

CURRICULUM VITAE

Laura Clarke Bridgewater, Ph.D.

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EDUCATION

The George Washington University, Washington, D.C., 1989-1995
Ph.D. in Genetics, 1995
Academic Emphases: Molecular Biology, Gene Regulation, Development
Brigham Young University, Provo, Utah, 1985-1989
B.S. in Microbiology, 1989

EMPLOYMENT HISTORY

2016-present: Professor, Dept. of Microbiology & Molecular Biology, BYU
2014-2015: Visiting Researcher in the laboratory of Dr. Liping Zhao, School of Life Science and
Biotechnology, Shanghai Jiao Tong University, Shanghai, China
2005-2016: Associate Professor, Dept. of Microbiology and Molecular Biology, BYU
2001-2005: Assistant Professor, Dept. of Microbiology & Molecular Biology, BYU
1999-2001: Assistant Professor, Dept. of Zoology, BYU
1996-1999: Postdoctoral Fellow Dept. of Molecular Genetics, M.D. Anderson Cancer Center,
Houston, Texas, P.I.: Benoit de Crombrughe
1995-1996: Postdoctoral Fellow, Human Genetics Center, University of Texas Health Science
Center at Houston, P.I.: Craig L. Hanis
1990-1995: Graduate Research Assistant, Dept. of Pharmacology, The George Washington
University Medical Center, Advisor: Steven R. Patierno
1988, January-March: Intern, NICHD, National Institutes of Health, Advisor: Bill A. Gahl
1987-1989: Research Assistant, Department of Zoology, Brigham Young University, Advisor:
Robert E. Seegmiller

UNIVERSITY CITIZENSHIP AND SERVICE

2016-present: Associate Dean, College of Life Sciences, BYU
2011-2014: Chair, Dept. of Microbiology and Molecular Biology, BYU
2010-2015: Faculty Advisor, BYU Women in Science Club
2009-2011: Member, BYU Honors Program Faculty Council
2008-2011: Member, Department Faculty Development Committee
2008-2011: Chair, Orientation Sub-Committee, BYU Employee Giving Committee
2008-2009: Member, University Athletic Advisory Council
2009-2010: Academic Sub-Committee Chair, University Athletic Advisory Council
2010-2011: Vice-Chair, University Athletic Advisory Council
2008-2009: Member, BYU Women's Research Institute Grant Review Committee
2007-2008: Member, College of Life Sciences Graduate Committee
2005-2006: Organizer, Seminar for Undergraduate Women in Math, Science, and Engineering
2002-2006: Chair, Department of Microbiology and Molecular Biology Graduate Committee
2005: Member, College of Life Sciences ORCA Scholarship Review Committee
2004-2005: Member, College of Biology and Agriculture Dean Search Committee

2004-2005: Member, BYU Pre-Medical Committee
 2004: Member, BYU DNA Sequencing Center Director Search Committee
 2003-2004: Chair, Department Curriculum Committee for Biology Core Courses
 2003: Member, Design Committee for SPF Rodent Facility Renovation
 2000-2001: Member, Physiology Faculty Position Search Committee
 1999: Member, Molecular Biology Committee
 1998-1999: Board of Directors, Texas Society for Biomedical Research

EXTERNAL CITIZENSHIP AND SERVICE

GRANT REVIEW COMMITTEES

Oct 2016 Ad hoc member, NIH Musculoskeletal, Oral, and Skin Sciences (MOSS) Integrated Review Group
 Aug 2016 Ad hoc member, Department of Veterans Affairs, Rehabilitation Research and Development Service, Regenerative Medicine Panel
 Feb 2016 Ad hoc member, Department of Veterans Affairs, Rehabilitation Research and Development Service, Regenerative Medicine Panel
 Oct 2011 Ad hoc member, NIH Skeletal Biology Structure & Regeneration Study Section, Musculoskeletal, Oral, and Skin Sciences Integrated Review Group
 Aug 2011 Ad hoc member, NSF Physiological & Structural Systems Cluster Proposal Review Panel of Symbiosis Defense and Self-Recognition
 Sept 2010 Ad hoc member, NIH Skeletal Biology Structure and Regeneration Study Section, Musculoskeletal, Oral, and Skin Sciences Integrated Review Group
 Jan 2010 Ad hoc member, NIH Skeletal Biology Structure and Regeneration Study Section, Musculoskeletal, Oral, & Skin Sciences Integrated Review Group Special Emphasis Panel
 May 2009 Ad hoc member, NIH Musculoskeletal, Oral, & Skin Sciences, Challenge Grants in Health and Science Research Review Group
 Feb 2007 Ad hoc member, NIH Skeletal Biology Structure & Regeneration Study Section, Musculoskeletal, Oral, and Skin Sciences Integrated Review Group
 Jun 2006 Ad hoc member, NIH Skeletal Biology Structure & Regeneration Scientific Review Group
 Apr 2006 External reviewer, NSF single grant
 Mar 2006 Ad hoc member, National Institute for Arthritis and Musculoskeletal and Skin Diseases, Centers of Research Translation Special Review Group
 May 2005 External reviewer, NSF single grant

REVIEWER FOR THE FOLLOWING JOURNALS

Journal of Biological Chemistry	Molecular and Cellular Biology
PLoS ONE	Molecular and Cellular Biochemistry
Experimental Cell Research	Osteoarthritis and Cartilage
Biochimica et Biophysica Acta	International Journal of Cancer
Nucleic Acids Research	Journal of Orthopaedic Research
Molecular Biology of the Cell	Genomics

Int'l Journal of Biochemistry and Cell Biology
Journal of Bone and Mineral Research
Arthritis and Rheumatism

Matrix Biology
Journal of Cancer

PROFESSIONAL SOCIETIES

International Society for Microbial Ecology
Society for Developmental Biology
American Society for Matrix Biology, Charter Member
American Association for Cancer Research
American Association for the Advancement of Science
American Society for Biochemistry and Molecular Biology
Osteoarthritis Research Society International

TEACHING ASSIGNMENTS (since 2005)

MMBIO 240 (Molecular Biology)

Fall 2016, 395 students
Winter 2016, 547 students
Summer 2014, 7 students (offered in Shanghai with Study Abroad program)
Fall 2013, 216 students
Fall 2012, 194 students
Fall 2011, 94 students
Winter 2011, 252 students
Winter 2010, 178 students
Winter 2009, 247 students
Winter 2008, 252 students
Fall 2007, 115 students
Winter 2007, 196 students
Fall 2006, 140 students
Winter 2006, 261 students
Fall 2005, 205 students
Winter 2005, 91 students

IAS 201R (China Study Abroad Preparatory course)

Winter 2014, 13 students

MMBIO 390R (Readings in Molecular Biology)

Winter 2014, 18 students
Fall 2009, 13 students
Fall 2008, 15 students

LFSCI 399R (Academic Internship, with China Study Abroad program)

Summer 2014, 13 students

MMBIO 557 (Genes and Cancer)

Winter 2011, 13 students

Winter 2009, 15 students

Winter 2007, 16 students

Winter 2005, 5 students

MMBIO 551R (Microbial Ecology, with China Study Abroad program)

Summer 2014, 5 students

MMBIO 551R (Current Topics in Molecular Biology)

Summer 2012, 6 students

MMBIO 551R (Gene Expression)

Winter 2006, 5 students

MMBIO 490R/691R (Molecular Biology Seminar)

Fall 2008, 14 students

Winter 2008, 13 students

MMBIO 661 (Molecular Biology of the Cell--graduate level)

Fall 2013, 24 students

Fall 2012, 14 students

Fall 2011, 21 students

Fall 2010, 17 students

Fall 2009, 14 students

MMBIO 662 (Genomics, Molecular Evolution, and Developmental Biology—grad level)

