

Robert M. Jonas, Ph.D.
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Seguin, TX 78155
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EDUCATION/EXPERIENCE:

2006-present	Professor, Department of Biology Texas Lutheran University Seguin, Texas 78155
Fall 2013	Visiting Professor, Harlaxton College, UK (taught Biol 100, EnvSci 103, and Phil 317, U. Evansville)
1997-2006	Associate Professor, Department of Biology Texas Lutheran University Seguin, Texas 78155
2000-2005	Chair, Department of Biology Texas Lutheran University Seguin, Texas 78155
1991-1997	Assistant Professor, Department of Biology (tenured Fall 1996) Texas Lutheran University Seguin, Texas 78155
1989-1991	Postdoctoral Fellow Mentor: Jim Hoch Research Institute of Scripps Clinic, Department of Molecular and Experimental Medicine La Jolla, California 92137
1984-1989	University of Texas Health Science Center at San Antonio San Antonio, Texas 78284 Ph.D., Microbiology Mentor: Bill Haldenwang Graduate Teaching Assistant, Medical and Dental Microbiology Laboratories
1984	Visiting Lecturer Eastern Michigan University, Ypsilanti, Michigan
1981-1983	Eastern Michigan University, Ypsilanti, Michigan 48197 M.S., Biology Graduate Teaching Assistant, Introductory Biology and Genetics

1975-1979

Michigan State University,
East Lansing, Michigan 48228
B.S. with honor, Biological Science-Interdisciplinary

Professional Organizations:

American Society for Microbiology
Texas Branch of the American Society for Microbiology
American Association for the Advancement of Science
Project Kaleidoscope Faculty for the 21st Century

Journal Articles:

Jonas, R.M., E.A. Weaver, T.J. Kenny, C.P. Moran, Jr., and W.G. Haldenwang. 1988. The *Bacillus subtilis spoIIG* operon encodes both sigma E and a gene necessary for sigma E activation. *J. Bacteriol.* 170: 507-511.

Jonas, R.M. and W.G. Haldenwang. 1989. Influence of *spo* mutations on sigma E synthesis in *Bacillus subtilis*. *J. Bacteriol.* 171: 5226-5228.

Jonas, R.M., H.K. Peters III, and W.G. Haldenwang. 1990. Phenotypes of *Bacillus subtilis* mutants altered in the precursor-specific region of sigma E. *J. Bacteriol.* 172: 4178-4186.

Jonas, R.M., S.C. Holt, and W.G. Haldenwang. 1990. Effects of antibiotics on synthesis and persistence of sigma E in sporulating *Bacillus subtilis*. *J. Bacteriol.* 172: 4616-4623.

Trach, K., D. Burbulys, J.J. Wu, R. Jonas, C. Hanstein, P. Kallio, M. Strauch, M. Perego, T. Bird, G. Spiegelman, C. Fogher, and J. A. Hoch. 1991. Control of the initiation of sporulation in *Bacillus subtilis* by a phosphorelay. *Res. Microbiol.* 142: 815-823.

Strauch, M.A., J.J. Wu, R.M. Jonas, and J.A. Hoch. 1993. A positive feedback loop controls transcription of the *spoOF* gene, a component of the sporulation phosphorelay in *Bacillus subtilis*. *Mol. Microbiol.* 7: 967-974.

Peer Reviewed Abstracts:

Jonas, R.M. and W.G. Haldenwang. 1986. Mutations in the structural gene (*spoIIG*) for the *Bacillus subtilis* protein P³¹ which influence sigma 29 synthesis and activity. Abstracts of the Annual Meeting of the American Society for Microbiology, Washington, D.C.

Jonas, R.M. and W.G. Haldenwang. 1987. Construction of an altered *spoIIIG* gene which encodes the *Bacillus subtilis* sigma E/sigma 29 protein but not its precursor (P³¹). Fourth International Conference on Genetics and Biotechnology of Bacilli, San Diego, California.

