

Curriculum Vitae

Amy L. Leber, Ph.D.

CURRENT ADDRESS

Nationwide Children's Hospital
Department of Laboratory Medicine
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Columbus, OH 43205
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EDUCATION

Undergraduate:

The Ohio State University, Columbus, OH
Major: Microbiology: B.S

Graduate:

The Ohio State University, Columbus, OH
Field of Study: Medical Microbiology & Immunology: Ph.D. 1994
Dissertation: "Use of Conserved Rhinovirus Peptide Antisera for Mapping and
Detection of a Broad Range of Picornaviruses"
Advisor: John H. Hughes, Ph.D., Associate Professor of Medical Microbiology
& Immunology

Post-Graduate:

University of California - Los Angeles Medical Center. 1995-1997
Post-doctoral Residency Program - Medical and Public Health Laboratory Microbiology,
Accredited by the Committee for Postdoctoral Education Programs of American Academy of
Microbiology
Advisor: Elizabeth A. Wagar, M.D., Assistant Professor, Department of Pathology and
Laboratory Medicine

WORK EXPERIENCE

Associate Director – (January 2007 to present)

Associate Director
Clinical/Molecular Microbiology, Virology, ImmunoChemistry
Columbus Children's Hospital
Department of Laboratory Medicine
700 Children's Drive
Columbus, OH 43205

Scientific Director – (June 2001 to November 2006)

Virology and Serology Departments
Quest Diagnostics/Nichols Institute
San Juan Capistrano, CA

Responsibilities- Provide technical consultation for physicians/clients in all areas of Infectious Disease laboratory testing. Provide oversight and management of the virology and serology laboratories comprising approximately 100 employees and over 200 assays with 150,000 to 200,000 results produced monthly. Responsibilities include management of quality and technical processes of the laboratories and to direct research and development for new methodologies.

Director – (October 1998 to May 2001)

Molecular Diagnostics and Virology Departments
CompuNet Clinical Laboratories, Quest Diagnostics
Moraine, OH

Responsibilities- Provide scientific oversight and management of the molecular based testing for infectious and genetic disorders. Develop, implement and manage virology laboratory (created October 1999). Responsibilities include budget oversight, personnel management, research and development for new methodologies. Develop and implement Procedure Manuals and proper Quality Control. Provide technical consultation to physicians/clients.

Technical Director - (April 1997 to October 1998)

Molecular Epidemiology Unit
Clinical Laboratories, Dept. Pathology and Lab Medicine
UCLA Medical Center, Los Angeles, CA

Responsibilities- Provide technical support and liaison functions for Clinical Microbiology and Infection Control related to the prevention, investigation, tracking, documentation, and confirmation of nosocomial infections. Develop and perform specialized testing (PFGE, PCR for resistance genes, RFLP, ribotyping) for epidemiologic tracking of specific organisms implicated in nosocomial infections. Develop and implement Procedure Manuals and proper Quality Control for the Epidemiology Unit. Develop marketing plans and materials to increase outreach testing from other institutions.

Clinical Specialist (June 1994 - May 1995)

Children's Hospital Research Foundation/Department of Laboratory Medicine
Virology Section
Children's Hospital, Columbus, OH

Responsibilities - Handling and testing of patient specimens for an FDA clinical trial for enterovirus RT-PCR, data management and collection of patient information. Collection of patient specimens for viral culture (nasal wash, nasopharyngyl, throat, anal and lesion culture), inoculation of cell culture, shell vial assay for CMV, hepatitis serology (Abbott), viral serology, FA for viral antigen detection and confirmation, EIA for viral antigen.

Clinical Specialist (January 1991 - May 1995)

Department of Laboratory Medicine
Microbiology Section
Children's Hospital, Columbus, OH

Responsibilities - Handling and plating of patient specimens; processing and presumptive identification of positive blood cultures (Bactec Alert System); assaying patient specimens/isolates using latex agglutination and/or biochemical tests; ordering and reporting results to appropriate personnel.

