

Joni H. Ylostalo, Ph.D., M.Sc.

Associate Professor of Biology (tenured)
Chair, Department of Biology

CONTACT

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EDUCATION AND TRAINING

2012	Postdoctoral	Regenerative Medicine	Texas A&M HSC, Temple, TX
2008	Ph.D.	Biomedical Sciences	Tulane University, New Orleans, LA
2004	M.S.	Biochemistry (Biotechnology and Molecular Biology)	University of Oulu, Oulu, Finland
2000	B.S.	Biochemistry	University of Oulu, Oulu, Finland

OBJECTIVE

To prepare students for leadership, service, and faith-informed discernment in a global society while serving the Department, School, College, University, and the greater community in a Christian manner.

EMPLOYMENT

2023 – Present *Chair*, Department of Biology, University of Mary Hardin-Baylor, Belton, TX
2023 – Present *Bioinformatics Program Coordinator*, Department of Biology, University of Mary Hardin-Baylor, Belton, TX
2020 – Present *Associate Professor*, Department of Biology, University of Mary Hardin-Baylor, Belton, TX
2015 – 2020 *Assistant Professor*, Department of Biology, University of Mary Hardin-Baylor, Belton, TX
2014 – 2015 *Visiting Assistant Professor*, Department of Biology, University of Mary Hardin-Baylor, Belton, TX
Spring 2014 *Adjunct Instructor*, Department of Biology, University of Mary Hardin-Baylor, Belton, TX
2012 – 2014 *Instructor*, Institute for Regenerative Medicine, Texas A&M Health Science Center at Scott & White, Temple, TX
2008 – 2014 *Microarray Core Supervisor*, Institute for Regenerative Medicine, Texas A&M Health Science Center at Scott & White, Temple, TX
2008 – 2012 *Senior Research Associate*, Institute for Regenerative Medicine, Texas A&M Health Science Center at Scott & White, Temple, TX
Spring 2008 *Postdoctoral Fellow*, Center for Gene Therapy, Tulane University Health Sciences Center, New Orleans, LA
2003 – 2008 *Medical Research Specialist*, Center for Gene Therapy, Tulane University Health Sciences Center, New Orleans, LA
2000 – 2003 *Medical Research Technician*, Center for Gene Therapy, Tulane University Health Sciences Center, New Orleans, LA
Spring 2000 *Research Associate*, Department of Medical Biochemistry, University of Oulu, Oulu, Finland

TEACHING/TRAINING

Department of Biology, University of Mary Hardin-Baylor, 2014 – Present.

- Microbiology lecture (BIOL2380) and laboratory (BIOL2180)
- Online Microbiology lecture (BIOL2380) and laboratory (BIOL2180)
- Immunology lecture (BIOL3340)
- Biomolecules, Genes, and Cells lecture (BIOL1350)
- Biomolecules, Genes, and Cells laboratory (BIOL1150)
- Regenerative Medicine lecture (BIOL4365)
- Biological Research laboratory (BIOL4193 and BIOL3193)
- Exploring the Invisible lecture (BIOL1365) and laboratory (BIOL1165)

- Survey of Biological Research lecture (BIOL4180)
- Research Methods laboratory (BIOL2171)
- Independent Learning (BIOL4390)
- Freshman Seminar lecture (UMHB1101)
- Human Anatomy & Physiology I lecture (BIOL2340) and laboratory (BIOL2140)
- Human Anatomy & Physiology II lecture (BIOL2441) and laboratory (BIOL2141)
- Undergraduate research student training and supervision
- Student teaching assistant training and supervision in the Microbiology laboratory
- Laboratory preparatory personnel training and supervision in the Microbiology laboratory

Department of Chemistry, University of Mary Hardin-Baylor, 2017 – 2018

- Chemistry and Society lecture and laboratory (CHEM1400)

Institute for Regenerative Medicine, Texas A&M Health Science Center, 2008 – 2014

- Supervision and instruction of an Undergraduate Student in the field of Regenerative Medicine and Immunology, Institute for Regenerative Medicine, Texas A&M Health Science Center at Scott & White, 2012
- Guest lecturer “Stem Cells and Tissue Regeneration”, Texas Bioscience Institute, Temple College, 2009
- Guest lecturer “Stem Cells and Tissue Regeneration”, Belton High-School, Belton Independent School District, 2009
- Supervision and instruction of Graduate Students in the field of Stem Cell Biology and Immunology, Institute for Regenerative Medicine, Texas A&M Health Science Center at Scott & White, 2009 – 2014
- Supervision and instruction of a Laboratory Technician in the field of Stem Cell Biology and Immunology, Institute for Regenerative Medicine, Texas A&M Health Science Center at Scott & White, 2009 – 2014

Center for Gene Therapy, Tulane University Health Sciences Center, 2000 – 2008

- Guest lecturer “Microarrays: Theory and Uses”, Genetics and Human Health (SPHU202), Undergraduate Public Health Program, Tulane University, 2007
- Supervision and instruction of a High School Student in the field of Stem Cell Biology, Center for Gene Therapy, Tulane University Health Sciences Center, 2007
- Guest lecturer “Malaria Microarray Studies”, Malaria (TRMD782), Graduate Program in Tropical Medicine, Tulane University, 2003 – 2008
- Supervision and instruction of Graduate Students in the field of Protein Biochemistry and Stem Cell Biology, Center for Gene Therapy, Tulane University Health Sciences Center, 2003 – 2008
- Supervision and instruction of a Laboratory Technician in the field of Protein Biochemistry, Center for Gene Therapy, Tulane University Health Sciences Center, 2002 – 2006
- Supervision and instruction of Foreign Undergraduate Students in the field of Protein Biochemistry, Center for Gene Therapy, Tulane University Health Sciences Center, 2002 – 2004

UNIVERSITY SERVICE

Department of Biology, University of Mary Hardin-Baylor, 2014 – Present

- Chair, Department of Biology, 2023 – Present
- Bioinformatics Program Coordinator, 2023 – Present
- Faculty Council President, 2023 – Present
- Campus Master Planning Committee, 2022 – Present
- Credo Advising Committee, 2023 – Present
- Faculty Council President-Elect, 2022 – 2023
- Promotion and Tenure Committee, 2021 – 2023
- College of Humanities and Sciences Reading groups, 2021 – Present
- Biology Faculty Search Committee Chair, 2021 – 2022
- Vocare Seminar, 2021
- CELT Reading Seminar, 2021
- Christian Planning University Committee Chair, 2020 – 2021
- Vocare Faculty Training and Retreat, 2020, 2022
- Faculty Council Representative, 2020 – 2022.
- UMHB Research Committee, 2019 – Present
- Faculty Search Committee: Nursing (3 positions), 2019 – 2021

