110 or Suite #1617F  
Lab: 4110 Koury Oral Health Sciences  
Email: tim_wright@unc.edu  
Lab URL: https://www.dentistry.unc.edu/secure/resources/directories/detail.cfm?employeeid=1975  
ReachNC Link: http://www.experts.scival.com/reachnc/expert.asp?n=John+T+Wright&u_id=5001648  
Description of Research: My research interests involve advancing our understanding of the fundamental molecular mechanisms involved in tooth and craniofacial formation and the use of this information in advancing our diagnostic and clinical treatments of hereditary craniofacial defects. My laboratory is also investigating the molecular controls involved in initiating, defining and maintaining odontogenic tumors in humans. These projects are being completed using a variety of human and animal models including the study of human hereditary conditions and transgenic mice. Recent work has been initiated to investigate the human oral microbiome and its metabolomics and related to dental caries to identify their potential utility in risk assessment.  
Keywords: Ameloblasts, Animal, Models, Cariology, Dentin, Diagnosis, Enamel, Fluoride, Genetics, Human  
Other Keywords:  
Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
<table>
<thead>
<tr>
<th>Name</th>
<th>Robert F. Wright, DDS, FACP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Prosthodontics</td>
</tr>
<tr>
<td>Title</td>
<td>Professor and Chair</td>
</tr>
<tr>
<td>Telephone</td>
<td>919-537-3435</td>
</tr>
<tr>
<td>Mailing Address</td>
<td>School of Dentistry; Department of Prosthodontics; CB #7450 Chapel Hill, NC 27599-7450</td>
</tr>
<tr>
<td>Office</td>
<td>Brauer 335</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:robert_wright@unc.edu">robert_wright@unc.edu</a></td>
</tr>
<tr>
<td>Description of Research</td>
<td>Description of Research: Implants, materials, mentoring, educational, clinical trials, maxillofacial prosthetics, stereolithography, taper and biomechanical principles of crown preparations, and digital dentures research.</td>
</tr>
<tr>
<td>Keywords</td>
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<tr>
<td>Other Keywords</td>
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</tr>
<tr>
<td>Willingness and interest to advise/mentor</td>
<td>College student, dental hygiene student, DDS student, graduate student, and junior faculty</td>
</tr>
</tbody>
</table>
Name: David Zajac
Department: Dental Ecology
Craniofacial Center
Title: Associate Professor
Telephone: 919-966-1362

School of Dentistry
UNC Chapel Hill

Mailing Address: Craniofacial Center
CB #7450
Chapel Hill, NC 27599-7450
02-007 Brauer Hall

Office: 02--016 Brauer Hall

Email: david_zajac@dentistry.unc.edu

Lab URL: www.unc.edu/~dzajac


Description of Research
My primary research involves speech production and perception in infants and children with cleft palate. We recently reported that school-aged children with cleft palate who produce backed tongue-tip articulation errors have restricted anterior maxillary arch width that contributes to these errors. We are also studying oral-motor control during feeding and the development of stop consonant production (sounds such as /b/ and /p/) in infants with cleft palate before and after palate repair.

Keywords: Children, Cleft lip-palate, Infants

Other Keywords: speech production, speech aerodynamics, speech acoustics, velopharyngeal function

Willingness and interest to mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member
Name
Department:
Title:
Telephone:
Mailing Address:
Office:
Lab:
Email:
Lab URL:
ReachNC Link:
Description of Research
Keywords:
Other Keywords:
Willingness and interest to advise/mentor: undergraduate/college student, graduate student, undergraduate DDS or DH student, and junior faculty member