CURRICULUM VITAE

Stephen B. Aley, Ph.D.

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CITIZENSHIP: United States of America

EDUCATION:

Ph.D.	The Rockefeller University, New York, NY, 1982 Immunology and Biochemistry
Post Graduate Fellowship year	The John Curtin School for Medical Research, 1976 Australian National University, Canberra, Australia. Thomas J. Watson Fellowship (IBM)
B.S.	California Institute of Technology, Pasadena, CA, 1975 Biological Sciences (Honors)

ADMINISTRATIVE EXPERIENCE

2012 August **Interim Dean, College of Science, University of Texas at El Paso**

Responsible for directing and managing the College of Science, with over 250 faculty and staff, 2300 student majors, an annual operating budget of over 12 million, and annual research expenditures of nearly 22 million.

2008 to 2012 **Associate Dean for Research and Faculty Development, College of Science, University of Texas at El Paso**

Responsible for facilitating the development, annual review, promotion, and tenure of ca. 100 college faculty members, enhancing number and quality of individual and interdisciplinary grant applications, and supporting the Dean in budget development and daily operations. Led college level review for 76 dossiers for Promotion and/or Tenure and post-tenure review. Coordinated annual merit review for over 100 faculty annually, including transitioning of the review process to a commercial database-reporting software package, Digital Measures. Helped facilitate steady growth of annual college research expenditures. Dean's office representative for all building projects, including the new Chemistry and Computer Science building, the HRAC computer center, and the biomedical Science and Engineering Annex. College Promotion and Tenure committee, UTEP Research Committee, and UTEP Space Committee. Responsible for design and upkeep of college computer resources.

2008-2009 **Interim Chair of Mathematical Sciences, College of Science, University of Texas at El Paso**

Responsible for the management of all academic and administrative aspects of the Department of the of Mathematical Sciences Department while facilitating the recovery of the department and the recruitment of a new department chair.

Managed a department of 27 tenure/tenure track faculty, 15 full time lecturers, 10 part time lecturers, five full time staff, and the Mathematics tutoring center, with a combined budget of 2.8 million per year. Met with every faculty and staff member individually to ascertain state of the department. Facilitated growth in faculty, programs, and research productivity, and encouraged review and redesign of lower division service courses. Implemented hybrid technology support for Pre-calculus and Calculus I & II. Managed graduate student recruitment and TA assignments. Managed classes and teaching assignments. Personally handled all student appeals and complaints against faculty. Improved departmental morale and restored a social connection among department members. Chaired search committee leading to successful hiring of the new Chair.

2006 to 2008 **Associate Provost for Student Success, University of Texas at El Paso**

Associate Provost supporting the Provost/VPAA in all aspects of the office. Responsible for Student Success initiatives for the University as well as curricular, online education, and teacher preparation initiatives.

Implemented the Student Success Initiative based on the Quality Enhancement Plan. Co-chaired a Provost/Faculty Senate committee that completed a comprehensive review and revision of all university undergraduate degree programs. Instituted Faculty and Advising staff joint taskforce to review university-wide advising. Was administration representative to all Faculty Senate committees on curricular matters, catalog, and calendar. Was VPAA liaison for IT matters, including review and initial implementation of degree audit software BANNER-CAPP and Ad Astra Platinum. Was VPAA liaison to state-wide UT Telecampus, including encouraging the expansion of online course offerings in Nursing and Education and the development of an online MA in Creative Writing. Was Director for Carnegie Corporation Teachers for a New Era award of 1.2 million per year, building collaboration between independent school districts and the University and developing increased roles for the Colleges of Liberal Arts and of Science in teacher preparation. Was VPAA liaison to El Paso Community College, developing procedures to encourage transfer of students in Engineering from community college to the university while maintaining ABET standards. Was Provost Office liaison with College of Education and College of Engineering, including certification and accreditation. Provided Provost Office support of search for new Dean of Engineering. Was VPAA representative to SACS and ABET Accreditation meetings.

2006 **Assistant Chair, Department of Biological Sciences, University of Texas at El Paso**

Responsible for resolutions of all concerns regarding faculty. Listened to appeals from students regarding courses or instruction. Reorganized office structure to better distribute

staff workload.