- Christian Planning University Committee member 2018 – 2020
- Student Success Collaborative, Analytics Team member 2018 – 2021
- Faculty Search Committee: Biology (2 positions), 2018 – 2019
- Faculty Search Committee: Dean of School of Nursing, 2018 – 2019
- First Faculty (freshman seminar teaching and advising), 2017 – Present
- School of Natural Sciences Pedagogy Innovations Committee co-chair 2017 – Present
- Tri Beta Biology Honor Society Faculty Member, 2017 – Present
- Presenter in the Lunch & Learn faculty education sessions, 2017 – 2018
- Faculty Search Committee: Organic Chemistry, 2017 – 2018
- Liaison between the School of Natural Sciences and the Career Center (Partnership: Next), 2016 – Present
- UMHB Blog writer, 2016 – Present
- UMHB Football, Soccer, and Volleyball recruit advising, 2016 – Present
- Academic Leadership Seminar participant (VOCARE), 2016 – Present
- UMHB Move-In Day volunteer, 2016 – Present
- Educational Technology University Committee co-chair, 2016 – 2018
- Honors Project Sponsor (6 students), 2016 – Present
- Educational Technology University Committee member, 2015 – 2018
- Pre-Health Professionals student organization faculty sponsor, 2015 – Present
- Pre-medical, pre-clinical lab sciences, pre-pharmacy, and graduate school biology advisor, 2015 – Present
- Transfer advisor, 2015 – Present
- Departmental Student Learning Outcome (SLO) #6 organizer and analyzer, 2015 – Present
- Organizer of the Biological Research Lecture Series, 2015 – Present
- In charge of the Microbiology lecture and laboratory teaching curriculum, 2015 – Present
- University of Mary Hardin-Baylor representative in the Baylor Scott & White Clinical Laboratory Science Advisory Committee. 2014 – 2017
- CELT session participant, 2014 – Present
- Finals Week Pancake Supper volunteer, 2014 – Present
- Biology Department Lab Safety and Skills Test proctoring (LSSP), 2014 – Present
- Health Professions Advisory Council member, 2014 – Present
- Science Saturday Volunteer, 2014 – Present
- Mission Week participant and speaker host in classroom, 2014 – Present
- Preview Week Departmental representative and student host in classroom 2014 – Present

Institute for Regenerative Medicine, Texas A&M Health Science Center, 2008 – 2014

- Oral session judge, Texas A&M Student Research Week, 2014
- Main presenter and organizer of the departmental morning meetings in the Stem Cell and Regenerative Medicine field. Institute for Regenerative Medicine, Texas A&M Health Science Center at Scott & White, 2012 – 2014
- Poster session judge, 18th Annual Graduate Student Organization Symposium, Texas A&M Health Science Center College of Medicine, 2012
- Guide and presenter during Scott & White Open House, Institute for Regenerative Medicine, Texas A&M Health Science Center at Scott & White, 2009

Center for Gene Therapy, Tulane University Health Sciences Center, 2000 – 2008

- PhD Committee member: James M Colborn, Graduate Program in Tropical Medicine, Tulane University, 2005 – 2006
- Guide and presenter during politician and grantor visits, Center for Gene Therapy, Tulane University Health Sciences Center, 2001 – 2007

PROFESSIONAL ORGANIZATION WORK

- Texas Academy of Science (TAS) Section Chair – Biomedical Sciences, 2018 – Present
- Texas Academy of Science (TAS) Biomedical Sciences Poster and Oral presentation judge, 2018 – Present
- Texas Academy of Science (TAS) Annual Meeting 2017 Steering Committee member
- Texas Academy of Science (TAS) Annual Meeting 2017 Section Chair (substitute) – Biomedical Sciences
- Texas Branch of the American Society for Microbiology (TX-ASM) Session Chair – Education, 2021

- Texas Branch of the American Society for Microbiology (TX-ASM) student poster presentation judge, 2017 – Present

COMMUNITY AND CHURCH ACTIVITIES

- Home Group Leader and Host, Belton, TX, 2022 – Present
- Renewal Church Finance Team Director, Belton, TX, 2019 – 2022
- Renewal Church A/V Manager, Renewal Church, Belton, TX, 2019 – 2022
- First Baptist Belton Ordained Deacon, Belton, TX, 2019 – Present
- Renewal Church Home Group leader, Renewal Church, Belton, TX, 2018 – 2022
- Renewal Church Launch Team leadership (church plant), First Baptist Church, Belton, TX, 2018 – 2019
- Small Group Bible Study (Sunday School) teacher, First Baptist Church, Belton, TX, 2015 – 2019
- Awana Bible Club leadership, First Baptist Church, Belton, TX, 2015 – 2018.
- Small Group Bible Study Connect Group Leader, First Baptist Church, Belton, TX, 2013 – 2016.
- Invited speaker at the Career Day “Careers in Science”, Sparta Elementary, Belton Independent School District, Belton, TX, 2013 – 2015
- Texas State licensed foster parent through Circles of Care, 2012 – 2015.
- Small Group Bible Study Care Group Leader, First Baptist Church, Belton, TX, 2011 – 2012.
- Invited speaker at the Career Day “Careers in Science”, Jefferson Elementary, Temple Independent School District, Temple, TX, 2011 – 2012
- Presenter for Belton High-School science teachers during Teacher Training Day, Institute for Regenerative Medicine, Texas A&M Health Science Center at Scott & White, Temple, TX, 2011
- Soccer Coach, Belton Christian Youth Center, Belton, TX, 2010.
- Hurricane Katrina evacuee housing, River Ridge, LA, 2005.
- Baptist Student Union Beach Reach Mission Trip, Panama City, FL, 1998.
- Linnanmaa International Bible Study Leader, Oulu, Finland, 1998 - 2000.
- Opiskelija ja Koululaislahetys (Christian Student Organization) Board Member, 1998 - 1999.
- Door to door evangelism at University of Oulu campus, Oulu, Finland, 1996 - 1997.
- YMCA Camp Crosley Camp Counselor, North Webster, IN, 1996 - 1997.

MANUSCRIPT REVIEWER (Ad hoc)

- Annals of Translational Medicine
- Applied Sciences
- Archives of Current Research International
- Asian Journal of Research and Reports in Ophthalmology
- Biomedical Engineering and Computational Biology
- Biomedicines
- BioMed Research International
- Biomolecules
- Biotechnology Journal
- BMC Cancer
- Cancers
- Cell and Tissue Research
- Cell Motility and the Cytoskeleton
- Cells
- Cellular Signaling
- Clinical and Translational Medicine
- Encyclopedia of Molecular Cell Biology and Molecular Medicine
- Frontiers in Immunology
- Gels
- International Blood Research & Reviews
- International Journal of Molecular Sciences
- International Journal of Nanomedicine
- Investigational New Drugs
- Journal of Advances in Biology & Biotechnology
- Journal of Pharmaceutical Research International
- Journal of Research in Science Teaching

- Journal of Tissue Engineering
- Mediators of Inflammation
- Microorganisms
- Molecular Therapy – Methods & Clinical Development
- Naunyn Schmiedeberg’s Archives in Pharmacology
- Oxidative Medicine and Cellular Longevity
- Proceedings of the National Academy of Sciences of the United States of America
- Reviews on Recent Clinical Trials
- Scientific Pages of Gastroenterology
- Scientific Reports
- Stem Cell Research and Therapy
- Stem Cells
- Stem Cells International
- The Scientific Pages of Gastroenterology
- Tissue Engineering
- Translational Research

EDITORIAL WORK

- Biomedical Informatics
- Cells (including 3 special issues)
- Insights in Stem Cells
- Journal of Stem Cell and Developmental Biology
- Journal of Systems Biology and Proteome Research
- Stem Cells International

AWARDS

- 2013 Podium Presentation Award (1st place), 1st Annual Scott & White Research Days, Scott & White, Temple, TX
- 2012 Postdoctoral Fellow Poster Competition (2nd place), 17th Annual College of Medicine Graduate Student Organization Research Symposium, Texas A&M Health Science Center, Bryan, TX
- 2005 Senior Vice-President for Health Sciences Award for Excellence in Research and Presentation by a Graduate Student (1st place), 17th Annual Tulane Health Sciences Research Day, New Orleans, LA
- 1997 Fully funded International Student Exchange Program (ISEP) position to study abroad (Spent 1 year at Indiana State University), University of Oulu, Oulu, Finland

GRANT AWARDS

- UMHB Summer Research Grant 2018, 2020, 2023
- UMHB Faculty Development Grant 2018, 2022

GRANT/RESEARCH REVIEWS (Ad hoc)

- Scott & White Research Mentorship Award Program (RMA) reviewer, 2013 – 2014
- ECRI Institute draft reviewer for US Agency for Health Care Research and Quality’s (AHRQ) Healthcare Horizon Scanning System (HHSS), 2011 – 2014, 2019 – Present

PATENTS

- Spheroidal Aggregates of Mesenchymal Stem Cells, US20120219572, Issued August 30th 2012.
- Use of the Anti-Apoptotic/Anti-ROS Protein STC-1 to Treat Myocardial Infarctions, Pending.
- A Trojan Horse Strategy for Using Adult Stem Cells to Kill Cancer Cells, Pending.

