

CURRICULUM VITAE

DAVID A. WATSON

6 November 2006

Education

1991; Ph.D., Molecular Microbiology, University of Houston, TX (*Honors Pass*)

1986; M.S., Marine Biology, University of Houston, TX

1981; B.S., Biology, Millikin University, Decatur, IL (*Magna Cum Laude*)

Professional Certification/Licensure N/A

Employment

Administrative:

- 2006-Present; Director, Houston Office of Research, Texas Woman's University (TWU), Institute of Health Sciences.
- 2005-2006; Associate Vice Chancellor for Sandia Operations (Sandia National Laboratories, Albuquerque, NM), Office of Research and Technology Transfer, The University of Texas System (Austin).
- 1997-2005; Program Manager for National Space Biomedical Research Institute (NSBRI) Peer Review Services, InDyne, Inc. (Houston, TX).
- 2004-2005; Director, Summer High School Student Research Program, University of Texas Medical Branch (UTMB), Galveston.
- 2004-2005; Member, Executive Science and Medicine Council, National Space Biomedical Research Institute.
- 1997-2001; Executive Secretary (elected) for the NSBRI Industry Forum.

Academic:

- 2005-Present; Adjunct Professor, Dept. of Microbiology & Immunology, and Special Faculty Member, Graduate School of Biomedical Sciences, UTMB.
- 1998-2005; Adjunct Associate Professor, Dept. of Microbiology & Immunology, and Special Faculty Member, Graduate School of Biomedical Sciences, UTMB.

Master's Thesis

"Electrophoretic, morphometric, and growth studies of some dinoflagellate (pyrrhophyta) species," May 1986, A. Loeblich, III, Ph.D., Advisor, 119 pp. (Peer-reviewed publications from thesis: 2).

Doctoral Dissertation

"Transposon-mediated mutagenesis and cloning of a sequence required for encapsulation of *Streptococcus pneumoniae* serotype 3," May 1991, J. Jacobson, Ph.D., Advisor; D. Musher, M.D. Co-Advisor, 155 pp. (Peer-reviewed publications from dissertation: 3).

TEACHING

Courses Taught at TWU

Graduate:

Guest Lecture 10/12/06 “Grantsmanship: Government Sources, Foundations, and the Basics of Peer Review”, Advanced Problems Course, Dept. of Physical Therapy, TWU Institute for Health Sciences, Houston.

Doctoral Dissertations

Co-mentor for one completed and one ongoing doctoral dissertation:

- Chris Allen, “A Global Transcriptional Analysis of *Streptococcus pneumoniae* in Response to Low-Shear Modeled Microgravity,” projected completion 2007 (current graduate student, UTMB).
- Carlos Orihuela, Ph.D., “Characterization of *Streptococcus pneumoniae* Gene Expression in a Novel Murine Peritoneal Cavity Model,” completed 2001 (Currently: Asst. Prof., Dept. of Microbiology, Univ. Texas Health Science Center);

Master’s Theses

Mentor for:

- Janice Zearley, “Characterization of the effect of streptomycin on the conjugative transposon Tn916,” completed 1995

Master’s Professional Papers N/A

Other Scholarly Teaching, Mentoring and Curricular Achievements

Teaching and Mentoring:

- Taught undergraduate, graduate, and medical students in 18 different courses 1993-Present.
- Supervised 20 science fair projects at various levels.
- Mentored projects by two high school students.
- Supervised work by 10 undergraduate students in various capacities.
- Supervised three graduate student research rotations.
- Supervised six medical student research projects.
- Lecture preceptor for one graduate student.
- Science advisor for one NASA Research Initiation Grant.
- Co-mentor for one post-doctoral fellow: Utpal Pandya, Ph.D. (Currently at UTMB)