2005 Chair, Quality Enhancement Plan (QEP) development

Directed an ad hoc faculty committee to produce QEP for accreditation review on a rapid timeframe. Developed successful QEP for Curriculum revisions in five weeks from onset to final version. Communicated proposal to Faculty Senate and obtained faculty approval. Made multiple presentations to students and others in the university community. Participated in successful site visit review by Southern Association of Colleges and Schools (SACS).

ACADEMIC FACULTY AND RESEARCH EXPERIENCE AT UTEP

2008 to Present: Professor, Biological Sciences, University of Texas at El Paso.

2000-2008 Associate Professor, Dept. of Biological Sciences, University of Texas at El Paso.

1995-2000 Assistant Professor, Dept. of Biological Sciences, University of Texas at El Paso.

Research:
Study of molecular biology and biochemistry of *Giardia lamblia*, including the original genomic sequencing project for this organism; Annotation of lipid modification pathways in giardia; proteomic analyses of giardia cell structures; Determination of the potential role of intestinal defensins in giardia infections; and Field studies on the molecular epidemiology of *Trypanosoma cruzi* in West Texas and Northern Mexico. With increasing administrative role, most laboratory work is in collaboration with other UTEP investigator and direct mentoring of student theses or dissertations is reduced. Current directed research studies the roles of research experiences, rigorous content, and innovative pedagogy in improving retention, graduation, and post-graduate aspirations among Hispanic students. Have had active, external funding for every year at UTEP.

Teaching:
Experience in teaching at all levels, from freshman through doctoral, class sizes up to 150 students, technology assistance including hybrid and online courses, and innovative pedagogies. Core course support for Microbiology, Biomedical Science, Pathobiology, and Bioinformatics. Helped develop graduate program in Bioinformatics and Doctoral programs in Pathobiology, Computational Science, and Ecology and Evolution, and am core or supporting faculty in each of those programs. While an increasing administrative role has reduced teaching opportunities, I have continued to teach as much as possible, even when on 100% administrative appointments.

Service:
Active in department, including undergraduate student advisor, doctoral advisor, graduate faculty committee, curriculum committee, promotion and tenure committee, multiple faculty search committees and terms as faculty senate senator, SACS representative for Biology and Micro programs, and building committee; Program redesign and development, including Biosciences, Microbiology, Pathobiology, Ecology and

Evolution, and Bioinformatics interdisciplinary MS. College committee service, including faculty senate committees on Undergraduate Curriculum, Instructional Technology, and Catalog and Calendar. College SACS representative, QEP Curriculum committee, and QEP publication committee. Professional service, including manuscript and grant reviews, and service on site review teams. Because of possible conflict of interest, opportunities for department and senate service have decreased as my administrative roles have increased, with a concomitant increase in college and university service.

CURRENT COMMITTEE MEMBERSHIPS

College of Science Promotion and Tenure Committee (Chair)
College of Science Council
UTEP Research and Sponsored Projects Council
UTEP Export control Committee
UTEP Online Bachelor's Accelerated Completion Program committee
UTEP Space Committee
UTEP Website Review Team
UT System Transformation In Medical Education (TIME) Initiative
Admissions Committee for Bioinformatics graduate program.

Other University level Committee and Faculty government service:

Faculty Senator for Biological Sciences (three terms of two years each)
Provost ad hoc committee on Instructional Technology
Faculty Senate Committee on Information Technology (chair, two terms)
Faculty Senate Curriculum Committee
Faculty Senate Catalog and Calendar Committee
UTEP University Compliance Committee
SACS Curriculum QEP Review committee (Chair)
Department representative for SACS review
College representative for SACS review
Chair of Faculty senate Quality Enhancement Plan development committee
QEP Publication Committee
TNE Evidence and Assessment Committee (co-Chair)

ADVISORY BOARD MEMBERSHIPS

Current:

Internal Advisory Board for Bioinformatics graduate program, University of Texas at El Paso.
MARC External Advisory Board, Pittsburgh Supercomputing Center, Pittsburgh, PA
Hunter College External Advisory Board, Hunter College and CUNY, New York, NY

Previous:

Advisory Board for Border Biomedical Research Center, University of Texas at El Paso

NEW BUILDING AND REMODELING CONSTRUCTION EXPERIENCE

Biosciences Building, Faculty committee
Engineering Annex, Provost office liaison
Chemistry and Computer Sciences Building, Provost Office and College liaison
BioEngineering and Bioinformatics Annex, Provost Office and College liaison

