

CURRICULUM VITAE

Mary Bakich MacDougall

I. GENERAL INFORMATION

A. PERSONAL INFORMATION

University Address: University of Alabama at Birmingham School of Dentistry
Department of Oral Maxillary Facial Surgery
Institute of Oral Health Research
The University of Alabama School of Dentistry at UAB
1919 7th Ave South, SDB 702B
Birmingham, AL 35294-0007

Work Telephone: (205) 996-5122
(205) 996-5123 (direct)

University FAX: (205) 996-5109

University Email: MacDougall@uab.edu

B. EDUCATION

1981-1984 Ph.D. in Craniofacial Biology
Laboratory for Developmental Biology
University of Southern California
School of Dentistry
Los Angeles, California

1973-1978 B.A. Biochemistry Major, Theatrical Design Minor
Revelle College
University of California at San Diego
San Diego, California

C. POSTGRADUATE TRAINING

1985-1986 Postdoctoral Fellow, Laboratory for Developmental Biology
Graduate Program in Craniofacial Biology
University of Southern California
Los Angeles, California

D. ACADEMIC APPOINTMENTS

2011-Present	Director, Founding Global Center for Craniofacial Oral and Dental Disorders (GC-CODED) University of Alabama at Birmingham Birmingham, Alabama
2009-Present	Faculty Advisor (Founding) UAB PreDental Society University of Alabama at Birmingham Birmingham, Alabama
2011-Present	Director, Dental Academica Research Training Program T90/ R90 Institutional Training Grant University of Alabama at Birmingham School of Dentistry Birmingham, Alabama
2006-2010	Director, Dental Academica Research Training Program T32 Institutional Training Grant University of Alabama at Birmingham School of Dentistry Birmingham, Alabama
2005-Present	Associate Dean for Research Professor, Tenured Department of Oral and Maxillofacial Surgery Director, Institute of Oral Health Research Director, Dental Academic Research Training Program (DART) Director, PreDART Program Faculty Advisor, UAB PreDental Society University of Alabama at Birmingham School of Dentistry Birmingham, Alabama
2005-Present	Cross-Appointment Graduate School Department of Cellular and Structural Biology Department of Genetics Department of Pathology Department of Microbiology University of Alabama at Birmingham Birmingham, Alabama
2004-2005	Interim Chair Pediatric Dentistry Dental School University of Texas Health Science Center at San Antonio San Antonio, Texas
1999-2005	Associate Dean for Research Dental School University of Texas Health Science Center at San Antonio San Antonio, Texas

1998-2005	Professor, Tenured Director, Craniofacial Oral-Biology Student Training in Academic Research Program (CO-STAR) Director, Dental-Student Training in Academic Research Program (D-STAR) Department of Pediatric Dentistry University of Texas Health Science Center at San Antonio San Antonio, Texas
1994-Present	Cross-Appointment Graduate School Department of Cellular and Structural Biology University of Texas Health Science Center at San Antonio San Antonio, Texas
1993-1998	Associate Professor- Tenure Track Director, Research Division of Pediatric Dentistry Department of Pediatric Dentistry University of Texas Health Science Center at San Antonio San Antonio, Texas
1986-1993	Research Assistant Professor Center for Craniofacial Molecular Biology Department of Basic Sciences School of Dentistry University of Southern California Los Angeles, California

SECONDARY ACADEMIC APPOINTMENTS

2014- Present	Senior Scientist Cystic Fibrosis Center The University of Alabama at Birmingham Birmingham, Alabama
2010-Present	Faculty Member Biomedical Sciences Interdisciplinary Themes Cell, Molecular and Developmental Biology Genetics and Genomic Sciences Pathobiology and Molecular Medicine Graduate School University of Alabama at Birmingham Birmingham, Alabama
2006-Present	Adjunct Professor Pediatric Dentistry University of Texas Health Science Center at San Antonio San Antonio, Texas
2006- Present	Senior Scientist Comprehensive Cancer Center The University of Alabama at Birmingham Birmingham, Alabama
2006-Present	Faculty Member

Department of Genetics
School of Medicine and Dentistry
The University of Alabama at Birmingham
Birmingham, Alabama

2005-Present Faculty Member
Department of Microbiology
School of Medicine and Dentistry
The University of Alabama at Birmingham
Birmingham, Alabama

2005-Present Faculty Member
Department of Cell, Development and Integrative Biology (2012)
Department of Cell Biology (2005-2012)
School of Medicine and Dentistry
The University of Alabama at Birmingham
Birmingham, Alabama

2005-Present Faculty Member
Department of Pathology
The University of Alabama at Birmingham
Birmingham, Alabama

2005-Present Member
Center for Metabolic Bone Disease
The University of Alabama at Birmingham
Birmingham, Alabama

E. OTHER EMPLOYMENT

1979-1981 Research Assistant
Laboratory for Developmental Biology
Dr. Harold Slavkin and Dr. Margarita Zeichner-David
University of Southern California
School of Dentistry
Los Angeles, California

1975-1978 Research Assistant
Dr. Robert McMillan, Chair Department of Hematology
Hematology Research Clinic
Scripps Research Clinic
La Jolla, California

F. CERTIFICATION AND LICENSURE

2007-Present UAB Certificate of Training
Institutional Review Board for Human Use
Institutional Review Board for Animal Use

G. HONORS, AWARDS, FELLOWSHIPS

2016 Stephen Greene
National Dental Association
Atlanta, GA

- 1st Place Poster
M. MacDougall, Mentor
- 2016 Elected Fellow
American Association for Dental Research
M. MacDougall
- 2016 Aneesa Sood
AADR Student Research Day Award
American Association for Dental Research
M. MacDougall, Mentor
- 2016 Aneesa Sood
American Association for Dental Research
3rd Place, Clinical Research
DENTSPLY/Caulk Competition
Los Angeles, CA
M. MacDougall, Mentor
- 2016 Steven Sheibley
American Association for Dental Research
National Finalist, Clinical Research
Hatton Competition
Los Angeles, CA
M. MacDougall, Mentor
- 2013-2014 **M. MacDougall, PhD**
Immediate Past President
International Association for Dental Research
- 2013 Dr. Stephen Greene
Dr. Clifton O. Dummett and Lois Doyle Dummett Award
National Dental Association Foundation
M. MacDougall, Mentor
- 2012-2013 **M. MacDougall, PhD**
President
International Association for Dental Research
- 2012 **Mary MacDougall, PhD**
2012 Burton C. Borgelt/SCADA Faculty Advisor Award
Student Clinician of the American Dental Association
Presented- 53rd ADA/DENTSPLY Student Clinician Research Awards
San Francisco, CA
- 2012 Al Jones, Dental Student
Clinical Research, First Place
Caulk Dentspy Student Research Competition
American Association for Dental Research
Tampa, Florida
M. MacDougall, Mentor
- 2012 Lauren Paul, Dental Student

- Clinical Research, Third Place
Caulk Dentsply Student Research Competition
American Association for Dental Research
Tampa, Florida
M. MacDougall, Mentor
- 2012 Angela Gullard, DMD/PhD Student
ADEA/Crest Oral-B Scholarship for Predoctoral Students Pursuing Academic Careers
M. MacDougall, Mentor
- 2011-2012 **Mary MacDougall, PhD**
Selected Participant
BLAZE Leadership Academy
University of Alabama at Birmingham
Birmingham, Alabama
- 2011 UAB Center for Community OutResearch Development (CORE)
The Reynolds Summer Science Institute for High School Students
Bre'Anna Howell-A.H. Parker High School
The Reynolds Award
M. MacDougall, Mentor
- 2011 Dr. Helen Rivera, Venezuela
Clark Fellowship
International Association for Dental Research
M. MacDougall, Mentor
- 2010 **Mary MacDougall, PhD**
Distinguish Mentorship Award
American Association for Dental Research
Awarded Annual Meeting in San Diego, California
- 2010 **Mary MacDougall, PhD**
Elected, Vice President
Board Member Four Year Term
International Association for Dental Research
- 2010 **Mary MacDougall, PhD**
Mentored Experiences in Research and Teaching (MERIT)
Faculty Mentor- Dr. Hope Amm
University of Alabama at Birmingham
- 2010 Angela Gullard
ADA/Dentsply Student Clinician Research Program
UAB School of Dentistry Student Clinician
American Dental Association Annual Session
Orlando, FL
M. MacDougall, Mentor
- 2010 Angela Gullard, Finalist
AADR Hatton Award Competition, Junior Category
American Association for Dental Research
Washington, D.C.

M. MacDougall, Mentor

- 2010 Angela Gullard, Overall Winner
Poster Presentation, Basic Science – Junior Category
UAB School of Dentistry Scholars' Symposium
Birmingham, Alabama
M. MacDougall, Mentor
- 2009 Angela Gullard
ADA/Dentsply Student Clinician Research Program
UAB School of Dentistry Student Clinician
American Dental Association Annual Session
Honolulu, HI
M. MacDougall, Mentor
- 2009 Changchun Ren, PhD, Finalist
AADR Hatton Award Competition, Postdoctoral Category
American Association for Dental Research
Miami, Florida
M. MacDougall, Mentor
- 2009 Mary E. Wilson, Finalist
AADR Hatton Award Competition, Junior Category
American Association for Dental Research
Miami, Florida
M. MacDougall, Mentor
- 2009 Katherine Stidham, Finalist
AADR Hatton Award Competition, Junior Category
American Association for Dental Research
Miami, Florida
M. MacDougall, Co-Mentor
- 2009 Ashley Nemeck, Finalist (2nd Place)
DENTSPLY/Caulk Award Competition, Basic Science
M. MacDougall, Faculty Co-Sponsor
American Association for Dental Research
Miami, Florida
- 2009 Mary E. Wilson, Overall Winner
Poster Presentation, Basic Science – Junior Category
M. MacDougall, Faculty Sponsor
UAB School of Dentistry Scholars' Symposium
Birmingham, Alabama
- 2008 Mary E. Wilson, 1st Place
Poster Presentation, Basic Science – Undergraduate
M. MacDougall, Faculty Sponsor
UAB School of Dentistry Scholars' Symposium
Birmingham, Alabama
- 2008 Ejvis Lamani, 2nd Place

- Poster Presentation, Basic Science-Undergraduate
M. MacDougall, Faculty Sponsor
 UAB School of Dentistry Scholars' Symposium
 Birmingham, Alabama
- 2007 Ejvis Lamani, Overall Winner
 Poster Presentation – All Categories
M. MacDougall, Faculty Sponsor
 UAB School of Dentistry Scholars' Symposium
 Birmingham, Alabama
- 2006 **Mary MacDougall, PhD**
 2006 Fellow, Dentistry and Oral Health Science
 American Association for the Advancement of Science
- 2005-2006 **M. MacDougall, PhD**
 President
 American Association for Dental Research
- 2005 **Mary MacDougall, PhD**
 James R. Rosen Chair in Dental Research
 The University of Alabama School of Dentistry at UAB
 Birmingham, Alabama
- 2005 **Mary MacDougall, PhD**
 Distinguished Scientist Award
 Basic Research in Biological Mineralization
 International Association of Dental Research
- 2005 **Mary MacDougall, PhD**
 The President's Council Chair in Dental Research
 University of Texas Health Science Center at San Antonio
- 2005 Dennis Craig Seager, 3rd Place
 Caulk Dentsply – Clinical Science
M. MacDougall, Faculty Sponsor
 American Association for Dental Research
 Baltimore, MD
- 2005 Thomas Bingham, Finalist
 Caulk Dentsply – Clinical Science
M. MacDougall, Faculty Sponsor
 American Association for Dental Research
 Baltimore, MD
- 2005 Thomas Bingham
 Bloc Travel Award
M. MacDougall, Faculty Sponsor
 American Association for Dental Research
 Baltimore, MD
- 2005 Nataliya Inozentseva
 2005 Research Fellowship Award
M. MacDougall, Faculty Sponsor

American Association for Dental Research
Baltimore, MD

Predoctoral Oral Presentation, 1st Place
M. MacDougall, Faculty Sponsor
UTHSCSA Dental School Science Symposium
San Antonio, TX

2005 Ashley Strickland
Table Clinic Senior Class Award
M. MacDougall, Faculty Sponsor
UTHSCSA Dental School Science Symposium
San Antonio, TX

2005 Isabel Gay, 1st Place
Postdoctoral Poster Presentation
M. MacDougall, Faculty Sponsor
UTHSCSA Dental School Science Symposium
San Antonio, TX

2004 Silvana Papagerakis, 3rd Place
Hatton Award, Postdoctoral Category
M. MacDougall, Faculty Sponsor
American Association for Dental Research
Honolulu, HI
2nd Place Hatton Award, Postdoctoral Category
International Association for Dental Research
Honolulu, HI

2004 Julie Dickson, Finalist
Hatton Award, Senior Category
M. MacDougall, Faculty Sponsor
American Association for Dental Research
Honolulu, HI

2004 Robert Williamson, Finalist
Hatton Award, Junior Category
M. MacDougall, Faculty Sponsor
American Association for Dental Research
Honolulu, HI

2004 Anne Nguyen, Finalist
Hatton Award, Junior Category
M. MacDougall, Faculty Sponsor
American Association for Dental Research
Honolulu, HI

2004 Lizbeth Dehghan, Finalist
Hatton Award, Junior Category
M. MacDougall, Faculty Sponsor
American Association for Dental Research
Honolulu, HI

2004 Michael Dyal, 2nd Place Basic Science

- Caulk/Dentsply Student Research Award
M. MacDougall, Faculty Sponsor
 American Association for Dental Research
 Honolulu, HI
- 2004 Ashley Sorenson, Finalist
 Caulk/Dentsply Student Research Award
M. MacDougall, Faculty Sponsor
 American Association for Dental Research
 Honolulu, HI
- 2004 Jessica Ibarra
 Pulp Biology Group Travel Award
M. MacDougall, Faculty Sponsor
 American Association for Dental Research
 Honolulu, HI
- 2003 **Mary MacDougall**, PhD
 Mentor of the Year
 American Association of Dental Research
 Student Research Group
 San Antonio, TX
- 2003 **Mary MacDougall, PhD**
 Elected, Vice President
 Board Member Four Year Term
 American Association for Dental Research
- 2003 Cara Knight
 Award of Excellence
 Department of Cellular and Structural Biology
M. MacDougall, Faculty Mentor
 UTHSCSA
- 2003 Cara Knight
 Armand J. Guarino Award
 Graduate School of Biomedical Sciences
M. MacDougall, Faculty Mentor
 UTHSCSA
- 2003 Cara Knight
 Maria Yeung Research Award
 Dental School
M. MacDougall, Faculty Mentor
 UTHSCSA
- 2003 Cara Knight
 Quintessence Award
 Quintessence Publishing Company
 Dental School
M. MacDougall, Faculty Mentor
 UTHSCSA