SCHOLARSHIP/CREATIVE ACHIEVEMENTS

Refereed Publications or Other Creative Achievements

1. Books:
2. Chapters:
3. Articles:
 1. Pandya, U., Allen, C.A., **Watson, D.A.**, and Niesel, D.W. 2005. Global Profiling of *Streptococcus pneumoniae* Transcripts at Different Growth Temperatures, *Gene*: 360(1):45-54.
 2. Orihuela, C.J., Mills, J., Robb, C.W., Wilson, C.J., **Watson, D.A.**, and Niesel, D.W. 2001. *Streptococcus pneumoniae* Pst production is phosphate-dependent and enhanced during growth in the murine peritoneal cavity. *Infect. Immun.* 69:7565-7571.
 3. **Watson, D.A.**, Davis, B.R., and Niesel, D.W. 2001. "Undergraduates must learn to communicate..." *Nature* 411:992.
 4. Musher, D.M., **Watson, D.A.**, and Baughn, R.E. 2000. Genetic control of the immunologic response to pneumococcal capsular polysaccharides. (**Invited paper from 2nd International Conference on Vaccines**) *Vaccine* 19(6): 623-627.
 5. Orihuela, C. J., Jansen, R., Robb, C., **Watson, D. A.**, and Niesel, D.W. 2000. Peritoneal culture alters *Streptococcus pneumoniae* protein profiles and virulence properties. *Infect. Immun.* 68:6082-6086.
 6. Musher, D., Phan, H., **Watson, D.**, and Baughn, R., 2000. Antibody to capsular polysaccharide of *Streptococcus pneumoniae* at the time of hospital admission for pneumococcal pneumonia. *J. Infect. Dis.* 182: 158-167.
 7. Barker, J.H., Musher, D.M., Silberman, R., Phan, H.M., and **Watson, D.A.** 1999. Genetic relatedness among pneumococci implicated in outbreak and sporadic conjunctivitis. *J. Clin. Micro.* 37(12):4039-4041.
 8. **Watson, D.A.**, and Musher, D.M. 1999. A brief history of the pneumococcus in biomedical research. *Seminars in Respiratory Infections.* 14(3):198-208.
 9. **Watson, D. A.** 1999. "It's time to stop counting beans", *Nature*, 398: 280.
4. Book reviews (include full publication data)
 1. **Watson, D. A.** 2005. Book Review, "Microbial Genomes," *American Society for Microbiology News*, 71(3):XX.
 2. **Watson, D. A.** 2004. Book Review, "Educated Guess: A School Board Member Reflects," *American School Board Journal*, 191(2):47-48.
 3. **Watson, D. A.** 2004. Book Review, "The Resistance Phenomenon in Microbes and Infectious Disease Vectors: Implications for Human Health and Strategies for Containment," *American Society for Microbiology News*, 70(9):431-2.
 4. **Watson, D. A.** 2004. Book Review, "Antibiotics: Actions, Origins, Resistance," *American Society for Microbiology News*, 70(7):340.
 5. **Watson, D. A.** 2003. Book Review, "Microbiology of Composting," *American Society for Microbiology News*, 69(10):527.
 6. **Watson, D. A.** 2003. Book Review, "Signals, Switches, and Regulons: Patterns of Bacterial Gene Expression," *American Society for Microbiology News*, 69(8):409.

7. **Watson, D. A.** 2003. Book Review, "Manual of Childhood Infections (Second Edition)," *American Society for Microbiology News*, 69(1):42-43.
 8. **Watson, D. A.** 2002. Book Review, "Biology of Plagues: Evidence from Historical Populations," *American Society for Microbiology News*, 68(12): 627-628.
 9. **Watson, D. A.** 2002. Book Review, "Betrayal of Trust: The Collapse of Global Public Health," *American Society for Microbiology News*, 68(11): 576-577.
 10. **Watson, D. A.** 2002. Website Review, "The Virtual Museum of Bacteria" *American Society for Microbiology News*, 68(5): 249-250. (12K web site hits directly attributable to review).
 11. **Watson, D. A.** 2002. Book Review, "*Helicobacter pylori*: Molecular and Cellular Biology." *American Society for Microbiology News*, 68(4): 196-197.
 12. **Watson, D. A.** 1999. Web Site Review, "MEDSCAPE: Two Years Later." *American Society for Microbiology News*, 65(9): 643-644.
5. Other completed works:
N/A
 6. Completed exhibitions, performances, productions, films, etc. (describe nature of accomplishment, location, dates, etc.)
N/A
 7. Completed compositions, scripts, scores, commissions, etc. (Accepted or installed)
N/A
 8. Other (Invited Presentations)

Scientific/Academic:

1. Spring 2007; R&D Seminar, Luminex Corporation, Austin, TX.
2. Spring 2007; Friday Seminar, Dept. of Biology, TWU-Denton.
3. October 2006; "Grantsmanship"; Graduate Advanced Problems, Dept. of Physical Therapy, TWU-Houston.
4. March 2006; University Partnerships Committee, Sandia National Labs, Albuquerque, NM.
5. February 2006; Faculty Convocation, University of Texas El Paso.
6. July 2004; Div. Biol. Sciences, University of Houston Clear Lake, Seminar Series.
7. July 2004; Keynote Lecturer, National Youth Leadership Forum on Medicine, UTMB.
8. March 2003; Div. Biol. Sciences, University of Houston Clear Lake, Seminar Series.
9. January 2003; Academic Administration, University of Houston Clear Lake.
10. November 2000; Dept. of Biology & Microbiology, South Dakota St. Univ., Brookings.
11. August 2000; Dept. of Radiation Oncology, Univ. Maryland School of Med., Baltimore.
12. June 2000; Dept. of Micro & Immunol, Indiana Univ. School of Medicine, Indianapolis.

13. March 2000; Div. of Biol. Sciences, Marshall Univ., Huntington, WV.
14. February 2000; Div. Biol. Sciences, Univ. Houston Clear Lake, Seminar Series.

