Joel Solomon Gaikwad, Ph.D
Oral Roberts University,
Chair and Professor of Biology
Department of Biology and Chemistry

Education	**Institution**	**Degree**
2010-present	ORAL ROBERTS UNIVERSITY	M.Div
1990	Indian Institute of Science, India	Ph.D., Biochemistry.
1983	Poona University, India	M. S., Microbiology
1983	Poona University, India	M. S., Microbiology
1981	Poona University, India	B.S., Science

Professional Training

2003- Present	Professor (Tenured, 2014)	Dept. of Biology & Chemistry Oral Roberts University
2000- 2003	Associate Faculty	Dept. of Orthodontics Dental Branch, Houston,TX
1997-2000	Post-Doctoral Fellow, University of Texas,	Dept. of Orthodontics Dental Branch, Houston,TX
1995-1997	Research Associate, University of Texas, M.D. Anderson Cancer Center, Houston	Dept. of Bioimmunotherapy
1994-1995	Post-Doctoral Fellow, University of Texas Medical School, Houston	Dept. of Neuro&Anatomy
1991-1994	Post-Doctoral Fellow, La Jolla Inst Allergy	Dept. of Molecular Biology &Immunology, San Diego, CA

Awards and honors:

2016	Recognition award 2016: Excellence and Leadership Award, International Center, ORU
2016	Alumni Faculty Excellence in Research Award
2011	Outstanding faculty of the year for Department of Biology/Chemistry
2011	Outstanding faculty of the year for College of Science & Engineering
2011	Nominated, Outstanding faculty of the year for the University

2010	Nominated, Scholar of the Year
2009	Alumni Faculty Excellence in Research Award
2009	Outstanding faculty of the year for Department of Biology
2007	Beta Beta Beta Biology Society Mentored Research Award for Kathryn Klump (Mentor)
2007	Outstanding faculty of the year for Department of Biology
2006	Dean's Award, Innovation in Teaching, Honorable mention
1983	Indian Institute of Science Fellowship Award
1971	Hindustan Pencils Outstanding Student Award

Grants

2016	Presidents Research Fund, ORU
2014	TABERC research grant
2015	TABERC research grant
2016	TABERC research grant
2010	NIH, INBRE summer research award
2009	NIH, INBRE summer research award
2005	ORU Intramural Research Award
2001	American Association of Orthodontic Association Research Award

Undergraduate Research: Students Mentored at ORU

2016-present	Trevor Torgerson
2016-present	Hunter Myer
2016-present	Mandy Mallino
2016-present	Khina Subedi
2015-2016	Joanna Oduro
2015-2016	Lauren Hass
2015-2016	Kaily Cox (OUTSTANDING STUDENT OF THE YEAR (UNIVERSITY), 2016
2015-2016	Whitney Cook
2014-2015	Shannon McBeath
2012-2014	Sanaj Ebrahimi
2012-2014	Aiden Huene
2012-2014	David Murray
2009-2011	Afflu Dereck (OUTSTANDING STUDENT OF THE YEAR, (Bio/Che), 2011
2009-2011	David Bulger (OUTSTANDING STUDENT OF THE YEAR, (University), 2011
2009-2011	Vamsi Guda (First Place winner at OAS meeting, 2010)
2009-2011	Carolina Rodriguez
2009-2011	Kathlene Ahles
2009-2011	Jason Holland
2009-2011	Philipa Osafa-Ampadu
2008-2009	Stephanie Lawrence
2008-2009	Mitch Zietz

2008-2009	Davie Henry
2008-2009	Sompa Ottabil (Frank G Brook Award, National Tribeta Biological Hon Society, 2009)
2008-2009	Moselle Starke (OUTSTANDING STUDENT OF THE YEAR, (Biology), 2009)
2007-2008	DeLozier Chris
2007-2008	Raber Benjamin
2007-2008	Emami Justin
2007-2008	Nanney Gina
2006-2008	Klump Katherine (OUTSTANDING SENIOR PAPER, 2008)
2006-2007	Ebuka Okafor
2005-2006	Butron William (OUTSTANDING SENIOR PAPER, 2006)
2003-2004	Brett Herzog (OUTSTANDING STUDENT OF THE YEAR, (University), 2004