Engineering NanoTechnology Facility, Provost Office and College liaison
Research and Academic Data Center, Provost Office and College liaison

PROFESSIONAL SOCIETIES:

Current:

American Conference of Academic Deans
The National Association of Academic Advisors
The American Association for the Advancement of Science
The American Society of Microbiology
The Rio Grande Branch of the American Society of Microbiology [President, 2006-2009]

Previous:

The Mathematical Association of America
The American Society of Tropical Medicine and Hygiene
The Society of Parasitology
The Society of Protozoologists

Program Development:

1998 Biology (Pathobiology) Ph.D.
Development and submission of Program proposal, member of core faculty, and primary doctoral advisor and admissions committee member.

2001 Bioinformatics MS
Development and submission of Program proposal, member of core faculty, advisory committee, and admissions committee (continuing).

2008 Computational Science Ph.D. Program,
Adjunct faculty, Participating-Department Chair for implementation.

2009 Ecology and Evolutionary Biology Ph.D. Program
Participating Faculty

2010 Biochemistry and Molecular Biology Ph.D. Program.
Participating Faculty.

Management of Major Interdisciplinary Grants:

Carnegie Corporation Teachers for a New Era, 1.2 million per year (Director for 2 yrs.)
NIH-MARC Phase II, Undergraduate Curriculum, 1.29 million (PI)
HHMI Undergraduate Curriculum, 1.5 million (PI)

Management of Research Laboratory and Units:

Director of Infectious Disease Unit, Border Biomedical Research Center (BBRC)
Director of Cell Culture Core Facility, BBRC
Director of Molecular Biology Core Facility, BBRC
Management of Personal Research Laboratory, Staff and Students
Management of Research Grant Funding (see list of grants, below)

RESEARCH FACULTY EXPERIENCE PRIOR TO UTEP

1988-1995 **Research Faculty (ending position: Assistant Research Biochemist, Step IV), Department of Pathology, University of California at San Diego, Medical Center.**

Study of host parasite interactions of *Giardia lamblia* at a molecular level, including a). characterization of structure and function of the major surface protein, TSA 417; b). effects of purified anti-microbial peptides (cryptdins) on *Giardia*; and c). identification and characterization of enzymatic and structural proteins and their genes involved in encystation of *Giardia*. Instructor for Biochemistry and Microbiology courses at medical center.

1984-1988 **Research Scientist, Malaria Department, Biomedical Research Institute, Rockville, MD.**

Characterization of the receptor interaction of malaria sporozoites and human liver cells as well as parasite induced alterations during invasion and growth. Biochemical and immunochemical characterization of exoerythrocytic stages of malaria. Design and testing of peptide and recombinant vaccines targeting sporozoite invasion in malaria.

1981-1984 **NIH/Rockefeller Foundation Post-Doctoral Fellow, Malaria Section, Laboratory of Parasitic Diseases, NIAID, NIH.**

Developed procedures for the isolation and characterization of malaria antigens incorporated into the plasma membrane of *Plasmodium knowlesi* infected erythrocytes. Studied facilitated and diffusion transport of molecules to and from the intracellular parasite across the host membrane and applied findings to develop a widely used method for the enrichment of human erythrocytes infected with any stage of *P. falciparum* malaria.

1978-1981 **NSF Graduate Student (thesis work), Department of Cellular Physiology and Immunology, Rockefeller University, NY.**

Isolated plasma membrane of human parasite *Entamoeba histolytica*, characterizing its protein and lipid composition. Contrasted composition of cloned strains of different in vitro virulence. Investigated endocytosis in *E. histolytica*, demonstrating bulk turnover of fluid, under normal culture conditions, through a non-acidified intracellular compartment of the trophozoite. Studied turnover of surface proteins, demonstrating that the kinetics and pattern of distribution was consistent with recycling of total surface membrane through the internal endocytic compartment.

1977 **Graduate Student (first year study project), Department of Cellular Physiology and Immunology, Rockefeller University, NY.**

Studied surface proteins of resting and activated macrophages by lactoperoxidase iodination of intact macrophages and by immunoprecipitation with specific sera.