Community and Public Service:

1. April 2006 (4/2/06); Invited Guest on Radio Program “Science Studio”; KTEP 88.5 FM, El Paso, TX.
2. January 2006 (1/8/06); Invited Guest on Radio Program “High Tech New Mexico”; KKOB 770 AM, Albuquerque, NM.
3. May 2005; National Honor Society Induction, Keynote Speaker, Pearland High School.
4. April 2005; Testimony before Texas House of Representatives Public Education Committee, on behalf of Texas Association of School Boards/Texas Association of School Administrators, opposing House Bills *HB1263*, *HB12*, and *HB3042*.
5. March 2005; Testimony before Texas House of Representatives Public Education Committee, on behalf of Texas Association of School Boards, opposing House Bill *HB1445*.
6. December 2004; Community Leaders Forum, “Education Finance Reform”, First United Methodist Church, Pearland, TX.
7. August 2004; Dedication Ceremony, Berry Miller Junior High School, Pearland ISD.
8. May 2004; District Academic Honors Banquet Speaker, Pearland ISD.
9. May 2003; Presenter, National School Boards Association, Annual Meeting.
10. September 2003; Invited Presenter, Texas Association of School Boards, Annual Meeting.
11. January 2001; Speaker/Panelist, Committee on Career Development, UTMB, CV Writing & Interviewing Skills Workshop for Graduate Students and Post-doctoral Fellows.
12. July 1999; Awards Banquet Speaker, American Society for Microbiology’s Microbial Discovery Workshop, Stephen F. Austin State University, Nacogdoches, TX.
13. February 1999; Pearland, TX, Rustic Oak Elem. (grade 3), Science Supplementation.

Non-Refereed Publications or Other Creative Achievements

Feature Articles:

1. **Watson, D. A.** 2005. “Fast Growth + High Expectations = Big Challenge” (Part 4 in a series)” *Texas Lone Star (Cover Story)*, 23(9):6-9.
2. **Watson, D. A.** 2004. “Seeing the Forest—and the Trees (Part 3 in a series)” *Texas Lone Star (Cover Story)*, 22(8):6-9.
3. **Watson, D. A.** 2003. “Higher Ground (Part 2 in a series)” *Texas Lone Star (Feature Story)*, 21(2):13-14.
4. **Watson, D.A.** 2003. “How to Reach for the Stars (or At Least Stay Healthy While Trying),” reprinted with permission, in: *The Neoga (IL) News (Feature Story)*, 3/13/03, p. 1.

5. **Watson, D. A.** 2003. "Climbing the Learning Curve: Rookie Schooled on Board Service" *The Illinois School Board Journal* (Illinois Association of School Boards Magazine--*Feature Story*), 71(2):4-6.
6. **Watson, D.A.** 2003. "Aviation Dreams," reprinted with permission, in: The Neoga (IL) News (*Feature Story*), 10/28/03, p. 1.
7. **Watson, D.A.** 2003. "Climbing the Learning Curve," reprinted in: *From the Board Room* (Vermont School Boards Association Newsletter--*Feature Story*), April 2003, pp. 10, 12.
8. **Watson, D. A.** 2002. "Climbing the Learning Curve (Part 1 in a series)" *Texas Lone Star* (Texas Association of School Boards Magazine--**Cover Story**), 20(5):6-8.
9. **Watson, D. A.** 2001. "Basic Research and the Future of NASA," August 2001, Baycomber (*Feature Story*), 3(8):12, 14, 16 and 18.
10. **Watson, D. A.** 2001. "The International Space Station: An Introduction," January Issue, Baycomber (**Cover Story**), 3(1):10-13, 16.
11. **Watson, D. A.** 2001. "The International Space Station: An Introduction," reprinted with permission, in: Mattoon (IL) Journal-Gazette, 3/3/01, Section C, pp. 1, 3.

Guest Editorial/Opinion Columns:

1. **Watson, D. A.** 2006. "PISD high school plan is the best approach," The Pearland Journal, 35(27): p. 4A.
2. **Watson, D. A.** 2006. "Good Reasons to Vote Yes for School Bonds," The Pearland Journal, 35(24): p. 5A.
3. **Watson, D. A.** 2006. "A Letter to the Community," The Pearland Reporter News, 36(35): p. 8.
4. **Watson, D. A.** 2006. "The Flu Question: Fear Complacency," The Galveston Daily News, 164(11): p. B8.
5. **Watson, D. A.** 2005. "Weekend Reading Was Well Spent," The Pearland Journal, 34(52): p. 5A.
6. **Watson, D. A.** 2005. "Some of the 'Best and Brightest'," The Pearland Reporter News, 35(18): p. 3.
7. **Watson, D. A.** 2005. "Christensen Helps Keep PISD Buses Rolling Safely," The Pearland Journal, 35(3): p. 3A.
8. **Watson, D. A.** 2005. "Thank You Mr. Christensen," The Pearland Reporter News, 35(20): p. 3.
9. **Watson, D. A.** 2005. "Just a Numbers Game," The Pearland Reporter News, 35(35): p. 3.
10. **Watson, D. A.** 2005. "Necessary School Spending Covers More Than Just What Goes On In the Classroom," The Pearland Journal, 35(13): p. 5A.
11. **Watson, D. A.** 2005. "Educating Blueberries," The Pearland Reporter News, 35(33): p. 3.
12. **Watson, D. A.** 2005. "Involvement in Scouting Still Makes Difference," The Pearland Journal, 35(19): p. 4A.
13. **Watson, D. A.** 2005. "Why Scouting Still Matters," The Pearland Reporter News, 35(36): p. 3.