Winter 2014, 26 students

Winter 2013, 14 students

Winter 2012, 20 students

Winter 2011, 15 students

Winter 2010, 17 students

STUDENT TRAINEES (TOTAL NUMBERS)

3 Ph.D. students

12 M.S. students

12 Honors students

141 Undergraduate students

4 High school students

GRADUATE STUDENT TRAINEES

Claudia Tellez Freitas	Ph.D. Student	2015-present
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Trina Loos	Ph.D. Student	2006-2010
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Jaime Mayo	Ph.D. Student	2004-2007
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Jeralyn Franson	M.S. Student	2015-present
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Brandt Nichols	M.S. Student	2011-2013
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Daniel Olsen	M.S. Student	2011-2013
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Fialka Grigorova	M.S. Student	2009-2011
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Mary Ann Genzer	M.S. Student	2004-2006
Laura Harris	M.S. Student	2002-2003
Elizabeth Jenkins	M.S. Student	2001-2004
Jenny Moss	M.S. Student	2001-2003
Dana Murphy	M.S. Student	2000-2002
Gwen Miller	M.S. Student	2000-2001
Marlan Walker	M.S. Student	2000-2001
James Ricks	M.S. Student	1999-2000

HONORS STUDENT TRAINEES

Caitlin Nichols	Honors Student	2008-2013
Michael Baldwin	Honors Student	2007-2011
Evan Davis	Honors Student	2007-2009
Daniel Jensen	Honors Student	2005-2007
Mark Tait	Honors Student	2004-2006
David Timme	Honors Student	2004-2006
Rudy Rodriguez	Honors Student	2000-2003
Todd Jackson	Honors Student	2000-2002
K. Nicole DeWitt	Honors Student	2000-2001
Vicki Winkel	Honors Student	2000
Reuben Chen	Honors Student	1999-2002
Trevor Ellison	Honors Student	1999-2001

UNDERGRADUATE STUDENT TRAINEES

Jacob Amini (2016-present)	Julianna Thong (2013)	Julia Ventura (2009-2010) ‡*
Chris Read (2016-present)	Megan Whitt (2012-2014)*	Wayna Chow (2009-2010)
Riley Driscoll (2016-present)	Wes Goar (2012-2014) ‡*	Christopher Fox (2009) ‡*
Alexis Conley (2016-present)	Loyd Christensen (2012-2014)* ‡†	Natalie Manwaring (2009)
Mark Peterson (2016-present)	Tyson Bailey, (2012-2013) ‡*	Suzanna Logan (2009)
Jeffery Zhao (2015-present)	Wayne Simmons (2012-2013)	Derek Hill (2008-2010)
Haley Burrell (2015-present)	Brianna Conley (2012-2013)	Caitlyn Nichols (2008-2010) ‡*
Jared Resolme (2015-2016)	Alecia Brighton (2012)	Michael Adam (2008-2010) †*
Darla Miles (2015-2016)*	Ryan Mann (2011-2013)	Ryan Cordner (2008-2010) ††*
Kaitlyn Williams (2015-2016)	Brian Earley (2011-2013)	Sampath Loganathan (2008-2009) ‡*
Rachel Sevey (2015-2016)	Dylan Randall (2011-2013)	Kriti Shrestha (2008-2009)
Austin Brockbank (2015-2016)	Taylor Williams (2011-2012) ‡†*	Alina Schmidt (2007-2009) †‡*
Conrad Stallings (2015- 2016)*	Tyson Skeen (2011-2012)	Evan Davis (2007-2009) †
Peter Young (2015)*	Jillian Carr (2011-2012) ‡*	Broc McCune (2007-2010) ‡†
Joe White (2015-2016) ‡	Saroj Dhungel (2011-2012)*	Borel Fonhoue (2007-2009) ‡
Alistair Hilton (2015-2016) ‡	Kevin Steed (2011-2012)*	Devin Holden (2007-2009) †*
Andrew Rees (2013-2016)†	Matt Rees (2010-2012) ‡*	Michael Baldwin (2007-2011) †
Josh Yates (2012-2015) †*	Aubrey Rogers (2010-2012) ††*	Stephanie Gaufin (2007-2009) *
Steven Pruitt (2013-2014)	Ben Fisher (2010-2011)	Sam Wilkinson (2007-2008) ‡
Chris Guynn (2013-2014)	Lindsie Martin (2010-2011)	Jonathan Hansen (2006-2008) †‡
Nicole Barney (2013-2014)	Jason Cooper (2010-2011)	Daniel Sperry (2006-2007) ‡*
Rob Driggs (2013-2014)	Brandalyn Chidsey (2009-2011) ‡*	Rich Davis (2006-2007) ‡
Spencer Dean (2013-2014)*	Jacob Barney (2009-2011)	Alicia Yost (2006)
Logan Harmon (2013-2014)	Jordan Richardson (2009-2010)	Nathan Hicks (2005-2007)
Zach Pinter (2013-2014)	Jayson Wutzbach (2009-2010)	Daniel Jensen (2005-2007) †‡*
Jake Holland (2013-2014) ‡	Nick Wallace (2009-2010) ‡	Brian Ellertson (2005-2007) †

Tassanee Soward (2005-2006)	Chad Christensen (2003-2004)	Alisha Facer (2001-2002)
Will Witwer (2005-2006)	Bryan Mason (2003-2004)‡	Jason Dalling (2001-2002)
David Timme (2004-2006)‡	Nick Orme (2002-2004)†‡	Jared Armstrong (2001-2002)
Jordan Olsen (2004-2006) ‡	Chris Meinhart (2001-2004)‡*	Steve Smith (2000-2002)†‡
Cindy Niederhauser (2004-2006) †‡*	Jaron Coombs (2002-2003)	Todd Jackson (2000-2002)†‡*
Mark Tait (2004-2006) ‡	Justin Hunt (2002-2003)	Laura D. Harris (2000-2002)†‡*
Clark Rogers (2004-2005) †	Marianne Morris (2002-2003)	Kit Bennion (1999-2002)†‡
Ben Kuntz (2004-2005) †	Daniel Watson (2002-2003)	Victoria Ryder (1999-2002)‡
Chikage Kubo (2004-2005)†	Kimberly Wilbur (2002-2003)	Reuben Chen (1999-2001)‡*
Shaunae Martin (2004-2005)	Eric Freeman (2001-2003)‡	Trevor Ellison (1999-2001)‡*
Amanda Troxel (2004-2005)	David Sontag (2001-2003)	Eric Jenkins (2000-2001)
Tyler Haberle (2004-2005) †	Brandon Bomsta (2001-2003)*	Hao Vu (1999-2001)‡
Steve DeWidt (2004-2005)‡	Mike Layton (2001-2003)	Nicole Dewitt (2001)
Bobby Palmer (2004-2005)	Rudy Rodriguez (2000-2003)†‡*	Heather Taylor (2000-2001)‡
Dave Rowley (2004-2005)	Daniel Holsinger (1999-2003)*	Jennifer Sampson (2000)‡
Carolina Montano (2003-2005) ‡*	Whitni Babcock (2001-2002)†‡	Vicki Winkel (2000)‡*
Chuck Meeker (2003-2004)	Brad Crosby (2001-2002)†‡	Dana Murphy (1999-2000)†
Jennifer Chiniquiy (2003-2004)	Sam Vaughn (2001-2002)†‡	James Clarke (1999-2000)*
Mary Ann Genzer (2003-2004)	Steve Crump (2001-2002)	Jenny Potter (1999-2000)†‡**
Scott Richins (2003-2004)‡	Mark Rogers (2001-2002)	Ann Hillam (1999-2000)‡
Kyle Bullock (2003-2004)	Brian Miller (2001-2002)	Thomas Carmack (1999-2000)‡