Courses taught

BIO 111 Introduction to Biology Lab

BIO 212 Principles of Microbiology (Nursing)

BIO 310 Microbiology (Premed)

BIO 370 Methods in Biotechnology (Course Coordinator)

BIO 411 Molecular and Cellular Biology

BIO 457 Immunology

BIO 454 Clinical case studies in Biochemistry

Intermittent courses

BIO 453 Medical Microbiology and Cancer Biology

Guest speaker

International Student Center, ORU: Keys to be a successful student

International Student Center, ORU: Power of Vision

The University of Oklahoma, Tulsa: Microbiology: Food Borne Infectious Diseases

HONR 102 Philosophy of Science: Molecular Basis of Apoptosis

HONR 303 Science and Imagination: Designer Babies

GTHE Christian Bioethics: Reproductive Technology

GTHE Christian Bioethics: Recombinant DNA Biotechnology

ORU Ed Talk: Natural Compounds as Anticancer therapeutics.

Service to ORU

Curriculum Committee 2005-2007

Chair, Curriculum Committee 2007-2010

Vice President, Science and Engineering 2008-2009

President, Science and Engineering 2009-2010

Advisor, Beta Beta Beta Honor Society

Advisor, MAPS (Minority Association for Prehealth Students), ORU Chapter

General Education Program Review Committee

Worked on ORU-TCC articulation agreement for Biotechnology

COSE, treasurer: 2014- present

Internal Review Board Member for Intramural Grants: 2015-2016

Community service

Founding Board Member, Tulsa Area Bioscience Education Research Consortium (TABERC)

Reviewer, National Grants Canada: Complementary & Alternative Health Care Research Program.2002-present

Reviewer, BIOS 2008-present

Regional Coordinator, Oklahoma Junior Academy of Science. 2005-2010

Vice Chair Oklahoma Academy of Science, Microbiology 2011- 2012

Chair Oklahoma Academy of Science, Microbiology 2012- 2013

Research interest

1. The biological basis of natural compounds inducing cell death in Colon, Breast and Blood cancer cell lines.
2. Biofilms
3. Microbiome
4. Evaluating the effect of novel compounds for antimicrobial and antifungal activity
5. Studying the prevalence of MRSA in local health care facilities and evaluating the bactericidal effect of various natural compounds on MRSA.
6. The genetic basis of tooth agenesis.
7. The role of cystatins in oral cancer metastasis (In collaboration with Dr. Nadarajah Vigneswaran, UTHSC, Houston)
8. The role of CD147 in oral premalignancy progression (In collaboration with Dr. Nadarajah Vigneswaran, UTHSC, Houston).
9. Cortisol and PTSD
10. Epigenetic gene regulation in bacteria

Professional Organizations

2008-Present	American Society for Microbiology
2004-Present	Tri Beta Society
2004-Present	Oklahoma Academy of Science

1997-2003	International and American Association for Dental Research
1997-2003	Mineralized Tissue Group
1995-1996	American Society of Biochemistry and Molecular Biology
1995-1996	American Society for Cell Biology

Publications/Presentations

CARVACROL INDUCED CELL DEATH IN HUMAN COLON CANCER CELL LINE (HT29)
Joel Gaikwad and Kathryn Clump . Cancer as an Evolving Disease, Memorial Sloan Kettering Center, New York, Mar 2016

Presented paper at an International Conference ICAAC, American Society of Microbiology, Washington, DC 2015: Antibacterial Activity of Carvacrol. Vamsi Guda and Gaikwad Joel

Presented a paper "Modulation Of Cell Death And Signaling Pathways By Carvacrol" at the 86th Annual AAAs SWARM meeting, April 3, 2012 at Univ. of Tulsa, OK

Presented a paper "The Modulation of Cell Death and Extracellular Signalling Pathways by Carvacrol in HT29 Cells". Joel S. Gaikwad, Kathryn Klump, Mark Coggeshal, Kent Teague OAS 98 Technical Meeting, 2010