14. **Watson, D. A.** 2005. "Scouting Still Matters," The Galveston Daily News, September 9, 2005.
15. **Watson, D. A.** 2005. "Scouting Still Matters," The Facts (Brazoria County, Texas), September 17, 2005.
16. **Watson, D. A.**, and Gant, V.F. 2005. "A Question of Trust," The Pearland Journal, 34(49): p. 4A.
17. **Watson, D. A.** 2004. "Another Way to Measure PISD's Overall Success," The Pearland Journal, 34(26): p. 6A.
18. **Watson, D. A.** 2004. "On Surveys and TAKS Testing," The Pearland Reporter News, 34(43): p. 3.
19. **Watson, D. A.** 2004. "Watson to Seek Second Term on PISD Board," The Pearland Reporter News, 34(6): pp. A & B.
20. **Watson, D. A.** 2001. "Who Are You Calling Gifted?," reprinted with permission in: GAP (Gifted Advocacy for Pearland) Newsletter, 1(1):1-2.
21. **Watson, D. A.** 2001. "A Baycomber Editorial Opinion," Baycomber 3(3):4.

Letters to the Editor:

1. **Watson, D.A.**, 2006. "Bond Package Provides Solid Infrastructure," The Pearland Reporter News, 36(43): p. 3.
2. **Watson, D. A.** 2006. "PISD Bond Package Should Be Supported," The Houston Chronicle, "This Week for Pearland/Friendswood," 106(20): p. Z7-2.
3. **Watson, D. A.** 2006. "Support Voiced for Bond Package," The Houston Chronicle, "This Week for Pearland/Friendwsood," 106(06): p. Z7-2.
4. **Watson, D.A.**, 2005. "The Kids Win Again," The Pearland Reporter News, 35(37): p. 3.
5. **Watson, D. A.** 2005. "The Kids Win Again," The Pearland Journal, 35(20): p. 4A.
6. **Watson, D. A.** 2005. "Just Say 'No' to Vouchers", The Pearland Reporter News, 35(10):3.
7. **Watson, D. A.**, and Gant, V.F. 2005. "A Question of Trust," The Pearland Reporter News, 35(14): p. 3.
8. **Watson, D. A.** 2004. "All are 'Main Event'", The Houston Chronicle, 104(20):B10.
9. **Watson, D. A.** 2004. "Measuring PISD", The Pearland Journal, 34(10):9.
10. **Watson, D. A.** 2004. "Measuring PISD", The Pearland Reporter News, 34(27):3.
11. **Watson, D. A.** 2004. "PISD Board Member Sets It Straight", The Pearland Journal, 33(33): pp. 3A & 7A.
12. **Watson, D. A.** 2003. "Comments on the Review of a Book Entitled: Bacterial Pathogenesis: A Molecular Approach" *Clinical Infectious Diseases*, 36:127.
13. **Watson, D. A.** 2002. "A Celebration of Diversity" March 6, 2002, The Pearland Journal.
14. **Watson, D. A.** 2002. "A Celebration of Diversity" March 6, 2002, The Pearland Reporter News.
15. **Watson, D. A.** 2001. "Education Finance Reform" October 6, 2001, The Facts (Brazoria County, TX daily newspaper).
16. **Watson, D. A.** 2001. "On the Value of Human Space Exploration" *Genetic Engineering News*, 21(20):6, 75.

17. **Watson, D. A.** 2001. "Thank You Pearland!" May 16, 2001, The Pearland Journal.
18. **Watson, D. A.** 2001. "An Open Letter to the Citizens of Pearland" April 4, 2001, The Pearland Journal.
19. **Watson, D. A.** 2000. "Scouts Work Together with PISD." November 1, 2000, The Pearland (TX) Journal.