RESEARCH EXPERIENCE

Faculty Research (with undergraduate students): Department of Biology, University of Mary Hardin-Baylor, 2014 – Present

- Antibacterial effects of essential oils and antibiotics in combination.
- Pedagogy research – writing teaching case studies.
- Continuation of the adult mesenchymal stem/stromal cell (MSC) research in collaboration with Texas A&M Health Science Center

- Bioinformatics research in heart development, MSC biology, Leishmaniasis, breast cancer, Alzheimer's disease, ADHD, ischemia injury
- Microbial contaminants at UMHB campus
- Microbial contaminants in raw meat
- Probiotic effects of yogurts
- Antimicrobial effects of various disinfectants
- Effect of various acne medications on microbial growth
- Anti-bacterial effects of essential oils and honey and their preparations
- Effects of reactive oxygen species and antioxidants in planaria regeneration
- Antibacterial effects of various antibiotic ointments
- Low-cost water purification techniques for lake/river water

Faculty Research (with graduate and undergraduate students and postdoctoral fellows): Institute for Regenerative Medicine, Texas A&M Health Science Center, 2012 – 2014.

- Study the adult mesenchymal stem/stromal cell (MSC) sphere-formation as a pre-activation method for translational research
- Research for the key pathways involved in the activation process of MSCs in 3D cultures
- Determine the activation mechanism of enhanced anti-inflammatory, immunomodulatory, and anti-cancer molecule expression in MSC spheres
- Determine the activation status of MSC spheres during extended culture expansion and cryostorage
- Define the optimal xeno-free 3D culture conditions for activation of MSCs for therapies
- Study the interactions between endogenous immune cells and MSCs injected into the peritoneum of mice
- Design and execute microarray experiments for collaborators and customers of a microarray core facility
- Perform microarray data analysis for collaborative projects

Postdoctoral Research (with graduate and undergraduate students): Institute for Regenerative Medicine, Texas A&M Health Sciences Center, 2008 – 2012.

- Study the aggregation process of MSCs into spheres/spheroids in hanging drops
- Study the basic characteristics of the MSCs in spheres
- Research for novel and enhanced properties of MSCs in spheres
- Study the enhanced anti-inflammatory properties of MSC spheres both *in vitro* and *in vivo*
- Study the anti-inflammatory effects of MSC spheres on stimulated macrophages
- Design and execute microarray experiments for collaborators and customers of a microarray core facility
- Perform microarray data analysis for collaborative projects

Doctoral Research (with undergraduate students): Center for Gene Therapy, Tulane University Health Sciences Center, 2004 – 2008.

- Transcriptome studies of MSCs during differentiation into chondrocytes, adipocytes, and osteoblasts
- Development of a microarray-based approach for detecting co-regulated genes and identifying new target genes for transcription factors using MSC cultures
- Transcriptome studies of MSCs during culture expansion and further passaging
- Functional and transcriptome analysis of single cell-derived colonies of MSCs
- Parasitology gene-expression studies with samples from non-human primates and patients with malaria
- Perform microarray data analysis for collaborators and customers

Masters Research (with undergraduate students): Center for Gene Therapy, Tulane University Health Sciences Center, 2000 – 2004.

- Cloning, expression, and purification of various mutant forms of collagen IX
- Structural and functional studies of wild-type and two disease causing mutant forms of collagen IX
- Study of collagen IX chain selection and domain organization for triple helix formation
- Supply collaborators with various forms of purified recombinant collagen IX

PUBLICATIONS

Doctoral Thesis:

Dynamic changes in the transcriptome of human adult stem/progenitor cells from bone marrow stroma (MSCs) during *in vitro* differentiation and expansion. Graduate Program in Biomedical Sciences, Tulane University, New Orleans, LA (2008).

Masters Thesis:

Tools for studying collagen IX chain association, triple helix formation, and domain functions. Department of Biochemistry, University of Oulu, Oulu, Finland (2003).

Books and book chapters:

Ylostalo JH & Durand NC. Enhancing Mesenchymal Stem Cells (MSCs) for Therapeutic Purposes. *Cells*. 2022. ISBN 978-30365-4996-5.

Ylostalo JH. 3D Stem cell culture. *Cells*. 2021. ISBN 978-3-03943-803-7.

Bartosh TJ & **Ylostalo JH**. Preparation of anti-inflammatory mesenchymal stem/precursor cells (MSCs) through sphere formation using hanging-drop culture technique. *Current Protocols in Stem Cell Biology*. 28:2B.6.1-2B.6.23, 2014. PMID: 24510769.

Ylostalo JH & Bartosh TJ. Mesenchymal stem cells characteristics, niches and applications for cell therapy. *Encyclopedia of Molecular Cell Biology and Molecular Medicine: Stem Cells, from Biology to Therapy*. 2: 429-70, 2013.

Ylostalo J, Pochampally R & Prockop DJ. Assays of MSCs with microarrays. *Methods in Molecular Biology*. 449: 133-51, 2008. PMID: 18370089.

Editorials:

Ylostalo J. 3D Stem Cell Culture. *Cells*. Sep 27;9(10), 2020. PMID: 32992579.

Mzayek F, **Ylostalo J** & Krogstad DJ. Apoptosis of endothelial cells in bacterial sepsis and severe *Plasmodium falciparum* malaria: do we know enough to consider clinical trials? *Crit Care Med*. 36(9): 2690-92, 2008. PMID: 18728485.

Articles:

Nerber H, **Ylostalo JH** & Bartosh TJ. The importance of tumor microenvironment on cancer cell cannibalism: benefits of the 3D culture system. Submitted.

Garrett A & **Ylostalo JH**. Can stem cells bring magic to medicine? Published in NCCSTS Case Collection, 2023.

Bartosh TJ & **Ylostalo JH**. Efficacy of 3D culture priming is maintained in human mesenchymal stem cells after extensive expansion of the cells. *Cells*. Sep 5;8(9), 2019. PMID: 31491901.

Ylostalo JH. Engaging students into their own learning of foundational genetics concepts through the 5E learning cycle and interleaving teaching techniques. *J Bio Educ*, 2019. DOI: 10.1080/00219266.2019.1620311.

Ylostalo JH, Bazhanov N, Mohammadipoor A & Bartosh TJ. Production and administration of therapeutic mesenchymal stem/stromal cell (MSC) spheroids primed in 3-D cultures under xeno-free conditions. *J Vis Exp*. Mar 18;(121), 2017. PMID: 28362380.

Clough BH, **Ylostalo J**, Browder E, McNeill EP, Bartosh TJ, Rawis HR, Nakamoto T & Gregory CA. Theobromine upregulates osteogenesis by human mesenchymal stem cells *in vitro* and accelerates bone development in rats. *Calcif Tissue Int*. Mar; 100(3):298-310, 2017. PMID: 27913821.