* Undergraduate students who have authored a peer-reviewed research publication

† Undergraduate students who have been the first author and presenter of a poster at a scientific meeting

‡ Undergraduate students who have been a non-presenting author on a poster

HIGH SCHOOL STUDENT TRAINEES

Sia Im, Timpview High School (fall 2012)

Michael Perry, Timpview High School (summer 2012)

Andrew Brewer, Karl G. Maeser Preparatory Academy (summer 2011)

Hannah Leavitt, Karl G. Maeser Preparatory Academy (summer 2011)

HONORS AND AWARDS

Featured Speaker, 26th Annual Russell B. Clark Gerontology Conference, 2016

Utah Valley University College of Science and Health Symposium Series speaker, 2012

Brigham Young University Forum Speaker, 2010

Scholarship Award, BYU Faculty Women's Association, 2009

College Outstanding Mentor Award, BYU College of Life Sciences, 2008

College Creative Achievement Award, BYU College of Biology and Agriculture, 2006

Alice Louise Reynolds Lecturer, BYU, 2006

BYU Young Scholar Award, for outstanding promise and contributions by faculty in the early stages of their academic careers, 2004

Damon Runyon-Walter Winchell Foundation, Postdoctoral Fellowship Award, 1997-1999

Cum Laude graduation from the George Washington University doctoral program, 1995

Phi Delta Gamma Scholarship for graduate study, George Washington University Chapter, 1993-1994

The George Washington University Presidential Merit Fellowship for Graduate Study, 1989-1992

Magna Cum Laude Graduation from BYU, 1989

BYU Trustees Scholarship, full tuition, 1985-1989

INVITED TALKS

- Oct. 2016 BYU Department of Nutrition, Dietetics, and Food Science seminar speaker
Mar. 2016 Research Presentation, 26th Annual Russell B. Clark Gerontology Conference
Sept. 2015 Keynote Speaker at BYU-wide New Graduate Student Dinner
Jun. 2013 BYU Cancer Research Center Summer Symposium, Provo, UT
Sept. 2012 Utah Valley University College of Science and Health Symposium Series speaker, Orem, UT
Jun. 2012 BYU Cancer Research Center Summer Workshop, Provo, UT
Apr. 2012 Utah Valley University Inauguration of the Richard G. Scott Science Scholarship, Orem, UT
Oct. 2010 Utah State University Department of Biology Seminar, Logan, UT
Oct. 2010 BYU Alumni Board Annual Meeting, Brigham Young University, Provo, UT
Jul. 2010 Brigham Young University Forum Address, Provo, UT
Feb. 2009 Molecular Biology Seminar, Brigham Young University, Provo, UT
Aug. 2007 LDS Life Science Research Symposium, Snowbird, Utah
Nov. 2006 American Society for Matrix Biology Biannual Meeting, Nashville, Tennessee
Oct. 2006 Alice Louise Reynolds Women-In-Scholarship Lecture, Brigham Young University, Provo, UT
Sept. 2005 Brigham Young University, Statistics Dept. Seminar, Provo, UT
Mar. 2003 BYU DNA Sequencing Center Staff Seminar, Provo, Utah
Sept. 2002 Provo Kiwanis Club, Provo, Utah
Sept. 2002 Women In Science Career Options Seminar, Provo, Utah
Oct. 2001 Molecular Biology Seminar Series, BYU, Provo, Utah
Oct. 2000 Brigham Young University Annual High School Science Day, Provo, Utah
July 2000 Brigham Young University Summer Science Camp, Provo, Utah
June 2000 Symposium of the International Society for Matrix Biology, Philadelphia, Pennsylvania
Oct. 1999 Women in Medicine Symposium Series, BYU, Provo, Utah
Nov. 1998 Conference for the Advancement of Science Teachers, Corpus Christi, Texas
Oct. 1998 American Society for Biochemistry and Molecular Biology Fall Symposium, Regulation of Bone Formation, Taos, New Mexico
May 1998 International Science and Engineering Fair, Fort Worth, Texas
Apr. 1998 Department of Zoology, Brigham Young University, Provo, Utah
Mar. 1996 University of Texas Health Science Center at Houston, Graduate School of Biomedical Sciences, Houston, Texas
Nov. 1995 University of Texas Health Science Center at Houston, Graduate School of Biomedical Sciences, Houston, Texas
Jan. 1995 Howard Hughes Medical Institute, University of Utah, Salt Lake City, Utah
Jan. 1995 Department of Zoology, Brigham Young University, Provo, Utah

REASEARCH GRANTS (\$2.4 million total)

“Integrating microbiome analysis into Immunology, Molecular Biology, and Genomics courses to improve student learning”

Co-Principal Investigators: Scott Weber, Laura Bridgewater, Brent Nielsen, and Steve Johnson
Funding Source: BYU College of Life Sciences Teaching Enhancement Grant, 2016
\$8,700

“Diet, gut microbiome, and mental health interactions”

Principal Investigator: Laura Clarke Bridgewater

Funding Source: BYU ORCA, Environments for Mentoring Grants Program, 2015-16
\$20,000

“Examining the relative contributions of genes, diet, and the gut microbiome to the development of obesity and diabetes”

Principal Investigator: Laura Clarke Bridgewater

Funding Source: BYU ORCA, Environments for Mentoring Grants Program, 2014-15
\$20,000

“Obesity, diabetes, and aging: Contributions of the gut microbiome”

Principal Investigator: Laura Clarke Bridgewater

Funding Source: BYU Gerontology Program, 2014
\$10,000

“Validation of an nBmp2 mutant mouse model”

Principal Investigator: Laura Clarke Bridgewater

Funding Source: BYU ORCA, Environments for Mentoring Grants Program, 2013-14
\$20,000

“Transcriptional activity of the novel nuclear protein nBmp2”

Principal Investigator: Laura Clarke Bridgewater

Funding Source: BYU ORCA, Environments for Mentoring Grants Program, 2012-13
\$20,000

“Common mechanisms of osteoarthritis in three mouse models”

Principal Investigator: Robert E. Seegmiller; Co-Investigator: Laura Clarke Bridgewater

Funding source: NIAMS/NIH, grant #R15 AR056861, 2009-2011
\$225,000

“A novel nuclear variant of Bmp2: Role in Ca²⁺ transport”

Principal Investigator: Laura Clarke Bridgewater

Funding Source: BYU ORCA, Environments for Mentoring Grants Program, 2011-13
\$20,000

“The role of nuclear Bmp2 (nBmp2) in skeletal muscle”

Principal Investigator: Laura Clarke Bridgewater

Funding Source: BYU ORCA, Environments for Mentoring Grants Program, 2010-12
\$20,000

“The unfolded protein stress response in chondrodysplasia and osteoarthritis”

Principal Investigator: Laura Clarke Bridgewater
Funding Source: BYU ORCA, Environments for Mentoring Grants Program, 2009
\$20,000

“Nuclear function of BMP family proteins”
Principal Investigator: Laura Clarke Bridgewater
Funding Source: BYU ORCA, Environments for Mentoring Grants Program, 2008
\$20,000

“MRI: Acquisition of DNA-manipulation robotics for increased throughput and data integrity in biological research, teaching, and student research training”
Principal Investigator: Leigh Johnson, Co-PI: Laura Clarke Bridgewater and three others
Funding Source: NSF, DBI-0520978, 2005-2008
\$337,502