Presentations at Professional Meetings

1. U. Pandya, **Watson, D.A.**, and Niesel, D.W. 2006. *Streptococcus pneumoniae* shows prominent differences in protein profiles with increasing *in vitro* serial passage. Presented at the 106th *General Meeting of the American Society for Microbiology*.
2. U. Pandya, **Watson, D.A.**, and Niesel, D.W. 2006. Identification of a Potential Vaccine Molecule Following In Vitro Serial Passage of *Streptococcus pneumoniae* using a Proteomic Approach. Presented at the *Texas Academy of Medicine, Engineering and Science Symposium "Bugs, Drugs and Vaccines: Securing Our Future,"* Galveston, TX, April 5-6, 2006.
3. Pandya, U., Sinha, M., Luxon, B.A., **Watson, D.A.**, and Niesel, D.W. 2005. Effect of Serial Passage on the Global Transcription Profile of *Streptococcus pneumoniae*. Presented at the 105th *General Meeting of the American Society for Microbiology*, paper H-054, Session 142.
4. Allen, C.A., Galindo, C.L., Pandya, U., **Watson, D.A.**, Chopra, A.K., and Niesel, D.W. 2005. Alterations in the Transcription Profile of *Streptococcus pneumoniae* Grown in High-Aspect Rotating Vessels Under Different Conditions of Normal Gravitation. Presented at the 15th *International Academy of Astronautics Humans In Space Symposium*, Paper I.9.4.
5. Biçmen, M., Ramaswamy, S.V., **Watson, D.A.**, Musher, D.M., Gür, D., and Gülay, Z. 2004. Analysis of mutations in the *pbp* genes of penicillin non-susceptible pneumococci from Turkey. Presented at the 14th *European Congress of Clinical Microbiology and Infectious Diseases*, Prague, Czech Republic.
6. Pandya, U., Allen, C.A., **Watson, D.A.**, and Niesel, D.W. 2004. Global Profiling of *Streptococcus pneumoniae* Transcription as a Function of Growth Temperature. Presented at the 104th *General Meeting of the American Society for Microbiology*.
7. Allen, C.A., Pandya, U., **Watson, D.A.**, and Niesel, D.W. 2004. Global Transcriptional Profiling of *Streptococcus pneumoniae* in response to modeled microgravity. Presented at the 104th *General Meeting of the American Society for Microbiology*.
8. Pandya, U., Dang, Y. D., Wilson, C.J., **Watson, D. A.** and Niesel, D.W. 2003. Identification of a Histidine kinase in *Streptococcus pneumoniae* that is differentially expressed at 33°C and 37°C. Sealy Center for Molecular Science Forum May 30, 2003. University of Texas Medical Branch, Galveston, Texas.
9. Wilson, C.J., Orihuela, C.J., Mills, W.R., **Watson, D.A.**, and Niesel, D.W. 2002. Effects of growth temperature on *Streptococcus pneumoniae* virulence properties.

- Presented at the 102nd *General Meeting of the American Society for Microbiology*, abstr. No. D-20, p. 160.
10. Pandya, U., Gonzales, M., **Watson, D.A.**, and Niesel, D.W. 2002. Partial characterization of an *mga*-like homologue in *Streptococcus pneumoniae*. Presented at the 102nd *General Meeting of the American Society for Microbiology*.
 11. Pandya, U., Dang, Y.D., Wilson, C.J., **Watson, D.A.**, and Niesel, D.W. 2002. Identification of a Histidine Kinase in *Streptococcus pneumoniae* that is Differentially Expressed at 33⁰C and 37⁰C. Presented at the 103rd *General Meeting of the American Society for Microbiology*.
 12. Orihuela, C.J., Mills, J.H., Wilson, C.J., **Watson, D.A.**, and Niesel, D.W. 2001. Expression of, *Streptococcus pneumoniae* *pstS* is responsive to growth *in vivo* and inorganic phosphate concentration. Presented at the 101st *General Meeting of the American Society for Microbiology*, abstr. No. H-41, p. 401.
 13. Orihuela, C.J., Wilson, C.J., **Watson, D.A.**, and Niesel, D.W. 2001. Characterization of *Streptococcus pneumoniae* gene expression *in vivo*. Presented at Faculty Retreat, Dept. of Micro/Immunol., UTMB.
 14. Orihuela, C.J., Knecht, J.G., **Watson, D.A.**, and Niesel, D.W. 2001. *Streptococcus pneumoniae* alters protein profiles and virulence potential in modeled microgravity. Abstracts of the 17th Annual Meeting of the American Society for Gravitational and Space Biology, *Gravitational and Space Biology Bulletin*, 15(1):64 (Abstr. No. 155).
 15. Orihuela, C., Janssen, R., Robb, C., **Watson, D.**, and Niesel, D. 1999. Characterization of *Streptococcus pneumoniae in vivo* using a novel murine peritoneal cavity model. Presented at the *McLaughlin Fellowship Fund Annual Research Colloquium on Infection and Immunity*. (**Winner of the prize for best graduate student poster**)
 16. Orihuela, C.J., **Watson, D.A.**, and Niesel, D. W. 1999. Characterization of pneumococcal gene expression *in vivo* using a murine model. Accepted for presentation at Discussion Meeting of The Royal Society entitled "The Activities of Bacterial Pathogens In Vivo," London, UK, October 1999.
 17. Phan, H., Musher, D., Baughn, R., **Watson, D.**, and Griffin, J. 1999. IgG to capsular polysaccharide of *Streptococcus pneumoniae* may be present on admission for pneumococcal disease but is poorly functional *in vitro* and *in vivo*. 38th *Interscience Conference on Antimicrobial Agents and Chemotherapy of the American Society for Microbiology*.
 18. Orihuela, C., Janssen, R., Robb, C., **Watson, D.**, and Niesel, D. 1999. Characterization of *Streptococcus pneumoniae in vivo* using a novel murine peritoneal cavity model. Abstracts of the 99th *General Meeting of the American Society for Microbiology*, p. 51.
 19. Orihuela, C., Janssen, R., Robb, C., **Watson, D.**, and Niesel, D. 1999. *Streptococcus pneumoniae* response to growth in a murine peritoneal cavity model. Presented at the Annual Meeting of the *Southwest Section of Society for Experimental Biology & Medicine*, Galveston, TX.