Bazhanov N, **Ylostalo JH**, Bartosh TJ, Tiblow A, Mohammadipoor A, Foskett A & Prockop DJ. Intraperitoneally infused human mesenchymal stem cells form aggregates with mouse immune cells and attach to peritoneal organs. *Stem Cell Res Ther*. Feb 10;7:27., 2016. PMID: 26864573.

Colborn JM*, **Ylostalo JH***, Koita OA, Cisse OH & Krogstad DJ. Human gene expression in uncomplicated *Plasmodium falciparum* malaria. *J Immunol Res.* 2015:162639, 2015. PMID:26491700.

Ylostalo JH*, Bartosh TJ*, Tiblow A & Prockop DJ. Unique characteristics of human mesenchymal stromal/progenitor cells pre-activated in 3-dimensional cultures under different conditions. *Cytotherapy.* 16(11): 1486-500, 2014. PMID: 25231893.

Bartosh TJ & **Ylostalo JH.** Macrophage inflammatory assay. *Bio Protoc.* 20;4(14), 2014. PMID: 27570796.

Bartosh TJ & **Ylostalo JH.** Mesenchymal stem cell (MSC) aggregate formation *in vivo.* *Bio Protoc.* 20;4(14), 2014. PMID: 27478861.

Bartosh TJ*, **Ylostalo JH***, Bazhanov N, Kuhlman J & Prockop DJ. Dynamic compaction of human mesenchymal stem/precursor cells (MSC) into spheres self-activates caspase-dependent IL1 signaling to enhance secretion of modulators of inflammation and immunity (PGE2, TSG6, and STC1). *Stem Cells.* 31(11): 2443-56, 2013. PMID: 23922312.

Ylostalo JH*, Bartosh TJ*, Coble K & Prockop DJ. Human mesenchymal stem/stromal cells cultured as spheroids are self-activated to produce prostaglandin E2 that directs stimulated macrophages into an anti-inflammatory phenotype. *Stem Cells.* 30(10): 2283-96, 2012. PMID: 22865689.

Horie M, Choi H, Lee RH, Reger RL, **Ylostalo J**, Muneta T, Sekiya I & Prockop DJ. Intra-articular injection of human mesenchymal stem cells (MSCs) promote rat meniscal regeneration by being activated to express Indian hedgehog that enhances expression of type II collagen. *Osteoarthritis Cartilage.* 20(10): 1197-207, 2012. PMID: 22750747.

Oh JY, Choi H, Lee RH, Roddy GW, **Ylostalo JH**, Wawrousek E & Prockop DJ. Identification of the HSPB4/TLR2/NF- κ B axis in macrophage as a therapeutic target for sterile inflammation of the cornea. *EMBO Mol Med.* 4(5): 435-48, 2012. PMID: 22359280.

Roddy GW, Rosa RH Jr, Oh JY, **Ylostalo JH**, Bartosh TJ, Choi H, Lee RH, Yasumura D, Ahern K, Nielsen G, Matthes MT, LaVail MM & Prockop DJ. Stanniocalcin-1 rescued photoreceptor degeneration in two rat models of inherited retinal degeneration. *Mol Ther.* 20(4): 788-97, 2012. PMID: 22294148.

Foraker JE, Oh JY, **Ylostalo JH**, Lee RH, Watanabe J & Prockop DJ. Cross-talk between human mesenchymal stem/progenitor cells (MSCs) and rat hippocampal slices in LPS-stimulated cocultures: the MSCs are activated to secrete prostaglandin E2. *J Neurochem.* 119(5): 1052-63, 2011. PMID: 21954847.

Roddy GW, Oh JY, Lee RH, Bartosh TJ, **Ylostalo J**, Coble K, Rosa RH Jr & Prockop DJ. Action at a distance: Systemically administered adult stem/progenitor cells (MSCs) reduce inflammatory damage to the cornea without engraftment and primarily by secretion of TSG-6. *Stem Cells.* 29(10): 1572-9, 2011. PMID: 21837654.

Danchuk S, **Ylostalo JH**, Hossain F, Sorge R, Ramsey A, Lasky JA, Bunnell BA, Welsh DA, Prockop DJ & Sullivan DE. Human multipotent stromal cells attenuate lipopolysaccharide-induced acute lung injury in mice via secretion of tumor necrosis factor-alpha-induced protein 6. *Stem Cell Res Ther.* 2(3): 27, 2011. PMID: 21569482.

Oh JY, Roddy GW, Choi H, Lee RH, **Ylostalo JH**, Rosa RH & Prockop DJ. Anti-inflammatory protein TSG-6 reduces inflammatory damage to the cornea following chemical and mechanical injury. *Proc Natl Acad Sci.* 107(39): 16875-80, 2010. PMID: 20837529.

Fresquet M, Jowitt TA, Stephen LA, **Ylostalo J** & Briggs MD. Matrilin-1 A-domains: structural and functional investigations reveal insights into their role in cartilage ECM assembly. *J Biol Chem.* 285(44): 34048-61, 2010. PMID: 20729554.

Bartosh TJ*, **Ylostalo JH***, Mohammadipoor A, Bazhanov N, Coble K, Claypool K, Lee RH, Choi H, & Prockop DJ. Aggregation of human mesenchymal stromal cells (MSCs) into 3D spheroids enhances their anti-inflammatory properties. *Proc Natl Acad Sci.* 107(31): 13724-29, 2010. PMID: 20643923.

Larson BL, **Ylostalo J**, Lee RH, Gregory C & Prockop DJ. Sox 11 is expressed in early progenitor human multipotent stromal cells and decreases with extensive expansion of the cells. *Tissue Eng Part A*. 16(11): 3385-94, 2010. PMID: 20626275.

Robinson AP, Foraker J, **Ylostalo J** & Prockop DJ. Human stem/progenitor cells from bone marrow enhance glial differentiation of rat neural stem cells: a role for TGFbeta and Notch signaling. *Stem Cells Dev*. 20(2): 289-300, 2011. PMID: 20575640.

Krause U, Harris S, Green A, **Ylostalo J**, Zeitouni S, Lee N & Gregory CA. Pharmaceutical modulation of canonical Wnt signaling in multipotent stromal cells for improved osteoinductive therapy. *Proc Natl Acad Sci*. 107(9): 4147-52, 2010. PMID: 20150512.

Bakondi B, Shimada IS, Perry A, Munoz JR, **Ylostalo J**, Howard AB, Gregory CA & Spees JL. CD133 identifies a human bone marrow stem/progenitor cell sub-population with a repertoire of secreted factors that protect against stroke. *Mol Ther*. 17(11): 1938-47, 2009. PMID: 19690521.

Lee RH, Pulin AA, Seo MJ, Kota DJ, **Ylostalo J**, Larson BL, Semprun-Prieto L, Delafontaine P & Prockop DJ. Intravenous hMSCs improve myocardial infarction in mice because cells embolized in lung are activated to secrete the anti-inflammatory protein TSG-6. *Cell Stem Cell*. 5(1): 54-63, 2009. PMID: 19570514.

Oskowitz AZ, Lu J, Penforinis P, **Ylostalo J**, McBride J, Flemington EK, Prockop DJ & Pochampally R. Human multipotent stromal cells from bone marrow and microRNA: Regulation of differentiation and leukemia inhibitory factor expression. *Proc Natl Acad Sci*. 105(47): 18372-77, 2008. PMID: 19011087.

Lee RH, Seo MJ, Pulin AA, Gregory CA, **Ylostalo J** & Prockop DJ. The CD34-like protein PODXL and $\alpha 6$ -integrin (CD49f) identify early progenitor MSCs with increased clonogenicity and migration to infarcted heart in mice. *Blood*. 113(4): 816-26, 2009. PMID: 18818395.