Weaver, E.A., R.M. Jonas, and W.G. Haldenwang. 1987. A genetic locus within two kilobase pairs of the *Bacillus subtilis* sigma E (sigma 29) structural gene is required for sigma E processing from a precursor protein (P³¹). Fourth International Conference on Genetics and Biotechnology of Bacilli, San Diego, California.

Jonas, R.M., E.A. Weaver, and W.G. Haldenwang. 1988. Aspects of the processing of the *Bacillus subtilis* sigma factor, sigma E, from its inactive precursor. The Tenth International Spores Conference, Woods Hole, Massachusetts.

Jonas, R.M., S.C. Holt, and W.G. Haldenwang. 1989. The antibiotic-mediated uncoupling of *Bacillus subtilis* sigma E processing from forespore septum formation. Abstracts of the Annual Meeting of the American Society for Microbiology, New Orleans, Louisiana.

Jonas, R.M. 1996. Use of transposon Tn917lac in undergraduate research projects. Abstracts of the General Meeting of the American Society for Microbiology, New Orleans, Louisiana.

Piepmeyer, E.H., R.M. Jonas, L.P. Krock, J.E. Kalns, G.E. Wolf, and D.M. Klaus. Space flight effects on *Escherichia coli* cell cycle and drug resistance. Aviation, Space, and Environmental Medicine, May, 1997.

Jonas, R.M., N. A. Jeske*, and J. Bohmann. 1999. Interdisciplinary lab projects involving NMR analysis of bacterial metabolism. American Society for Microbiology General Meeting, Chicago, Illinois.

Kutac, J.*, S. Hartman*, and R. Jonas. 2001. Experimentally produced evolution of *Bacillus subtilis*: a model system. American Society for Microbiology General Meeting, Orlando, FL.

Abstracts:

Jonas, R.M., T.L. LaBell, J.E. Trempey, and W.G. Haldenwang. 1986. Two levels of developmental gene control regulate a sporulation-specific sigma factor (sigma 29) of *Bacillus subtilis*. Lost Pines Molecular Biology Conference, Smithville, Texas.

Wagner, M.L.* and R.M. Jonas. 1993. Characterization of *Staphylococcus aureus* isolates from an asymptomatic population. Texas Branch American Society for Microbiology Fall Meeting, Austin, Texas.

Wagner, M.L.* , P.E. Pope*, and R.M. Jonas. 1994. Tn917-lac transposon mutagenesis and selection of insertion mutants in *Bacillus subtilis*. Texas Branch American Society for Microbiology Fall Meeting, College Station, TX.

Sigsbee, J.L.*, T. Motycka*, and R.M. Jonas. 1996. Cloning of the Tn917 insertions from the *Bacillus subtilis* chromosome. Texas Branch American Society for Microbiology Spring Meeting, Junction, TX.

Motycka, T.* and R.M. Jonas. 1997. Mapping and sequencing of the Tn917 insertions from the *Bacillus subtilis* chromosome. Texas Branch of the American Society for Microbiology Spring Meeting, Junction, TX.

Cox, J. M.*, J. Kutac*, S. Hartman-Gardner*, and R. Jonas. 2002. Phenotypic changes observed in passaged cultures. Texas Branch of the American Society for Microbiology Spring Meeting, Junction, TX.

Novakowski, L.* and R. Jonas. 2002. Phenotypic changes due to passage of *Myxococcus xanthus*. Texas Branch of the American Society for Microbiology Spring Meeting, Junction, TX.

Still, L.*, Weise, J.*, and R. Jonas. 2004. Protein profiles of serially passaged strains of *Bacillus subtilis*. Texas Branch of the American Society for Microbiology Spring Meeting, Fischer, TX.

Brock, M.*, E. Jastram*, R. Parkhurst*, J. Aldridge, and R. Jonas. 2004. EPSIM: An Adventure into Bioinformatics. IEEE Computer Society (Trinity Univ., San Antonio) and the Consortium for Computer Science at Colleges (Austin).