Honors, Grants, and Fellowships

Honors:

Professional:

- 2006; Nominee for Mary and J. Palmer Saunders Excellence In Teaching Professorship, UTMB.
- 2005; *Who's Who in Medical Sciences Education*.
- 2004-05; Recognition by Editor of *J. Infect. Dis.* for exceptional manuscript review; top 10% in: reviews completed, timeliness of completion, and usefulness.
- 2004; Selected by committee of 1st year medical students to deliver *Keynote Lecture*, National Youth Leadership Forum on Medicine, UTMB.
- 2002; Nominee, *Distinguished Alumnus Award*, Lake Land College, Mattoon, IL
- 2001-2005; *Marquis Who's Who in America* (56th through 60th Eds.).
- 1999, 2001; *Who's Who in Medicine and Healthcare* (3rd & 4th Eds.).

Public Service:

- 2005; Council President's Award of Merit, Pearland ISD Council of PTAs.
- 2005; Honorary Life Member, Texas PTA, Awarded by Pearland ISD Council of PTAs.
- 2003; *Master Trustee Award*, Leadership TASB, (Texas Assoc. of School Boards).
- 1999-2001; *Quality Unit Awards*, Cub Scout Pack 466, Pearland, TX.

Grants:

Research:

- 2006; National Center for Research Resources, Division of Clinical Research Resources, Institutional Clinical and Translational Science Planning Grant Award (P20); Co-I (PI James M. Musser, MD, Ph.D., Methodist Hospital Research Institute).
- 2002; National Institute for Allergy and Infectious Disease, Pathogen Functional Genomics Resource Center; pathogen-specific (*Streptococcus pneumoniae*) DNA Microarrays.
- 2001; Bristol-Myers Squibb, Contract Pneumococcal Serotyping, \$5000.
- 2000; NASA Office of Biological and Physical Research (98-HEDS-02), Co-PI (D. Niesel, PI), project entitled "*Streptococcus pneumoniae* Gene Expression and Virulence Potential in the Space Environment"; \$450,000.
- 1999; Texas Advanced Research Program (#004952-0090), Co-PI (D. Niesel, PI) project entitled "Bacterial Gene Expression During Pathogenesis: Gene Regulation and Novel Virulence Properties"; \$199,100.
- 1997-98, 2000-01; NASA Space Grant Graduate Fellowships for C. Orihuela, \$5000 ea.

Scholarly Works in Progress

1. Allen, C.A., Pandya, U., Williams, N., **Watson, D.A.**, and Niesel, D.W. 2006. A Global Transcriptional Analysis of *Streptococcus pneumoniae* in Response to Low-Shear Modeled Microgravity. (In Press; *Gravitational and Space Biology*).
2. Allen, C.A., Galindo, C.L., Pandya, U., **Watson, D.A.**, Chopra, A.K., and Niesel, D.W. 2006. Alterations in the Transcription Profile of *Streptococcus pneumoniae* Grown in High-Aspect Rotating Vessels Under Different Conditions of Normal Gravitation (In press; *Acta Astronautica*).

Other Research and Creative Achievements

Invention Disclosures and Patent Applications:

- 2000; Co-submitter of Invention Disclosure and Patent Application with D. Niesel and C. Orihuela for “Pathogen-Specific DNA Microarrays”.

Consulting and Collaboration:

- 2004; Proactive Medical Technologies (Technology Investment Analysis), Consultant.
- 2003; UTMB, Office of the Vice President for Research (Dr. Adrian Perachio), Consultant, International Space Station Research Institute Procurement.
- 2002-03; Salem Partners (Investment/Venture Capital); Technology Feasibility Consultant.
- 2002; SpaceHab, Inc.; Consultant, Red Team Member, and Section Author, NASA-JSC, Bioastronautics Procurement (Subcontract #C-802-314).
- 1998-2005; Veterans Affairs Medical Center-Houston, Director of the Pneumococcal Reference Serotyping Laboratory.
- 1998-99; InDyne, Inc./NASA Headquarters Office of Life and Microgravity Sciences and Applications, Washington, D.C., Peer Review Administrator-Cell & Molecular Biology.

