

By CWW

Brigham C. Willis, M.D., M.Ed., FAAP
Senior Associate Dean of Medical Education
Professor of Pediatrics
University of California, Riverside School of Medicine
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Place of Birth

Seattle, Washington

Education

2015 Arizona State University
Mary Lou Fulton Teacher's College
M.Ed. Higher and Postsecondary Education
1998 University of California, San Francisco, School of Medicine
M.D.
1994 University of California, Los Angeles
B.S., *summa cum laude*, Cell and Molecular Biology

Residency Training

1998-2001 Pediatrics
Children's Hospital and Research Center at Oakland

Fellowship Training

2001-2004 Pediatric Critical Care Medicine
Children's Hospital Los Angeles

Academic Appointments

2020- Professor of Pediatrics
University of California, Riverside School of Medicine
2019-2020 Academic Chairman of Pediatrics
Creighton University School of Medicine, Phoenix
2008-2020 Associate Professor, Department of Child Health
Educator Scholar Track
University of Arizona COM - Phoenix
2008-2020 Associate Clinical Professor of Pediatrics
Creighton University
2004-2007 Assistant Professor of Pediatrics
University of Texas Southwestern

Other Appointments

2018 Program Director
Cardiovascular Intensive Care Fellowship
Phoenix Children's Hospital
2014-2016 Associate Program Director, Scholarly Activity
Pediatric Critical Care Medicine Fellowship

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2005-2007 Phoenix Children's Hospital
Associate Program Director, Pediatric Critical Care Medicine Fellowship
University of Texas Southwestern Medical Center

Employment

2020- Senior Associate Dean of Medical Education
University of California, Riverside School of Medicine

2019-2020 Academic Chairman of Pediatrics
Creighton University School of Medicine, Phoenix

2016-2020 Chief Medical Education Officer and Designated Institutional Official
Phoenix Children's Hospital

2015-2016 Director, Critical Care Selective
University of Arizona COM - Phoenix

2013-2015 Medical Student Professional and Career Development Advisor
University of Arizona COM - Phoenix

2011- Staff Physician, Cardiovascular Intensive Care
Phoenix Children's Hospital

2011-2014 Director of Electives
University of Arizona, Phoenix COM

2011-2012 Medical Director, Cardiovascular Intensive Care Unit
Phoenix Children's Hospital

2010-2011 Chief, Pediatric Cardiac Intensive Care
Medical Director, Pediatric Cardiac Intensive Care Unit
Eller Congenital Heart Center
St. Joseph's Hospital and Medical Center

2007-2010 Medical Director of Respiratory Care
Director of Research
Attending Physician
Eller Congenital Heart Center
St. Joseph's Hospital and Medical Center

2004-2007 Staff Physician, Critical Care Medicine
Children's Hospital, Dallas

Certification

2017-2018 AAMC GRA GME Leadership Certificate Program

2004 Diplomate, American Board of Pediatrics, Pediatric Critical Care

2001 Diplomate, American Board of Pediatrics, General Pediatrics

1998 USMLE Step III Passed

1998 USMLE Step II Passed

1996 USMLE Step I Passed

Licensure

2020- Medical Board of California (active)

2007- Arizona Medical Board (active)

2004-2007 Texas State Board of Medical Examiners (inactive)

2000-2014 Medical Board of California (inactive)

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Professional Societies

2020- AAMC Group on Educational Affairs
2019-2020 Association of Medical School Pediatric Department Chairs
2017- AAMC Group on Resident Affairs
2016-2020 Association of Pediatric Program Directors
2015- International Association of Medical Science Educators
2013- Association of American Medical Colleges
2005-2011 American Thoracic Society
2003- American Association for the Advancement of Science
2003-2005 American College of Chest Physicians
2001-2004 California Thoracic Society
1999- Society of Critical Care Medicine
1998- Fellow, American Academy of Pediatrics

