

Roberta Lynn DeBiasi, MD

University of Colorado Health Sciences Center
Departments of Pediatrics and Neurology
Division of Infectious Diseases, Box B-055
4200 East 9th Avenue
Denver, Colorado 80262

Telephone: 303-393-4684 (Laboratory)
303-891-0909 (Pager)
Fax: 303-393-5271

Email: roberta.debiasi@uchsc.edu

Academic Appointments

1999-present: Assistant Professor

Department of Pediatrics (Division of Pediatric Infectious Diseases) and Department of Neurology
University of Colorado Health Sciences Center and The Children's Hospital
Denver, Colorado

1999- present: Physician-Associate Investigator
Veteran's Administration Hospital
Denver, Colorado

Fellowship

1996 – 1999: Pediatric Infectious Diseases
University of Colorado Health Sciences Center and The Children's Hospital
Denver, Colorado

Internship and Residency

1992-1993: Pediatric Internship
1993-1995: Pediatric Residency, including supervisory roles in PICU, NICU and Ward
University of California Davis Medical Center, Sacramento, California

Medical Education

University of Virginia School of Medicine, Charlottesville, Virginia
Doctor of Medicine May 1992

Undergraduate Education

Boston University, Boston, Massachusetts
Bachelor of Arts Psychology with Minor Chemistry
Summa Cum Laude with Distinction May 1988

Certification

American Board of Pediatrics: Infectious Diseases Subspecialty Certification 1999
American Board of Pediatrics Certified 1995, Renewal in Progress 2002
National Board of Medical Examiners Certified 1993

Licensure

Colorado State Medical License 1999 - present
California State Medical License 1993-1996

Awards and Honors

John R. Horsley Prize, University of Virginia School of Medicine 2002

(Awarded biannually for distinction in research to an alumnus within 15 years of graduation)

Infectious Diseases Society of America Young Investigator Award 2000-2002

Fellow, Research Enrichment Award Program, Veteran's Administration 1999-2001

Phi Beta Kappa, Boston University 1987

Raven Society, University of Virginia 1990

Trustee Scholar, Boston University 1984-88 (Academic Full Tuition Scholarship)

College of Liberal Arts Prize for Excellence, Boston University 1988

Professional Society Memberships

American Society for Microbiology: 2000 - present

American Society for Virology: 1998 - present

Pediatric Infectious Disease Society: 1996 - present

Infectious Disease Society of America: 1996 - present

American Academy of Pediatrics: 1992 - present

1993 - 95: Resident Section Representative

Mulholland Society (Student Government) UVA Medical School: 1989 – 91

Phi Beta Kappa: 1987 – present

Committees and Academic Service

Data Safety Monitoring Board for COMIRB Protocol 02-115: A double-blind, randomized, vehicle-controlled trial of topical ketamine in the treatment of postherpetic neuralgia: 2002

Founder and Chair, Dept. Pediatrics Junior Faculty Advisory Committee: 2002-present

Faculty, School of Medicine Foundations of Doctoring: 2001 – present

Faculty Advisor, Department of Pediatrics Residency: 2000 - present

Fellow Research Advisor, Division of Infectious Diseases: 2001 - present

Interviewer, Department of Pediatrics Residency Selection Committee: 2000-present

Major Research Focus:

Current

Basic Science Research:

- Mechanisms of viral pathogenesis
 - Virus-Induced Apoptosis
 - Host-pathogen interactions
 - Genomic and Proteomic approaches to the delineation of signal transduction pathways essential for viral pathogenesis
- Development of novel antiviral (anti-apoptotic) strategies for treatment of severe viral infection (myocarditis, encephalitis, hepatitis)

Clinical Expertise/Research:

- CNS Infection: Viral Encephalitis and Meningitis
- Clinical Application of PCR to diagnosis of infectious diseases, with focus on use of CSF PCR for diagnosis of CNS Infection

Previous

1995: Quantitative polymerase chain reaction for detection of HIV

Mentor: Jean A. Wiedeman, MD, PhD, University of California Davis

1987-1988: Interhemispheric shielding during performance of unilateral and bilateral dual motor tasks