- 2003 Cara Knight
Oral Biology Award
American Association of Oral Biologists
M. MacDougall, Faculty Mentor
Dental School
UTHSCSA
- 2003 Jessica Ibarra, 1st Place
Hatton Award, Junior Category
M. MacDougall, Faculty Sponsor
American Association for Dental Research
San Antonio, TX
Finalist Hatton Award, Junior Category
International Association for Dental Research
Goteborg, Sweden
- 2003 Jennifer Schulze, 3rd Place
Hatton Award, Senior Category
M. MacDougall, Faculty Sponsor
American Association for Dental Research
San Diego, CA
Finalist Hatton Award, Junior Category
International Association for Dental Research
Goteborg, Sweden
- 2003 Julie Dickson, 2nd Place
Hatton Award, Senior Category
M. MacDougall, Faculty Sponsor
American Association for Dental Research
San Diego, CA
Finalist Hatton Award, Junior Category
International Association for Dental Research
Goteborg, Sweden
- 2003 Petros Papagerakis, 1st Place
Hatton Award, Postdoctoral Category
M. MacDougall, Faculty Sponsor
American Association for Dental Research
San Antonio, TX
2nd Place Hatton Award, Postdoctoral Category
International Association for Dental Research
Goteborg, Sweden
- 2003 Nataliya Clayton, Finalist
Caulk/Dentsply Student Research Award
M. MacDougall, Faculty Sponsor
American Association for Dental Research
San Antonio, TX
- 2003 Todd Cahoon, DDS
Finalist
Prichard Prize for Graduate Research
Southwest Society of Periodontists
M. MacDougall, Faculty Sponsor

2003 Todd Cahoon, DDS
 Finalist
 Orban Research Prize
 American Association of Periodontists
M. MacDougall, Faculty Sponsor

2002 7th Annual Ronald E. McNair Mentor
 Texas A& M University-Kingsville Special Program
 Summer Research Internship Program

2002 Lena Arvidson
 Finalist- Basic Science Research
M. MacDougall, Faculty Sponsor
 Orban Research Award
 American Association of Periodontists

2002 Juan Dong
 1st Place Postdoctoral
M. MacDougall, Faculty Sponsor
 Dental School Science Symposium
 UTHSCSA Dental School

2002 Petros Papagerakis
 2nd Place Postdoctoral
M. MacDougall, Faculty Sponsor
 Dental School Science Symposium
 UTHSCSA Dental School

2002 Jessica Ibarra
 1st Place Predoctoral
M. MacDougall, Faculty Sponsor
 Dental School Science Symposium
 UTHSCSA Dental School

2002 Violetta Martinez
 2nd Place Predoctoral
M. MacDougall, Faculty Sponsor
 Dental School Science Symposium
 UTHSCSA Dental School

2002 Lena Arvidson
 Finalist
 Orban Prize for Graduate Research
 American Association of Periodontists

2002 Violetta Martinez, 1st Place
 Hatton Award, Junior Category
 Finalist Hatton Award, Junior Category
M. MacDougall, Faculty Sponsor
 American Association for Dental Research
 San Diego, CA

2002 Aaron Unterbrink, Finalist

- Hatton Award, Junior Category
M. MacDougall, Faculty Sponsor
American Association for Dental Research
San Diego, CA
- 2002 Lori Santos, Finalist
Hatton Award, Senior Category
M. MacDougall, Faculty Sponsor
American Association for Dental Research
San Diego, CA
- 2002 Juan Dong, 2nd Place
Hatton Award, Postdoctoral Category
M. MacDougall, Faculty Sponsor
American Association for Dental Research
San Diego, CA
- 2002 Juan Dong, 2nd Place
Hatton Award, Postdoctoral Category
M. MacDougall, Faculty Sponsor
International Association for Dental Research
San Diego, CA
- 2002 Petros Papagerakis, Finalist
Hatton Award, Postdoctoral Category
M. MacDougall, Faculty Sponsor
American Association for Dental Research
San Diego, CA
- 2002 Jessica Ibarra, Third Place
Caulk/Dentsply Student Research Award
M. MacDougall, Faculty Sponsor
American Association for Dental Research
San Diego, CA
- 2002 Jennifer Bucin, Finalist
Caulk/Dentsply Student Research Award
M. MacDougall, Faculty Sponsor
American Association for Dental Research
San Diego, CA
- 2002 Michelle Salgado, Finalist
Caulk/Dentsply Student Research Award
M. MacDougall, Faculty Sponsor
American Association for Dental Research
San Diego, CA
- 2002 Silvana Florescu-Zorila
Colgate Palmolive Prevention Award
M. MacDougall, Faculty Sponsor
American Association for Dental Research
San Diego, CA
- 2002 Lena Arvidson, 2nd Place

- Prichart Research Competition
M. MacDougall, Faculty Sponsor
 Southwest Region Periodontic Association
- 2001 Distinguish Research Scientist Award Pulp Biology
M. MacDougall
 International Association for Dental Research
 Chiba, Japan
- 2001 Adam Martin, Third Place
 Caulk/Dentsply Student Research Award
M. MacDougall, Faculty Sponsor
 American Association for Dental Research
 Chicago, IL
- 2001 Cara Knight, Finalist
 Hatton Award, Junior Category
M. MacDougall, Faculty Sponsor
 American Association for Dental Research
 Chicago, IL
- 1999 Christopher Daniel, Third Place
 Caulk/Dentsply Student Research Award
M. MacDougall, Faculty Sponsor
 International Association for Dental Research
 Vancouver, Canada
- 1999 Nomination
 Dental School Teaching Award
 University of Texas Health Science Center at San Antonio
- 1998 Honorary Member
 Omicron Kappa Upsilon- Mu Nu Chapter
 Dental Honor Society
 University of Texas Health Science Center at San Antonio
- 1997 Nomination
 Teaching Award Dental School
 University of Texas Health Science Center at San Antonio
- 1997 John Wallace, Fourth Place
 Caulk/Dentsply Student Research Award
M. MacDougall, Faculty Sponsor
 26th Session American Association for Dental Research
 Orlando, Florida
- 1993 Award of Significant Contribution
 65th Scientific Meeting
 American Prosthodontic Society
- 1985-1986 National Institute of Health-Sponsored Training Grant
 Postdoctoral Fellowship
 Graduate Program in Craniofacial Biology
 University of Southern California

1981-1984 National Institute of Health-Sponsored Training Grant
Pre-Doctoral Fellowship
Graduate Program in Craniofacial Biology
University of Southern California

II. TEACHING ACTIVITIES

A. CLASSROOM / LABORATORY

<u>Date</u>			<u>Course Title/Clock Hours</u>		
			<u>Hours</u>	<u>Role</u>	
2011-Present	Dental Anatomy-Tooth Development	DS	18	Director-Unit	
2011-Present	Dental Genetics	DS	15	Director	
2011-Present	Dental and Skeletal Journal Club	DS/GS	2	Co-Director	
2009-2011	Dental Genetics and Histology	DS	15	Director	
2009-Present	Research Intensive Education	DS	2	Director	
2008-Present	Independent Research BY398	U	12	Director	
2008-Present	Honors Research BY 498	U	12	Director	
2003-Present	Dental Histology	DS	4	Lecturer	
2000	New Technologies Course	GS	1	Lecturer	
1999	DNA Methodologies	GS	1	Lecturer	
1998-2005	Research Methodologies	GS	1	Lecturer	
1996-2005	Introduction to Research Course	GS/G	1	Lecturer	
1996-2005	Biochemistry	DS/U	2	Lecturer	
1996-2005	Directed Research	GS/G	32	Director	
1995-2005	Growth and Development	DS/U	24	Co-Director	
1995-2005	Craniofacial Anomalies Seminar	DS/R	2	Lecturer	
1994-2005	Biomedical Core Course	DS/G	5	Section Leader/Lecturer	
1994-2005	Growth and Development	DS/R	16	Co-Director/Lecturer	
1994-2005	Pediatric Dentistry Seminar	DS/R	2	Lecturer	
1987-1993	Craniofacial Genetics, CBY 579	DS/G, R	24	Director	
1985-1987	Craniofacial Development & Genetics	DS/U	6	Lecturer	
1985-2005	Craniofacial Genetics, CBY 579	DS/R	6	Lecturer	
1982-1983	Process of Change in Sciences	UG/U	24	Teaching Assistant	
1982	Biochemistry	UG/U	24	Teaching Assistant	
1977	Population Genetics Biology	UG/U	24	Teaching Assistant	

B. CLINICAL TEACHING

None

C. INSTRUCTIONAL DEVELOPMENT

1. Studies to Improve Teaching Abilities:

None

2. Research Concerning Teaching:

1992 California Science Project Pre-Institute Conference
University of Southern California/ Los Angeles Unified School District
"Designer Genes" Hands- On Workshop Teachers K – 6
Creator: **M. MacDougall**

This workshop explores the major concepts of inherited genetic diseases, their basis at a molecular level and the development of molecular approaches to treat and cure them.

1992 California Science Project Summer Institute
University of Southern California/ Los Angeles Unified School District
Teaching Cadre Life Science
"G.E.E. WHIZ: Genes, Evolution and the Environment"
Cadre Director: **M. MacDougall**

This program is aimed at increasing the elementary and secondary teacher's skills and knowledge in teaching science, mastery of scientific principles and application, and leadership in science curriculum reform.

3. Bibliography Concerning Teaching:

None

4. Media and Software:

- 2003 "Academic Careers in Dentistry"
American Dental Education Association
CD
- 2002 Suitcase Productions
Repeating Research Segments
Featured Researcher: **M. MacDougall**
Discovery Health Channel
- 2001 Davinci No Yogen, East Company
Japanese Television
Featured Researcher: **M. MacDougall**
- 2001 RAI 1 Corporation
Italian TV- Dental Research
Featured Researcher: **M. MacDougall**
- 2001 Colorado Production Group
"The Painless Dentist"
Featured Researcher: **M. MacDougall**
Discovery Health Channel Television
April 25, 2001 9PM EST
- 2001 American Dental Association
"The Future of the Smile"
Media Conference
New York, New York
- 2000 A Way of Life
National Institute of Dental and Craniofacial Research

D. MASTERS/PhD DIRECTED DISSERTATIONS, SUPERVISING COMMITTEES, and POSTDOCTORAL FELLOWS SUPERVISED

GRADUATE STUDENTS:

Ph.D. Dissertations Directed:

- 2012-Present Dr. Stephen Greene
Major Advisor: **M. MacDougall**, N. Childers
Cell Structural and Developmental Biology
University of Alabama at Birmingham
Graduate School
- 2008-2015 Angela Gullard, PhD Candidate/Dental Student

Major Advisor: **M. MacDougall**
 Pathology/Dental School
 University of Alabama at Birmingham
 Graduate School & School of Dentistry
 Birmingham, Alabama

2007-2009 Mary Beth Wilson, PhD Candidate
 Major Advisor: **M. MacDougall**
 Biomedical Engineering
 University of Alabama at Birmingham
 Graduate School
 Birmingham, Alabama

2006-2012 Ejvis Lamani, PhD Candidate/Dental Student
 Major Advisor: **M. MacDougall**
 Microbiology/Dental School
 University of Alabama at Birmingham
 Graduate School & School of Dentistry
 Birmingham, Alabama

1996-2009 Fall 2012- Orthodontic Residency Program UTHSCSA
 Jessica Ibarra, Ph.D. Candidate / DDS Student
 Major Advisor- **M. MacDougall**
 Cellular & Structural Biology / Dental School
 University of Texas Health Science Center at San Antonio
 Graduate School
 San Antonio, Texas

1996-2009 Nataliya Clayton, Ph.D. Candidate / DDS Student
 Major Advisor- **M. MacDougall**
 Cellular & Structural Biology / Dental School
 University of Texas Health Science Center at San Antonio
 Graduate School
 San Antonio, Texas

1999-2004 Aaron Unterbrink, Ph.D. Candidate/ DDS Student
 Major Advisor- **M. MacDougall** and H. Thomas
 Cellular & Structural Biology / Dental School
 University of Texas Health Science Center at San Antonio
 Graduate School
 San Antonio, Texas

1996- 2003 Cara Knight, Ph.D. Candidate / DDS Student
 Major Advisor- **M. MacDougall**
 Cellular & Structural Biology / Dental School
 University of Texas Health Science Center at San Antonio
 Graduate School
 San Antonio, Texas

1994 - 2001 Ann Dodds, BDS, Ph.D. Candidate
 Dental Scientist Award, Pediatric Dentistry Certificate
 Major Advisor- **M. MacDougall**
 Cellular & Structural Biology
 University of Texas Health Science Center at San Antonio
 Dental School
 San Antonio, Texas

1991- 1993 Laura Nicoletti, Ph.D. Candidate
 Craniofacial Biology Graduate Program
 University of Southern California
 School of Dentistry
 Los Angeles, California

1989 – 1993 Steven Yen, DDS, Ph.D.
Craniofacial Biology Graduate Program
University of Southern California
School of Dentistry
Los Angeles, California

Ph. D. Supervising Committee:

2016 Tanner Godfrey, DMD/PhD Candidate
DART Program-Biochemistry

2014 Henry Jackson, PhD Candidate
DART Program-Genetics
Mentor, Dr. Jezewski/ Dr. Javed

2012 Lauren Stevenson, PhD Candidate
DART Program- Cell and Structural Biology
Mentor, Dr. Napierala
University of Alabama at Birmingham

2005 Monique Garcia, DDS/PhD Candidate
Graduate School, Cellular & Structural Biology
University of Texas Health Science Center at San Antonio

2005 Sirisha Burra, PhD Candidate
Graduate School, Biochemistry
University of Texas Health Science Center at San Antonio

1997 Mark B. Lyles, MS, DMD
Graduate School, Biochemistry
University of Texas Health Science Center at San Antonio

1991-1993 James Hicks, DDS
Dental School, Craniofacial Biology
University of Southern California

Masters' Dissertations Directed:

2009-2011 Douglas Lee Rollins, MS Candidate
Advisor: **Mary MacDougall**
Oral Biology Graduate Program
UAB School of Dentistry
Birmingham, AL

2006-2009 Reem Atout, DDS, MS Candidate
Major Advisor: **Mary MacDougall**
Periodontics Certification Program
UAB School of Dentistry
Birmingham, AL

2001- 2003 Lena Arvidson, DDS, MS Candidate
Major Advisor: **Mary MacDougall**
US Air Force
Periodontics Certification Program
University of Texas Health Science Center at San Antonio
San Antonio, Texas

2001- 2003 Todd Cahoon, DDS, MS Candidate
Major Advisor: **Mary MacDougall**
US Navy
Periodontics Certification Program
University of Texas Health Science Center at San Antonio
San Antonio, Texas