National and Regional Committee Service

2021- Council of Medical School Deans
Masters of Community Medicine Program (USC)
2019- AAMC GRA Core Competencies Steering Committee

University Committee Service

2020- Member, Ex-Officio, Faculty Executive Committee
UCR SOM
2020-2022 Chair, LCME Task Force Committee
UCR SOM
2020- Member, Medical Education Committee
UCR SOM
2020- Co-Chair. Education and Student Affairs Council
UCR SOM
2020- Member, Campus COVID Instructional Continuity Committee
2020 Member, Search Committee, Chief Financial and Administrative Officer
UCR SOM
2020 Member, Search Committee, Internal Medicine
UCR SOM
2020 Member, Search Committee, Pediatrics, Clinical Educator
UCR SOM
2020 Chair, Search Committee, Associate Dean of Preclerkship Education
UCR SOM
2020 Member, Search Committee, Associate Dean of Clinical Medical
Education
UCR SOM
2018-2020 Advisory Board Member, Phoenix Academic Excellence Day
2018-2020 Advisory Board Member, Research Office for Medical Education,
University of Arizona COM - PHX
2018-2020 Chair, Joint Pediatric Education Council for PCH

By CWMA

- 2018 Member, University of Arizona COM – PHX Department of Child Health
Chairman Search Committee
- 2015-2016 Member, University of Arizona COM - PHX LCME Full Accreditation
Self-Study Subcommittee
- 2015-2016 Member, University of Arizona COM – PHX Electives Subcommittee
- 2015 Chair, University of Arizona COM - PHX Neuromuscular Skeletal Block
Curricular Review Workgroup
- 2015 Member, University of Arizona COM – Admissions Committee
Pathways Selection Subcommittee
- 2014 Chair, University of Arizona COM - PHX Pulmonary Renal Acid Base
Curricular Review Workgroup
- 2014 Chair, University of Arizona COM - PHX LCME Self-Study
Subcommittee, Educational Program,
Years 1 and 2
- 2013-2014 Member, University of Arizona COM – PHX Student Progress Committee
- 2012-2016 Member, University of Arizona COM – PHX Curriculum Committee
- 2012-2013 Member, University of Arizona COM - PHX Scholarly Project Thesis and
Prospectus Review Committee
- 2011-2016 Member, University of Arizona COM - PHX Clinical Curriculum
Subcommittee
- 2011-2016 Member, University of Arizona COM – PHX Appointment and
Promotion Committee
- 2011-2014 Chair, University of Arizona COM – PHX Electives Subcommittee

Phoenix Children's Hospital Committee Service

- 2018-2020 Member, Graduate Medical Education Committee
- 2018-2020 Member, Institutional Review Board
- 2016-2020 Member, Research and Education Governance Committee
- 2016-2018 Chair, Graduate Medical Education Committee
- 2016-2020 Member, Patient Safety Committee
- 2016-2020 Member, MOC Governance Committee
- 2016-2020 Member, CME Committee
- 2013-2020 Member, Ventilation and Respiratory Care Team

Ongoing Teaching Responsibilities

- 2020- UCR SOM
Director, Critical Care Selective
- 2020- UCR SOM
Co-Director, Designated Emphasis in Healthcare Leadership
- 2020- UCR SOM
Co-Director, Leadership in Academic Medicine Elective
- 2020- UCR SOM
Co-director, Clinical Reasoning
- 2020- UCR SOM
Instructor, Clinical Foundations Course
- 2020- UCR SOM

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2016-2020 Instructor, Fourth Year Transitions Courses
University of Arizona College of Medicine, Phoenix
Small group teacher, Critical Care Selective
2012-2020 Phoenix Children's Hospital
Lecturer and Facilitator, Fellow Education
2011-2020 University of Arizona College of Medicine, Phoenix
Lecturer and Facilitator, 3rd and 4th year transitions courses
2008-2020 University of Arizona School of Medicine
Lecturer and Facilitator, Cardiac, Pulmonary, Renal Physiology; Anatomy
2008-2016 Gateway Community College, Respiratory Care Program
Lecturer and Facilitator, Pediatric Pulmonary Physiology and Mechanical Ventilation