Mentor: Jacqueline Liederman, PhD, Boston University

Research Grants

Basic Science:

Current

NIH K08 (Physician-Scientist Award): 80% Effort

“Apoptotic Signaling in Viral Myocarditis”

Principal Investigator: July 1 2002 - June 30 2007

Grant Award: \$604,800

Past

Veteran’s Administration Research Career Development Award: 80% Effort

“Identification and Targeting of Apoptotic Signaling Pathways in Viral Myocarditis”

Principal Investigator: January 1, 2002 - December 31, 2005

Grant Award: \$330,000

Infectious Disease Society of American Young Investigator Award: 0% Effort

Ortho-McNeil Pharmaceuticals Young Investigator Award in Infectious Diseases

“Targeting of Apoptosis as a Novel Antiviral Strategy”

Principal Investigator: July 1, 2000 – July 1 2002

Grant Award = \$80,000

Veteran’s Administration Research Enrichment Award Program – Fellow

Mentored funding under Kenneth L. Tyler, MD (PI): October 1 1999 – October 1 2001

Clinical Research

“Unexplained Encephalitis Surveillance Project “

COMIRB 02-105 Approval Date 7-1-2002

Principal Investigator: David Lawellin, PhD

Co-Investigator: Roberta L. DeBiasi, MD

“Evaluating the role of CSF PCR for HSV in the Diagnosis of Herpes Simplex Virus Encephalitis”

COMIRB Approval Pending

Principal Investigator: Kenneth L. Tyler, MD

Co-Investigator: Roberta L. DeBiasi, MD, Adriana Weinberg, MD

Publications

Peer Reviewed Original Research:

DeBiasi RL, Clarke P, Meintzer S, Jotte R, Kleinschmidt-Demasters BK, Johnson G, and Tyler KL. 2002. Reovirus infection alters expression of cellular genes involved in regulation of apoptosis and DNA repair which may play critical roles in viral pathogenesis. Submitted, Journal of Virology.

DeBiasi RL, DeMasters BK, Richardson-Burns S, and Tyler KL. 2002. Neuronal apoptosis in human Herpes Simplex virus and Cytomegalovirus encephalitis. Journal of Infectious Diseases. 186: 1547-57.

Richardson-Burns S, DeMasters BK, **DeBiasi RL**, and Tyler KL. 2002. Apoptosis as a pathogenic mechanism in Progressive Multifocal Leukoencephalopathy. Archives of Neurology. 59:1930-36.

DeBiasi RL, DeMasters BK, Weinberg A, and Tyler KL. 2002. Use of PCR for the diagnosis of herpesvirus infections of the central nervous system. Journal of Clinical Virology. 25: S5-11.

- *DeBiasi RL, *Poggioli G, Bickel R, Jotte R, Spalding A, Johnson GL, and Tyler KL.** 2002. Reovirus-induced alterations in gene expression related to cell cycle regulation. *Journal of Virology*. 76:2585-2594. (*authors contributed equally).
- DeBiasi RL, Edelstein C, Sherry B, and Tyler KL.** 2001. Calpain inhibition protects against virus-induced apoptotic myocardial injury. *Journal of Virology*. 75:351-361.
- DeBiasi RL, Squier MKT, Pike B, Wynes M, Dermody TS, Cohen JJ and Tyler KL.** 1999. Reovirus-induced apoptosis is preceded by increased cellular calpain activity and is blocked by calpain inhibitors. *Journal of Virology*. 73(1):695-701.

Peer-Reviewed Clinical Case Reports

- Dahl K and **DeBiasi, RL.** 2002. *Escherichia hermannii* infection of a cephalohematoma: Case report, review of the literature, and description of a novel invasive pathogen. *Clinical Infectious Diseases*. 35:e96-98.
- Duke B, Tyson RW and **DeBiasi RL.** 1997. *Balamuthia mandrillaris* meningoencephalitis presenting with acute hydrocephalus. *Pediatric Neurosurgery*. 26:107-111.