1998-2001 Aaron Unterbrink, M.S. Degree
Major Advisor: **Mary MacDougall**

Cellular & Structural Biology
 University of Texas Health Science Center at San Antonio
 Graduate School
 San Antonio, Texas
 1998- 1999 Russell Boester, DDS, MS Candidate
 Major Advisor: **Mary MacDougall**
 US Air Force
 Periodontics Certification Program
 University of Texas Health Science Center at San Antonio
 San Antonio, Texas

Masters' Supervising Committees:

2012 Hannah M. Hear
 Master of Science-Clinical Dentistry (Dental Materials)
 University of Alabama at Birmingham School of Dentistry
 2009 Arjun Sarof, BDS, MHA
 Master of Science-Clinical Dentistry (Dental Materials)
 University of Alabama at Birmingham School of Dentistry
 2007 Cara Davis
 Biomedical Engineering MS Certification Program
 University of Alabama at Birmingham School of Dentistry
 2003 Richard Hulm, DDS
 Orthodontics MS Certification Program
 University of Texas Health Science Center at San Antonio
 1997 Parvin Dinyariar, DMD
 Endodontics Certification Program
 University of Texas Health Science Center at San Antonio
 1997 Michael E. Poth, DDS
 Periodontics Certification Program
 University of Texas Health Science Center at San Antonio
 1991-1993 Chung-Han Hsin
 University of Southern California
 1992-1993 Kristen Dalrymple
 University of Southern California

Periodontology Fellows and Residents:

2009 Reem Atout, BDS
 Resident-Periodontology
 2008 Isabel Gay, DDS, MS
 Resident, Periodontology

Pediatric Dentistry Fellows and Residents:

2003 Carrie Muckerheide, DDS
 Resident-Pediatric Dentistry
 "Tertiary Dentin Induction by MEPE"
 2001 Lori Santos, DDS
 Resident- Pediatric Dentistry
 "Gene Array Analysis of Cleidocranial Dysplasia Pulp Cells"
 1996 Kelsey Patterson, DDS
 Resident- Pediatric Dentistry
 "Mapping of the critical dentinogenesis imperfecta type III locus"
 1996 Ann Erlenbaugh, DDS
 Resident- Pediatric Dentistry
 "Chromosomal mapping of a novel odontoblast serine kinase"

1996 Catherine McKinley, DMD
Resident - Pediatric Dentistry
Co-Faculty Advisor
"Response of aged dental pulp cells to dentinogenic factor"

1995- 1996 Leticia Jeffords, DDS, MS
Pediatric Dentistry Fellow
"Dentinogenesis Imperfecta Type III Linkage Studies"

1994 -1995 Jian-fu Zhu, DMD, MS
Resident- Pediatric Dentistry
"Human Neonatal Tooth Pulp Cultures"

Visiting Faculty - Training or Collaborative Research Projects:

2009 Gustavo Velasco, BDS

2009 Levent Özer, DDS
Pedodontology, Ankara University
Ankara, Turkey

2008 Patricia Devilliers, DDS, MS
Oral Pathology
University of Alabama at Birmingham

2008 Ling Ye, DDS, PhD
University of Missouri-Kansas City

2007 Ana Carolina Acevedo-Poppe, DDS
University of Brasilia
Brasilia, Brasil

2003 Rosie Roldan, DDS, MD
Pediatric Dentistry, Dental School
UTHSCSA

2000 Dr. Rachael Sugars
University of Wales
Laboratory of Dr. Graham Emery

2000 Dr. Ariane Berdal
Professor
Department of Odontologie
Dental School VII
Paris, France

1999 Dr. Birger Thonemann
Restorative Dentistry
University of Regensburg
Regensburg, Germany

1998 Dr. Ariane Berdal
Professor
Department of Odontologie
Dental School VII and V
Paris, France

1997-1998 Dr. Hou
Chairman
Department of Periodontics
University of Taiwan Dental School

1997 Dr. JeanLuc Davideau
Dental School V
Paris, France

1997 Dr. Petros Papagerakis
Pediatric Dentistry Resident/ Ph.D. Student
Dental School VI

1996 Paris, France
 Dr. Birger Thonemann
 University of Regensburg
 Regensburg, Germany

1996 Dr. Carl Hanks
 University of Michigan Dental School
 Ann Arbor, Michigan

Dental Students:

***University of Alabama at Birmingham School of Dentistry
 Birmingham, Alabama***

2016 Chijioke Ulasi
 GC-Coded Fellow

2009 Angela Gullard
 DART NIDCCR T-32 Institutional Training Grant

2007 Mary E Wilson
 DART NIDCR T-32 Institutional Training Grant

2007 Nathaniel Lawson
 DART NIDCR T-32 Institutional Training Grant

2007 Melissa Talbert

2006 American Association of Dental Research
 Student Research Fellowship

2007-11 NIDCR F-30 Individual DDS/PhD Training Fellowship

2007 Lisa Irish
 T-35 Institutional Short-Term Training Grant

2006 Ejvis Lamani

2006-10 American Association of Dental Research
 Student Research Fellowship

2006-10 NIDCR F-30 Individual DDS/PhD Training Fellowship

***University of Texas Health Science Center at San Antonio Dental School
 San Antonio, Texas***

2004 Ashley Strickland
 CO-STAR NIDCR T-32 Institutional Training Program Track I

2004 Thomas Bingham
 CO-STAR NIDCR T-32 Institutional Training Program Track 1

2004 Craig Seager
 CO-STAR NIDCR T-32 Institutional Training Program Track I

2004 Michele Dubree-Co-Mentor
 CO-STAR NIDCR T-32 Institutional Training Program Track I

2004 Anne Nguyen-Co-Mentor
 AADR Fellowship Co-Mentor

2003 Michele Dubree-Co-Mentor
 CO STAR NIDCR T-32 Institutional Training Program Track 1

2003 Anne Nguyen-Co-Mentor
 CO STAR NIDCR T-32 Institutional Training Program Track I

2003 Lizeth Dehghan –Co-Mentor
 Hispanic Center of Excellence

2003 Robert Williamson
 CO STAR NIDCR T-32 Institutional Training Program Track I

2003 Michael Dyal
 CO STAR NIDCR T-32 Institutional Training Program Track I

2003 Ashley Sorensen

2002 CO STAR NIDCR T-32 Institutional Training Program Track I
Robert Williamson

2003 American Association of Dental Research
Student Research Fellowship

2001 Aaron Unterbrink, DDS/PhD
2003 American Association of Dental Research
Student Research Fellowship

2001-2006 NIDCR F-30 Individual DDS/PhD Training Fellowship

2001 Michele Salgado, DS I
NIH Short-Term Research Training Program Applicant

2001 Jennifer Burcin, DS I
NIH Short-Term Research Training Program Applicant

2001 Ryan Jouett, DS I
NIH Short-Term Research Training Program Applicant

2000-2001 Sara Tevor, DS II
2000 American Association of Dental Research Student Research
Fellowship

2000-2001 Nicole Smith, DS-II
2000 American Association of Dental Research Student Research
Fellowship

2000- 2002 Violetta Martinez, DS I-II
2000 D- STAR Research Fellowship
2000 Martha Woods Research Scholarship
2002 Maria Yeung Research Award

2000-2002 Adam Martin, DS-II-III
2001 Caulk/Dentsply Research Finalist- Third Place
Advance Dental Restorative System Program Project Grant
NIH/NIDCR 2000 Student Research Fellow

1999-2000 Taylor Pratt, DS II

1999-2007 Cara Knight, DDS/PhD
2003 American Association of Dental Research Student Research
Fellowship
2000-04 NIDCR F-30 Individual DDS/PhD Training Fellowship
2001 Hatton Award Junior Category Finalist
2000 American Association of Dental Research Student Research
Fellowship
1998 Travel Award, International Conference on the Chemistry and
Biology of Mineralized Tissues, Vittel, France

1999- 2000 Carla Ortiz, DS I

1998-2001 Chris Daniel, DS I-III
1999 Caulk/Dentsply Third Place
1999 American Dental Association Dental Student Scholarship
1999 American Association of Dental Research Student Research
Fellowship

1998-2001 Andrew McKenzie, DS I-III
2001 Pediatric Dentistry Resident UTHSCSA
1999 Hinman Student Research Symposium
1998 American Association of Dental Research
Student Research Fellowship

1997-1999 Gena Little
1999 Naval Dental Officer
1997 American Association of Dental Research
Student Research Fellowship

1996-1998 1997 Block Student Research Travel Award – IADR Nice, France
Greg Frei
2000 Private Practice San Antonio, TX
2000 Graduation Research Honors UTHSCSA Dental School
1998 Omicron Kappa Upsilon- Mu Nu Chapter Scholarship Award
1997 American Association of Dental Research
Student Research Fellowship
1997 Hinman Student Research Symposium

1996-1998 Jose Alvarez
2000 Private Practice El Paso, TX
2000 Graduation Research Honors UTHSCSA Dental School
1999 Hispanic Faculty Award of Excellence Nominee
1997 American Association of Dental Research
Student Research Fellowship
1996 Hispanic Dental Association Research Fellowship

1996-2005 Brian Bozeman
1999 Naval Dental Officer
1999 Graduation Research Honors UTHSCSA Dental School
1999 Elected Omicron Kappa Upsilon- Mu Nu Chapter
1997 Block Student Research Travel Award – IADR Nice, France
1997 National Institute for Dental Research
Summer Research Fellowship, San Antonio
1996 American Association of Dental Research
Student Research Fellowship

1996-2005 John Wallace
1999 Oral Surgery Residency Program
1999 Graduation Research Honors UTHSCSA Dental School
1999 Elected Omicron Kappa Upsilon- Mu Nu Chapter
1997 Block Student Research Travel Award – IADR Nice, France
1997 National Institute of Dental Research Summer Fellowship,
Bethesda, Maryland
1996 National Institute for Dental
Research Summer Research Fellowship, San Antonio

1997-2005 Christina Chang
1999 Prosthodontic Residency Program
1999 Graduation Research Honors
1997 National Institute of Dental Research Student Research
Fellowship

1994-1996 Jennifer Hoppe
1998 Orthodontic Residency Program
1996 National Institute for Dental Research
Summer Research Fellowship, Houston
1995 National Institute for Dental Research
Summer Research Fellowship, San Antonio

1993-1995 Michael Chan
1995 Summer Research Training Fellowship
1993 American
Association for Dental Research Student Research Fellowship

1994-1995 Steve Reese
1995 National Institute for Dental Research
Summer Research Fellowship, San Antonio
1994 National Institute for Dental Research
Summer Research Fellowship, San Antonio

Undergraduate Students

2016-Present Katherine Paulett
University of Alabama at Birmingham

2016-Present Julia Pham
University of Alabama at Birmingham

2016-Present Carson Pruitt
Auburn University

2016-Present Michelle Gibbs
Alabama A&M University

2015-2016 Aneesa Sood
Tuskegee University

2015-2016 Arnold Do
Neuroscience Honors
University of Alabama at Birmingham

2014-Present Lauren Cabaniss
Neuroscience Honors
University of Alabama at Birmingham

2014-Present Stephen Sheibley
Science and Technology Honors
University of Alabama at Birmingham

2013-2014 Sarah Potter
Biology Research Experience
University of Alabama at Birmingham
UAB Dental Student Class 2018

2012-2014 Dakota Clark
Biology Research Experience
University of Alabama at Birmingham
UAB Dental Student Class 2018

2012-2013 Markelle Smith
Biology Research Experience
University of Alabama at Birmingham
UAB Dental Student Class 2016

2011-2013 Sam Huguley
Undergraduate Research
University of Alabama

2010-2012 India Thomas
Biology Research
University of Alabama at Birmingham

2010 - 2011 Emily Ann Latta
Biology Research Honors
University of Alabama at Birmingham
UAB Dental Student Class 2015

2009 - 2011 Christina Piazza
Undergraduate Research
UAB Dental Student Class 2015

2009-2010 Kyungwoo (Tony) Kang
Research Honors Program
UAB Dental Student Class 2015

2009-2010 My Thi Tran
Research Honors Program
University of Alabama at Birmingham
UAB Dental Student Class 2014

2009 Kevin Sandifer

Research Honors Program
 University of Alabama at Birmingham
 UAB Dental Student Class 2014
 2008 Corey Moody
 Research Honors Program
 University of Alabama at Birmingham
 Howard University Dental Student Class 2014
 2004-2005 Martha Valdez
 Research Honors Program
 University of Texas at San Antonio
 University of Texas Health Science Center at San Antonio
 2003-Present Mary Williamson
 University of Texas at Austin
 2002-Present Kathie Guest
 University of Texas at Austin
 Currently: DDS, Pediatric Dentistry Resident
 2002-2003 Gabriel Avalos
 Texas Lutheran College
 2001-2003 Ryan Mooney
 University of Texas at San Antonio
 1999- Present Jessica Ibarra
 University of Texas at San Antonio
 Currently: PhD Teaching TX
 1999-2000 Violetta Martinez
 Research Honors Program
 University of Texas at San Antonio
 Currently: Dentist TX
 1998-1999 Vanessa Wellinghoff
 University of Texas, Austin
 Currently: MD Internal Medicine TX
 1998-1999 Cara Ortiz
 University of Texas at San Antonio
 MARC Program
 Currently: Dentist TX
 1997-Present Abraham Rafie
 University of Texas at San Antonio
 Currently: MD Radiologist TX
 1996-1997 Christopher Daniel
 University of Texas at San Antonio
 Currently: Oral Surgeon Santa Rosa, CA
 1994-1996 Joe Alvarez- Dental Early Admissions Program
 University of Texas at San Antonio
 Currently: Dentist El Paso TX
 1994-1996 Greg Frei- Dental Early Admissions Program
 University of Texas at San Antonio
 Currently: Dentist San Antonio, TX
 1994-1995 Martin Davis
 University of Texas at San Antonio
 Currently: Computer Programmer/ Elementary Science Teacher
 1994-1995 Chris Knight
 University of Texas at San Antonio
 Currently: Dentist TX
 1993-1994 Yiling Chu
 Summer Fellow

University of Texas at Austin
Currently: MD
1990-1992 Julie Reyna
Work Study Program
University of Southern California
Currently: PhD Industry

High School Students:

UAB Summer Science Institute Research Internship for High School Students

2015 Josh Holsey
2011 Bre'Anna Howell
2010 India Thomas

Honors Science Program, University of Alabama at Birmingham

2014-Present Steven Sheibley
2015-2016 Arnold Do

Honors Science Program, San Antonio Texas

2003 James Gonzales
Health Career High School
San Antonio, TX
2001 Gabriel Avalos
Marshall High School
San Antonio, Texas
1997 Margaret Moerchen
Health Careers High School
San Antonio, Texas
1993-1995 Shannon Henry
Clark High School
San Antonio, Texas

NIH Minority High School Fellowship Summer Research Program

1993-1995 Pedro Alamis
Antonian College Prep
San Antonio, Texas

National Science Foundation Young Scholars Program-

1992-1993 Monica Perez
Sacred Heart High School
Los Angeles, California

University of Southern California STAR (Science, Technology and Research) Program-

1993 Hien Ta
Frances Bravo Medical Magnet High School
1993 Pattie Hsu
Alhambra High School
1992 Veronica Tiburcio
Frances Bravo Medical Magnet High School
1991 Rosa Rezendez

Frances Bravo Medical Magnet High School

National Institute of Health Minority High School Research Apprenticeship Program-

1993	Hein Ta Frances Bravo Medical Magnet High School
1993	Monica Perez Sacred Heart High School
1993	Pattie Hsu Alhambra High School
1992	Hein Ta Frances Bravo Medical Magnet High School
1992	Veronica Tiburcio Frances Bravo Medical Magnet High School
1992	Larry Quimby Teacher Summer Fellowship Francis Bravo Medical Magnet High School Biology/Physics Teacher
1991	Veronica Tiburcio Rosa Rezendez Francis Bravo Medial Magnet High School

III. RESEARCH

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Books and/or Chapters:

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Zeichner-David, M., **MacDougall, M.**, Bessem, C., Bringas, Jr., P., and Slavkin, H.C.: "Gene expression during mammalian tooth organ development." 14th Miami Winter Symposium. Miami, FL., 1982.