“Chondrocyte-specific transcriptional regulation”
Principal Investigator: Laura Clarke Bridgewater
Funding Source: NIAMS/NIH, grant #RO1 AR 48839, 2002-2008
\$925,000

“Nuclear localization of GDF-5”
Principal Investigator: Laura Clarke Bridgewater
Funding Source: BYU ORCA, Environments for Mentoring Grants Program, 2007
\$20,000

“Chondrocyte-specific enhancer elements”
Principal Investigator: Laura Clarke Bridgewater
Funding Source: donor Ira Fulton, 2001-2010
\$200,000

“Pathogenesis of osteoarthritis in *Col2a1* mutant mice”
Co-Principal Investigators: Laura Clarke Bridgewater and Robert E. Seegmiller
Funding Source: NIAMS/NIH, grant #R15 AR47568, 2002-2004
\$146,000

“Transgene rescue of chondrodysplasia and osteoarthritis”
Principal Investigator: Laura Clarke Bridgewater
Funding Source: NIAMS/NIH, grant #RO3 AR 46362, 1999-2002
\$222,000

“Research Supplement for Underrepresented Minorities”
Principal Investigator: Laura Clarke Bridgewater
Funding Source: NIAMS/NIH, supplement to grant #1 RO3 AR 46362, 2000-2002
\$47,820

“Establishing the foundation for treatment of cartilage collagen disorders by gene therapy”

Principal Investigator: Laura Clarke Bridgewater

Funding Source: BYU ORCA, Environments for Mentoring Grants Program, 2001
\$22,700

“Characterization of the role of SOX9 in cartilage differentiation”

Principal Investigator: Laura Clarke Bridgewater

Funding Source: The Damon Runyon Cancer Research Foundation, grant #DRG1464
1997-1999
\$98,500

PUBLICATIONS

1. **Bridgewater, L.C.**, Zhang, C., Wu, Y., Zhang, Q., Hu, W., Wang, J., Li, S., Zhao, L. “Gender-based differences in host behavior and gut microbiota composition in response to high fat diet and stress in a mouse model.” (in revision).
2. Cordner, R.D., Friend, L.N., Mayo, J.L., Badgley, C., Wallmann, A., Stallings, C., Young, P., Miles, D., Edwards, J.G., & **Bridgewater, L.C.** “The BMP2 nuclear variant, nBMP2, is expressed in mouse hippocampus and impacts memory.” (in revision).
3. Rose, B.J., Seegmiller, R.E., **Bridgewater, L.C.**, Kooyman, D.L. “Collagen mutant mouse models provide an important tool to study osteoarthritis.” *Journal of Arthritis* 5(5): 1000213 DOI: 10.4172/2167-7921.1000213 (2016).
4. Beatty, A., Bowden, A.E., **Bridgewater, L.C.** “Functional validation of a complex loading whole spinal segment bioreactor design.” *Journal of Biomechanical Engineering* 138(6):064501 doi: 10.1115/1.4033546 <http://dx.doi.org/10.1115/1.4033546> (2016).
5. Long, W., Xue, Z., Zhang, Q., Feng, Z., **Bridgewater, L.C.**, Wang, L., Zhao, L., Pang, X. “Differential responses of gut microbiota to the same prebiotic formula in oligotrophic and eutrophic batch fermentation systems.” *Scientific Reports* 5:13469 doi: 10.1038/srep13469 <http://www.nature.com/articles/srep13469> (2015).
6. Olsen, D.S., Goar, W.A., Nichols, B.A., Bailey, K.T., Christensen, S. L., Merriam, K.R., Reynolds, P.R., Wilson, E., Weber, K.S., **Bridgewater, L.C.** “Targeted mutation of nuclear bone morphogenetic protein 2 (nBMP2) impairs secondary immune response in a mouse model.” *BioMed Research International* vol. 2015, Article ID 975789, doi:10.1155/2015/975789 <http://www.hindawi.com/journals/bmri/2015/975789/> (2015).
7. Zhang, C., Yin, A., Li, H., Wang, R., Wu, G., Shen, J., Zhang, M., Wang, L., Hou, Y., Ouyang, H., Zhang, Y., Zheng, Y., Wang, J., Lv, X., Wang, Y., Zhang, F., Zeng, B., Li, W., Yan, F., Zhao, Y., Pang, X., Zhang, X., Fu, H., Chen, F., Zhao, N., Hamaker, B.R., **Bridgewater, L.C.**, Weinkove, D., Clement, K., Dore, J., Holmes, E., Xiao, H., Zhao, G., Yang, S., Bork, P., Nicholson, J.K., Wei, H., Tang, H., Zhang, X., Zhao, L. “Dietary modulation of gut microbiota contributes to alleviation of both genetic and simple obesity in children.” *EBioMedicine* 2:966-982.

<http://dx.doi.org/10.1016/j.ebiom.2015.07.007> (2015).

8. Stolworthy, D.K., Bowden, A.E., Roeder, B.L., Robinson, T.F., Holland, J.G., Christensen, S.L., Beatty, A.M., **Bridgewater, L.C.**, Eggett, D.L., Wendel, J.D., Stieger-Vanegas, S. "MRI evaluation of spontaneous intervertebral disc degeneration in the alpaca cervical spine." *Journal of Orthopaedic Research* <http://onlinelibrary.wiley.com/doi/10.1002/jor.22968/full> (2015).
9. Xue, Z., Zhang, W., Wang, L., Hou, R., Zhang, M., Fei, L., Zhang, X., Huang, H., **Bridgewater, L.**, Jiang, Y., Jiang, C., Zhao, L., Pang, X., and Zhang, Z. "The bamboo-eating giant panda harbors a carnivore-like gut microbiota, with excessive seasonal variations." *mBio* 6:3, doi: 10.1128/mBio.00022-15 <http://mbio.asm.org/content/6/3/e00022-15.full> (2015).
10. Chen, H., Liu, Y., Zhang, M., Wang, G., Qi, Z., **Bridgewater, L.C.**, Zhao, L., Tang, Z, Pang, X. "A *Filifactor alocis*-centered co-occurrence group associates with periodontitis across different oral habitats." *Scientific Reports* 5:9053, doi: 10.1038/srep09053 <http://www.nature.com/articles/srep09053> (2015).
11. Stolworthy, D.K., Fullwood, R.A., Merrell, T.M., **Bridgewater, L.C.**, & Bowden, A.E. "Biomechanical comparison of the camelid and human intervertebral disc." *Journal of Orthopaedic Translation* 3:34-43, <http://dx.doi.org/10.1016/j.jot.2014.12.001> (2014).
12. **Bridgewater, L.C.**, Mayo, J.L., Evanson, B.G., Whitt, M.E., Dean, S.A., Yates, J.D., Holden, D.N., Schmidt, A.D., Fox, C.L., Dhunghel, S., Steed, K.S., Adam, M.M., Nichols, C.A., Loganathan, S.K., Barrow, J.R., & Hancock, C.R. "A novel bone morphogenetic protein 2 mutant mouse, nBmp2NLStm, displays impaired intracellular Ca²⁺ handling in skeletal muscle." *BioMed Research International*. Volume 2013, article ID 125492 <http://dx.doi.org/10.1155/2013/125492> (2013).
13. Ricks, M.S., Farrell, J.T., Falk, D.J., Holt, D.W., Rees, M., Carr, J., Williams, T., Nichols, B.A., **Bridgewater, L.C.**, Reynolds, P.R., Kooyman, D.L., & Seegmiller, R.E. "Osteoarthritis in the temporomandibular joint of *Col2a1* mutant mice." *Archives of Oral Biology*. 58:1092-1099 <http://www.sciencedirect.com/science/article/pii/S0003996913000666> (2013).
14. Holt, D.W., Henderson, M.L., Stockdale, C.E., Farrell, J.T., Kooyman, D.L., **Bridgewater, L.C.**, & Seegmiller, R.E. "Osteoarthritis-like changes in the heterozygous *sedc* mouse associated with the HtrA1-Ddr2-Mmp-13 degradative pathway: a new model of osteoarthritis." *Osteoarthritis and Cartilage* 20:430-439 <http://www.sciencedirect.com/science/article/pii/S1063458411003207> (2012).
15. Felin, J.E., Mayo, J.L., Loos, T.J., Jensen, J.D., Sperry, D.K., Gaufin, S.K., Meinhart, C.A., Moss, J.B., **Bridgewater, L.C.** "Nuclear variants of bone morphogenetic proteins." *BMC Cell Biology* 11:20, <http://www.biomedcentral.com/1471-2121/11/20> (2010).
16. Muller, P., Crofts, J.D., Newman, B.S., **Bridgewater, L.C.**, Lin, C-Y, Gustafsson, J-A, & Strom, A.