PROFESSIONAL SERVICE

Governance and Other Professionally Related Service

Texas Woman’s University:

- 2006; Member, Executive Council, TWU Houston campus.

University of Texas Medical Branch:

- 2004-2005; Chair, Committee in Support of Science Education, Office of Educational Outreach.

National Space Biomedical Research Institute:

- 1997-2001; Executive Secretary, NSBRI Industry Forum.

Service Activities for the University, College, Component

Texas Woman's University:

- 2006; Member, Ad hoc Committee on Local Arrangements, TWU Houston Grand Opening Celebration.
- 2006; Member (Ex officio), IRB Chairs Committee.
- 2006; Member, TWU Houston Subcommittee of university-wide Committee on Pandemic Influenza Preparedness.

The University of Texas System:

- 2006; Co-author, Office of Research and Technology Transfer component of UT System 10 year strategic plan (and of whitepaper "Value Added By Research & Tech Transfer" to be included as an appendix), final version released September, 2006.
- 2006; Invited Participant, "Critical Thinking Curriculum Model Assessment Workshop", Advanced Concepts Group, Sandia National Laboratories.

National Space Biomedical Research Institute:

- 2003; Invited participant, Education and Outreach Future Directions Workshop.
- 2002; NSBRI representative, World Space Congress (2nd decadal-Houston, TX).
- 2000; Principal Organizer, Industry Forum Roundtable, Second Biennial Retreat:
 - Intellectual Property Issues for the Bench Researcher.
- 2000; Ex-officio member, Industry Forum committees to prepare white papers:
 - Intellectual Property Issues Related to Industry Forum Participation in Commercialization of Technologies Developed by National Space Biomedical Research Institute Research Teams.
 - Issues Related to Fast-tracking of FDA Approvals for Pharmaceutical Countermeasures against the Effects of Microgravity on the Human Body.
- 2000; Chair of committee to update Industry Forum charter.
- 1999; NSBRI representative, Inspection '99, Johnson Space Center, Houston, TX.

InDyne, Inc.:

- 2005; Past Performance Volume Author, Procurement Writing Team, NASA Headquarters Information Technology Support Services Contract (Prime Contractor, InDyne, Inc.).
- 2004; Pink Team/Red Team Reviewer, NASA Consolidated Peer Review Contract Re-competition (Prime Contractor, The Ventura Group).
- 2003-04; Technical Volume Lead Author, Procurement Writing Team, Department of Veterans Affairs Peer Review (Prime Contractor, The Ventura Group).
- 2002; Member, Procurement Team, (Prime contractor-Veridian Engineering) NASA-Johnson Space Center Bioastronautics Support Consolidation Contract:
 - Member, Capabilities Briefing Development/Competitive Assessment groups.
- 1999-2001; Contributing Writer, The Idiom (Corporate Quarterly Newsletter).
- 1998-99; Y2K Computer Readiness Task Force.

University of Texas Medical Branch:

- 2004-Present; Member, Website Committee, Dept. of Microbiol./Immunol.
- 2005; Invited Participant and Environmental Microbiology Working Group Lead, Bioastronautics Technology Forum '05 (UTMB-NASA JSC Partnering Initiative).
- 2001; Member, Search Committee, Microbial Genomics faculty position, Dept. of Microbiology & Immunology and Center for Bioinformatics.
- 1997-2001; Doctoral Dissertation Co-Mentor-C. Orihuela, Dept. of Microbiol./Immunol.
- 1996-99; Instructor/Advisor, Summer Science Camp (*Recognized in 1999 for extended service to the camp as a Preceptor*).

Professionally-Related Service

Editorial:

- 2002-Present; Member, Editorial Board, Web Site “The Virtual Museum of Bacteria,” <http://www.bacteriamuseum.org> (sponsor, Foundation for Microbiology).
- 2003-2005; Member, Editorial Board, BayRunner Magazine, Seabrook, TX

Review and Advisory:

Manuscript Review:

- 1997-Present: *Clinical Infectious Diseases; American Journal of Respiratory and Critical Care Medicine; Journal of Infectious Diseases; Emerging Infectious Diseases; Infection & Immunity; Ophthalmic Research; Advances in Space Research; Journal of Clinical Ligand Assay; Journal of Microbiological Methods; Laboratory Medicine.*

Grants Evaluation:

- 1993-2003; United States Department of Agriculture National Research Initiative.
- 2001; McLaughlin Fellows Competitions, UTMB.
- 1999, 2002; United States Department of Veterans Affairs Central Offices:
 - Research Career Scientist Program (1999; 2002).
 - Merit Review Grant Program, Infectious Diseases Board (1999).

Advanced Placement (AP) Student/Course Evaluation:

- 2002-05; Faculty Reader/Grader, AP End-of-Course Exam in Biology, Educational Testing Service (Princeton, NJ).

Faculty Evaluation:

- 2001; Creighton University School of Medicine, Office of the Dean.