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Zeichner-David, M., **MacDougall, M.**, Bessem, C., and Slavkin, H.C.: "Molecular aspects of tooth organ development." 7th International Biophysics Congress and 3rd Pan American Biochemistry Congress. Mexico City, Mexico 1981.

Zeichner-David, M., **MacDougall, M.**, and Slavkin, H.C.: "Cell-free synthesis of enamel proteins." IADR/AADR, Chicago, IL., 1981.

Melnick, M., Jaskoll, T., **MacDougall, M.**, Brownell, A., and Slavkin, H.C.: "Fibronectin expression and distribution *in vivo*." Federation of American Societies for Experimental Biology. Anaheim, CA., Fed. Proc. 39:955 1980.

Slavkin, H.C., **MacDougall, M.**, Bringas, Jr., P., Grodin, M., and Yamada, M.: "Ontogeny and localization of murine enamel proteins during development." AADR, Los Angeles, CA., J Dent Res 59:304 1980.

McMillan, R., Bakich, M., Martin, M., and Morrison, J.: "Antiplatelet antibody (APA) in immune thrombocytopenia purpura (ITP)." Blood 52:154 1978.

McMillan, R., Yelenosky, R., and Bakich, M.: "The epinephrine binding site on the human platelet." Blood 50:246 1977.

Reviews, Editorials:

Lu C., and **MacDougall, M.** Singleton-Merten Syndrome: From Clinical Features to Molecular Clues. Crit Reviews in Oral Biol, 2015 (invited, under review)

Invited Lectures:

- October, 2016 University of Illinois at Chicago
School of Dentistry
“Probing Oral Health and Opportunities for Discovery”
Chicago , Illinois
- August, 2016 Texas A&M College of Dentistry
“Dental Phenotypes Associated with Rare Genetic Diseases”
Dallas, Texas
- July, 2016 Tooth Morphogenesis and Development 2016
”Fam20A Null Mice: A Model fo Syndromic Enamel-Renal/ Amelogenesis Imperfecta dn Ginival Fibromatosis”
Porvoo, Finland
- July, 2016 Wetteren Women’s Conference
Helsinki , Finland
Organizer: Dr. Irma Thesleff
- March, 2016 Institutional Training Program Directors Meeting
Dr. Lynn King
Speaker: DART Training Program
AADR Annual Meeting
Los Angeles, California
- March 19, 2016 Finding a Mentor, Being a Mentee
Symposium Speaker
AADR General Session
Los Angeles, California
- March 17, 2016 Odontogenic Tumors: In Vitro Models for Signaling Pathway and
Therapeutic Discoveries
Symposium Speaker
AADR General Session
Los Angeles, California
- March 16, 2016 Work Smart: Salary Negotiation and Promotion and Dental Academica
Symposium Speaker
AADR General Session
Los Angeles, California
- September 7-8,2015 Children’s Oral Health Research Seminar Series
University of California San Francisco
“Craniofacial Disorders Lesson from Genetics”
Inaugual Speaker
San Francisco, CA

April 14, 2015	Leveraging the Translational and Basic Science Research of Oral Biology and Strategic Partners at SBU for an NIDCR Institutional Training Grant Symposium “NIDCR Training Opportunities” Stony Brook University School of Dental Medicine Invited Speaker Stoney Brook, New York
April 13, 2015	Stony Brook University School of Dental Medicine Invited Speaker “ Probing the Genetics of Teeth” Stoney Brook, New York
March 12, 2015	IADR/AADR/CADR General Session Glass Ceiling or Sticky Floor? Barriers for Women in Academia Symposium Co-Organizer and Speaker Boston, Mass.
March 12, 2015	IADR/AADR/CADR Lunch and Learn “Drafting an Individual Development Plan: Tool for Training Success” Invited Speaker Boston, Mass.
November 21, 2014	10th Periodontal Biology Meeting Invited Speaker National Autonomous University of Mexico Mexico City, Mexico
November 11, 2014	University of Texas Health Science Center Invited Speaker “Genetics Lessons Related to Periodontitis and Root Resorption” San Antonio, Texas
September 8, 2014	University of Texas Research Seminar University of Texas School of Dentistry Invited Speaker “Probing Genetic Insights into Teeth: The Root of the Matter” Houston, Texas
June 2, 2014	Craniofacial Developmental Biology Symposium Ostrow School of Dentistry University of Southern California Invited Speaker Los Angeles, California
March 18, 2014	AAADR Workshop: The Fundamentals for Research and Career Success of New Faculty Mentor Expert Charlotte, North Carolina
November 18, 2013	UAB Gene Discovery Approaches Workshop Speaker

- Birmingham, Alabama
- October 25, 2013 Hinman Student Research Symposium
University of Tennessee College of Dentistry
Keynote Speaker
“Discovering Your Future with a Smile “
Memphis, Tennessee
- April 15, 2013 Indiana University School of Dentistry Research Day
Keynote Speaker
“Probing the Lessons Learned from Dental Genetic Disorders”
Indianapolis, Indiana
- March 26, 2013 Pulp Biology and Regeneration Group Symposium
Chair
Podium Discussion: Lessons Learned and Future Directions
San Francisco, California
- January 24, 2013 University of California at Los Angeles
School of Dentistry
Sarnet Lecturer
“The Role of Non-Enamel Proteins in Amelogenesis Imperfecta”
Los Angeles, California
- December 11, 2012 GC Corporation
“Biological Based Dental Materials: Genetic Lessons”
Tokoyo, Japan
- December 12, 2012 Tokyo Medical and Dental University
“Syndromic and Non-syndromic Amelogenesis Imperfecta Providing
Insights into Enamel Matrix Formation “
Tokyo, Japan
- December 14, 2012 60^h Meeting of Japanese Association for Dental Research
Keynote Speaker
“Global Opportunities for Craniofacial, Oral and Dental Research“
Niigata City, Japan
- November 13, 2012 50^h Anniversary Wuhan University School & Hospital
of Stomatology
Keynote Speaker
“Probing Global Dental Disorders: Challenges and Opportunities”
Wuhan, China
- September 24, 2012 52nd Australian New Zealand Regional Meeting
International Association for Dental Research
“Global Approaches to Craniofacial Disorders”
Keynote Speaker
Denaru, Fiji
- September 23, 2012 Fiji Dental Association Conference
“Tooth Formation Gone Wild: Odontogenetic Tumors”
Nadi, Fiji

September 12, 2012	Pan European Region Meeting International Association for Dental Research “Probing Global Dental Opportunities: The Root of the Matter” Helsinki, Finland
August 26, 2012	FDI World Health Organization Annual World Dental Congress “Commentary on the FDI Vision 2020 Research Plan” Hong Kong, China
June 23, 2012	90 ^h IADR/Latin American Region General Session “Mutational Analysis and Functional Studies of DLX3 Related to Odontogenesis” Iguacu Falls, Brazil
January 29, 2012	Edward H Angle Society of Orthodontics Angle Midwest Keynote Speaker “Wide Open Probing Dental Disorders “ Dana Point, California
March 16, 2011	Distinguished Lecture Presentation Mentorship Featured Mentor IADR General Session San Diego, California
November 25, 2010	Korean Association Dental Research Annual Meeting International Association for Dental Research SNU Dental Hospital Seoul, South Korea
November 26, 2010	Korean Academy of Oral Biology Meeting Yonsei University Seoul, South Korea
July 27-28, 2010	Career Opportunities in the Biomedical and Biological Sciences National Postdoctoral Association and Vanderbilt University School of Medicine Professional Skills Sessions – “Academic Interviews” Nashville, Tennessee
April 23, 2010	Southeastern Academy of Prosthodontist Meeting “Lessons from Dental Genetic Disorders” Birmingham, Alabama
March 4, 2010	Student Plenary Session “An Insider’s Guide to Dental Academics” - Moderator AADR/CADR Annual Meeting Washington, DC
February, 2010	Herman Ostrow School of Dentistry University of Southern California Research Day Keynote Speaker

“Open Wide Probing Academic Dentistry”

February 5, 2010 Dental Public Health Congress
 “Tooth Development: Lessons from Dental Genetic Diseases”
 Universidad Nacional Autónoma de México
 Mexico City, Mexico

February 4, 2010 Dental Public Health Congress
 “Scientific Papers: Ensuring Success while Minimizing
 Rejection”
 Universidad Nacional Autónoma de México
 Mexico City, Mexico

November, 2009 University of Alabama at Birmingham
 Department of Genetics
 Birmingham, Alabama

October 22, 2009 Medical University of South Carolina
 Craniofacial Biology Fall Seminar Series
 “Lessons learned from dental genetic diseases”
 Charleston, South Carolina

July 17, 2009 The McCallum Society Annual Meeting
 “Genetic and translational control of bone formation”
 Orange Beach, Alabama

June 14, 2008 University of California – San Francisco
 Commencement Speaker
 San Francisco, California

May 13, 2008 University of Pittsburgh School of Dentistry Research Day
 Keynote Speaker
 Pittsburgh, Pennsylvania

May 8, 2008 University of Alabama at Birmingham
 Molecular and Cellular Pathology
 “Mice with Bad Teeth: Correlation of Dental and Bone Phenotypes”
 Birmingham, Alabama

May 5, 2008 UAB Postdoctoral Association
 “How to be Successful in Getting a K99/R00”
 Birmingham, Alabama

April 24, 2008 Birmingham-Southern College Senior Research
 Symposium
 Keynote Speaker
 “Opportunities in Academic Dentistry”
 Birmingham, Alabama

April 3, 2008 AADR Annual Meeting
 “Careers in Dental Research: The Good, the Bad, and the Ugly –
 Mainly the Good”
 Dallas, Texas

February 6, 2008 University of Alabama at Birmingham

- Department of Cell Biology Seminar Series
 “The Making of a Tooth: From Genetics to Stem Cells”
 Birmingham, Alabama
- January 18, 2008 Alabama Implant Study Group
 Birmingham, Alabama
- November 29, 2007 Alabama Dental Association
 Third District Meeting
 Troy, Alabama
- November 13, 2007 UAB Postdoctoral Association
 Grant Review Workshop
 Birmingham, Alabama
- April 19, 2007 University of Illinois at Chicago
 “Genetics of Dental Hard Tissues”
 Chicago, Illinois
- April 6, 2007 University of Alabama at Birmingham Department of
 Genetics
 “The Making of a Tooth: From Genetics to Stem Cells”
 Birmingham, AL
- February 15, 2007 AAAS Meeting
 Sustainable Health Strategies: Technological Advances in
 Overcoming Oral Health Disparities
 “Tooth Farming: Tooth Regeneration through Genetics, Gene Therapy
 and Stem Cells”
 San Francisco, CA
- September 10, 2006 Conferences on Orthodontic Advances in Science &
 Technology
 “Developments in Bioengineered Teeth”
 Asilomar, California
- July 1, 2006 84th General Session of the International Association for Dental
 Research “The Root of the Matter: Lessons from Genetic Diseases”
 Keynote Address for Mineralized Tissue
 Brisbane, Australia
- June 28, 2006 84th General Session of the International Association for Dental
 Research.
 “Overview and Introduction to the Revision of the IADR Code of
 Ethics: Ethical issues associated with stored tissue.”
 Brisbane, Australia
- April 7, 2006 University of Florida College of Dentistry Research Day
 Keynote Speaker: “Discovering the Future with a Smile – Dental
 Academics”
 Gainesville, Florida
- March 8, 2006 35th Annual Meeting & Exhibition of the American Association for
 Dental Researchers
 Orlando, Florida

- October 28, 2005 Hinman Student Research Symposium
The University of Tennessee Health Science Center College of
Dentistry
Memphis, Tennessee
- October 23, 2005 Robert J. Gorlin Conference on Dysmorphology
Facial and Oral Structures: Molecular Perspectives
University of Minnesota, Minneapolis, Minnesota
- September 13, 2005 Gordon Research Conference on Small Integrin-Binding
Proteins
Big Sky, Montana
- April 13, 2005 The Making of a Tooth: Genetics to Stem Cells
Indiana University School of Dentistry, Indianapolis,
Indiana
- February 22, 2005 Engineering Teeth
McGill University, Montreal, Canada
- February 3, 2005 Bioengineering Teeth: Lessons from Genetics to Stem Cells
Khon Kaen University and Chaiyapoom University, Thailand
- September 30, 2004 John Jay Science and Engineering Academy Distinguished Lecture
Series
John Jay High School, San Antonio, Texas
- September, 2004 Medical Student Research Day
Judge
The University of Texas Health Science Center, San Antonio, Texas
- March, 2004 Dental Science Symposium
Organizer, San Antonio Chapter of the AADR
The University of Texas Health Science Center, San Antonio, Texas
- July 17-21, 2004 International Conference on Tooth Morphogenesis and Differentiation
"Differential Function of Dentin/Bone SIBLING Proteins"
University York Campus, York, UK
- January 2004 Gordon Conference
Craniofacial Morphogenesis and Bioengineering
"New Clinical Treatments Incorporating Dentin Induction"
- March 13, 2003 Lunch and Learning
American Association for Dental Research
"Application of Dental Cell Lines for Clinical and Basic Science
Research"
- May 10-12, 2002 Third International Conference on Osteopontin
"Dentin/bone Gene Cluster on Human Chromosome 4q21
Implications in Dentin Diseases"
Merger Hotel, San Antonio, Texas
- November 11-12, 2001 Inserm/Paris Dental VII Meeting on Dental and Oralfacial
Developmental Disorders
"Dental Molecular Phenotype and their Genetic Basis"