Ohtaki H, **Ylostalo J**, Foraker JE, Robinson AP, Reger RL, Shioda S & Prockop DJ. Stem/progenitor cells from bone marrow (hMSCs) decrease neuronal death in global ischemia by modulation of inflammatory/immune responses. *Proc Natl Acad Sci*. 105(38): 14638-43, 2008. PMID: 18794523.

Whitney MJ, Lee A, **Ylostalo J**, Zeitouni S, Tucker A & Gregory CA. Leukemia inhibitory factor secretion is a predictor and indicator of early progenitor status in adult bone marrow stromal cells. *Tissue Eng Part A*. 15(1): 33-44, 2009. PMID: 18637760.

Ylostalo J*, Bazhanov N* & Prockop DJ. Reversible commitment to differentiation by human multipotent stromal cells in single-cell-derived colonies. *Exp Hematol*. 36(10): 1390-402, 2008. PMID: 18619725.

Spees JL, Whitney MJ, Sullivan DE, Lasky JA, Laboy M, **Ylostalo J** & Prockop DJ. Bone marrow progenitor cells contribute to repair and remodeling of the lung and heart in a rat model of progressive pulmonary hypertension. *FASEB J*. 22(4): 1226-36, 2008. PMID: 18032636.

Larson BL*, **Ylostalo J*** & Prockop DJ. Human multipotent stromal cells (MSCs) undergo transition from division to development in culture. *Stem Cells*. 26(1): 193-201, 2008. PMID: 17916801.

Fresquet M, Jowitt TA, **Ylostalo J**, Coffey P, Meadows RS, Ala-Kokko L, Thornton DJ & Briggs MD. Structural and functional characterization of recombinant matrilin-3 A-domain and implications for human genetic bone diseases. *J Biol Chem*. 282(48): 34634-43, 2007. PMID: 17881354.

Jaalinoja J, **Ylostalo J**, Beckett W, Hulmes DJS & Ala-Kokko L. Trimerization of collagen IX α -chains does not require the presence of the COL1 and NC1 domains. *Biochem J*. 409(2): 545-54, 2008. PMID: 17880280.

Pochampally RR, **Ylostalo J**, Matz RR, Smith JR & Prockop DJ. Histamine receptor H1 and dermatopontin: new downstream targets of the vitamin D receptor. *J Bone Miner Res*. 22(9): 1338-49, 2007. PMID: 17547532.

Bunnell BA, **Ylostalo J**, Kang SK. Common transcriptional gene profile in neurospheres-derived from pATSCs, pBMSCs, and pNSCs. *Biochem Biophys Res Commun.* 343(3): 762-71, 2006. PMID: 16563342.

Ylostalo J*, Smith JR*, Pochampally RR, Matz R, Sekiya I, Larson BL, Vuoristo J & Prockop DJ. Use of microarrays to identifying new downstream target genes for transcription factors. Application to the differentiation of adult stem cells (MSCs) into chondrocytes and adipocytes. *Stem Cells.* 24(3): 642-52, 2006. PMID: 16439615.

Budde B, Blumbach K, **Ylostalo J**, Zaucke F, Ehlen HW, Wagener R, Ala-Kokko L, Paulsson M, Bruckner P & Grassel S. Altered integration of matrilin-3 into cartilage extracellular matrix in the absence of collagen IX. *Mol Cell Biol.* 25(23): 10465-78, 2005. PMID: 16287859.

Gregory CA, **Ylostalo J** & Prockop DJ. Adult bone marrow stem/progenitor cells (MSCs) are preconditioned by microenvironmental “niches” in culture: a two-stage hypothesis for regulation of MSC fate. *Sci STKE.* 294: pe37, 2005. PMID: 16046665. Review.

Lee CT, **Ylostalo J**, Friedman M & Hoyle GW. Gene expression profiling in mouse lung following polymeric hexamethylene diisocyanate exposure. *Toxicol Appl Pharmacol.* 205(1): 53-64, 2005. PMID: 15885264.

Ylostalo J, Randall AC, Myers TA, Metzger M, Krogstad DJ & Cogswell FB. Transcriptome profiles of host gene expression in a monkey model of human malaria. *J Infect Dis.* 191(3): 400-9, 2005. PMID: 15633100.

Kang SK, Putnam L, Dufour J, **Ylostalo J**, Jung JS & Bunnell BA. Expression of telomerase extends the lifespan and enhances osteogenic differentiation of adipose tissue-derived stromal cells. *Stem Cells.* 22(7): 1356-72, 2004. PMID: 15579653.

Kapyla J, Jaalinoja J, Tulla M, **Ylostalo J**, Nissinen L, Viitasalo T, Vehvilainen P, Marjomaki V, Nykvist P, Saamanen A-M, Farndale RW, Birk DE, Ala-Kokko L & Heino J. The fibril associated collagen IX provides a novel mechanism for cell adhesion to cartilaginous matrix. *J Biol Chem.* 279(49): 51677-87, 2004. PMID: 15383545.

Kang SK, Putnam LA, **Ylostalo J**, Popescu IR, Dufour J, Belousov A & Bunnell BA. Neurogenesis of Rhesus adipose stromal cells. *J Cell Sci.* 117(Pt18): 4289-99, 2004. PMID: 15292397.

Pihlajamaa T, Lankinen H, **Ylostalo J**, Valmu L, Jaalinoja J, Zaucke F, Spitznagel L, Gosling S, Puustinen A, Morgelin M, Peranen J, Maurer P, Ala-Kokko L & Kilpelainen I. Characterization of recombinant amino-terminal NC4 domain of human collagen IX: interaction with glycosaminoglycans and cartilage oligomeric matrix protein. *J Biol Chem.* 279(23): 24265-73, 2004. PMID: 15047691.

Pochampally RR, Smith JR, **Ylostalo J** & Prockop DJ. Serum deprivation of human marrow stromal cells (hMSCs) selects for a subpopulation of early progenitor cells with enhanced expression of Oct-4 and other embryonic genes. *Blood.* 103(5): 1647-52, 2004. PMID: 14630823.

Spees JL, Olson SD, **Ylostalo J**, Lynch PJ, Smith J, Perry A, Peister A, Wang MY & Prockop DJ. Differentiation, cell fusion, and nuclear fusion during *ex vivo* repair of epithelium by human adult stem cells from bone marrow stroma. *Proc Natl Acad Sci.* 100(5): 2397-402, 2003. PMID: 12606728.

Ylostalo J, Srivastava K & Flurkey WH. Characterization of a tyrosinase isoform from the cap skin of portabella mushrooms. *J Food Biochemistry.* 25: 493-507, 2001.

*Equal contribution.

CONFERENCES AND PRESENTATIONS

Abstracts and presentations:

Science education. Microbes and humans: co-evolution of the species. **Ylostalo J**. Belton High School 2023 Annual Microbiology Symposium, Belton High School, May 16, 2023. Keynote podium presentation.

Effects of Omalizumab on transcriptome of immune cells responsible for allergic responses. Johnson E & **Ylostalo J.** Watson Scholars' Day, University of Mary Hardin-Baylor, April 11, 2023. Undergraduate student presentation.

Genetic study of neuroblastoma and Wilms tumor development in Fanconi anemia patients. Pink J & **Ylostalo J.** Watson Scholars' Day, University of Mary Hardin-Baylor, April 11, 2023. Undergraduate student presentation.

Atmospheric noise and assessments: promoting a positive learning environment in the science classroom. **Ylostalo J.** 126th Annual Meeting of Texas Academy of Science, Angelo State University, March 3-4, 2023. Podium presentation.