Scholer, A.* and R. Jonas. 2005. Fecal Coliform survey of the Guadalupe River. Texas Branch of the American Society for Microbiology Spring Meeting, Fischer, TX.

Allende, Lucas*, Robert Parkhurst*, Eric Jastram* and R. Jonas. 2006. Computer modeling of a bacterial decision-making mechanism. 22nd Annual Frontiers of Cardiology, Winter Park, CO.

Abbott, Rachel*, Briea DeMarco* and R. Jonas. 2008. Phenotypic characterization of serially passaged *Bacillus subtilis*. Texas Branch of the American Society for Microbiology Spring Meeting, New Braunfels, TX.

Mkparu, Uzonna* and R. M. Jonas, 2009. Genetics of Passaged Strains of *Bacillus subtilis*. Texas Branch of the American Society for Microbiology Spring Meeting, New Braunfels, TX.

Caffey, Natalie* and R. Jonas, 2010. Identification of cellulose degrading bacteria for use in biofuels research. Texas Branch of the American Society for Microbiology Spring Meeting, New Braunfels, TX.

David Lizarraga* and R. Jonas, 2014. Evolution of isolated *Bacillus* strains. Texas Branch of the American Society for Microbiology Spring Meeting, New Braunfels, TX.

*T.L.U. student

Essays:

Jonas, R. "How to Become a Microbiology Department" in "The Biologist's Forum", Bios 72: 18-20, 2001.

Jonas, R. "Toxic Knowledge: How much do you want to know?" in *The TLU Reader*, © 2011.

Grants:

Public Health Service, National Research Service Award #1 F32 GM14127-01 BIOL-1 (AHR-S) from the National Institute of General Medical Sciences. (Title: "Study of the *Bacillus subtilis spoOK* and *spoOL* Genes"), 1990

National Science Foundation Academic Research Infrastructure Grant to Texas Lutheran College (Co-P.I.), 1993

National Science Foundation Research in Undergraduate Institutions Faculty Research Project Grant #MCB-9316114 (Genetics and Nucleic Acids program, Division of Molecular and Cellular Biosciences). (Title: "Cloning of Genes Transcribed by Alternate Sigma Factors"), 1994-1995

Genomic Education Matching Funds Program, Li-Cor Biosciences, Inc., \$25,000 towards purchase of a DNA Analyzer, 2004

Gillson Longenbaugh Foundation (Bioinformatics research), \$12,780, 2005

Gillson Longenbaugh Foundation (Microbial genetics research) \$9350, 2006

Gillson Longenbaugh Foundation (Microbial genetics research) \$12,515, 2007

Gillson Longenbaugh Foundation (Microbial genetics research) \$10,000, 2008

Written, not funded:

National Science Foundation Instrumentation and Laboratory Improvement Program, November, 1991 (Co-P.I.).

National Science Foundation Young Investigator Awards Program, January, 1992

National Science Foundation Instrumentation and Laboratory Improvement Program, November, 1992 (Co-P.I.).

National Science Foundation Research in Undergraduate Institutions Faculty Research Project, Renewal, November, 1994.

National Science Foundation Research in Undergraduate Institutions Faculty Research Project, Rewrite of Renewal, June, 1995.

Howard Hughes Medical Institute Undergraduate Science Education Program Grant, 2003 (Co-PI)

Courses Taught:

Bio/Biol 130 Basic Biology: F 1991, Sp 1992, F 1992, Sp 1993, F 1993, Sp 1994, F 1994, Sp 1995, F 1995, Sp 1996, F 1996, Sp 2002, Sp 2003, Sp 2004, Sp 2005, Sp 2006, Sp 2007, Sp 2008, Sp 2009, Sp 2010, F 2010, Sp 2011, Sp 2014

Bio/Biol 143 Biological Systems I: F 1996, F 1997, F 1998, F 1999, F 2000, F 2001, F 2002, F 2003, F 2004, F 2005, F 2006, F 2007, F 2008, F 2009, F 2012