Paris, France

- November 4 - 9, 2001 7th International Conference on The Chemistry and Biology of Mineralized Tissues
"Dentin Sialophosphoprotein Mutation within the Dentin Phosphoprotein Domain is Associated with Dentinogenesis Imperfecta Type III"
Ponte Vedra Beach, FL
- Oct. 31-Nov. 3, 2001 The American College of Prosthodontists 2001 Annual Session
"Biomimetic Approaches to Dentin Regeneration"
New Orleans, LA
- July 1-3, 2001 International Conference on Dentin/Pulp Complex 2001
"Biomimetic Approaches to Dentin Regeneration"
Chiba, Japan
- June 16-21, 2001 VIIIth International Conference on Tooth Morphogenesis and Differentiation
"Tooth Matrix Proteins in the Pathogenesis of Human Dental Diseases"
La Londe Les Maures, France
- May 9-10, 2001 Grant Writing Workshop, Office of Education
"Getting Your First Grant"
University of Texas HSC at San Antonio
San Antonio, TX
- March 16, 2001 Continuing Education
Department of Prosthodontics
University of Texas Health Science Center at San Antonio
San Antonio, Texas
"The Human Genome Project's Impact on Dentistry"
- January 2001 Continuing Education
Departments of General Dentistry and Restorative
University of Texas Health Science Center at San Antonio
San Antonio, Texas
"BioEngineering of New Dental Materials"
- November 10-12, 2000 Signaling Mechanisms in Dentin Development Regeneration and Repair
From Bench to Clinic
International COST Meeting
"Dental Pulp and Odontoblast Cell Lines: Applications in Gene Regulation and Protein Functional Studies"
Thessaloniki, Greece
- June 13-15, 2000 American Dental Association
The Future of the Smile
American Dental Association Media Conference
New York, New York
- May 18-20,2000 Tooth Matrices: Structure and Function

European COST Network
 “Regulation and Function of Dentin Matrix Proteins”
 Stockholm, Sweden

May 12, 2000 Strategies for Tooth Structure Regeneration Workshop
 National Institute of Dental and Craniofacial Research
 Bethesda, MD

April 20, 2000 Grant Writing Workshop, Office of Education
 “Getting Your First Grant”
 University of Texas HSC at San Antonio
 San Antonio, TX

April 14, 2000 Y2K Dental Science Symposium
 Collaborative Research: An Interdisciplinary Success Story
 Texas Tri-School Dental Science Symposium
 San Antonio, TX

April 8, 2000 Mineralized Tissue Symposium
 International Association for Dental Research
 “Dentin Sialophosphoprotein Potential Nucleator of Enamel and
 Dentin”
 Washington, DC

March 22, 2000 Endocrinology Seminar
 Department of Medicine, Medical School
 “Regulation of DSPP, a Tooth-specific Gene: Potential Role of Cbfa-1”
 San Antonio, TX

February 17-22, 2000 American Academy for the Advancement of Science
 Dental Group- Symposium
 The Craniofacial Complex
 “Genetic Diseases of the Dentition”
 Washington, D.C.

February 8, 2000 Faculty Tenure and Promotion Forum
 Women’s Faculty Association
 University of Texas HSC at San Antonio
 San Antonio, TX

January 15-19, 2000 Beijing Hospital Office of the Ministry
 “New Advances in Dental Research”
 Beijing, China

October 21, 1999 Research Seminar
 Department of Pediatrics, Medical School
 “The Tooth, the Whole Tooth, Nothing But the Tooth”
 San Antonio, TX

September 13, 1999 Genetics of Human Dentition
 Workshop NIDCR
 Bethesda, Maryland

August 23, 1999 University of Missouri at Kansas City
 Dental School

- Department of Oral Biology
 “Advances in Dental Research: Opportunities and Challenges”
- April 23, 1999 University of Pittsburgh Dental School
 Department of Oral Biology
 “Unmasking the Genes Responsible for Dental Diseases”
- March 11, 1999 IADR/AADR Meeting- Tissue Engineering Symposium
 Vancouver, Canada
 “Gene Expression and the Manipulation of Craniofacial and Oral Hard Tissues”
- January 15, 1999 Continuing Education
 Departments of General Dentistry and Restorative
 University of Texas Health Science Center at San Antonio
 San Antonio, Texas
 “Biologic Dental Materials”
- November 22-24, 1998 “Toward a Molecular Understanding of Craniofacial
 Morphogenesis” Symposium
 NIH, Bethesda, Maryland
 Invited Poster Presentation
- November 11, 1998 University of Texas Health Science Center- Dental Branch
 Restorative and Dental Materials Graduate Program
 Houston, Texas
 “Biologically Induced Restorative Dental Materials”
- November 1-6, 1998 Sixth International Conference on the Chemistry and Biology of
 Mineralized Tissues
 Vittel, France
 “Tissue Expression of DSPP Promoter in Transgenic Mice”
- October 16, 1998 Developmental, Molecular and Evolutionary Biology of Dental Tissues
 Baylor College of Dentistry
 Dallas, Texas
 “Novel Genes in Tooth Formation”
- October 23, 1998 Fall 1998 Seminars
 Division of Life Sciences and MBRS/MARC Program
 University of Texas at San Antonio
 San Antonio, Texas
 “Frontiers of Dental Research”
- August 14-16, 1998 Texas Mineralized Tissue Society 10th Conference
 Austin, Texas
 Organizer
- August 2-6, 1998 Gordon Conference-“Biomineralization”
 New England College
 New Hampshire, Massachusetts
 “Dental Cell Cultures: Models of Matrix Biomineralization”
- July 20, 1998 Center for Craniofacial Molecular Biology

- University of Southern California
Los Angeles, California
“New Advances in Dentin Matrix Proteins”
- April 14, 1998 Mini Medical School- 25th Anniversary
University of Texas Health Science Center at San Antonio
San Antonio, Texas
“Building the Bionic Human: Growing Tissues and Reconstruction of the Body”
- March 9, 1998 Skeletal Research Center
Case Western Reserve University
Cleveland, Ohio
“Odontoblasts in Search of a Stem Cell”
- January 14, 1998 Department of Medicine
University of Texas Health Science Center at San Antonio
San Antonio, Texas
“Dentin Matrix Protein 1 a New Marker from Osteoblasts
- August, 1997 Texas Mineralized Tissue Society
9th Conference and Workshop
Corpus Christi, Texas
Moderator, Extracellular Matrix Proteins
- June 10, 1997 University Paris 7
Laboratory of Biologie-Odontologie
Institute des Cordeliers
Paris, France
“Establishment of Immortalized Dental Cell Lines”
- June 12, 1997 VI International Conference on Tooth Morphogenesis and
Differentiation
Gothenborg, Sweden
“Organization and Regulation of Dentin Sialophosphoprotein Gene”
- May 11, 1997 Sixth International Symposium on the Composition Properties and
Fundamental Structure of Tooth Enamel
Lake Arrowhead, California
Moderator
- March, 1997 Mineralized Tissue Symposium
American Association of Dental Research
Orlando, Florida
“Tooth Matrix Proteins: The Next Generation”
- March, 1997 Pulp Biology Symposium
American Association of Dental Research
Orlando, Florida
“Immortalized Cells for Dental Material Testing”
- October 24, 1996 Dental School Advisory Council
University of Texas Health Science Center at San Antonio
“New Advances in Dental Research”

- September 24, 1996 Molecular Biology Section
National Institute of Dental Research
Bethesda, Maryland
"Tooth Matrix Proteins: Implications in Genetic Diseases of the Dentition"
- September 13, 1996 Student Research Group
The University of Texas Health Science Center at San Antonio
San Antonio, Texas
"Introduction to Dental Research"
- September 11, 1996 The University of Texas-Houston
Health Science Center-Dental Branch
Houston Biomaterials Research Center
"Applications of Immortalized Odontoblast Cell Lines for *in-vitro* Testing"
- May 10-12, 1996 Texas Mineralized Tissue Society Eighth Conference and Workshop
"Ameloblastin: A Candidate Gene for Autosomal Dominant Local Hypoplastic Form of Amelogenesis Imperfecta"
West Columbia, Texas
- April 1, 1996 The Fourteenth Annual Dental Science Symposium
San Antonio, Texas
"Subchromosomal Mapping of Human DMP-1"
- March 30-April 2, 1996 32nd Annual American Dental Association Dental Students Conference on Research
San Antonio, Texas
- December 6, 1995 Forsyth Dental Center/ Harvard Dental School
Seminar Program
Boston, Massachusetts
"Odontoblast Differentiation: In Search of a Stem Cell"
- July 19, 1995 Division of Endocrinology
Laboratory Conference
University of Texas Health Science Center at San Antonio
- July 12, 1995 Cellular & Structural Biology
Seminar
University of Texas Health Science Center at San Antonio
San Antonio, Texas
"Odontoblast Differentiation: In Search of a Stem Cell"
- November 8, 1995 Restorative Graduate Seminar Program
University of Texas Health Science Center at Houston
Director: Dr. John Powers
"Dentin Regeneration Clinical Applications"
- July 3-4, 1995 International Conference on Dentin/Pulp Complex
Chiba, Japan
"Odontoblast Cytodifferentiation: Establishment of Immortalized Cell Lines"

- March 22-23, 1995 University of Michigan, School of Dentistry
Oral Health Sciences Seminar Series Ann Arbor, Michigan
"Odontoblast Differentiation: Stem Cell Search"
- May 20, 1994 University of Texas Health Science Center at San Antonio
Dental Early Admission Program
San Antonio, Texas
"Human Genetic Dental Diseases: New Research Frontiers"
- May 9-11, 1994 Unilever Dental Research
Port Sunlight Laboratory
Bebington Wirral England
"An *In Vitro* Model for Dentinogenesis"
- April 22, 1994 State/Industry Cooperative Research Center
Center for Enhancement of Biology/Biomaterial Interfaces
San Antonio, Texas
"Mineralizing Odontoblast Cell Cultures and Cell Lines: Applications for Industry"
- February 19-20, 1993 65th American Prosthodontic Society Meeting
Chicago, Illinois
"Transgenic Approaches to Dental Disease: From Gene to Gene Therapy"
- March 12, 1993 71st American Association of Dental Research
Hands-on Workshop- Director M. MacDougall
Chicago, Illinois
"Polymerase Chain Reaction: A Technique to Amplify and Analyze Small Quantities of Nucleic Acid"
- March 11-15, 1991 70th American Association of Dental Research
Boston, Massachusetts
Lunch and Learning Speaker
Sponsor- Mineralized Tissue Group
"Odontogenic Cell Culture Systems: Models for Matrix-mediated Biomineralization."
- February 5-9, 1992 4th International Conference on the Chemistry and Biology of Mineralized Connective Tissues
Coronado, California
"Expression of Dentin Extracellular Matrix Proteins by Odontoblastic Cell Cultures"
- July 8-12, 1991 California Science Project Summer Academy
Los Angeles, California
"Implications of Recombinant DNA Technology"
- May 25-29, 1991 International Conference
Pathobiology of the Dentin/Pulp Complex
University of North Carolina-Charlotte, North Carolina
"Dentin Phosphoprotein in Dentin Development: Implications in Dentinogenesis Imperfecta"

- March 7-11, 1990 68th American Association of Dental Research
Cincinnati, Ohio
Lunch and Learning Speaker
Sponsor- Pulp Biology Group
"Molecular Aspects of Dentinogenesis"
- June 28- July 1, 1989 67th International Association of Dental Research
Trinity College, Dublin, Ireland
"The Bone and Tooth Genomes"
Sponsor- Mineralized Tissue Group
"Molecular Aspects of Dentinogenesis"
- May 2-12, 1989 NATO Advanced Study Institute
Advances in Bone Regulatory Factors
Erice, Italy
"Analysis of Embryonic Cartilage and Bone
Induction in a Defined Culture System"
- May 5-15, 1988 People's Republic of China
Visiting Scholar
University of Beijing School of Dentistry
University of Shanghai School of Dentistry
"Epithelial-mesenchymal Interactions during
Odontogenesis"
- October 16-21, 1988 3rd International Conference on the Chemistry and Biology of
Mineralized Connective Tissues
Chatham, Massachusetts
"Characterization of Extracellular and Nascent Dentine
Phosphoprotein"
- July 13-18, 1986 33rd Gordon Conference- "Bones and Teeth"
Kimball Union Academy, New Hampshire
"Ectomesenchyme Differentiation into Odontoblasts: Dentine
Phosphoprotein Gene Products."
- September, 1984 2nd International Conference on the Chemistry and Biology of
Mineralized Connective Tissues,
Gulf State Park Resort
Gulf Shores, AL
"Dentine phosphoprotein Expression during *In Vitro* Mouse Tooth
Organ Culture."
- June, 1983 Proteins and Preteoglycans of Mineralized Tissues
American Society of Bone and Mineral Research
San Antonio, Texas
"Developmental Expression of Murine Dentin Phosphoprotein."
- June 27- July 2, 1983 6th Gordon Conference-"Calcium and Phosphates"
Plymouth College, New Hampshire
New Faces - "Antibody to Murine Dentin Phosphoprotein."