Clinical Technician (October 1988 - August 1993)

Toxicology Associates, 999 Bethel Road, Columbus, OH
Responsibilities - Analysis of patient specimens for the presence of drugs in cases of overdose or illness; therapeutic drug monitoring; pre-employment drug screening, legal ethanol analysis for courts/police; identification of unknown substances; reporting and interpretation of results for physicians/hospitals; development and implementation of new procedures and methodologies for drug analyses.

TEACHING EXPERIENCE

Faculty – Didactic instruction for medical technology trainees in areas of infectious disease laboratory testing. Quest Diagnostics, Nichols Institute Clinical Laboratory Scientist Training Program, 2005 – present.

Associate Adjunct Professor - Didactic and laboratory instruction for medical students covering infectious disease processes and principles. School of Medicine, Wright State University, 1999-2001.

Instructor - Laboratory for medical students with in-depth analysis of clinical microbiology procedures including isolation and identification of organisms using the API system and basic biochemical tests. Responsibilities included lecturing and coordinating the preparation of materials for all instructors. Independent Study Program, College of Medicine, The Ohio State University.

Instructor - Laboratory for medical students covering clinical bacteriology and virology, basic principles of isolation and identification and demonstration of diagnostic test kits. Responsibilities included lecturing and preparation of materials. College of Medicine, The Ohio State University.

LICENSURE/CERTIFICATION

American Board of Medical Microbiology, Diplomate.

Specialist in Microbiology - American Society of Clinical Pathologists

Clinical Laboratory Specialist in Molecular Biology - National Credentialing Agency for Laboratory Personnel (NCA)

Limited License - Clinical Microbiologist Scientist, State of California

Public Health Microbiologists, State of California

Certificate of Qualification, Laboratory Director, New York State Department of Health, Bacteriology, Mycobacteriology, Parasitology, Mycology, Virology, and Diagnostic Immunology, CQ Code LEBEA1; Expires Sept. 2007

Certified Green Belt, Six Sigma Program, Quest Diagnostics

PROFESSIONAL ORGANIZATIONS

American Society for Microbiology

Association of Medical Laboratory Immunologist

Pan American Society for Clinical Virology

Southern California American Society for Microbiology
Secretary, 2003-2005

COMMITTEES

Section Editor, Clinical Microbiology Procedures Handbook, ASM Press (2007 to present)

Editorial Board, Cumitech, ASM Press (2006 to present)

Chair, Immunology Technical Standards and Practices Team, Quest Diagnostics (2001 to 2006)

Member, Alternate Site Testing Committee, UCLA Medical Center (1997-1998)

Member, Clinical Laboratory Executive Committee, UCLA Medical Center (1996-1997)

Member, Infection Control Committee, UCLA Medical Center (1996-1998)

TRAINING AND TECHNIQUES

Clinical Microbiology- training and experience in all areas of bacteriology, mycology, acid-fast bacteriology, parasitology, infectious disease serology and virology, including biochemical identification, antimicrobial susceptibility testing, nucleic acid probes and amplification techniques, antigen detection, automated detection and identification systems.

Mammalian cell culture

Propagation of mammalian viruses- picornaviruses, paramyxoviruses, herpesviruses, reoviruses, rhabdoviruses and adenoviruses

Viral quantitation- infectivity titration and plaque assay

Viral purification- density gradient centrifugation

Immunofluorescent assays, fluorescent microscopy and photography

Polyacrylamide gel electrophoresis

Southern and Western blot analysis

Enzyme Immunoassay, Immunoblot, Western blot,

Complement Fixation and Immunodiffusion

Lymphocyte Proliferation assay- Il-2 proliferation assay

Nucleic Acid Amplification/Detection- PCR, RT-PCR, Sequencing, LCR. SDA, TMA, NASBA

Pulsed-Field Gel Electrophoresis

Small animal- immunization, bleeding and necropsy of mice, bleeding of rabbits.

Clinical Toxicology- thin layer chromatography, gas chromatography, high performance liquid chromatography, GC-MS analysis, automated systems (TDx, Emit)

SELECTED PRESENTATIONS

It's Time for Real Time: Real Time PCR Principles and Practice. 2003 Audioconference series. American Society for Microbiology. October, 2003

Verification of Training and Ongoing Competency in the Clinical Microbiology Laboratory. Workshop Faculty, American Society for Microbiology, Annual Meetings, May 2000, 2001, 2002, 2003.