Effects of Omalizumab on transcriptome of immune cells responsible for allergic responses. Johnson E & **Ylostalo J.** 126th Annual Meeting of Texas Academy of Science, Angelo State University, March 3-4, 2023. Undergraduate student presentation.

Atmospheric noise and assessments: promoting positive learning environment in the classroom. **Ylostalo J.** First Annual UMHB Student Success Summit, University of Mary Hardin-Baylor, March 8, 2022. Podium Presentation.

Construction of an engaging non-majors microbiology course. **Ylostalo J.** 125th Annual Meeting of Texas Academy of Science, University of Houston Clear Lake, February 25-26, 2022. Podium presentation.

Genetic implications of viral encephalitis: Up regulation of DRD2 gene potentially linked with psychological symptoms of the virus. King S & **Ylostalo J.** Texas Branch of the American Society for Microbiology (TX-ASM) Spring Conference, Virtual, March 25-26, 2021. Undergraduate student presentation.

Teaching during the pandemic: HyFlexing. **Ylostalo J.** 124th Annual Meeting of Texas Academy of Science, Virtual, February 26-27, 2021. Podium presentation.

Gene expression changes in mesenchymal stem cells due to different pathologies: potential implications of an increased FLRT3 expression. King S & **Ylostalo J.** 124th Annual Meeting of Texas Academy of Science, Virtual, February 26-27, 2021. Undergraduate student presentation.

Promoting active learning in an upper level immunology course. **Ylostalo J.** 123rd Annual Meeting of Texas Academy of Science, Stephen F. Austin State University, Nacogdoches, TX, February 28-29, 2020. Podium presentation.

Identifying factors in the progression of alcohol liver disease to hepatocellular carcinoma using gene expression analysis. Garcia A & **Ylostalo J.** Watson Scholars' Day, University of Mary Hardin-Baylor, Belton, TX, November 18th, 2019. Undergraduate student poster.

Math/logic concepts in the microbiology laboratory. **Ylostalo J.** Texas Branch of the American Society for Microbiology (TX-ASM) Fall Conference, The University of Texas at San Antonio, San Antonio, TX, November 7-9, 2019. Podium presentation (invited).

Bacteriostatic effects of essential oils and acne treatment regimens. Gutierrez A & **Ylostalo J.** Watson Scholars' Day, University of Mary Hardin-Baylor, Belton, TX, April 8th, 2019. Undergraduate student poster.

Most effective isolated antibiotic in inhibiting *Staphylococcus epidermidis* growth. Saenz A & **Ylostalo J.** Watson Scholars' Day, University of Mary Hardin-Baylor, Belton, TX, April 8th, 2019. Undergraduate student poster.

Development of an engaging and rigorous microbiology online course. **Ylostalo JH.** 122nd Annual Meeting of Texas Academy of Science, Howard Payne University, Brownwood, TX, March 1-2, 2019. Podium presentation.

Using bioinformatics approaches to identify differentially expressed genes in Alzheimer's disease. Calderone A & **Ylostalo J.** Watson Scholars' Day, University of Mary Hardin-Baylor, Belton, TX, November 12th, 2019. Undergraduate student poster (1st place).

The development and application of an effective tool enhancing understanding of stem cells.. Garrett A & **Ylostalo J.** Watson Scholars' Day, University of Mary Hardin-Baylor, Belton, TX, November 12th, 2019. Undergraduate student poster.

How to maximize STEM learning in microbiology laboratory: lesson in bacterial enumeration. **Ylostalo J.** American Society for Microbiology Conference for Undergraduate Educators (ASMCUE), Austin, TX, July 26-29. Podium presentation.

Using bioinformatics tools to decipher regulatory gene networks in *Leishmania major* infected dendritic cells. Ensley E & **Ylostalo J.** Watson Scholars' Day, University of Mary Hardin-Baylor, Belton, TX, April 9th, 2018. Undergraduate student poster.

Deciphering zinc finger protein expression in estrogen receptor α silenced MCF7 breast cancer cells using bioinformatics applications. Trevino-Flitton A & **Ylostalo J.** Watson Scholars' Day, University of Mary Hardin-Baylor, Belton, TX, April 9th, 2018. Undergraduate student poster (3rd place).

Using bioinformatics tools to decipher regulatory gene networks in *Leishmania major* infected dendritic cells. Ensley E. & **Ylostalo J.** Texas Branch American Society for Microbiology Spring Conference, T Bar M Resort, New Braunfels, TX, March 22-24, 2018. Undergraduate student poster.

Maximizing STEM learning in microbiology laboratory through bacterial enumeration. **Ylostalo JH.** 121st Annual Meeting of Texas Academy of Science, Midland College, Midland, TX, March 2-3, 2018. Podium presentation.

Pyruvate dehydrogenase complex related genes are differentially expressed between neonatal and adult cardiomyocytes. Ensley E & **Ylostalo J.** 121st Annual Meeting of Texas Academy of Science, Midland College, Midland, TX, March 2-3, 2018. Undergraduate student poster.

Pyruvate dehydrogenase complex related genes are differentially expressed between neonatal and adult cardiomyocytes. Ensley E & **Ylostalo J.** Watson Scholars' Day, University of Mary Hardin-Baylor, Belton, TX, November 13th, 2017. Undergraduate student poster (1st place).

Healing or stealing: generic versus trade name antibiotic ointments. Slack T & **Ylostalo J.** Watson Scholars' Day, University of Mary Hardin-Baylor, Belton, TX, April 4th, 2017. Undergraduate student poster.

Effectiveness of essential oils on *Staphylococcus epidermidis* growth inhibition. Rivera S, Ritenour A & **Ylostalo J.** Watson Scholars' Day, University of Mary Hardin-Baylor, Belton, TX, April 4th, 2017. Undergraduate student poster (1st place).

Bacteriostatic effectiveness of tea tree oil against *E. coli* in popular recipes for home remedies. Sautter M & **Ylostalo JH.** 120th Annual Meeting of Texas Academy of Science, University of Mary Hardin-Baylor, Belton, TX, March 3-4, 2017. Undergraduate student poster.

Healing or stealing: generic versus trade name antibiotic ointments. Slack TA & **Ylostalo JH.** 120th Annual Meeting of Texas Academy of Science, University of Mary Hardin-Baylor, Belton, TX, March 3-4, 2017. Undergraduate student poster.

Using the "5E learning cycle" and "interleaving" to improve student retention of basic and complex genetics concepts. **Ylostalo JH.** 120th Annual Meeting of Texas Academy of Science, University of Mary Hardin-Baylor, Belton, TX, March 3-4, 2017. Podium presentation.

The effectiveness of solar radiation based method to obtain low cost potable water from unclean water sources. Waits A & **Ylostalo J.** Scholars' Day, University of Mary Hardin-Baylor, Belton, TX, March 30th, 2016. Undergraduate student poster.

Xeno-free culture conditions for 3D pre-activation of human mesenchymal stem/progenitor cells (MSC) for therapeutic uses in inflammatory diseases and cancers. **Ylostalo JH**, Bartosh TJ, Tiblow A & Prockop DJ. 2nd Annual Scott & White Research Days, Scott & White, Temple, TX, May 9-10, 2014. Poster.

Pre-activation of human mesenchymal stem/stromal cells in 3D culture enhances their therapeutic potential. **Ylostalo JH**. 3rd International Conference on Cell Science & Stem Cell Research, Baltimore, MD, November 20-22, 2013. Podium presentation (invited).