Journal of Immunology (2015): IL-18 acts in synergy with IL-7 to promote ex vivo expansion of T lymphoid progenitor cells. Siva K. Gandhapudi, Chibing Tan, Julie H. Marino, Ashlee A. Taylor, Christopher C. Pack, Joel Gaikwad, C. Justin Van De Wiele, Jonathan D. Wren, and T. Kent Teague

Proceedings of Oklahoma Academy of Science, 2015. Comparison of antibiotic susceptibility patterns between Serratia marcescens strain isolated in 1920 versus 2008. Afflu Derek and Joel Gaikwad.

Proceedings of Oklahoma Academy of Science, 2015. Detection of Panton-Valentine Leukocidin (PVL) Genes within CA-MRSA Carriers of the Oral Roberts University Community. Philipa Osafo-Ampadu and Joel Gaikwad.

Reviewer for a paper: Morphological and Molecular Characterization of Pomegranate Fruit Rot Pathogen, Chaetomella raphigera, and its Virulence Factors. Indian Journal of Microbiology. 2015

Reviewer for book chapters Ebola: An emerging infectious disease case study. Jones and Bartlett. 2015

Vamsi Guda and Joel Gaikwad. Antibacterial activity of carvacrol against select nosocomial infections (In Preparation)

Butron William and Gaikwad Joel. An in vitro Analysis of the Efficacy of Selected Bar Soaps as Antibacterial Agents. BIOS 80(2): 66-75, 2009

Aberg T, Cavender A, Gaikwad J, Bronckers AL, Wnag X, Wlatimo-Siren J, Thesleff I, D'Souza RN. Phenotypic changes in dentition of Runx2 homozygote-null mutant mice. J Histochem Cytochem 52(1):131-9, 2004. Erratum in: J Histochem Cytochem. 52(6):841, 2004.

Hoffmann M, Gaikwad J, Schmalz G, cavender A, D'Souza R. Analysis of odontoblast gene expression using a novel approach, laser capture microdissection. Connect Tissue Res. 43(2-3):376-80, 2002

Bronckers AL., Engelse MA., Cavender A., Gaikwad J., D'Souza R. Cell-specific patterns of Cbfa1 mRNA and protein expression in postnatal murine dental tissues. Mech Dev. 101(1-2):255-8, 2001.

Analysis of odontoblast gene expression using a novel approach- laser capture microdisection. Mathias Hoffman, Joel Gaikwad, Gottfried Schmalz, Adriana Cavender, Rena D'Souza. Dent Res 2001 Nov 80: 1963-7
Gene expression in a pure population of odontoblasts isolated by laser-capture microdissection. Mathias Hoffman, Joel Gaikwad, Adriana Cavender, Rena D'Souza. Mech Dev 2001 Mar 101:255-8

Gaikwad J, and D'Souza R. Identification of downstream targets of Runx2/Cbfa1. Gene 279(1):91-97, 2001.

D'Souza R., Aberg T., Gaikwad J., Cavender A., Owen M., Karsenty G., and Thesleff I. Cbfa1 is required for epithelial-mesenchymal interactions regulating tooth development in mice. Development 126: 2911- 2920, 1999.

Gaikwad J., Kapadia H., Cavender A., MacDougall M., and D'Souza R. Global expression pattern of Dentin matrix protein-1 during murine development. Biological Mechanisms of tooth eruption, resorption, replacement by implants. Eds. Z Davidovich and J Mah, p 17-21, 1998.

Gaikwad J., and Fotedar A.Cloning of a TCRβ enhancer binding protein:YB-1.Gene, 204: 79-83, 1997.

Gaikwad J., and Maheshwari R. Localization and release of ß-glucosidase in the thermophilic and cellulolytic fungus, Sporotrichum thermophile.Experimental Mycology, *18*: 300-310, 1994.

Bhat K. M., Gaikwad J., and Maheshwari R. Purification and characterization of an extracellular ß glucosidase from the thermophilic fungus, Sporotrichum thermophile and its influence on cellulase activity. Journal of General Microbiology, *139*: 2825-2832, 1993.