Practical Issues in Molecular Microbiology. 2001 Audioconference series. American Society for Microbiology. October, 2001

Molecular Diagnostics for Dummies. Workshop Convenor and Faculty, South Central Association for Clinical Microbiology. Fall Meeting, Akron, Ohio, October, 1999.

Molecular Typing Techniques: Overview of Methodologies and Application for Epidemiologic Investigations. Food Safety Diagnostics Congress, St. Louis, MO. April 1998

Diagnosis of Female Genital Tract Infections. - Southern California Branch American Society of Microbiology, Los Angeles and San Diego, CA. March 1997

Mycology: Laboratory Protocols and Practice. April 1996 - Infectious Disease Grand Rounds, UCLA College of Medicine. November 1996 - Medical Microbiology and Immunology course, UCLA College of Medicine.

PUBLICATIONS

Nucleic Acid Amplification Tests for *Chlamydia trachomatis* and *Neisseria gonorrhoea*. 2006. **A.L. Leber**, G. Hall and W. LeBar. Cumitech, ASM Press, Washington D.C..

Comparison of complement fixation and hemagglutination inhibition assays for detecting antibody responses following influenza virus vaccination. 2003 H.E. Prince, and **A.L.Leber** . Clin Diagn Lab Immunol. **10**: 481-482.

Validation of an In-House Assay for Cytomegalovirus (CMV) IgG Avidity and Relationship of Avidity to CMV IgM levels. 2002. H.E. Prince and **A.L. Leber**. Clin Diag Lab Immunol. **9**: 824-827.

Laboratory-Based Surveillance for Vancomycin-Resistant Enterococci: Utility of Screening Stool Specimens Submitted for Clostridium difficile Toxin Assay. 2001. **A.L. Leber**, J.F.Hindler, E.O.Kato, D.A. Bruckner and D.A. Pegues. Infect. Control Hosp Epidemiol. **22**: 160-164.

Outbreak of *Stenotrophomonas maltophilia* Bacteremia in Allogenic Bone Marrow Transplant Patients: Role of Severe Neutropenia and Mucositis. 2000. J.A. Labarca, **A.L.Leber**, V.L.Kern, M.C.Territo, L.E. Brankovic, D.A. Bruckner, and D.A. Pegues. Clin. Infect. Dis **30**: 195-197.

Proposed MIC Quality Control Guidelines for the National Committee for Clinical Laboratory Standards Susceptibility Tests using Seven Veterinary Antimicrobials: Ceftiofur, Enrofloxacin, Florenical, Penicillin G/Novobiocin, Pirlimycin, Premafloxacin, and Spectinomycin. 1996. S. Marshall, R. Jones, A. Wanger, J. Washington, G. Doern, **A. Leber**, and T. Haugen. J. Clin. Microbiol. **34**: 2027-2029.

Use of Conserved Rhinovirus Peptide Antisera for Mapping B-Cell epitopes and Detection of a Broad Range of Picornaviruses. **A. Leber**, Doctoral thesis - The Ohio State University 1994

ABSTRACTS

Evaluation of Direct Fluorescent Antibody (DFA) vs. RT-PCR for Detection of Human Metapneumovirus (hMPV) in Pediatric Respiratory Tract Specimens. M.J. Marcon, K. Mack, J.Cuartas, **A. Leber** and D. Salamon 2007 Abstract presented at Clinical Virology Symposium-Pan American Society for Clinical Virology, Clear Water, FL

Comparison of Immunoassays for Detection of Type Specific Herpes Simplex Virus IgG. **A. Leber**, D. Shallout, and A. Wong, 2005. Presented at 18th Association of Medical Laboratory Immunologist Annual Meeting, Denver, CO.

Contamination Potential using CYTYC ThinPrep Pap Test PRESERVCYT SOLUTION (TP) for ROCHE COBAS AMPLICOR CT/NG PCR after Pap slide Preparation **A.L. Leber**, W. A. Meyer III, V. To, and M.A. Lewinski. May 2004 Abstract presented at 104nd General Meeting, ASM, New Orleans, LA.