1976 **Post Graduate Exchange Student, Fellow of the Watson Foundation, Department of Immunology, John Curtin School for Medical Research, Australian National University, Canberra, Australia.**

Investigation of effect of soluble factors in plasma on secretion of immunoglobulins. Using the cannulated popliteal node of living sheep as a model system for immune response, investigated the effect of lymph plasma from early, peak, and late antigen response times on specific immunoglobulin production by cells taken from similar or different stages of the immune response.

1972-1975 **Undergraduate Research (includes NSF undergraduate fellowship for one summer), Laboratory of Phage Morphogenesis, Department of Biology, California Institute of Technology. Dr. William Wood, Laboratory Head.**

Biochemical characterization and partial purification of the structural components of tail fibers and of whiskers of bacteriophage T4.

AWARDS, GRANTS & FELLOWSHIPS:

ACTIVE:

2010 – 2013 **"UTEP NGRI in Phage", HHMI-SEA, PI**
Establish and direct an entering freshman "Phage Hunter" lab in collaboration with the Science Education Alliance.

2009 – 2013 **"UBM-Institutional: Undergraduate Training in Bioinformatics", NSF, Co-PI $87,000**
Establish an Undergraduate training program for Bioinformatics at UTEP.

2008 – 2013 **"MARC Phase II: Enhancement of Quantitative Science in the Biology Curriculum", NIH, PI/PD $1.29 million**

Enhance the Quantitative skills of students in Biomedical degree programs through collaborative course redesign across Mathematical Sciences, Computer Science, Chemistry, and Biological Sciences.

2006 – 2012 **"Development of Curricular and Team Research in Biomedicine", HHMI Precollege and Undergraduate Science Education, PI/PD $1.5 million**

Establish a universal curricular research experience for all Biology/Biomedical and Microbiology majors, including the development of an Undergraduate Research Laboratory complete with modern instrumentation in Cell and Molecular Biology.

COMPLETED:

2009 **"CDRA On-Orbit Anomaly Investigation", Boeing International Space Station (ISS) Support, Contract No. 9H10587, Role:PI/Task Leader. $56,896**

Investigations into the root cause of failure of the carbon dioxide removal system in use on the International Space Station.

2007-2008 **"Course development for BIOL 1304 Human Biology, 1104 Human Biology Lab, and 3330 Histology", University of Texas TeleCampus, Project PI. $8,000**

Adaptation of an online Histology course for delivery on the University of Texas Telecampus platform.

2006 to 2008 **"Teachers for a New Era", Carnegie Corporation, Project Director for two years of five year proposal. Budget of 1.2 million per year.**

Enhance the role of content disciplines in the preparation of K-12 teachers and develop and use quantitative measures to assess the effectiveness of teacher preparation.

2005-2007 **"Sub-Project for MARC Bioinformatics Grant to Pittsburgh Supercomputing Center, National Institutes of Health, Co-PI of Sub-Contract. Sub-contract budget $79,000**

Collaboration with Pittsburgh Supercomputing Center to enhance the quality of training in the Bioinformatics MS program.

2002-2007 **"Biomedical Research Center", NIH G12-RR08124, Director of DNA Analysis Core Facility. Core Facility budget ca $57,000/yr**

Design and implement a shared core facility to support DNA analysis, including DNA sequencing and microarray analysis. Developed and implemented an independent budget for this portion of the RCMI grant.

2005-2006 **"Purpose: to obtain a p590 16 multiprocessor system with 64 GB memory from IBM", IBM shared University Research, Co-I. $600,000**

Instrumentation grant to obtain multiprocessor based computing capability to support high performance computing. My role centered on use of such capability in bioinformatic analysis in research and instruction.

2004-2006 **"Acquisition of a DNA microarray reader and scanner", NSF, Co-I. $207,152**

Instrumentation grant to acquire microarray capability for the DNA core facility, supporting the Border Biomedical Research Center.

2003-2005 **"Trypanosoma cruzi (Chagas' Disease) in the West Texas Border Region", Lizanell and Colbert Coldwell Foundation, Project PI. $10,000**

Analyze of the extent of penetration of American trypanosomiasis into the West Texas region through collection and testing of potential insect

vectors and the testing of blood of residents exposed to those vectors.