Invited Reviews and Book Chapters:

- DeBiasi RL, Solbrig MV, and Tyler KL.** 2003. Infections of the Nervous System. Chapter 59 in *Neurology in Clinical Practice*, 4th Edition, (Bradley, Daroff, Fenichel, and Jankovic, eds). In preparation.
- DeBiasi RL.** 2003. Appropriate use of molecular methods to diagnose viral encephalitis. *Clinical Microbiology Reviews*. In preparation.
- DeBiasi RL and Tyler KL.** 2002. Viral Meningitis and Encephalitis. *American Academy of Neurology. Continuum: The Neurologist and Infectious Diseases*. 8(3): 59-88.
- DeBiasi RL, Daley M and Simoes EAB.** Immunization. 2002. In *Current Pediatric Diagnosis and Management*, 16th edition (Hay, ed.), Lange Publications. New York.
- Tyler K, Clarke P, **DeBiasi R**, Kominsky D, Poggioli. 2001. Reovirus and the cell: viral-receptor interactions, perturbation of MAPK cascades, cell cycle dysregulation, and apoptotic cell death. *Trends in Microbiology*. 9:560-564.
- Kleinschmidt-DeMasters BK, **DeBiasi RL** and Tyler KL. 2001. Polymerase chain reaction as a diagnostic adjunct for the diagnosis of human herpesvirus-mediated disease of the nervous system. *Brain Pathology*. 11:452-264.
- DeBiasi RL and Simoes EAB.** Immunization. 2000. In *Current Pediatric Diagnosis and Management*, 15th edition (Hay, ed.), Lange Publications. New York..215-248.
- DeBiasi RL and Tyler KL.** Recurrent Aseptic Meningitis. 2000. In *Infections of the Central Nervous System* (L. Davis, ed.), Butterworth-Heinemann, p.445-479.
- DeBiasi RL and Tyler KL.** 1999. Polymerase Chain Reaction in the diagnosis and management of nervous system infections. *Archives of Neurology*. 56:1215-19.

Scientific Presentations, Posters and Published Abstracts

National

- American Society for Virology 20th Annual Meeting 2002, Lexington, Kentucky
 “Apoptosis occurs in reovirus-infected primary cardiac myocytes and caspase inhibition is protective in vitro and in vivo”: Platform presentation
- American Academy of Neurology 53rd Annual Meeting 2002, Denver, Colorado
 “Apoptosis in human HSV and CMV encephalitis “: Platform presentation
- St. Jude/PIDS Pediatric Microbial Research Conference 2002, Nashville, Tennessee
 “Apoptotic signaling in viral myocarditis”: Poster presentation
- American Academy of Neurology 52nd Annual Meeting 2001; Philadelphia, Pennsylvania
- American Society for Virology 19th Annual Meeting 2001, Madison, Wisconsin

“Analysis of gene expression following Reovirus Type 3 Abney infection using high density oligonucleotide arrays: Platform presentation
Seventh International Symposium on Double-Stranded RNA Viruses 2000, Aruba
“Analysis of gene expression following Reovirus Type 3 Abney infection using high density oligonucleotide arrays”: Platform presentation
FASEB Summer Research Conference Series: The Calpain System in Health and Disease 1999, Copper Mountain, Colorado
“Reovirus 8B induces myocarditis by apoptosis and calpain inhibitor CX295 is protective” :
Poster presentation
American Society for Virology 17th Annual Meeting 1999, Amherst, Massachusetts
“Reovirus 8B induces myocarditis by apoptosis and calpain inhibitor CX295 is protective“:
Platform presentation
American Society for Virology 16th Annual Meeting 1998, Vancouver, British Columbia
“Reovirus-induced apoptosis is preceded by increased cellular calpain activity and blocked by calpain inhibitors”: Platform presentation