Evaluation of an Automated System for Semi-Quantitative Determination of anti-*Helicobacter pylori* IgG. V-13 **A. L. Leber**, J. Rybski, K. Ramakrishnan, J. Savage, S. Livsey, M. Stevens. May 2002. Abstract presented at 102nd General Meeting, ASM, Salt Lake City, Utah.

In-house Verification of the BDProbeTec(BDP) Chlamydia trachomatis and Neisseria gonorrhoeae Amplified Assay using Abbott LCx STD Swab Specimen Collection System. C-212. **A.L.Leber**, H. Polinakovic, M. Haines, and B.L. Elder. May 2001. Abstract to be presented at 101st General Meeting, ASM, Orlando, FL.

A Comparison of Three Amplified Methods for Detection of Chlamydia trachomatis and Neisseria gonorrhoeae Using Room Temperature Collection Devices in an Outpatient Setting. C-379. **A. Leber**, H. Polenakovik, I Northern, and B.L. Elder May 2000. Abstract presented at 100th General Meeting, ASM, Los Angeles, CA.

Outbreak of *Stenotrophomonas maltophilia* Bacteremia in Allogenic Bone Marrow Transplant Patients: Role of Severe Neutropenia and Mucositis. 2000. J.A. Labarca, **A.L.Leber**, V.L.Kern, M.C.Territo, L.E. Brankovic, D.A. Bruckner, and D.A. Pegues. September 1999. Abstract presented at the 39th meeting ICAAC, San Francisco, CA.

Evaluation of Vidas® C. Difficile Toxin Assay for Detection of Toxin and Diagnosis of *C. difficile*-Associated Disease. M.J. Miller, **A.L. Leber**, E.A. Wager, and D.A. Bruckner. April 1997. Abstract presented at Clinical Virology Symposium-Pan American Society for Clinical Virology, Clear Water, FL.

Comparison of the Affirm VPIII Probe, Quik-Tri/Can Latex Test, Gram Stain and Wet Mount for the Diagnosis of Vaginosis. **A. Leber**, B. Grotts, L.S. Garcia and D.A. Bruckner. May 1997. Abstract presented at 97th General Meeting, ASM, Miami Beach, FL.

Evaluation of Hybridization PCR, and LCR for the Diagnosis of Sexually Transmitted Diseases. **A.L. Leber**, M.J. Miller, E.A. Wager and D.A. Bruckner. May 1997. Abstract presented at 97th General Meeting, ASM, Miami Beach, FL.

A Conserved Picornavirus Peptide Elicits Cross-reactive Sera as Detected by Indirect Immunofluorescent Assay (IFA). **A. Leber**, J. Rice, V. Hamparian and J. Hughes. October 1993. Abstract presented at ICAAC, New Orleans, LA.

Identification of a Common Group Antigen among the Rhinovirus and Enterovirus Genera Using an Indirect Immunofluorescent Assay. May 1994. Abstract presented at the ICSABER Graduate Research Forum, The Ohio State University.

CHAPTERS

Amebae. **A.L. Leber** *In* The Pathology of Food-Borne Diseases. Clinics in Laboratory Medicine. Vol. Ed. J.C.H. Steele. W. B Saunders Company. Vol. 19, No 3, September 1999.

Intestinal and Urogenital Amebae, Flagellates and Ciliates. **A.L. Leber** and S. Novak 1998 Manual of Clinical Microbiology, Seventh Edition.

Intestinal and Urogenital Amebae, Flagellates and Ciliates. **A.L. Leber** and S. Novak 2001 Manual of Clinical Microbiology, Eighth Edition.

Intestinal and Urogenital Amebae, Flagellates and Ciliates. **A.L. Leber** and S. Novak 2007 Manual of Clinical Microbiology, Ninth Edition.

PATENTS

Peptide and Antiserum for Detection of Picornaviruses. Inventors - J. Hughes, **A. Leber**, J. Rice, P. Kimball and D. Zarley. United States Patent Serial No. 08/445,465. Filed by Battelle Memorial Research Institute, Columbus, Ohio.

REFERENCES

Available upon request.