Pre-activation of human mesenchymal stem/precursor cells (MSC) in 3D culture enhances their therapeutic potential. **Ylostalo JH**, Bartosh TJ & Prockop DJ. 1st Annual Scott & White Research Days, Scott & White, Temple, TX, May 9-10, 2013. Podium presentation (selected, 1st place).

Mesenchymal stem/precursor cells (MSC) administered intraperitoneally migrate to omentum and mesenteric tissues rich in innate lymphoid cells and promote Th2-like responses. Bazhanov N, **Ylostalo JH**, Bartosh TJ & Prockop DJ. 1st Annual Scott & White Research Days, Scott & White, Temple, TX, May 9-10, 2013. Poster.

Pre-activation of human mesenchymal stem/precursor cells (MSC) in 3D culture enhances their therapeutic potential. **Ylostalo JH**, Bartosh TJ & Prockop DJ. 6th International Symposium on Mesenchymal Stem/Progenitor Cells: MSCs and Cancers, Issues and Opportunities, Texas A&M Health Science Center, College Station, TX, May 3, 2013. Poster.

Preconditioning mesenchymal stem cells by 3D culture to produce STC1: a multi-functional protein that attenuates inflammation and improves function of the infarcted heart. Mohammadipoor A, **Ylostalo J**, Foskett A, Lee R, Prockop D & Bartosh T. Cardiovascular Research Institute 4th Research Symposium, Texas A&M Health Science Center, Temple, TX, May 2-3, 2013. Poster.

Preconditioning mesenchymal stem cells by 3D culture to produce STC1: a multi-functional protein that attenuates inflammation and improves function of the infarcted heart. Mohammadipoor A, **Ylostalo J**, Foskett A, Lee R, Prockop D & Bartosh T. 18th Annual Graduate Student Organization Symposium, Texas A&M Health Science Center College of Medicine, Bryan, TX, April 26, 2013. Poster.

Pre-activation of human mesenchymal stem/precursor cells (MSC) in 3D culture enhances their therapeutic potential. **Ylostalo JH**, Bartosh TJ & Prockop DJ. Enhancing Research through Collaboration Retreat, Baylor University, Waco, TX, March 15-16, 2013. Poster.

Mesenchymal stem/stromal cells (MSCs) in regenerative medicine. **Ylostalo JH**. International Conference on Regenerative & Functional Medicine, San Antonio, TX, November 12-14, 2012. Keynote podium presentation (invited).

Aggregation of human mesenchymal stem/stromal cells (hMSCs) into spheroids enhances their anti-inflammatory potential. **Ylostalo JH**. International Conference on Regenerative & Functional Medicine, San Antonio, TX, November 12-14, 2012. Podium presentation (invited).

Aggregation of human mesenchymal stem/progenitor cells (hMSCs) into spheroids initiates IL1 signaling in MSCs resulting in prostaglandin E2 dependent anti-inflammatory effect on macrophages. **Ylostalo JH**, Bartosh TJ, Coble K & Prockop DJ. 17th Annual College of Medicine Graduate Student Organization Research Symposium, Texas A&M Health Science Center College of Medicine, Bryan, TX, April 27, 2012. Poster (2nd place).

Aggregation of human mesenchymal stem/progenitor cells (hMSCs) into spheroids initiates IL1 signaling in MSCs resulting in prostaglandin E2 dependent anti-inflammatory effect on macrophages. **Ylostalo JH**, Bartosh TJ, Coble K & Prockop DJ. Moving Adult Stem Cells and the Therapeutic Proteins They Produce from the Laboratory to the Patient Stem Cell Conference, Texas A&M Health Science Center, College Station, TX, November 4, 2011. Poster

Human mesenchymal stromal cell (hMSC) spheroids exhibit enhanced anti-inflammatory properties. **Ylostalo J**. Texas A&M AgriLife Site Visit, Temple, TX, April 20, 2011. Podium presentation.

Human mesenchymal stromal cell (hMSC) spheroids exhibit enhanced anti-inflammatory properties. **Ylostalo J**. Stem Cells and Regenerative Medicine World Congress, San Diego, CA, January 24-25, 2011. Podium presentation.

Unique characteristics of human mesenchymal stromal cells derived from multicellular spheroid cultures. Bartosh TJ, **Ylostalo J**, Mohammadipoor A, Claypool K, Coble K & Prockop DJ. 8th International Society for Stem Cell Research (ISSCR) Meeting, San Francisco, CA, June 16-19, 2010. Poster.

Aggregation of human mesenchymal stromal cells into three dimensional multicellular spheroids enhances their anti-inflammatory properties. **Ylostalo J**, Bartosh TJ, Choi H, Bazhanov N, Coble K, Lee RH & Prockop DJ. 8th International Society for Stem Cell Research (ISSCR) Meeting, San Francisco, CA, June 16-19, 2010. Poster

Unique characteristics of human mesenchymal stromal cells derived from multicellular spheroid cultures. Bartosh TJ, **Ylostalo J**, Mohammadipoor A, Claypool K, Coble K & Prockop DJ. 5th International Conference on Mesenchymal and Non-Hematopoietic Stem Cells (MSCs), Austin, TX, November 12-14, 2009. Poster.

Aggregation of human mesenchymal stromal cells into three dimensional multicellular spheroids enhances their anti-inflammatory properties. **Ylostalo J**, Bartosh TJ, Choi H, Bazhanov N, Coble K, Lee RH & Prockop DJ. 5th International Conference on Mesenchymal and Non-Hematopoietic Stem Cells (MSCs), Austin, TX, November 12-14, 2009. Poster.

Human multipotent stromal cells (MSCs) repeatedly create their own microenvironments as they are expanded and re-expanded from single cells into colonies. **Ylostalo J**, Bazhanov N & Prockop DJ. Biomedical Sciences 2nd Annual Retreat, Ocean Springs, MS, October 12-13, 2007. Podium presentation.

Human multipotent stromal cells (MSCs) repeatedly create their own microenvironments as they are expanded and re-expanded from single cells into colonies. **Ylostalo J**, Bazhanov N & Prockop DJ. 3rd Gene Therapy Research Symposium, Baton Rouge, LA, October 11, 2007. Poster.

Human multipotent stromal cells (MSCs) repeatedly create their own microenvironments as they are expanded and re-expanded from single cells into colonies. **Ylostalo J**, Bazhanov N & Prockop DJ. Adult Mesenchymal Stem Cells in Regenerative Medicine, Cleveland, OH, August 27-29, 2007. Podium presentation (selected) and poster.

Human multipotent stromal cells (MSCs) repeatedly create their own niches as they are expanded and re-expanded from single cells into colonies. **Ylostalo JH**, Bazhanov NA & Prockop DJ. American Society of Gene Therapy 10th Annual Meeting, Seattle, WA, May 30 - June 3, 2007. Poster.

Human multipotent stromal cells (MSCs) repeatedly create their own niches as they are expanded and re-expanded from single cells into colonies. **Ylostalo J**, Bazhanov N & Prockop DJ. 18th Annual Tulane Health Sciences Research Days, New Orleans, LA, February 28 – March 1, 2007. Poster.

Human multipotent mesenchymal stromal cells (MSCs) create their own niche as they expand from single cells into colonies. **Ylostalo J**, Bazhanov N & Prockop DJ. Biomedical Sciences 1st Annual Retreat, Covington, LA, October 20, 2006. Poster.

The transcriptome of human multipotent stromal cells (MSCs) in culture undergoes transition from division to development. Larson BL, **Ylostalo J** & Prockop DJ. 4th International Society for Stem Cell Research Annual Meeting, Toronto, Canada, June 29 – July 1, 2006. Poster.