“SOX9 mediates the retinoic acid-induced HES-1 gene expression in human breast cancer cells.” *Breast Cancer Research and Treatment* 120:317-326

<http://link.springer.com/article/10.1007%2Fs10549-009-0381-6> (2010).

17. Mayo, J.L., Holden, D.N., Barrow, J.R., and **Bridgewater, L.C.** “The transcription factor Lc-Maf participates in *Col27a1* regulation during chondrocyte maturation.” *Experimental Cell Research* 315:2293-2300
<http://www.sciencedirect.com/science/article/pii/S0014482709001724> (2009).
18. Seegmiller, R.E., Bomsta, B.D., **Bridgewater, L.C.**, Niederhauser, C.M., Montañó, C., Sudweeks, S., Eyre, D.R., and Fernandes, R.J. “The heterozygous disproportionate micromelia (*Dmm*) mouse: Morphological changes in fetal cartilage precede postnatal dwarfism and compared to lethal homozygotes can explain the mild phenotype.” *Journal of Histochemistry and Cytochemistry* 56:1003-1011 <http://jhc.sagepub.com/content/56/11/1003.long> (2008).
19. Genzer, M.A., **Bridgewater, L.C.** “A *COL9A1* enhancer element activated by two interdependent SOX9 dimers.” *Nucleic Acids Research* 35:1178-1186
<http://nar.oxfordjournals.org/content/35/4/1178.long> (2007).
20. Bomsta, B.D., **Bridgewater, L.C.**, and Seegmiller, R.E. “Premature osteoarthritis in the Disproportionate micromelia (*Dmm*) mouse.” *Osteoarthritis and Cartilage* 14:477-485
<http://www.sciencedirect.com/science/article/pii/S1063458405003250> (2006).
21. Jenkins, E., Moss, J., Pace, J.M., and **Bridgewater, L.C.** “The new collagen gene *COL27A1* contains SOX9-responsive enhancer elements.” *Matrix Biology* 24:177-184
<http://www.sciencedirect.com/science/article/pii/S0945053X05000338> (2005).
22. Akiyama, H., Kamitani, T., Yang, X., Kandyil, R., **Bridgewater, L.C.**, Fellous, M., Mori-Akiyama, Y., and de Crombrughe, B. “The transcription factor Sox9 is degraded by the ubiquitin-proteasome system and stabilized by a mutation in a ubiquitin-target site.” *Matrix Biology* 23:499-505 <http://www.sciencedirect.com/science/article/pii/S0945053X04001246> (2005).
23. Harris, L.R., Kamarainen, O., Sevakivi, M., Miller, G.C., Clarke, J.W., Potter, J.L., and **Bridgewater, L.C.** “A novel retinoic acid-response element requires an enhancer element mediator for transcriptional activation.” *Biochemical Journal* 383:37-43 (2004).

The above paper was featured in an accompanying online commentary by Chris P.F. Redfern, “Enhancing enhancers: new complexities in the retinoid regulation of gene expression.” *Biochemical Journal* 383:e1-e2 (2004).

24. Rodriguez, R.R., Seegmiller, R.E., Stark, M.R., and **Bridgewater, L.C.** “A type XI collagen mutation leads to increased degradation of type II collagen in articular cartilage.” *Osteoarthritis and Cartilage* 12:314-320 (2004).
25. **Bridgewater, L.C.**, Walker, M.D., Miller, G.C., Ellison, T.A., Holsinger, L.D., Potter, J.L., Jackson, T.L., Chen, R.K., Winkel, V.L., Zhang, Z., McKinney, S., and de Crombrughe, B. “Adjacent DNA

sequences modulate Sox9 transcriptional activation at paired Sox sites in three chondrocyte-specific enhancer elements." *Nucleic Acids Research* 31:1541-1552 (2003).

26. Ricks, J.E., Ryder, V.M., **Bridgewater, L.C.**, Schaalje, B., and Seegmiller, R.E. "Altered mandibular development precedes the time of palate closure in mice homozygous for disproportionate micromelia: an oral clefting model supporting the Pierre-Robin sequence." *Teratology* 65:116-120 (2002).
27. **Bridgewater, L.C.**, Lefebvre, V., and de Crombrughe, B. "Chondrocyte-specific enhancer elements in the *Col11a2* gene resemble the *Col2a1* tissue-specific enhancer." *Journal of Biological Chemistry* 273:14998-15006 (1998).
28. **Bridgewater, L.C.**, Manning, F.C.R., and Patierno, S.R. "Arrest of replication by mammalian DNA polymerases α and β caused by chromium-DNA lesions." *Molecular Carcinogenesis* 23:201-206 (1998).
29. Singh, J.T., **Bridgewater, L.C.**, and Patierno, S.R. "Differential sensitivity of chromium-mediated DNA interstrand crosslinks and DNA-protein crosslinks to disruption by alkali and EDTA." *Toxicological Sciences* 45:72-76 (1998).
30. **Bridgewater, L.C.**, Manning, F.C.R., and Patierno, S.R. "Base-specific arrest of *in vitro* DNA replication by carcinogenic chromium: Relationship to DNA interstrand crosslinking." *Carcinogenesis* 15:2421-2427 (1994).
31. **Bridgewater, L.C.**, Manning, F.C.R., Woo, E.S., and Patierno, S.R. "DNA polymerase arrest by adducted trivalent chromium." *Molecular Carcinogenesis* 9:122-133 (1994).
32. Patierno, S.R., Blankenship, L.J., Wise, J.P., Xu, J., **Bridgewater, L.C.**, and Manning, F.C.R. "Genotoxin-induced apoptosis: Implications for carcinogenesis." In Hu, V.W. (ed.) *The Cell Cycle: Regulators, Targets and Clinical Applications*, Plenum Press, New York, pp. 331-340 (1994).
33. Manning, F.C.R., Blankenship, L.J., Wise, J.P., Xu, J., **Bridgewater, L.C.**, and Patierno, S.R. "Induction of internucleosomal DNA fragmentation by carcinogenic chromate: Relationship to DNA damage, genotoxicity, and inhibition of macromolecular synthesis." *Environmental Health Perspectives* 102:159-167 (1994).
34. **Clarke*, L.**, Hepworth, W.B., Carey, J.C., and Seegmiller, R.E. "Chondrodystrophic mice with coincidental agnathia: Evidence for the tongue obstruction hypothesis in cleft palate." *Teratology* 38:565-570 (1988) [*Clarke is maiden name].