Papers Submitted:

Yumiko Togo; Katsu Takahashi; Kazuyuki Saito; Honoka Kiso; Hiroko Tsukamoto; Boyen Huang; Motoko Yanagita; Manabu Sugai; Hidemitsu Harada; Toshihisa Komori; Akira Shimizu; **Mary MacDougall**; Kazuhisa Bessho. Usag-1 deletion prevents odontogenic epithelial stem cell production within the lingual bud in Runx2 null mice. EMID:1aa9d56651e28cd4 (submitted)

Mary MacDougall, Juan Dong, Nathaniel H. Robin, Peter Waite, Yao-Shan Fan, Stephen L. Greene, David K. Crossman, Fady M. Mikhail. Cleidocranial Dysplasia Associated 6p12.3 Microdeletion Detected by Oligo Microarray. American Journal of Medical Genetics Part A (under revision)

M. MacDougall, S. Sheibley, J. Holsey, P. Sohn, O. A. Mamaeva. Fam20A Null Mice Mimic Syndromic Enamel Renal Syndrome. Journal of Dental Research (Submitted)

Wentong Li, Lei Chen, Zhuo Chen, Lian Wu, Junsheng Feng, Lisa Shoff, Kevin J Donly, **Mary MacDougall** and Shuo Chen. Dentin sialoprotein domain mediates dental mesenchymal cell differentiation through occludin-FAK signaling. Journal of Bone and Mineral Research (submitted)

M MacDougall, OA Mamaeva, S Greene, H Amm, P Jezewski, J Nix, C Lu, DK. Crossman, J Gibson, KJ. Donly, S Chen, J Dong, H Erlandsen. Down-regulation of enamel matrix proteins in a hypoplastic amelogenesis imperfecta patient deficient in FAM20A PLoS Genetics (submitted)

B Gao, W Chen, H Ci, L Hao, **M MacDougall**, G Zhu, S Feng, M McConnell, X Zhou Yi-Ping Li Gene Therapy of Periodontal Disease by AAV-shRNA Silencing of Cathepsin K J of Periodontal Res (under review)

B. AREAS OF RESEARCH INTEREST:

The major thrust of my research interest is using the tooth as a developmental model system to determine the molecular mechanisms associated with epithelial mesenchymal interactions, identification of critical signaling pathways, matrix formation and biomineralization. I am interested in the instructive and permissive interactions or signaling between the cranial crest-derived ectomesenchyme and dental epithelium which result in the cytodifferentiation of unique dental cell types, including the odontoblasts, cementoblasts, periodontal ligament, stratum intermedium, stellate reticulum and ameloblasts. The odontoblasts synthesize and secrete constituents of the dentin extracellular matrix (ECM), while the ameloblasts synthesize and secrete the constituents of the enamel ECM. The tooth is unique in that both of these juxtaposition ECMs undergo the progress of biomineralization. The unique proteins expressed by these two cell types are thought to direct the nucleation, and unique sized and shaped crystals associated with each of these ECMs. In order to investigate tooth formation our laboratory has established monolayer cell culture systems conducive for the differentiation of the various tooth cell types, maintenance of their differentiated phenotypes, and formation of the characteristic mineralized ECM (dentin, enamel, and cementum). We have established immortalized dental cell lines of various cell types from these cultures that maintain their phenotype long-term.

In addition, studies are being performed related human genetic disorders that alter tooth patterning, number, morphology or extracellular matrix structure. These include abnormal clinical profiles of both dentin and enamel biomineralization associated with dentinogenesis imperfecta and amelogenesis imperfect, respectively. Studies are designed to establish the

molecular etiologies of these diseases in collected families and determine the biological function of dentin and enamel ECM proteins during tooth formation based on functional domains. Genetic studies related to altered tooth patterning or number including work on cleidocranial dysplasia, Aperts syndrome, ectodermal dysplasia, hypodontia and oligodontia. Disorders altering tooth morphology include radicular dentin dysplasia and Singleton Merten Syndrome. We have recently identified the genes associated with these two diseases. Primary human dental cell populations and immortalized cell lines have been established for many of the dental disorders providing an unique resource for developing novel clinical therapeutics for these conditions.

Our fundamental studies related to tooth formation are being applied to establishing the active signaling pathways and gene expression profiles related to the formation of rare odontogenic tumors such as ameloblastomas, keratocystic odontogenic tumors (syndromic and non-syndromic), gnathic malignant mesenchymoma and calcifying epithelial odontogenic tumors. Again, the unique resources of tumor primary and immortalized cell lines are being established and used to develop novel therapeutics for treatment of these rare tumors. Our studies include identification and characterization of tumor stem cell populations and their properties as related to adult stem cell populations of the tooth.

Finally, we are investigating *in vivo* and *in vitro* the mechanisms of tooth-specific gene regulation using dentin and enamel proteins as model tooth-specific matrix proteins. These studies are identifying the mechanisms of dentin and enamel induction for application to dental material research to incorporate tooth self-repair and regeneration into modern dental modalities. In addition, promoter sequences are being used to target gene express of “corrected” genes for gene therapy studies related to dental genetic disorders.

RESEARCH SUPPORT (GRANTS AND CONTRACTS):

NATIONAL:

Source:	National Institute for Dental and Craniofacial Research	
Title:	Dental Academic Research Training (DART) Program T90/R90	
Time Period:	2012-2017	
Direct Costs:	1 st year Total: \$772,222	Total: \$3,587,987
Role:	Principal Investigator/Program Director	

Source:	National Institute of Dental & Craniofacial Research	
Title:	UAB SOD's IOHR Enhancement via Faculty Recruitment	
Time Period:	2009-2012	
Direct Costs:	1 st year Total: \$642,866	Total: \$1,330,840
Role:	Principal Investigator	

Source:	National Institute of Dental & Craniofacial Research	
Title:	CSF-1 in Dental Biology (Renewal)	
Time Period:	2008-2013	
Direct Costs:	Total: \$200,000	Total: \$1,000,000
Role:	Co- Investigator (PI: Dr. Sherry Abboud-Werner)	

Source:	National Institute for Dental & Craniofacial Research	
Title:	Individual Pre-Doctoral Dental Scientist Fellowship (F30)	
Time Period:	2008-2013	
Direct Costs:	Total: \$185,949	
Role:	Mentor (PI: Angi Gullard)	

Source:	National Institute for Dental and Craniofacial Research	
Title:	Dental Academic Research Training (DART) Program	
Time Period:	2007-2012	

Direct Costs: 1st year Total: \$475,152 Total: \$3,152,067
 Role: Principal Investigator/Program Director

Source: National institute for Dental & Craniofacial Research
 Title: Individual Pre-Doctoral Dental Scientist Fellowship (F30)
 Time Period: 2006-2011
 Direct Costs: Total: \$182,949
 Role: Mentor (PI: Ejvis Lamani)

Source: National Institutes for Dental & Craniofacial Research
 Title: Salivary Gland-based Gene Therapy for Lysosomal Storage Disease (K99)
 Time Period: 2006-2008
 Direct Costs: Total: \$577,737
 Role: Faculty Sponsoring Mentor (PI: Michael Passineau, PhD)

Source: National Institute of Dental Craniofacial Research
 Title: Center for Odontogenesis: Genetics, Expression & Regulation
 Time Period: 2005-2010
 Direct Costs: Total: \$1,219,780 Total: \$7,985,158
 Role: Principal Investigator

Source: National Institutes of Health
 Title: Dental Stem Induced Tooth Regeneration
 Time Period: 2002-2004
 Direct Costs: \$ 200,000
 Role: Principal Investigator

Source: National Institute of Dental Research
 Title: CSF-1 in Dental Biology
 Time Period: 2004-2008
 Direct Costs: Total: \$200,000 Total: \$1,000,000
 Role: Co- Investigator (PI: Dr. Sherry Abboud-Werner)

Source: National Institute of Dental Research
 Title: Salivary Stem Cell Identification for Tissue Restoration
 Time Period: 2003-2005
 Direct Costs: Total: \$100,000 Total: \$200,000
 Role: Co-Investigator (PI: Dr. Chih-Ko Yeh)

Source: National Institutes of Health
 Title: Institutional Research Training Grant
 Time Period: 2002-2007
 Direct Costs: \$3.9 million
 Role: Principal Investigator

Source: National Institutes of Health
 Title: Remineralization Pulp-Capping Cements & Bonding Agents
 Time Period: 2001-2004
 Direct Costs: \$40,053
 Role: Principal Investigator - Consortium Agreement
 National Institute of Standards and Technology

Source: National Institute of Dental Craniofacial Research

Title: Gene Expression and Regulation during Odontogenesis
 Time Period: 2000-2005
 Direct Costs: Total: \$925,881 Total: \$4,684,102
 Role: Principal Investigator

Source: National Institute of Dental Research
 Title: Candidate Genes for DGI-III and Local Hypoplastic ADAI
 Time Period: 2000-2004
 Direct Costs: Total: \$242,672 Total: \$596,040
 Role: Principal Investigator

Source: National Institute of Dental Research
 Title: Candidate Genes for DGI-III and Local Hypoplastic ADAI
 Time Period: 1997-2000
 Direct Costs: Current Year: \$242,672 Total: \$596,040
 Role: Principal Investigator

Source: National Institute of Dental Research
 Title: Short Term Training: Students in Health Professional Schools
 Time Period: 1997-2002
 Direct Costs: Current year: \$25,992 Total: \$129,960
 Role: Principal Investigator

Source: National Institute of Dental Research
 Title: Role of Phosphoproteins in Dentin Mineralization
 Time Period: 1996-2001
 Direct Costs: Current year: \$141,455 Total: \$606,912
 Role: Principal Investigator

Source: National Institute of Dental Research
 Title: Advanced Dental Restorative Systems - Program Project Grant
 Time Period: 1997-2001
 Direct Costs: Current year: \$83,432.00 Total: \$475,291
 Role: Principal Investigator Subprogram 3

Source: National Institute of Dental Research
 Title: Biology of Connective Tissues, Bone and Teeth
 Time Period: 1995-1997
 Direct Costs: \$145,192
 Role: Consortium Agreement: Function of Enamel Proteins in Tissue Specific Biomineralization

Source: National Institute of Dental Research
 Title: Small Grant Program - R03
 Time Period: 1995-1997
 Direct Costs: \$50,000
 Role: Principal Investigator

Source: National Institute of Dental Research
 Title: R29- Characterization of the Gene Responsible for Dentinogenesis
 Imperfecta
 Time Period: 1991-1996
 Direct Costs: \$350,000
 Role: Principal Investigator

Source: National Institute of Dental Research
Title: Program Project Grant - P01
Time Period: 1991-1994
Direct Costs: \$270,152
Role: Principal Investigator Subproject III: Dentinogenesis in Odontoblastic Cell Cultures
Co-Investigator Subproject IV: Protein Kinases Involved in Dentinogenesis

Source: National Institute of Dental Research
Title: Biology of Connective Tissues, Bones, and Teeth
Subproject II: Molecular Genetics of Dentin
Time Period: 1986-1991
Role: Co-Principal Investigator

STATE:

Source: Advanced Research Program 1997
Title: Development of an Immortalized Nociceptor Cell Line
Time Period: 1998-1999 (Submitted)
Direct Costs: \$203,722
Role: Co-Investigator, K. Hargreaves PI

Source: Advanced Research Program 1997
Title: Use of Vitamin D Responsiveness to Identify Maturation State of Chondrocyte Cell Lines
Time Period: 1998-1999 (Submitted)
Direct Costs: \$469,840
Role: Co-Investigator, B. Boyan PI

UNIVERSITY:

Source: University of Alabama at Birmingham
Title: Global Center for Craniofacial, Oral and Dental Disorders GC-CODED
Time Period: 2014-2019
Direct Costs: \$500,000
Role: Director, **M. MacDougall**

Source: University of Alabama at Birmingham Center for Clinical and Translational Research and Hudson Alpha Institution
Title: NextGen Sequencing Pilot Grants
Time Period: 2011-2012
Direct Costs: \$10,000
Role: PI, **M. MacDougall**

Source: University of Alabama at Birmingham
Title: Global Center for Craniofacial, Oral and Dental Disorders GC-CODED
Time Period: 2011-2013
Direct Costs: \$107,000
Role: Director, **M. MacDougall**

Source: UAB Graduate School
Title: Support Mechanism for Recruitment of DMD/PhD Students

Time Period: 2007-2010
Direct Costs: \$35,000
Role: Principal Investigator **M. MacDougall**

Source: President Research Enhancement Funds-UTHSCSA
Title: PREF Center Grant
Time Period: 2004-2005
Direct Costs: \$100,000
Role: PI: **M. MacDougall**

Source: Center for the Enhancement of Biological Biomaterial Interface
Title: Biomedical Research Project
Time Period: 1999-2000
Direct Costs: \$2,500
Role: PI: **M. MacDougall**

Source: Dental School
Title: Faculty Research Development Fellowship to Dr. Dan Chan
Time Period: 1997-1998
Direct Costs: \$25,000
Role: Research Mentor: **M. MacDougall**

Source: University of Southern California, School of Dentistry
Title: Biomedical Research Support Grant
DNA Sequencing of Human Normal and DGI-II Affected DPP Genes
Time Period: 1989-1990
Direct Costs: \$3,139
Role: Principal Investigator

Source: University of Southern California, School of Dentistry
Title: Biomedical Research Support Grant
Cytodifferentiation of Odontoblasts *in Vitro*
Time Period: 1987-1988
Direct Costs: \$2,000
Role: Principal Investigator

OTHER:

Source: Oral Maxillofacial Surgery Foundation
Title: 2015 Student Research Training Award
Time Period: 1/1/2015-12/31/2016
Direct Cost: \$12,500
Role: Program Director/PI: Peter Waite/Mary MacDougall

Source: Oral Maxillofacial Surgery Foundation
Title: IR-Labeled Centuximab for Optical Imaging of Odontogenic Neoplasms
Time Period: 01/01/2015-12/31/2015
Direct Cost: \$75,000
Role: PI: Tony Morlandt/ Hope Amm/ Mary MacDougall

Source: ADEA/Gies Foundation
Title: Pre-Dentistry Academic Research Training Program
Time Period: 2012-2016
Direct Cost: \$35,000
Role: Program Director (PI: Michael Reddy, DDS)

Source: ADEA/Gies Foundation
Title: Pre-Dentistry Academic Research Training Program
Time Period: 2007-2010
Direct Cost: \$35,000
Role: Program Director (PI: Huw Thomas, DDS, PhD)

Source: American Association for Dental Research
Title: Student Fellowship – Angi Gullard
Time Period: 2010-2012
Direct Costs: \$2,600
Role: Faculty Advisor / Mentor

Source: American Association for Dental Research
Title: Student Fellowship – Ejvis Lamani
Time Period: 2008-2009
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: American Association for Dental Research
Title: Student Fellowship – Ejvis Lamani
Time Period: 2007-208
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: American Association of Dental Research
Title: Student Fellowship –Robert Williamson
Time Period: 2003-2004
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: American Association of Dental Research
Title: Student Fellowship – Cara Knight
Time Period: 2002-2003
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: American Association of Dental Research
Title: Student Fellowship – Aaron Unterbrink
Time Period: 2002-2003
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: American Association of Dental Research
Title: Student Fellowship – Robert Williamson
Time Period: 2002-2003
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: American Association of Dental Schools
Title: William Gies Research Scholarship
Time Period: 2000-2004
Direct Costs: \$35,000
Role: Principal Investigator K. Kalkwarf / Program Director M. MacDougall

Source: American Association of Dental Research
Title: Student Fellowship – Sarah Tevor
Time Period: 2000-2001
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: American Association of Dental Research
Title: Student Fellowship – Nicole Smith
Time Period: 2000-2001
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: American Association of Dental Research
Title: Student Fellowship – Cara Knight
Time Period: 2000-2001
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: American Association of Dental Research
Title: Student Fellowship – Christopher Daniel
Time Period: 1999-2000
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: Unilever Dental Research
Title: Stimulation of Dentin Extracellular Matrix Formation
Time Period: 1995-1998
Direct Costs: \$234,555
Role: Principal Investigator