Bio 144 Biological Systems II: Sp. 1998

Biol 148 Human Anatomy and Physiology II: Sp 2012, Sp 2013

Bio 235 Principles of Nutrition: F 2001

Bio/Biol 242 Microbiology: F 1991, Su 1992 (Guadalupe Valley Hospital campus), F 1992, Su 1993 (GVH), F 1993, F 1994, Su 1995 (GVH), F 1995, F 1996, Su 1997 (GVH), F 1997, Su 1998 (GVH), F 1998, F 1999, Su 2000, F 2000, F 2001, F 2002, F 2003, F 2004, F 2005, F 2006, F 2007, F 2008, F 2009, F 2010, F 2011, F 2012, F 2013

Bio 379 Special Topics-Immunology: F 1997

Biol 431 Physiology: F 2008

Biol 438 Advanced Microbiology/Immunology: Sp 1999, Sp 2001, Sp 2003, Sp 2005, Sp 2007, Sp 2009, Sp 2011, Sp 2013

Biol 434/444 Molecular Biology: F 1991, F 1992, F 1993, F 2011

Bio 241 Plant Biology: Sp 1992, Sp 1995

Biol/Theo 339/Phil 371 Biomedical Ethics: Sp 1994, Sp 1996, Sp 1998, Sp 2000, Sp 2002, Sp 2004, Sp 2006, Sp 2008, Sp 2010, Sp 2012, Sp 2014

Biol/Chem 414 Biochemistry Lab: Sp 1992, Sp 1993, Sp 1994, Sp 1995, Sp 1996, Sp 1997, Sp 1998, Sp 1999, Sp 2000, Sp 2001, Sp 2002, F 2002, F 2003, F 2004, F 2005, Sp 2007, Sp 2008, Sp 2009, Sp 2010, Sp 2011, Sp 2012, Sp 2013, Sp 2014

Biol/Chem 437 Biochemistry: Sp 1992, Sp 1993, Sp 1994, Sp 1995, Sp 1996, Sp 1997, Sp 1998, Sp 1999, Sp 2000, Sp 2001, Sp 2002, Sp 2003, Sp 2004, Sp 2005, Sp 2007, Sp 2008, Sp 2009, Sp 2010, Sp 2011, Sp 2012, Sp 2013, Sp 2014

GEC 134 Exploring the Arts and Sciences: Sp 1993, F 1995, Sp 1999 (Randolph AFB campus), Sp 2000, Sp 2001

HON 211 Seminar in Arts and Ideas: F 1997

Honr 332 Interdisciplinary Seminar Sp 2010

Workshops Attended:

Development of Critical Thinking Skills in the Microbiology Curriculum, presented by the Board of Education and Training of the American Society for Microbiology, New Orleans, 1992.

A Brief Review of Medical Mycology, presented by the Texas Department of Health, held at TLU, June, 1994.

Bioinformatics VectorNet Workshop, presented by the Dolan DNA Learning Center, Cold Spring Harbor Laboratory, held at the Southwest Foundation for Biomedical Research, San Antonio, TX, June, 2002.

GCAT Synthetic Biology Workshop, Davidson College, July 2010

Additional Significant Responsibilities:

Sponsor, Kappa Pi Gamma Sorority, 1992-1998

Chair, Academic Computing Committee/Information Technology Committee, 1992-1995

Faculty Director, 1996 Krost Symposium: Molecular Biology

Sponsor, En-Act Environmental Club, 1995-1996

Sponsor, Beta Beta Beta Biological Honor Society, 1996, 1998-present

Course Coordinator, GEC 134, 1998-2001

Chair, Faculty Welfare Committee, 1998-2000

Rank and Tenure Committee member 2001-2005, 2008-2011

Academic Policies Committee member 2006-08

Co-Chair, SACS Quality Enhancement Plan Topics Committee 2007

Student Academic Symposium Committee 2008-present

TLU Faculty Athletics Representative, NCAA Division III

Vice-Chair of Faculty Association, 2011-2012

Chair of Faculty Association, 2012-2013