Local

Colorado State University Department of Microbiology Graduate Student Course MB636: Feb 2003.
Fort Collins, CO “Mechanisms of Virus-induced apoptosis
UCHSC Division of Cardiovascular Medicine Research Seminar: December 2002, Denver, CO
Apoptotic signaling in viral myocarditis: A determinant of myocarditic potential with potential as a therapeutic target.”
Butcher Symposium on Genomics and Biotechnology: November 2002, Broomfield, CO
“Apoptotic Signaling in Viral Myocarditis and Encephalitis”: Poster
UCHSC Neurovirology-Molecular Biology Research Seminar: March 2002, Denver, CO
“Apoptosis in human HSV and CMV encephalitis in immunocompetent hosts“: Seminar speaker
National Jewish Hospital, Immunology Research In Progress 2001; Denver, CO
“Targeting of apoptosis as novel antiviral strategy: Identification of new targets using genomic and proteomic approaches”: Seminar speaker
UCHSC Neurovirology-Molecular Biology Research Seminar: Feb 2001, Denver, CO
“Analysis of gene expression following Reovirus Type 3 Abney infection using high density oligonucleotide arrays”: Seminar speaker
Veterans Administration REAP Research Seminar: Feb 2001, Denver, CO
“Analysis of gene expression following Reovirus Type 3 Abney infection using high density oligonucleotide arrays”: Seminar speaker
Colorado State University Department of Pathology Research Seminar: Aug 2000, Fort Collins, CO
“Apoptosis in viral myocarditis”: Invited seminar speaker
UCHSC Neurovirology-Molecular Biology Research Seminar: Feb 1999, Denver, CO
“Targeting of apoptosis as novel treatment strategy in viral myocarditis”: Seminar speaker

Formal Clinical Presentations

UCHSC Medical School: Neurotransmission Clinical Correlate for MS-I Neurobiology Course: Winter Quarter November 2002: C. Botulinum and C. Tetanus Toxiin Disease
18th Clinical Virology Symposium and Annual Meeting for the Pan American Society of Clinical Virology: April 2002. “Clinical application of CSF PCR for the diagnosis of CNS viral infection”: Invited Speaker
UCHSC Family Medicine Residency Training Program Lecture Series: March 2002
“Immunodeficiency Evaluation”
TCH Pediatric Residency Training Program Noon Lecture Series: November 2001
“Bad Luck or Bad Immune System: When and What to Worry About”

TCH 9th Annual O'Neil Pediatric Clinical Update: September 2001
"Could you take a look at this rash?"
US Air Force, Aviano Air Force Base Medicine Grand Rounds: September 2001
"Kawasaki Disease Update"
UCHSC Department of Pediatrics Grand Rounds April 2001
"Targeting of Apoptosis as a Novel Antiviral Strategy: Implications for Treatment of Viral Myocarditis and other serious viral infections"
UCHSC Department of Family Medicine Grand Rounds: March 2000
"Could you take a look at this Rash?"
Mini Medical School, University of Colorado Health Sciences Center 1999-present
"Virology 101: It's Not 'Just a Virus' "
TCH Pediatric Infectious Diseases Annual Conference, Aspen, Colorado: 1997-present
"Practical Application of PCR to the Diagnosis of Infectious Disease in Clinical Practice"
"Bartonella: Nine Lives and Counting"
"Bad Luck or Bad Immune System: When and What to Worry About"
Faculty, Children's Health Assistant Program Core Lectures: 1997-present
"Bacterial Toxin Diseases: Pertussis, Diphtheria, Clostridium Difficile, Tetanus, Botulism"
US Air Force Academy Hospital Grand Rounds: 1998
"Deep Neck Space Infections"
University of California Davis Medical Center Pediatric and ENT Grand Rounds: 1995
"Inflammatory Masses of the Neck "

Supervisory/Advisor Positions

Research Rotation Supervisor for Samuel Pan, PhD Graduate Student, UCSHC Biomedical Sciences Program: March 2001
Research Mentor: UCHSC/TCH Pediatric Infectious Diseases Fellowship Program 2000-present
Faculty Mentor: UCHSC Pediatric Residency Training Program 2000-present

Outside Interests

International travel, golf, piano, fine arts, backcountry and alpine skiing, hiking, camping, scuba diving