2003-2005 **"Trypanosoma cruzi (Chagas') in the Border Region", CONAHEC, Project PI. $15,000**

Extend the West Texas study on T. cruzi to a cross-border collaboration with Mexican scientists.

1999-2004 **"Giardia: a model for ancient eukaryotic genome analyses," NIH R01 subcontract, subcontract PI. $387,660**

Sequence, assemble, and analyze the complete genome of the Human parasitic protist, Giardia lamblia.

2003 **"High Performance Computing at UTEP", IBM, Co-I, $500,000**
Grant for the purchase of a 12 node, high performance computer at UTEP. PI Dr. Pat Teller.

1999-2003 **"Mechanism of giardicidal activity of intestinal defensins", NIH-SCORE, project PI. $341,002**

Explore the possible mechanism of killing of giardia by naturally occurring, small peptides.

1998-2003 **"Border Biomedical Research Center", NIH-RCMI. Role on Project: Director Infectious Disease Unit. Unit Budget $125,000/yr**

Recruit and develop faculty to study infectious diseases relevant to the west Texas border region. As director of one of three primary units of this supporting grant for the Border biomedical research facility, I developed and administered an independent budget for this unit.

1999-2002 **"Histology: Creation of an online Histology laboratory course", NASA-MuSPIN-NRTS, PI of subproject $10,000**

Adaptation of a computer assisted lecture/laboratory course to a fully online format, in collaboration with Dr. Michael Kolitsky.

1999-2000 **"Genotyping and Rapid Molecular Determination of Drug Resistance of Clinical Isolates of *Mycobacterium tuberculosis* from the El Paso/Ciudad Juarez Border Region. Lizanell and Colbert Coldwell Foundation Grant, project PI. $20,000**

Implemented a rapid assay for rif resistance in Mtb using PCR and sequencing.

1999 **"Acquisition of Liquid Chromotography - Mass Spectrometer for Protein analyses", Co- Investigator. $250,000**

Instrumentation grant acquiring the first protein analysis mass spectrometer at UTEP. My role in the project was to use in proteomic analysis Giardia lamblia and to support other BBRC projects.

1997-1999 **"Acquisition of laser scanning confocal microscope and an atomic microscope for investigations in the environmental, live and material sciences", NSF-MRI, Co-Investigator $218,000**

Instrumentation grant to purchase two specialized microscopes. My role in the project was use of the atomic force microscope to analyze DNA samples in wet mount for enzyme cleavage studies.

1996-1999 **"Physical Mapping of the *Giardia* Genome", MBRS Award, Project PI $260,324**

First sampling of the genome sequence of Giardia lamblia. Data obtained here was used as part of the basis for the multi-institution project to sequence and assemble the entire genome of the organism.

1995-1996 **"Intestinal Defensins and *Giardia lamblia*",URI Fellowship, PI. $5,241**

Institutional funding supporting preliminary studies later used to develop a full research proposal on the effect of naturally occurring peptides on giardial trophozoites.

1981-1983 **Rockefeller Foundation Post-Doctoral Fellowship, National Institute of Allergy and Infectious Diseases.**

Study immunologically and biochemically variant membrane proteins found on the surface of malaria infected red blood cells.

1977-1980 **NSF Graduate Studies Fellowship, Rockefeller University.**

1976, 1981 **Rockefeller University Graduate Fellowship, Rockefeller University.**

1975-1976 **Thomas J. Watson International Exchange Fellowship, John Curtin School for Medical Research**

1974-1975 **ARCS Undergraduate Scholar, Calif. Inst. of Tech.**

1971 **National Merit Scholar, Calif. Inst. of Tech.**

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I. PUBLISHED RESEARCH ARTICLES

Reviewed:

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2. Aley, S.B., W.A. Scott and Z.A. Cohn, 1980. Plasma membrane of Entamoeba histolytica. J. Exp. Med. 152:391-404.

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4. Murray, H.W., S.B. Aley and W.A. Scott, 1981. Susceptibility of Entamoeba histolytica to oxygen intermediates. Mol. Bio. Parasit. 3:381-393.

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8. Howard, R.J., J.A. Lyon, C.L. Diggs, J.D. Haynes, J.H. Leech, J.W. Barnwell, S.B. Aley, M. Aikawa and L.H. Miller, 1984. Localization of the major Plasmodium falciparum glycoprotein on the surface of mature intraerythrocytic trophozoites and schizonts. Mol. Bio. Parasit. 11:349-362.