Messier H., Brickner H., Gaikwad J., and Fotedar A. A novel POU protein, TCFβ1 binds to the TCRβ enhancer. Molecular and Cellular Biology, 13: 5450-5460, 1993.

Messier H., Fuller T., Mangal S., Brickner H., Gaikwad J., and Fotedar A .The p-70 antigen binds to the TCR β enhancer. Proc. Natl. Acad. Sci. USA, *90*: 2685-2689, 1993.

Book chapter editing

Kuby Immunology: Allergy and Hypersensitivities.

Abstracts and Symposia

Joel Gaikwad, Julie Marino, Kent Teague.Modulation of Cell Death by Carvacrol on Tumor and Primary Cells. Proceedings of OAS, 2012

Nadarajah Vigneswaran and Gaikwad Joel. The role of CD147 in oral al premalignancy progression. 14th International Congress, International Association of Oral Pathologists, June 22-26, 2008

Klump Kathryn and Gaikwad Joel. Carvacrol Induced Apoptosis in Human Carcinoma Cell lines. Proc.Okla. Acad. Sci.87: 116 (2007)

Butron William and Gaikwad Joel. An In vitro Analysis of the Efficacy of Selected Bar Soaps as Antibacterial Agents. Oklahoma Academy of Sciences Technical Meeting Fall 2006.

Gaikwad J., Hanks C., Bronckers A., and D'Souza R. Role of Cbfa1 in odontoblast differentiation. Journal of Dental Research, 2000.

Gaikwad J., Velasquez J., Bronckers A., and D'Souza R. Cbfa1's profile of expression in developing and mature peridontium. Journal of Dental Research, 2000.

D'Souza R., Aberg T., Gaikwad J., Nogueira T., Cavender A., and Thesleff I. The role of Cbfa1 in the fate of odontogenic mesenchyme. Journal of Dental Research, 2000.

Gaikwad J., Kapadia H., Cavender A., Luan X., MacDougall M., and D'Souza R. Global expression patterns of Dentin matrix protein-1 in murine development. Journal of Dental Research.77:157 (413), 1998.

D'Souza R., Gaikwad J., Cavender A., Aberg T., Karsenty G, and Theseleff I. Patterns of expression of Cbfa1 in murine odnotogenesis. Journal of Dental Research 77:157 (379), 1998.

Asgari S., Gaikwad J., Cavender A., Thseleff I., and D'Souza R. Studies on a model of cleidocranial dysplasia. Hinman Student Research Symposium, October 1998.

Kapadia H., Gaikwad J., Cavender A., MacDougall M., Fisher L, and D'Souza R. Global expression patterns of Dentin matrix protein-1 in murine development. Hinman Student Research Symposium, October, 1998.

D'Souza R., Aberg T., Gaikwad J., Cavender A., Karsenty G, and Theseleff I. Role of Osf2/ Cbfa1 in the development of murine dentition. ASMB Fall Symposium, October, 1998.

Larson D., Gaikwad J., Cavender A., Aberg T., Theseleff I., and D'Souza R. Studies on a mouse model for cleidocranial dysplasia. 98th Annual Session of the American Association of Orthodontics, May, 1998.

D'Souza R., Aberg T., Gaikwad J., Cavender A., Owen M., Karsenty G., and Thesleff I. Osf2/Cbfa1 is required for epithelial-mesenchymal interactions regulating tooth morphogenesis in mice. NIDCR International Symposium, NIH, November, 1998.

Gaikwad J., Brickner H., Mangal S., Fuller T., Igarishi S., Fitzgerald P., Flatt J., and Fotedar A. The p-70 auto antigen binds to the TCR ß enhancer. 8th International Congress of Immunology, Hungary, Aug.1992.

Messier H., Brickner H., Gaikwad J., Mangal S., Fitzgerald P., Flatt J., and Fotedar A. A novel POU protein TCFb1 binds to the TCRb enhancer . 8th International Congress of Immunology, Hungary, Aug. 1992.

References

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