ABSTRACTS/POSTER PRESENTATIONS

1. Franson, J.J., Sevey, R., Zhao, J., White, J., Hilton, A., Rees, A., Ong, K.L., Choksi, N., Grose, J., Bridgewater, L.C. "Effect of Diet on the Microbiota of a Mouse Model with a Genetically Increased Metabolism Rate" American Society of Microbiology Intermountain Branch Meeting. Salt Lake City, Utah (2016).

2. Franson, J.J., White, J., Ong, K.L., Choksi, N., Hilton, A., Rees, A., Resolme, J., Zhao, J., Sevey, R., Olsen, K., Grose, J., Bridgewater, L.C. "Effect of Diet, Genes, and Microbiota on Glucose Tolerance in a Mouse Model with a Genetically Increased Metabolic Rate." LDS Life Science Research Symposium. Lehi, Utah (2016).
3. Zhao, J., Grossarth, S., Grose, J., Bridgewater, L.C. "Phage hunting through the human gut." Phabulous Phages Conference. Provo, Utah (2016)
4. White, J., Franson, J., Rees, A., Hilton, A., Ong, K.L., Choksi, N., Resolme, J., Zhao, J., Grose, J., Bridgewater, L.C. "PAS kinase and its role in the development of diabetes and obesity in mice." Utah Conference for Undergraduate Research. Salt Lake City, Utah (2016).
5. Bowden, A.E., Beatty, A.M., Bridgewater, L.C. "Design and validation of a complex loading whole spinal segment bioreactor." Philadelphia Spine Research Symposium, held in conjunction with the Orthopaedic Research Society. Philadelphia, Pennsylvania (2015).
6. Hancock, J., Cook, M., Grose, J., Bridgewater, L.C., and Weber, K.S. "Role of PAS kinase and metabolism on immune cells." Autumn Immunology Conference. Chicago, Illinois (2015).
7. Rees, A., Franson, J., White, J., Ong, K.L., Choksi, N., Hilton, A., Grose, J., and Bridgewater, L.C. "The role of PAS kinase and the gut microbiome in metabolism and diabetes onset in mice. American Society for Microbiology. New Orleans, Louisiana (2015).
8. Yates, J.D. **Bridgewater, L.C.** "Evidence for a nuclear variant of decapentaplegic (dpp)." Southwest Regional Meeting of the Society for Developmental Biology. Aurora, Colorado (2014).
9. Mayo, J.L., Nichols, B.A., Olsen, D.S., Corder, R.D., Hancock, C.R., Weber, K.S., Wilson, E., Edwards, J.G., Barrow, J.R., and **Bridgewater, L.C.** "The nBMP2 mutant mouse shows defects in intracellular calcium transport-regulated pathways." Southwest Regional Meeting of the Society for Developmental Biology. Aurora, Colorado (2014).
10. **Bridgewater, L.C.**, Christensen, S.L. Stolworthy, D.K., Fullwood, R.A., Merrell, T.M., Holland J.G., Harmon, L.M., Robinson, T., Bowden, A.E. "Development of an alpaca disc culture system for the study of intervertebral disc degeneration." Second International Spine Research Symposium, Philadelphia Spine Research Society. Philadelphia, Pennsylvania (2013).
11. Bowden, A.E, Stolworthy, D.K., Fullwood, R.A., Merrell, T.M., Robinson, T.F., Christensen, S.L., Holland J.G., **Bridgewater, L.C.** "Development of an alpaca disc culture system for the study of intervertebral disc degeneration." Orthopaedic Research Society Annual Meeting, San Antonio, Texas (2013).
12. Stolworthy, D.K., Fullwood, R.A., Merrell, T.M., Bowden, A.E., **Bridgewater, L.C.** "Mechanical parallels for a camelid cervical spine model of lumbar disc degeneration." Second International Spine Research Symposium, Philadelphia Spine Research Society. Philadelphia, Pennsylvania (2013).
13. Fullwood, R.A., Stolworthy, D.K., Bowden, A.E., and **Bridgewater, L.C.** "Alpaca cervical spine anatomy: Shape, size, AF/NP ratio." Emerging Ideas in Biomedical Research Conference, BYU, Provo, UT (2013). **(1st place prize in the poster competition.)**
14. Christensen, S.L., Holland, J.G., Fullwood, R.A., Stolworthy, D.K., Bowden, A.E., Robinson, T.F., and **Bridgewater, L.C.** "Development of an alpaca disc culture system for the study of intervertebral disc degeneration." Emerging Ideas in Biomedical Research Conference, BYU, Provo, UT (2013). **(2nd place prize in the poster competition.)**
15. Olsen, D.S., Bailey, K.T., Nichols, B.A., and **Bridgewater, L.C.** "Lack of nuclear BMP-2 causes reduced spleen size." American Society for Biochemistry and Molecular Biology Annual Meeting, Boston, Massachusetts (2013).
16. Nichols, B.A., Goar, W.A., McCune, B.T., and **Bridgewater, L.C.** "Nuclear localized BMP2 promotes cell cycle progression. American Society for Biochemistry and Molecular Biology Annual Meeting, Boston, Massachusetts (2013).
17. Rogers, A.C., Nichols, B.A., Loos, T.J., and **Bridgewater, L.C.** "Nuclear Bmp4 interacts with the SCF E3 ubiquitin ligase complex and inhibits the cell cycle." American Society for Biochemistry and Molecular Biology Annual Meeting, San Diego, California (2012).

18. Ricks, M.L., Falk, D.J., Farrell, J.T., Rees, M.B., Carr, J.M., Williams, D.T., Kooyman, D.L., **Bridgewater, L.C.**, and Seegmiller, R.E. "Premature osteoarthritis in the temporomandibular joint of heterozygous disproportionate micromelia mice." American Society for Biochemistry and Molecular Biology Annual Meeting, San Diego, California (2012).
19. Loos, T.J., and **Bridgewater, L.C.** "Nuclear Bmp4 (nBmp4) interacts with the SCF E3 ubiquitin ligase." American Society for Matrix Biology meeting, Charleston, South Carolina (2010).
20. Loos, T.J., and **Bridgewater, L.C.** "Nuclear Bmp4: a novel ROC1 and ROC2 binding partner." American Society for Biochemistry and Molecular Biology Annual Meeting, Anaheim, California (2010).
21. Cordner, R.D., Ventura, J., Blickenstaff, J., Walther, C., Mayo, J.L., Felin, J.E., Andreasen, B., Wallace, N., Cappechi, M.R., Edwards, J.G., and **Bridgewater, L.C.** "Mice bearing a targeted mutation of nBmp2 display decreased memory capabilities. American Society for Biochemistry and Molecular Biology Annual Meeting, Anaheim, California (2010).
22. Baldwin, M. and **Bridgewater, L.C.** "Identification of a consensus DNA binding sequence for nGdf5." American Society for Biochemistry and Molecular Biology Annual Meeting, Anaheim, California (2010).
23. McCune, B.T., Finley, M., Schmidt, A.D., Fox, C., Mayo, J.L., and **Bridgewater, L.C.** "Binding of nBmp2 to PLSR1 suggests a possible mechanism for nBmp2 regulation of calcium-modulating proteins." American Society for Biochemistry and Molecular Biology Annual Meeting, Anaheim, California (2010).
24. Evanson, B.G., Schmidt, A.D., Mayo, J.L., **Bridgewater, L.C.**, and Hancock, C.R.. "Nuclear bone morphogenetic protein 2 mutant mice exhibit slowed skeletal muscle relaxation and decreased tetany in the gastrocnemius, plantaris, soleus muscle complex." American Society for Biochemistry and Molecular Biology Annual Meeting, Anaheim, California (2010).
25. Schmidt, A.D., Loganathan, S.K., Adam, M.M., Nichols, C.A., Mayo, J.L., Felin, J.E., Capecchi, M.R., Barrow, J.R., and **Bridgewater, L.C.** "Mice bearing a targeted inactivation of nBmp2 show decreased muscle strength." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2009).
26. Holden, D.N., Mayo, J.L., Barrow, J.R., and **Bridgewater, L.C.** "The transcription factor Lc-Maf participates in *Col27a1* regulation during chondrocyte maturation." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2009).
27. Davis, E.D., Fonhoue, B.S.D., Felin, J.E., McCune, B.T., and **Bridgewater, L.C.** "Nuclear Bmp2 (nBmp2) alters the expression of several genes." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2009).
28. Adam, M.M., Nichols, C.A., Schmidt, A.D., Logonathan, S.K., Thomson, D., Capecchi, M.R., Barrow, J.R., and **Bridgewater, L.C.** "Mice with targeted inactivation of nBmp2 exhibit increased daytime activity." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2009).
29. Cordner, R.D., Loos, T.J., and **Bridgewater, L.C.** "ROC1 and ROC2: Interactions with the nuclear variant of Bmp4." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2009).
30. Loos, T.J., and **Bridgewater, L.C.** "Determining the function of nuclear Bmp4." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2009).
31. Mayo, J.L., Wilkinson, S., Felin, J.E., Lin, C.-Y., and **Bridgewater, L.C.** "A potential role for the nuclear variant of Bmp2 (nBmp2) in carcinogenesis." American Association for Cancer Research Annual Meeting, Los Angeles, California (2007).
32. Sudweeks, T.J. and **Bridgewater, L.C.** "A novel nuclear variant of Bmp4." American Association for Cancer Research Annual Meeting, Los Angeles, California (2007).
33. Jensen, J.D., Sperry, D.K., Hansen, J.D., Davis, R.E., Felin, J.E., and **Bridgewater, L.C.** "Nuclear localization of GDF5 is mediated by a bipartite nuclear localization signal." American Association for Cancer Research Annual Meeting, Los Angeles, California (2007).
34. Hansen, J.D., Jensen, J.D., Sperry, D.K., Felin, J.E., and **Bridgewater, L.C.** "Nuclear localization of GDF5." American Association for Cancer Research Annual Meeting, Los Angeles, California (2007).