Source: American Association of Dental Research
Title: Student Fellowship – Andy McKenzie
Time Period: 1998-1999
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: American Association of Dental Research
Title: Student Fellowship – Joe Alvarez
Time Period: 1997-1998
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: American Association of Dental Research
Title: Student Fellowship – Greg Frei
Time Period: 1997-98
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: American Association of Dental Research
Title: Student Fellowship – Gena Little
Time Period: 1997-98
Direct Costs: \$2,400
Role: Faculty Advisor / Mentor

Source: American Association of Dental Research
Title: Student Fellowship – Thomas Bozeman
Time Period: 1997-98
Direct Costs: \$2,500
Role: Faculty Advisor / Mentor

Source: American Association of Dental Research
Title: Student Fellowship – John Wallace
Time Period: 1997-98
Direct Costs: \$2,500
Role: Faculty Advisor / Mentor

Source: American Association of Dental Research
Title: Student Fellowship – Michael Chan
Time Period: 1997-98
Direct Costs: \$2,500
Role: Faculty Advisor / Mentor

SERVICE PROFESSIONAL AFFILIATIONS:

PROFESSIONAL AND SCIENTIFIC ORGANIZATIONS AND SOCIETIES:

The Histochemical Society
American Association for the Advancement of Science
American Dental Educators Association
American Association for Dental Research
International Association for Dental Research:
Mineralization Group
Pulp Biology Group
Dental Materials Group
Women's Network
Global Oral Health Research Agenda- GOHIRA Network
Alabama Chapter, American Association for Dental Research
International Conference on the Chemistry and Biology of Mineralized
Tissues
San Antonio Chapter, American Association for Dental Research
Texas Mineralized Tissue Society
Omicron Kappa Upsilon – Mu Nu Chapter
Omicron Kappa Upsilon – Phi Phi Chapter
The Charles A. McCallum Oral and Maxillofacial Surgery Alumni
Society

POSITIONS/ OFFICES HELD IN PROFESSIONAL ORGANIZATIONS:

American Association for the Advancement of Science (AAAS)

Elected Member of the Electorate Nominating Committee, Oral Health and Dentistry Section, 2016-2019
Chair, Oral Health and Dentistry Section 2008
Co-Chair, Oral Health and Dentistry Section 2007
Electorate Nominating Committee, Oral Health and Dentistry 2015-2017

International Conference on the Chemistry and Biology of Mineralized Tissues

Board of Directors, 2010-Present
Co-Organizer, International Meeting 2010

American Association of Dental Research:

Immediate Past President 2006
President 2005
President Elect 2004
Vice-President 2003
Board of Directors, 2003-2006
Faculty Advisor: Student Research Group 1990-1993
University of Southern California, School of Dentistry
Chairman, Fellowship Committee 1994-1995
Elected- Publication Member-At-Large 1999-2001
Chairman, Publication Committee 2000- 2001
Committee of Research Administrators and Mentors (CRAM) 2001-
Chair, AADR Fellows Committee 2015-2017

International Association of Dental Research:

Chair, IADR Honorary Membership Committee 2016-2017
Immediate Past President, 2013-2014
President, 2012-2013
President Elect, 2011-2012
Vice-President, 2010-11
Board of Directors, 2010-2014
Mineralized Tissue Group Vice President 1995
Mineralized Tissue Group, President-Elect 1996
Mineralized Tissue Group, President 1997
Chairman, Membership Committee 2000
Member, Publication Committee 2002
Member, Distinguished Scientist Award Committee 2002-2005
Member, Honorary Membership Committee 2015-2017

OTHER PROFESSIONAL ACTIVITIES:

National/ International Consultantships-

2016	Reviewer The Swiss National Science Foundation Grant Review Bern, Switzerland PI - Kiliaridis Stavros
2016-Present	External Advisory Committee University of Illinois Chicago T32 Multidisciplinary Oral Sciences Research Training Program PI- Anakarina Bedran-Russo
2015-Present	External Advisory Committee University of Southern California

T90/R90 Doctoral and Post-Doctoral training in Craniofacial Biology
 PI- Michael Paine

2015-Present External Advisory Board
 Stony Brook University School of Dental Medicine
 T90/R90 Stony Brook Multidisciplinary Academic Research Training
 Program (SMART)
 PI- Steven London

2015 National Institute of Health
 Department of Health and Human Services
 ZRG1 MOSS-U82 Special Emphasis Panel
 Ad Hoc Reviewer

2015-2017 Enamel 9 International Conference
 October 30-November 3
 Harrogate, England
 Scientific Advisory

2012-Present Skeletal Biology Development and Disease Study Section
 Center for Scientific Review
 National Institute of Health
 Ad Hoc Reviewer

2012 Special Review Study Section
 National Institute of Dental Research
 Ad Hoc Reviewer

2011 Review Committee –Ad Hoc
 National Institute of Dental Research
 Intramural Program

2011 Skeletal Craniofacial and Oral Biology Review
 University of Connecticut Health Center
 Review Panel Member

2010 UAB Health Science Foundation-General Enhancement Fund Grant
 Program
 Laboratory Research Grant Review Committee

2009 Special Review Study Section
 National Institute of Dental Research
 Ad Hoc Reviewer –Chairman (June, 2009)

2008 Grant Reviewer – Clinical Research Projects
 The Portuguese Science and Technology Foundation
 (Fundação para a Ciência e a Tecnologia - FCT)

2008-2010 Maryland State Stem Cell Grant Program
 Review Committee Member
 Columbia, MD

2004-Present Science Advisory Board
 Odontis Limited
 London, U.K.

1999- 2011 Medical Research Council of Canada
 Grant Application Reviewer
 Ottawa, Canada

1999- Present Wellcome Trust Foundation
 Grant Application Reviewer
 London, United Kingdom

1995 - 2008 Special Review Study Section
 National Institute of Dental Research
 Ad Hoc Reviewer –Chairman

1994-1997 Unilever Corporation
 Port Sunlight Research Laboratories

1986 National Institute of Arthritis and Musculoskeletal and Skin Disease
Ad Hoc Site Visitor

Editorial Boards-

2011-2013 Scientific Research Publishing
Associate Editor
OJST Editorial Board

2003-2006 Biology Archives of Oral
Editor-in-chief Dr. Paul Speight
International Editorial Board

Review Panels-

1986-Present Scientific Journal Peer Reviewer:
Journal of Biological Chemistry
Connective Tissue Research
Differentiation
Journal of Craniofacial Genetics and Developmental Biology
Journal of Histochemistry and Cytochemistry
Archives of Oral Biology
Journal of Dental Research
Critical Reviews in Oral Biology
European Journal of Oral Biology
Journal of Bone and Mineral Research
Matrix Biology Gene
Journal of Molecular Evolution
American Journal of Orthopedic Surgery
American Journal of Pathology
Oncotarget
Clinical Genetics
Scientific Reports

National/ International Committees-

2016-2017 Chair, Honorary Membership Committee
International Association for Dental Research

2016 Member, AADR Advocacy Day on Capitol Hill
American Association for Dental Research

2015-2016 Member, AADR Fellows Task Force
American Association for Dental Research

2015-2016 Member, Honorary Membership Committee
International Association for Dental Research

2014 Chair, Special Ethics Committee
International Association for Dental Research

2012 Chair, Annual Session Committee
Meeting Iguazu Falls, Brazil

2011-2012 Grant Reviewer
Czech Science Foundation
Czech Republic

2010-Present Symposium Reviewer
Annual Meeting
American Association for the Advancement of Science
Washington, DC

2010-Present Board of Directors
International Association for Dental Research

2009-2012 Chair, Distinguished Scientist Award
International Association for Dental Research

2009 National Institute of Health
Special Emphasis Panel
National Institute of Craniofacial and Dental Research
Ad Hoc Reviewer –June

2009 TEDCO
Grant Review Panel
Ad Hoc Reviewer –March

2009 Howard Hughes Medical Institute
Professional Student Fellowship Panel
Reviewer –February

2007-2011 Organizing Committee
10th International Conference on the Chemistry and Biology of
Mineralized Tissue
Scottsdale, AZ

2006-2007 Scientific Advisory Board
9th International Conference on the Chemistry and Biology of
Mineralized Tissue
Austin, Texas

2006- 2008 Board of Directors
American Association of Dental Research

2006- 2009 Honorary Membership Committee
American Association of Dental Research

2006- Present Publications Committee
American Association for Dental Research/
International Association of Dental Research

2004-2005 Selection Panel
American Dental Association
Norton M. Ross Award

2003-Present Scientific Review Panel
GlaxoSmithKline Innovation in Oral Care Award

International Association of Dental Research

2003-2007 Scientific Advisory Board
8th Intern'l Conference on the Chemistry and Biology of Mineralized Tissues, Banff, Canada

2003-2004 Scientific Advisory Board
Tooth Development and Morphogenesis
York, U.K.

2001-2006 Advisory Board
MBRS-SCORE Program
University of Texas at San Antonio
Director: Dr. A. Tsin

2000-2001 Scientific Advisory Board
7th Intern'l Conference on the Chemistry and Biology of Mineralized Tissues, Ponte Vedra Beach, Florida

2000-2001 Scientific Advisory Board
Tooth Development and Morphogenesis
Paris, France

2001 National Institute of Dental and Craniofacial Research
Director NIDCR Search Committee

1998-2001 International Association of Dental Research
Membership and Recruitment Committee- Chair

1998 Co-Organizer
10th Annual Texas Mineralized Tissue Society Meeting
Austin, Texas

1997 Co-Organizer
9th Annual Texas Mineralized Tissue Society Meeting
Corpus Christi, Texas

1996-1997 Co-Chairman
American Association for Dental Research/
International Association of Dental Research
Ad Hoc Industrial Consortium Committee

1993-1996 Chair
American Association Dental Research
Student Fellowship Committee

1993-1995 5th International Conference on the Chemistry and Biology of Mineralized
Tissues, Kohler, Wisconsin
Scientific Advisory Board

1990-1992 4th International Conference on the Chemistry and Biology
of Mineralized Tissues, Coronado, California

Organizing Committee

National Meetings-

- 2010 Chair
Student Plenary Session
AADR
Washington, DC
- 2006 President (AADR)
International Association of Dental Research/American
Association
Orlando, Florida
- 2004 Organizer
International Association of Dental Research/American
Association
Baltimore, Maryland
- 1998 Organizer
Lunch-Learn Program
American Association of Dental Research, Minneapolis,
Minnesota
International Association of Dental Research, Nice, France
Mineralized Tissue Group
- 1997 Organizer
International Association of Dental Research
Mineralized Tissue Symposium
Orlando, Florida
- 1997 Chairman
Mineralized Tissue Group
International Association for Dental Research
Orlando, Florida
- 1996 Chairman
Mineralized Tissue Group
International Association for Dental Research
San Francisco, California
- 1995 Chairman
5th International Conference on the Chemistry and Biology of
Mineralized
Tissues, Kohler, Wisconsin
- 1995 Chairman
Pulp Biology
International Association for Dental Research
Singapore
- 1994 Chairman
Extracellular Matrix, Texas Mineralized Tissue Society
San Antonio, Texas

- 1994 Chairman
Mineralized Tissue Session
American Association of Dental Research
Seattle, Washington
- 1993 Co-Chairman
Mineralized Tissue Session
American Association of Dental Research
Chicago, Illinois
- 1992 Chairman
Session 3: Tissue-Specific Models of Biomineralization
4th International Conference on the Chemistry and Biology of
Mineralized
Tissues, Coronado, California
- 1992 Co-Chairman
Pulp Session
American Association of Dental Research
Boston, Massachusetts
- 1991 Chairman
Mineralized Tissue Session
International Association of Dental Research
Acapulco, Mexico
- 1990 Co-Chairman
Mineralized Tissue Session
American Association of Dental Research
Cincinnati, Ohio
- 1989 Co-Chairman
Mineralized Tissue Session
American Association of Dental Research
San Francisco, California

Student Science Apprentices Programs-

- 2015 UAB CORD SSI Summer Research Intern Program
Johua Hosley, Trainee
M. MacDougall PhD, Mentor
- 2012-2017 Director
National Institute of Health T-90/R-90
Dental Academic Research Training- DART
Institutional Research Training Program DART
School of Dentistry, University of Alabama at Birmingham
- 2011 UAB CORD SSI Summer Research Intern Program
Bre'anna Howell, Trainee
M. MacDougall PhD, Mentor
- 2010-2012 Mentored Experiences in Research and Teaching MERIT Program
UAB Postdoctoral Office

Dr. Hope Amm, Fellow
M. MacDougall PhD, Mentor

- 2009-Present Founding Faculty Advisor
UAB PreDental Society (Undergraduates)
University of Alabama at Birmingham
- 2009-2010 Health Disparities Research Training Program
UAB Minority Health Research Center MHRC
Dr. Patrica Devilliers, Fellow
M. MacDougall PhD, Mentor
- 2007-2012 Founding Director
National Institute of Health T-32 Grant
Dental Academic Research Training- DART
Institutional Research Training Program DART
School of Dentistry, University of Alabama at Birmingham
- 2006-Present Founding Director
PreDental Academic Research Training Program (PreDART)
Funded 2006 and 2012 William Gies Research Award
Dr. Thomas Dean (2006) / Dr. Reddy Dean (2012)
- 2002-2005 Founding Director
National Institute of Health T-32 Grant
Institutional Research Training Program CO★STAR
University of Texas Health Science Center at San Antonio
- 2000-2005 Founding Director
Dental Student Training in Academics and Research D★STAR
Sponsor- American Association of Dental Schools
University of Texas Health Science Center at San Antonio
- 1995-2002 Director
National Institute of Health T-35
Summer Research Training Fellowship Program
Dental Student Short-Term Training Grant
University of Texas Health Science Center at San Antonio
- 1993-1995 Co-Director
National Institute of Health
Summer Research Training Fellowship Program
Dental Student Short-Term Training Grant
University of Texas Health Science Center at San Antonio
- 1991-1993 Faculty Mentor / Advisor
National Institute of Health
Minority High School Student Research Apprentice
Program
University of Southern California
- 1991-1993 Faculty Mentor
USC/Bravo Medical Health Magnet STAR Program
University of Southern California

- 1992 Discussion Leader
Rancho Los Amigos Hospital
Cleft Palate and Cleft Lip Parents Education Program
Organizer: Dr. Libby Wilson
- 1992 Mentor Participant
MESA (Mathematics, Engineering, Science Achievement)
Program
"At Work Program"
- 1985-1986 Faculty- Honors Symposium
Los Angeles Educational Partnership
Math/Science Teacher Fellowship Program

C. PATIENT SERVICE

1. OUTPATIENT: None

2. OTHER: None

D. COMMITTEES:

1. DEPARTMENT:

Pediatric Dentistry, University of Texas Health Science Center San Antonio

- 2003-2004 Departmental Tenure and Promotion Committee
- 1998-1999 Departmental Tenure and Promotion Committee
- 1993-1998 Faculty Evaluation Committee