Changes in human gene expression during uncomplicated *Plasmodium falciparum* malaria. Colborn JM, **Ylostalo J**, Koita OA, Cisse O & Krogstad DJ. American Society of Tropical Medicine and Hygiene 54th Annual Meeting, Washington D.C., December 11-15, 2005. Poster

Correct domain organization of collagen IX alpha chains is required for triple helix formation. **Ylostalo J**, Jaalinoja J, Beckett W, McCants M & Ala-Kokko L. Gordon Research Conference on Collagen, New London, NH, July 24-29, 2005. Poster.

Correct domain organization of collagen IX alpha chains is required for triple helix formation. **Ylostalo J**, Jaalinoja J, Beckett W, McCants M & Ala-Kokko L. 17th Annual Tulane Health Sciences Research Days, New Orleans, LA, March 9-10, 2005. Podium presentation (selected) and poster (1st place).

A simple, rapid microarray based screen to identify new target genes. **Ylostalo J**, Smith JR, Sekiya I, Larson BL, Vuoristo J & Prockop DJ. 4th Annual Conference on Mesenchymal and Nonhematopoietic Stem Cells, New Orleans, LA, October 14-16, 2004. Poster.

Microarray studies of gene expression in malaria. **Ylostalo J**. Medicines for Malaria Venture Tulane University Site Visit, New Orleans and Covington, LA, August 9-11, 2004. Podium presentation.

Differential gene expression profiles of human mesenchymal stem cells from bone marrow stroma: donor variability and *ex vivo* expansion. Larson BL, **Ylostalo J** & Prockop DJ. Gene Therapy Research Symposium, Baton Rouge, LA, May 2, 2004. Poster.

Transcriptome profiles of host gene expression in monkey models of human malaria. **Ylostalo J**, Randall AC, Myers TA, Metzger M, Krogstad DJ & Cogswell FB. 16th Annual Tulane Health Sciences Research Days, New Orleans, LA, April 28-29, 2004. Poster.

Identification of multiple genes that are co-regulated during chondrogenesis and adipogenesis; transcriptome profiling the time courses of differentiation of human adult stem cells from bone marrow stroma (MSCs). **Ylostalo J**, Smith J, Sekiya I, Larson B, Vuoristo J & Prockop DJ. The American Society for Cell Biology 43rd Annual Meeting, San Francisco, CA, December 13-17, 2003. Poster.

Structural and functional changes in collagen IX due to a MED mutation. **Ylostalo J**, Cotterill S, Beckett W, Lohiniva J, Pihlajamaa T, Briggs MD & Ala-Kokko L. 15th Annual Tulane Health Sciences Research Days, New Orleans, LA, April 24-25, 2003. Poster.

Structural and functional changes in collagen IX due to a MED mutation. **Ylostalo J**, Cotterill S, Beckett W, Lohiniva J, Pihlajamaa T, Briggs M & Ala-Kokko L. Experimental Biology, San Diego, CA, April 11-15, 2003. Poster.

Structural and functional changes in collagen IX due to two disease-causing mutations. **Ylostalo J**, Beckett W, Lohiniva J & Ala-Kokko L. 11th Annual Molecular and Cellular Biology Retreat, Gulfport, MS, October 5-6, 2002. Poster.

Purification and characterization of tyrosinase from cap skin of portabella mushrooms. **Ylostalo JH** & Flurkey WH. 215th American Chemical Society National Meeting, Dallas, TX, March 29 – April 2, 1998. Poster.

Other attended conferences:

- NABT Profession Development Conference, Indianapolis, IN, November 10 – 13, 2022.
- The State of Biotech, virtual, September 21 – 22, 2022.
- Course Hero Education Summit '22, virtual, July 28 – 29, 2022.
- Remote: The Connected Faculty Summit, virtual, June 8 – 9, 2022.
- Texas Branch of American Society for Microbiology, Spring Conference, virtual, March 24 – 25, 2022.
- UMHB Vocare Mentors Retreat, Belton, TX, January 7 – 8, 2022.
- Texas Branch of American Society for Microbiology, Fall Conference, virtual, November 4 – 5, 2021.
- Remote: The Connected Faculty Summit, virtual, June 9 – 10, 2021.
- Texas Branch of American Society for Microbiology, Spring Conference, virtual March 25 – 26, 2021.
- Texas Branch of American Society for Microbiology, Fall Conference, virtual, November 5 – 6, 2020.
- Course Hero Virtual Education Summit 2020, virtual, July 29 – 31, 2020.
- Remote: The Connected Faculty Summit, virtual, July 13 – 14, 2020.
- Ideate 2020, Online Learning Consortium, virtual, April 21 – May 1, 2020.
- UMHB Vocare Mentors Retreat, Belton, TX, January 6-7, 2020.
- Engaging Pedagogy Conference, Texas Lutheran University, Seguin, TX, May 5th, 2019.
- Texas Branch American Society for Microbiology Spring Conference, T Bar M Resort, New Braunfels, TX, March 28-30, 2019.

- UMHB National Stem Day Student Symposium, University of Mary Hardin-Baylor, Belton, TX, November 8th, 2017.
- 20th Annual Wakonse South Conference: Activating Student Learning, Burnet, TX, March 31 - April 2, 2017
- Texas Branch American Society for Microbiology Fall Conference, The University of Texas at Dallas, Dallas, TX, November 10-12, 2016.
- Texas Branch American Society for Microbiology Spring Conference, T Bar M Resort, New Braunfels, TX, April 2nd, 2016.
- 119th Texas Academy of Science Annual Meeting, Junction, TX, March 4-6, 2016.
- Texas Branch American Society for Microbiology Fall Conference, Sam Houston State University, Huntsville, TX, October 29-31, 2015.
- Pre-Med Conference, UT Southwestern, Dallas, TX, October 24th, 2015.
- Scholars' Day, University of Mary Hardin-Baylor, Belton, TX, April 25th, 2015.
- Scholars' Day, University of Mary Hardin-Baylor, Belton, TX, April 28th, 2014.
- Formula for Grant Success One Day Seminar Dr. Anthony M Coelho Jr, Scott & White Hospital, Temple, TX, October 11, 2012.
- Center for Cell Death and Differentiation Symposium on Targeting Our Greatest Enemies: Breakthroughs in Heart Disease and Cancer, Temple, TX, March 1-2, 2012.
- 1st Inaugural Symposium of the "Scott and White/TAMHSC Center for Cell Death and Differentiation", Temple, TX, May 20, 2010.
- Affymetrix Whole-Transcript Expression Meeting, Cambridge, MA, October 28-29, 2008.
- 19th Annual Tulane Health Sciences Research Days, New Orleans, LA, March 26-27, 2008.
- Affymetrix Core Lab Directors Meeting. New Orleans, LA, February 21-22, 2008.
- Advances in Proteomics and Its Impact on Cancer Research Symposium, Houston, TX, September 19, 2006
- 2nd Gene Therapy Research Symposium, Baton Rouge, LA, May 25, 2006.
- Getting Optimized Targets Summit. Boston, MA, April 24-27, 2006.
- Getting Optimized Targets Summit Boston, MA, May 2-5, 2005.
- From Gene Expression Profiling to Validated Biology, Cambridge, MA, October 5-7, 2005.
- Total Microarray Data Analysis and Interpretation, Washington D.C., August 18-20, 2004.
- Advanced Microarray Strategies for Biopharmaceuticals, Boston, MA, June 6-9, 2004.
- Critical Assessment of Microarray Data Analysis, Durham, NC, November 14-15, 2002.
- 13th Annual Tulane Health Sciences Research Days, New Orleans, LA, April 25-26, 2001.