Advisory Boards:

- 2006; Southeast Texas (Educational Service Centers IV and V), Science, Technology, Engineering, and Math (T-STEM) Center, University of Texas Medical Branch; External Advisory Board

Memberships in Professional Societies

- 2006-Present; Confederation of Meningitis Organizations, Elected Full Member.
- 2002-Present; National Association of Science Writers (includes Press Credentials).
- 1998-Present; American Society for Gravitational and Space Biology.
- 1997-Present; Coalition for Excellence in Science and Math Education.
- 1992-Present; Lancefield Society (Streptococcal Genetics).
- 1989-Present; Texas Branch of the American Society for Microbiology.
- 1989-Present; American Society for Microbiology (ASM).
- 1988-Present; American Association for the Advancement of Science.
- 1986; Sigma Xi.

Other Community Outreach Achievements

Public and Higher Education:

- Pearland (TX) Independent School District (PISD):
 - 2001-05; Elected Member, Board of Trustees, PISD (201 cumulative CEC hrs)
 - 2004-05; Elected and Re-elected Board President.
 - 2005; Member, Teacher of the Year Selection Committee.
 - 2001-05; Celebrity Reader, PISD Elementary Schools.
 - 2003; Master Trustee Certification, Texas Association of School Boards.
 - 2001-02; Member, Policy & Technology Committees.
 - 2002; Level I Board Member Certification, TASB.
 - 2001, 2003, 2005, 2006; Bond Referendum Spokesperson.
 - 2001, 2003; Elected Delegate-TASB Annual Convention.
 - 2000-01; Mentor, GLAD Program, Rustic Oaks Elementary School.
 - 1999; PISD Parent Rep. to Region IV G/T Educator certification course.
 - 1999; PISD Council of PTA's Scholarship Selection Committee Member.
 - 1998-2000; PISD Steering Committee, Gifted/Talented (G/T) Programs:
 - 2000; Subcommittee to review strategic planning for PISD G/T services.
 - 1999; Subcommittee on revisions, G/T identification, grades K-4.
 - 1999; Subcommittee to recommend changes/additions to PISD G/T services.
- Houston-Galveston Area Council:
 - 2004, 2005; Elected to two terms on Board of Directors.
 - 2005; Member, Projects Review Committee.
 - 2004-05; Member, Legislative Affairs Committee.
 - 2003; Elected Alternate to Board of Directors.
 - 2001-05; Elected Delegate-General Assembly.
- Pearland College Center (PCC) of Alvin (TX) Community College:
 - 2002-2003; Member, Board of Governors and Executive Council.
 - 2002-2003; Educational Liaison to Pearland ISD
- Texas Association for the Gifted and Talented (TAGT):
 - 2000; Co-founder of GAP (Great Academics for Pearland), TAGT affiliate.
 - 1998-2006; Parent Member, TAGT (annual meeting attendee 2000, 2002).

Community:

- Member, Mayor's Select Committee on Higher Education, Pearland, TX, 2003-05
- Boy and Girl Scouts:
 - Bay Area Council, TX:
 - 2005; Member, Board of Directors.
 - 2005; Cub Scout Roundup Chairperson (**3.9% membership increase**).
 - 2003-04; Steering Committee, Friends of Scouting Charitable Campaign.
 - Northern Star District, Bay Area Council, TX.
 - 2004-05; Co-Chair, Friends of Scouting Charitable Campaign (**100% District**).
 - 2003-04; Co-Chair, Friends of Scouting Charitable Campaign (**100% District**).
 - 2003; Guest Scientist, Cub Scout Day Camp.
 - Mustang District, Bay Area Council, TX:
 - 2006; Program Transitions Chairperson
 - 2002; District Committee Finance Chairperson.
 - 2001-02; Chair, Friends of Scouting Charitable Campaign (**100% District**).
 - 1997, 1999-2005; Den Leader, District Twilight Camp.
 - 1998-99; Steering Committee, "Things That Go".
 - Cub Scout Pack 466 (Pearland, TX):
 - 2003-05; Den Leader.
 - 1997-2001, 2006-; Committee Chair (**Quality Unit Awards 1999, 2000, 2001**).
 - 1996-1997; Fundraising Chair.
 - Boy Scout Troop 464 (Pearland, TX):
 - 2003-06; Committee Member

Scientific:

- Served as a judge for 17 competitions at multiple levels: middle school, junior and senior high school; undergraduate, graduate, and medical; and post-doctoral; 1993-Present.

OTHER

Significant Professional Development Activities

Teaching:

- 2001; "Effective Exam Questions," Office of Educational Development, UTMB.

Miscellaneous:

- 2002; Advanced Project Management for Government Contracts: Cost Control; Earned Value Management; and Task/Delivery Order Management; all with SpaceHab, Inc.
- 2002; Level I Board Member Certification; Texas Association of School Boards.
- 2002; Shipley Method, Government Procurement Proposal Writing; Veridian, Inc.