Center for Craniofacial Molecular Biology, University of Southern California

- 1991-1993 Common Budget Committee

2. SCHOOL:

- School of Dentistry, University of Alabama at Birmingham**
- 2013-Present Member, UAB Community Cares Day Committee
- 2012-Present Member, Accreditation Committee
- 2012-Present Member, Promotion and Tenure Committee
- 2012-Present Member, Strategic Planning Committee
- 2012-Present Co-Chair, Branding Committee
- 2012 Member, FAR Committee
- 2012 Member, Conflict of Interest Committee
- 2011-Present Member, Faculty and Staff Development Committee
- 2009-2010 Member, Orthodontics Chair Search Committee
- 2006-2009 Member, Dental Faculty Status Committee
- 2006-Present Co-Chair, Academic Career Club
- 2006-Present Member, Dental Editorial Board
- 2005-2007 Member, Accreditation Committee
- 2005-Present Chair /Ex-Officio Member, Research Advisory Committee
- 2005-Present Member, School of Dentistry Executive Council

2005-2008 Chair, School of Dentistry 8th Floor Planning Committee

Dental School, University of Texas Health Science Center at San Antonio

2004 Member, Strategic Planning Committee

2004 Member, Restorative Dentistry Faculty Search Committee

2003-2005 Member, Faculty Development Committee

2000 Member, Prosthodontics Chair Search Committee

1999-2005 Chair, Research Committee

1999- 2005 Member, Faculty Development Committee

1999 Member, Associate Dean for Student Affairs Search Committee

1998 Member, Endodontics Faculty Search Committee

1997 Member, Dental School Fund Raising Campaign Organizing Committee

1997 Member, Oral Health Center for Discovery Planning Group

1997 Member, Restorative Department Faculty Search Committee

1997 Member, Prosthodontic Faculty Interview Committee

1996-Present Member, Dental School Research Committee

1996-1997 Member, Admissions Subcommittee on Advanced Standing

1996 Member, Summer Clinic Task Force Group

1994-Present Member, Dental School Admissions Committee

1995-1997 Member, Advance Education Committee

School of Dentistry, University of Southern California

2007-Present Member, T32 Advisory Committee

1992-1993 Member, Curriculum Committee

1987-1991 Member, Research Committee

1986-1991 Member, Graduate Studies Section

1986-1993 Member, Graduate Program in Craniofacial Biology

3. UNIVERSITY:

University of Alabama at Birmingham

2016 Judge, UAB Post-Doctoral Research Day

2016 Judge, UAB Undergraduate Research Service Learning

2015 Judge, UAB Undergraduate Research Service Learning

2014 Member, Search Committee for School of Dentistry Director of Faculty Development and Support

2012 Member, Search Committee for School of Dentistry Dean

2011 Member, Search Committee for Director Center for Metabolic Bone Disease(CMBD)

2010-Present Member, UWRIC Center Directors Committee

2010-2011 Member, Bone Pathobiology Faculty Search Committee

2009-2010 Member, Chemistry Faculty Search Committee

2009 Member, Physics Faculty Search Committee

2008-Present Member, Internal Review Board, Heflin Center for Human Genomics

2006-2011 Member, Internal Advisory Board, Cancer Gene Therapy Training Program

2005-Present Member, UAB Center for Metabolic Bone Disease Steering Committee

2005-Present Member, Graduate School Council Advisory Committee

2005-Present Member, Joint Health Sciences Chairs Committee

2005-2009 Member, UAB Research Advisory Group

2005-2007 Member, U24 External Review Board

University of Texas Health Science Center at San Antonio

2004 Member, Molecular Medicine Chair Search Committee
2002- 2005 Member, Presidential Executive Research Committee
2001- 2004 Member, Presidential Distinguished Junior Research Scholar Award Committee
2000-2004 Member, Presidential Distinguished Scholar Award Committee
2000-Present Member, MBRS Advisory Committee, University of Texas at San Antonio
Director: Andrew Martinez
1998-2001 Member, Competitive Research Enhancement Fund Review Committee
1997-2001 Member, Institutional Strategic Research Planning Committee
1996-2000 Member, SACS Accreditation Steering Committee
1996-2000 Member, Facilities Subcommittee of SACS
1996-1998 Chair, Instrumentation Service Committee
1995-1998 Member, Instrumentation Services Committee

E. ADMINISTRATIVE RESPONSIBILITIES

1. DEPARTMENT:

University of Alabama at Birmingham, Institute of Oral Health Research

2005- Present Director

University of Texas Health Science Center at San Antonio

Pediatric Dentistry, University of Texas Health Science Center San Antonio

2004-2005 Interim Chair
1993-Present Director of Research

Center for Craniofacial Molecular Biology, University of Southern California

1993 Space Allocation Survey
1990-1992 Inventory Laboratory Equipment and Antibodies
1990 New Laboratory Facility Health Science Campus
Locks and Security

2. Dental School:

University of Alabama at Birmingham

2005- Present Associate Dean for Research
2005- Present Director, DMD/PhD Program
2007- Present Director, Dental Academic Research Training Program
2007- Present Director, Pre-DART Pipeline Program
2009-Present Faculty Advisor, PreDental Society UAB
2011-Present Director, Global Center for Craniofacial, Oral and Dental Disorders- GC-CODED, Pilot UAB University Wide Research Interdisciplinary Center

University of Texas Health Science Center at San Antonio

2000- 2005 Director, CO \odot STAR Training Program
2000- 2005 Director, D \odot STAR Training Program
1999- 2005 Associate Dean for Research
1994- 2005 Director, NIH/ NIDCR Dental Student Short-Term Training Program

3. STAFF AND PERSONNEL SUPERVISED:

Faculty:

University of Alabama at Birmingham:

Ejvis Lamani, DMD, PhD
Changming Lu, PhD
Dobrawa Napierala, PhD
Peter Jezewski, DDS, PhD
Mohammad Hassan, PhD
Amjad Javed, PhD
Michael Passineau, PhD
Juan Dong, MD, PhD
Heidi Erlandsen, PhD
Anton Borovjagin, PhD
Changchun Ren, PhD

University of Texas Health Science Center at San Antonio-

Shou Chen, M.D., PhD
Juan Dong, M.D., PhD
Xianhong Luan, M.D.
Sheela Rani, Ph.D.
Jian Feng, Ph.D.
Daniel Chan, DMD, DDS

Postdoctoral Fellows:

University of Alabama at Birmingham:

Christina Croney, PhD
Stephen Greene, DDS
Hope Amm, PhD
Changchun Ren, PhD
Michael Passineau, PhD
Isabel Gay, DDS, MS

University of Texas Health Science Center at San Antonio-

Isabel Gay, DDS, MS
Cara Knight Gonzalos, DDS, PhD
Silvana Florescu Papagerakis, MD, Ph.D.
Petros Papagerakis, DMD, Ph.D.
Michael O'Sullivan, DMD, Ph.D.
Juan Dong, MD, Ph.D.
Xianghong Luan, MD, PhD
Praveen Reddy, MB, BS

Graduate Students:

University of Alabama at Birmingham

Stephen Greene
Ejvis Lamani
Mary Beth Wilson
Nathaniel Lawson
Melissa Talbert Roden
Angela Gullard
Will Gray
Lee Rollins

University of Texas Health Science Center at San Antonio-

Ann Dodds, DMD
Cara Knight, DDS
Aaron Unterbrink
Russell Boester, DMD
Lena Arvidson, DDS
Todd Cahoon, DDS
Jessica Ibarra
Nataliya Inozemtseva DDS

University of Southern California-

Steven Yen, DMD, Ph.D.
Laura Nicoletti

Pediatric Dentistry Fellows:

University of Texas Health Science Center at San Antonio-
Leticia Jeffords, DDS, MS

Residents:

University of Alabama at Birmingham

Isabel Gay, DDS, MS
Reem Atout, DDS

University of Texas Health Science Center at San Antonio-

Jian-fu Zhu, DMD, MS
Kelsey Patterson, DDS
Ann Erlenbaugh, DDS
Catherine McKinley, DMD
Lori Santos, DDS
Carrie Muckerheide, DDS

Dental Students:

University of Connecticut

Lakeshia Thomas

University of Alabama at Birmingham

Kyle Feagin
Emily Rousso
Jessica Nix
Emily Ann Latta
My Thi Tran
Kyoungwoo (Tony) Kang
Christina Piazza
Kevin Sandifer
Angela Gullard
Ejvis Lamani
Melissa Talbert
Jenny Whatley
Leanne Zahid
Katie Stidham
Ashley Nemec
Lisa Irish
Kasey Shores

University of Texas Health Science Center at San Antonio-

Michael Chan
Steve Reeves
Jennifer Hoppe
Brian Bozeman
John Wallace
Greg Frei
Jose Alvarez
Gena Little
Christine Chang
Carrie Miklas
Andrew McKenzie
Chris Daniel
Taylor Pratt
Carla Ortiz
Cara Knight
Adam Martin
Sarah Tevis
Nicole Smith
Aaron Unterbrink
Violetta Martinez
Ryan Joutt
Jennifer Burcin
Michelle Salgado
Robert Williamson
Craig Seager
Thomas Bingham
Ashley Strickland
Jessica Ibarra
Nataliya Inozemtseva

Boston University, School of Dentistry

Joanna Ayala- Research

Undergraduate Students:

University of Alabama

Sam Huguley- 2011, 2012 PreDART Program
National Finalist AADR Caulk Dentsply Research Competition
Clinical Research Category

Georgia Institute of Technology

Michael Guzelian 2012- Research Honors (Biol 4699)

University of Montovella

Josh Headley 2012 – Research Honors

Stillman College

Monee Casimir 2011-UAB Summer Research Camp
“Matrix Metalloproteinase Expression in Odontogenic Tumor
Cell Populations”

Tuskegee University

Aneesa Sood 2015- UAB MHRC 2015 Summer Enrichment Program

“Matrix Metalloproteinase Expression in Primary Ameloblastomas”

University of Alabama at Birmingham

Stephen Sheibley-Science and Technology Honors 2014-Present
Arnold Do- Neuroscience Honors 2015-2016
Lauren Cabaniss- Research Honors 2015-2016
Dental Student UAB Class 2020
Morgan MacDougall-School of Business,Capstone Honors 2015
Regions Bank, Management Associate Program
Ambika Srivastava-Research 2014-2015
Dental Student Denver Class 2010
Sarah Potter-Research
Dental Student UAB Class 2018
Dakota Clark-Research Honors
Dental Student UAB Class 2018
Markelle A Smith-Research Honors
Dental Student UAB Class 2015
Emily Ann Latta- Research Honors
Dental Student UAB Class 2015
My Thi Tran- Research Honors
Dental Student UAB Class 2013
Kyoungwoo (Tony) Kang-Research Honors
Dental Student UAB Class 2014
Christina Piazza Research
Dental Student UAB Class 2014
2011 AADR Block Travel Award
Corey Moody-Research Honors
Dental Student Howard University Class 2013
Kevin Sandifer Research Honors
Dental Student UAB Class 2013

University of Texas Health Science Center at San Antonio-

Yiling Chu

Martin Davis
Jose Alvarez
Greg Frei
Christopher Daniel
Vanessa Wellinghoff
Abraham Rafie
Carla Ortiz
Laura Houston
Violetta Martinez
Jessica Ibarra
Ryan Mooney
Joanna Ayala
Ofeila Perez
Gabriel Avalos
Mary Williams
Katie Guest
Martha Valdez

University of Southern California-

Julia Reyna

**High School Students:
Birmingham, Alabama**

Josh Holsey
Morgan A. MacDougall
India Thomas
Breanna Howell

San Antonio, Texas

Gabriel Avalos
Margaret Moerchen
Shannon Henry
Pedro Alamis

Los Angeles, California

Pattie Hsu
Monica Perez
Hein Ta

Research Associates/ Assistants/ Technicians:

University of Alabama at Birmingham

Chanming Lu, PhD
Yixin Wu
Olga Mamaeva, PhD
Jennifer Ames

University of Texas Health Science Center at San Antonio-

Ting Ting Gu
Darrin Simmons
Jason Nydegger
Laura Houston
Jennifer Schulze
Jian Li
Julie Dickson

University of Southern California-

Flavia Thiemann
Benton Yoshida
Alician Davis
Zoltan Katrina

V. OTHER PERTINENT INFORMATION:

1. Workshops:

- | | |
|------|--|
| 2016 | Work Smart: Salary Negotiation and Promotion and Dental Academia
Women's Network
International Association for Dental Research
M. MacDougall , Co-Organizer
American Association for Dental Research Meeting
Los Angeles, Ca |
| 2012 | Junior Faculty Workshop: The Road to Promotion and Tenure
Woman's Network |

- International Association for Dental Research
M. MacDougall, Mentor
 AADR, Tampa, FL, 2012
- 2011 Faculty & Student Education Training August Session
 UAB School of Dentistry Faculty Development
M. MacDougall, Presenter
 The Anatomy of a Case Report
- 2010 Career Opportunities in the Biomedical and Biological Sciences
 Vanderbilt School of Medicine Career Symposium
M. MacDougall, Presenter
 “Professional Skills: Academic Interviewing”
- 2009 Universidad Nacional Autonoma de Mexico
 Challenges to Improve Oral Health in the 21st Century
M. MacDougall, Speaker
 “Avoiding Rejection of Scientific Articles”
- 2009 UAB McCallum Society Annual Meeting
 Oral Maxillofacial Surgery
M. MacDougall, Speaker
 “Genetics and Transcriptional Control of Bone Formation”

2. Workshop Participated In

- 2011-2012 Building Leadership Attributes with Zeal & Excellence-BLAZE Leadership
 Academy
 University of Alabama at Birmingham
- 2008 UAB Advance Symposium
 Advancement of Women in Science and Engineering
 University of Alabama at Birmingham
 Birmingham, Alabama
- 2006 Microarray Profiling the Murine Osteoprogenitor Lineage
 University of Connecticut
 Farmington, CT
- 2005 Symposium for Chief Executive Officers and Chief Elected
 Officers
 American Society of Association Executives
 Chicago, IL
- 1995 Internet & World Wide Web
 Rockhurst College Continuing Education Center
 Marriott River Center
 San Antonio, Texas
- 1995 How to Manage Conflict & Emotional Control
 Leadership Training Series
 Holiday Inn, Riverwalk North
 San Antonio, Texas

- 1994 Improving Academic Leadership
 UTHSC-SA
 San Antonio, Texas
- 1986 Molecular Endocrinology Workshop
 Department of Cell Biology
 Baylor College of Medicine
 Texas Medical Center, Houston, Texas
- 1983 Electrofocusing and Electrophoresis Seminar
 LKB, Glendale, California