35. **Bridgewater, L.C.**, Mayo, J.L., and Felin, J.E. "Nuclear localization of Bmp2." American Society for Matrix Biology Biannual Meeting, Nashville, Tennessee (2006).
36. Seegmiller, R.E., Niederhauser, C.M., Montañó, C., Bomsta, B.D., Wink, A.E., Sudweeks, S.N., and **Bridgewater, L.C.** "Aggrecan expression in *Dmm* mice." American Society for Matrix Biology Biannual Meeting, Nashville, Tennessee (2006).
37. Jensen, J.D., Felin, J.E., Meinhart, C., and **Bridgewater, L.C.** "Nuclear localization of GDF-5." American Society for Biochemistry and Molecular Biology Annual Meeting, San Francisco, California (2006).
38. Mayo, J.L., Barrow, J.R., and **Bridgewater, L.C.** "Coordinate regulation of *Col11a2* and *Col27a1* by the transcription factor Lc-Maf." American Society for Biochemistry and Molecular Biology Annual Meeting, San Francisco, California (2006).
39. Niederhauser, C.M., Montañó, C., Bomsta, B.D., Seegmiller, R.E., Sudweeks, S.N, and **Bridgewater, L.C.** "Aggrecan 1 expression in *Dmm* mice." American Society for Biochemistry and Molecular Biology Annual Meeting, San Francisco, California (2006).
40. Felin, J.E., Mayo, J.L., and **Bridgewater, L.C.** "Nuclear localization of BMP2." American Society for Biochemistry and Molecular Biology Annual Meeting, San Francisco, California (2006).
41. Ellertson, B.D., Felin, J.E., Kubo, C., Merrell, K., and **Bridgewater, L.C.**, "Identification of proteins that bind a *Col11a2* enhancer element." American Society for Biochemistry and Molecular Biology Annual Meeting, San Francisco, California (2006).
42. Timme, D.W., Meinhart, C., Mason, B., and **Bridgewater, L.C.** "A novel function for a ribosomal protein in transcriptional regulation." American Society for Biochemistry and Molecular Biology Annual Meeting, San Francisco, California (2006).
43. Kubo, C., Richins, S., and **Bridgewater, L.C.** "A new transcriptional regulator of the *Col11a2* gene." American Society for Biochemistry and Molecular Biology Annual Meeting, San Diego, California (2005).
44. Kunz, W.B., Meinhart, C., Olsen, J., and **Bridgewater, L.C.** "Identification of proteins that bind a chondrocyte-specific enhancer element." American Society for Biochemistry and Molecular Biology Annual Meeting, San Diego, California (2005).
45. Rogers, C.D., Mason, B., Timme, D., and **Bridgewater, L.C.** "Identification of candidate transcriptional regulators of the *Col11a2* gene. American Society for Biochemistry and Molecular Biology Annual Meeting, San Diego, California (2005).
46. Genzer, M.A., DeWidt, S.P., and **Bridgewater, L.C.** "The role of SOX9 dimerization in cartilage gene regulation." American Society for Biochemistry and Molecular Biology Annual Meeting, San Diego, California (2005).
47. Haberle, T., Tait, M.A., Moss, J.B., and **Bridgewater, L.C.** "The transcription factor MyoD binds to a cartilage-specific enhancer element. American Society for Biochemistry and Molecular Biology Annual Meeting, San Diego, California (2005).
48. Mayo, J.L., and **Bridgewater, L.C.** "Cartilage-specific collagen gene regulation by the transcription factor Lc-Maf." American Society for Biochemistry and Molecular Biology Annual Meeting, San Diego, California (2005).
49. Bomsta, B., **Bridgewater, L.C.**, Fernandes, R. and Seegmiller, R.E. "Structural changes in fetal growth cartilage precede postnatal dwarfism in mice heterozygous for Disproportionate micromelia. American Society for Matrix Biology Semiannual Meeting, San Diego, California (2004).
50. Bomsta, B.D., Gessel, L., **Bridgewater, L.C.**, and Seegmiller, R.E. "Histopathological changes in relation to proteoglycan degradation in articular cartilage of disproportionate micromelia mice as a predisposing factor leading to osteoarthritis" Osteoarthritis Research Society International Annual Meeting, Chicago, Illinois (2004)
51. Jenkins, E., Pace, J.M., and **Bridgewater, L.C.** "SOX9 regulates transcription of the new minor fibrillar collagen gene, *COL27A1*." American Society for Biochemistry and Molecular Biology Annual Meeting, Boston, Massachusetts (2004).
52. Moss, J., Smith, S., Orme, N., Jackson, T., Jenkins, E., Hillam, A., Carmack, T., Harris, L., and