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10. Aley, S.B., Z.A. Cohn, and W.A. Scott 1984. Endocytosis in Entamoeba histolytica. Evidence for a unique, non-acidified compartment. J.Exp. Med. 160:624-37.

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13. McLaughlin, J. and Aley, S.B., 1985. The Biochemistry and Functional Morphology of the Entamoeba. J. Protozool. 32:221-240.

14. Kutner, S., Breuer, W.V., Ginsburg, H., Aley, S.B. and Cabantchik, Z.I. 1985.

Characterization of Permeation Pathways in the Plasma membrane of human erythrocytes infected with early stages of Plasmodium falciparum: Association with parasite development. J. Cell Physiol.125:521-527.

15. Howard, R.J., McBride, J.S., Aley, S.B., and Marsh, K., 1986. Antigenic diversity and size diversity of P. falciparum antigens in isolates from Gambian patients. II. The schizont surface glycoporotein of molecular weight approximately 200,000. Parasite Immunol. 8:56-68.

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18. Sherwood, J.A., Spitalnik, S.L., Aley, S.B., Quakyi, I.A., and Howard, R.J. 1986. Plasmodium falciparum: The initial Identification and Characterization of Glycolipids Synthesized by a Malaria Parasite. Exp. Parasitology. 62:127-141.

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27. Howard, R.J., Lyon, J.A., Uni, S., Saul, A.J., Aley, S.B., Klotz, F., Panton, L.J., Sherwood, J.A., Marsh, K., Aikawa, M. 1987. Transport of an Mr approximately 300,000 Plasmodium falciparum protein (Pf EMP 2) from the intraerythrocytic asexual parasite to the cytoplasmic face of the host cell membrane. J. Cell Biol., 104: 1269-80.

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49. Hilary G. Morrison, Andrew G. McArthur, Frances D. Gillin, Stephen B. Aley, Rodney D. Adam, Gary J. Olsen, David S. Reiner, Staffan G. Svard, Heidi G. Elmendorf, Adrian B. Hehl, John Samuelson, Julie E. J. Nixon, Nora E. Passamaneck, Ulandt U. Kim, Erica Lasek-Nesselquist, Michael J. Cipriano, Michael E. Holder, Susan M. Huse, Daniel Palm,

Aaron A. Best, Claudia I. Reich, Gerard Manning, Anuranjini Nigam, Anjali Prabhu, Barbara J. Davids, and Mitchell L. Sogin, 2007, Genomic minimalism in the early diverging, intestinal parasite, *Giardia lamblia*, Science 317, pp 1921-1926.

50. Mayte Yichoy, Ernesto S. Nakayasu, Max Shpak, Clemente Aguilar, Stephen B. Aley, Igor C. Almeida, and Siddhartha Das, 2009, Lipidomic Analysis Reveals that Phosphatidylglycerol and Phosphatidylethanolamine are two newly synthesized Phospholipids in Early Divergent Protozoan, Giardia lamblia, Mol. Bioch. Parasitol., 156(1), pp 67-78.

51. Mayte Yichoy, T.T. Duarte, A. De Chatterjee, T.L. Mendez, K.Y. Aguilera, D. Roy, S. Roychowdhury, S.B. Aley, and S. Das, 2011, Lipid metabolism in *Giardia*: a post-genomic perspective, Parasitology, 138(3):267-278.

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Non-Reviewed Publications:

E.C. Scott, N.J. et al. (443 total authors), 2004, The Morphology of Steve, Annals of Improbable Research July-August, p 24 – 29. [tongue in cheek analysis of the "Project Steve" participants. Project Steve, of which I am one of the 200 original members, is an international project in education in Evolutionary Biology.]

SELECTED PRESENTATIONS FROM RECENT MEETINGS
Complete List of Presentations provided by request

Symposium for Diversity in the Sciences, University of Washington, Seattle, WA, 2006; 'The "Two Plus Two" Strategy for Student Success', Ahlam Azam, Georgina Carballo, Michael Eastman, Stephen Aley, and James E. Becvar

HHMI Quantitative Biology Worshop, East Tennesee State University, TN, 2007; "Biology and Mathematics at the University of Texas at El Paso", Nancy Marcus and Stephen B. Aley

Annual Meeting: Ready or Not: Global Challenges, College Learning, and America's Promise, AAC&U Seattle, Washington, 2009; "Mathematics Preparation and Student Inclusion", Stephen B. Aley and Nancy M. Marcus

Invited presentation, Eastern Washington University, Cheny, WA, 2009; "Mathematics Preparation and Student Inclusion", Stephen B. Aley,

Transforming Undergraduate Education in Biology: Mobilizing the community for Change, National Science Foundation, Washington DC, 2009; "Increasing Graduate-

Level Success among Underserved Students Through Meaningful Undergraduate Research Experience", Stephen B. Aley, Ann Darnell, Rosa A Maldonado-Medina, Kristine Garza

General Meeting of the American Society for Microbiology, San Diego, CA, 2010; Modifying Core Biology Labs to Provide a Universal Research Experience: What are the Benefits?, Stephen B. Aley, Ann Darnell, Rosa Maldonado-Medina, and Kristine Garza.

MORE Division Directors' Meeting, Chicago, IL, 2010; Curriculum Redesign Across the disciplines: A holistic Approach to Improving Quantitative Skills and Perceptions in Biomedical Students; Stephen B. Aley, Ann Darnell, Elizabeth J. Walsh, Joan Staniswalis, and Martine Ceberio.

Sun Conference, El Paso, TX, 2011; Research Courses for the Entering College Student; Stephen B. Aley, Manuel Llano, and German Rosas-Acosta.

Rio Grande ASM Regional conference, Albuquerque, NM, 2011; Freshmen Phage Hunters; Stephen B. Aley.

Sun Converence, El Paso, TX, 2012; Classroom Research Experiences in STEM; Stephen Aley, Manuel Llano, German Rosas-Acosta.

SEA Phage Symposium, Janelia Farms, VA, 2012; The Phage Hunters Laboratory Course at the University of Texas at El Paso: A model approach to enhance student performance in Universities serving at-risk student populations. German Rosas-Acosta, Manuel Llano, and Stephen B. Aley.

TEACHING EXPERIENCE:

Undergraduate Courses (UTEP):

General Microbiology for Majors (with Laboratory)
Pathogenic Microbiology (with Laboratory)
Virology
Molecular Cell Biology (with Laboratory)
Medical Parasitology (with Laboratory)
Prokaryotic Cell Genetics (with Laboratory)
Histology (with Laboratory)
Phage Hunter Freshman Biology Laboratory
(Science Education Alliance -- National Genome Research Initiative)

Graduate Courses (UTEP):

Bioinformatics I (with Laboratory)
Bioinformatics II (with Laboratory)
Macromolecules (Biochemistry)
Molecular Parasitology
Pathobiology
Advanced Research Methods

Medical School (UCSD Medical Center, part of teaching team)
Biochemistry
Microbiology

MASTER'S THESES AND DOCTORAL DISSERTATIONS DIRECTED
(all except Joy Truesdale were before taking administrator roles)

Lorie Fierro, M.S., was Director of Molecular Biology Core facility, now raising a family
Minerva Cutter, M.S, now director City/County Health Department Laboratory .
Karen Katz, M.S., now with City/County Health Department Laboratory
Gus Zamorra, M.S., now a practicing physician.
Jaime Chapoy, Ph.D., now a post-doctoral fellow at Harvard University, Cambridge, MA
Diana Kretzer, M.S., now practicing physician
Mayte Yichoy, Ph.D., now a post-doctoral fellow at Texas A&M University

OTHER MASTER'S AND DOCTORAL STUDENTS (Committee Member)

Rhys Adams, MS	**Christina Bond (Ph.D. in progress)**
Julieta Flores, MS	**Rebeca Guerrero, Ph.D.**
Poorva Mudgal, MS	**Yunen Hernandez, Ph.D.**
Nam Tonthat, MS	**Joy Truesdale (Ph.D. in progress)**

UNDERGRADUATE RESEARCH STUDENTS (more than one year)

Mark Gallardo	**Sharon Fernandez**	**Amanda Peterson**
Gus Zamora	**Amanda Loya**	**Priya Kalemegham**
Matthew Powers	**Trisha Foster**	**Gabriela Haertel**