- Bridgewater, L.C.** "Identification of two novel regulatory elements in the first intron of the *Col11a2* gene." American Society for Biochemistry and Molecular Biology Annual Meeting, Boston, Massachusetts (2004).
53. **Bridgewater, L.C.**, Orme, N.M., Smith, S.A., Miller, G.C., Hillam, A., Carmack, T.T., Bennion, K.K., Clarke, J.W., Potter, J.L., and Harris, L.R. "Positive and negative *cis* elements affect the activity of two *Col11a2* enhancer elements." Gordon Conference on Cartilage Biology and Pathology, Ventura, California (2003).
 54. Murphy, D.L., Parker, W.B., Rodriguez, R.R., Poole, A.R., Schaalje, G.B., Seegmiller, R.E., and **Bridgewater, L.C.** "*Cho* mouse articular cartilage reveals ultrastructural changes in relation to collagen degradation: the potential for transgene rescue of osteoarthritis and chondrodysplasia." American Society for Matrix Biology Annual Meeting, Houston, Texas (2002).
 55. Crosby, B., Vaughn, S., **Bridgewater, L.C.**, and Seegmiller, R.E. "Mice bearing a type XI collagen mutation show premature deterioration of the femoral articular surface. American Society for Matrix Biology Annual Meeting, Houston, Texas (2002).
 56. Vaughn, S., Crosby, B., **Bridgewater, L.C.**, and Seegmiller, R.E. "Progression of early-onset osteoarthritis of the femoral condyle in mice with a *Col2a1* mutation. American Society for Matrix Biology Annual Meeting, Houston, Texas (2002).
 57. Harris, L.R., Miller, G.M., and **Bridgewater, L.C.** "A *cis*-acting element in the 5' region of the *Col11a2* gene acts cooperatively with two known enhancers." American Society for Matrix Biology Annual Meeting, Houston, Texas (2002).
 58. Orme, N.M., Harris, L.R., Jenkins, E., and **Bridgewater, L.C.** "Identification of a negative regulatory element in the first intron of the mouse *Col11a2* gene." American Society for Matrix Biology Annual Meeting, Houston, Texas (2002).
 59. Harris, L.R., Miller, G.C., and **Bridgewater, L.C.** "*Cis*-acting elements in the 5' region of the *Col11a2* gene cooperate with two known enhancers to increase transcriptional activity." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2002).
 60. Babcock, W., Seegmiller, R.E., and **Bridgewater, L.C.** "Ultrastructural differences in the articular cartilage of mice genetically predisposed to osteoarthritis." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2002).
 61. Bennion, K.K., Walker, M.D., Moss, J.B., Chen, R.K., Taylor, H., Freeman, E., Thulin, C.D., and **Bridgewater, L.C.** "Identification of proteins that trans-activate the D/E enhancer of the *Col11a2* gene." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2002).
 62. Jackson, T.L., and **Bridgewater, L.C.** "Examination of AP-4 as a transcriptional activator of the *Col11a2* chondrocyte-specific enhancer elements." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2002).
 63. Smith, S.A., Miller, G.C., Hillam, A., Carmack, T.T., Bennion, K.K., and **Bridgewater, L.C.** "Identification of a novel positive *cis*-acting element in the first intron of the mouse *Col11a2* gene." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2002).
 64. Rodriguez, R.R., Seegmiller, R.E., Poole, A.R., and **Bridgewater, L.C.** "Increased type II collagen degradation co-localizes with osteoarthritic lesions in *Col11a1* mutant mice." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2002).
 65. Moss, J.B., Bennion, K.K., Walker, M.D., Freeman, E., Thulin, C.D., and **Bridgewater, L.C.** "Identification of a protein that binds to the *Col11a2* B/C enhancer element." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2002).
 66. Jenkins, E., Smith, S.A., Miller, G.C., Hillam, A., Carmack, T.T., Bennion, K.K., and **Bridgewater, L.C.** "Identification of a possible *cis*-acting element in the first intron of the *Col11a2* gene." American Society for Biochemistry and Molecular Biology Annual Meeting, New Orleans, Louisiana (2002).
 67. Seegmiller, R.E., Ryder, V., Jackson, R., Rodriguez, R., Vu, H., Babcock, W., Poole, R., Crowe, R., and **Bridgewater, L.C.** "Comparison of two collagen mutant mouse lines that serve as models of early-

- onset osteoarthritis in human chondrodysplasia." Gordon Conference on Collagen, New London, New Hampshire (2001).
68. Seegmiller, R.E., Ryder, V., and **Bridgewater, L.C.** "Histological and ultrastructural evidence of osteoarthritis in mice carrying a semi-dominant mutation of *Col2a1*." Gordon Research Conference on Signal Transduction by Engineered Extracellular Matrices, Tilton, New Hampshire (2000).
 69. Holsinger, D., Ellison, T., Chen, R., Winkel, V., Sampson, J., Walker, M., de Crombrughe, B., and **Bridgewater, L.C.** "Search for protein-binding sites in three chondrocyte-specific enhancer elements from the mouse *Col11a2* gene." First Symposium of the International Society for Matrix Biology, Philadelphia, Pennsylvania (2000).
 70. Potter, J., Clarke, J., Carmack, T., Hillam, A., Bennion, K., and **Bridgewater, L.C.** "A systematic search for chondrocyte-specific enhancers in the mouse *Col11a2* gene." First Symposium of the International Society for Matrix Biology, Philadelphia, Pennsylvania (2000).
 71. Seegmiller, R.E., Ryder, V., and **Bridgewater, L.C.** "Histological and ultrastructural evidence of osteoarthritis in mice carrying a semi-dominant mutation of *Col2a1*." First Symposium of the International Society for Matrix Biology, Philadelphia, Pennsylvania (2000).
 72. **Bridgewater, L.C.**, and de Crombrughe, B. "Chondrocyte-specific enhancer elements in the *Col11a2* and *Col2a1* genes share common characteristics." American Association for Cancer Research, Philadelphia, Pennsylvania (1999).
 73. **Bridgewater, L.C.**, McKinney, S., Zhang, Z., Lefebvre, V., and de Crombrughe, B. "The role of HMG binding sites in *Col11a2* chondrocyte-specific enhancers." Gordon Conference on Collagen, New London, New Hampshire (1999).
 74. **Bridgewater, L.C.**, Lefebvre, V., and de Crombrughe, B. "Chondrocyte-specific enhancer elements in the *Col11a2* gene resemble the *Col2a1* tissue-specific enhancer." American Society for Biochemistry and Molecular Biology Annual Meeting, Washington, D.C. (1998).
 75. **Bridgewater, L.C.** and de Crombrughe, B. "Chondrocyte-specific regulation of the *Col11a2* gene resembles regulation of *Col2a1*." Gordon Conference on Collagen, New London, New Hampshire (1997).
 76. **Bridgewater, L.C.** and Hanis, C.L. "A candidate gene for non insulin-dependent diabetes mellitus susceptibility: Search for mutations in the M-type pyruvate kinase gene." American Society of Human Genetics (1996).
 77. **Bridgewater, L.C.**, Manning, F.C.R., and Patierno, S.R. "A Chromium-mediated DNA interstrand crosslinks cause base-specific DNA polymerase arrest." American Association for Cancer Research Annual Meeting, Toronto, Ontario, Canada (1995).
 78. **Bridgewater, L.C.**, Manning, F.C.R., and Patierno, S.R. "Base-specific DNA polymerase arrest by carcinogenic chromium and nickel ions." American Association for Cancer Research Annual Meeting, San Francisco, California (1994).
 79. **Bridgewater, L.C.**, Manning, F.C.R., and Patierno, S.R. "Analysis of the mechanisms of chromium-induced polymerase arrest in an *in vitro* DNA replication system." American Association for Cancer Research Annual Meeting, Orlando, Florida (1993).
 80. Manning, F.C.R., Blankenship, L.J., Wise, J.P., Xu, J., **Bridgewater, L.C.**, and Patierno, S.R. "Induction of apoptosis by carcinogenic chromate: Relationship to genotoxicity, cell cycle delay, and inhibition of macromolecular synthesis." Second International Meeting on Molecular Mechanisms of Metal Toxicity and Carcinogenicity (1993).
 81. **Bridgewater, L.C.**, Manning, F.C.R., and Patierno, S.R. "Analysis of the effect of chromium-DNA adducts on *in vitro* DNA replication using a *Taq* polymerase stop assay." American Association for Cancer Research Annual Meeting, San Diego, CA (1992).