Faculty Mentored

2020- Samuel Zidovetzki, UCR SOM
2020- Rebeca Gavan, UCR SOM
2020- Adwoa Osei, UCR SOM
2020- Mallory Stuparich, UCR SOM
2020- Declan McCole, UCR SOM

Trainees Mentored

2020- Branden Barger (UCR Medical Student)
2020- Shruti Amin (UCR Medical Student)
2020- Jason Hasegawa (UCR Medical Student)
2020- Morcel Hamidy (UCR Medical Student)
2018-2020 Tanner Ellsworth (U of A Medical Student)
2017-2018 Axel Moreira (PCH Resident)
Successful publication of findings
2017-2019 Pilar Anton-Martin (PCH Resident)
Successful publication of findings
2017-2018 Rhucha Joshi (U of A Medical Student)
2017-2018 Sarah Patel (U of A Medical Student)
Successful publication of findings
2016-2017 Katie Budolfson (U of A Medical Student)
Successful publication of findings
2016-2018 Mounica Rao (U of A Medical Student)
Successful publication of findings
2016-2018 Ashley Scheffer (PCCM Fellow)
Successful publication of findings
2016-2019 Renee Devor (PCCM Fellow)
Award for outstanding research as a fellow, Academic Excellence Day
2017
Successful publication of findings
2015-2017 Amy Picone (U of A Medical Student)
Successful publication of findings
2014-2016 Muniza Siddiqui (U of A Medical Student)

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2014-2016 Successful publication of findings
Brittany Sullivan (U of A Medical Student)
2014-2016 Brandon Hammond (U of A Medical Student)
Successful publication of findings
2013-2016 Sindhu Panduranghi (U of A Medical Student)
Successful publication of findings
2013-2015 Harjot Bassi (PCCM Fellow)
Successful publication of findings
2010-2013 Michael Karbasi (U of A Medical Student)
2011-2013 Tiffany Morandi (U of A Medical Student)
Successful publication of findings
2005-2007 Shilpa Vyas-Read (Neonatology Fellow)
Successful publication of findings
2006-2008 Raksha Jain (Pulmonary and Critical Care Fellow)
Successful publication of findings

Honors and Awards

2021 **Alumni Recognition Award for Excellence in Teaching**
UC Riverside School of Medicine
2020 **Careers in Medicine Award for Outstanding Mentor**
UC Riverside School of Medicine
2020 **Golden Apple Award for Outstanding Teaching**
UC Riverside School of Medicine
2015 **Master Educator Achievement Teaching Award**
University of Arizona COM - PHX
2015 Stephen R. Abrahamson Award for Innovation in Medical Education
2003 Society of Critical Care Medicine Fellow Development Travel Award
2001 Children's Hospital Oakland / French Foundation for Medical Research
and Education Outstanding Senior Resident Award
1999 Children's Hospital Oakland Housestaff Outstanding Clinical Scientist
Award
1995 Society for Pediatric Research Fellowship at Boston City Hospital
1995 Western Society for Pediatric Research, Excellence in Research Award
1994 Dean's Summer Research Fellowship, UCSF
1994 Phi Beta Kappa
Highest College and University Honors
Honors Thesis in Molecular Biology
Mortar Board Honor Society
1993 President's Undergraduate Research Fellowship
1993 Department of Biochemistry, Outstanding Research Award
1992 UCLA College Honors Summer Research Fellowship
1990 National Merit Scholar

Book Chapters

2013 Stigall WL, *Willis BC*. Mechanical Ventilation, Cardiopulmonary

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Interactions, and Pulmonary Issues in Children with Critical Cardiac Disease, in E.M. da Cruz et al. (eds.), *Pediatric and Congenital Cardiology, Cardiac Surgery and Intensive Care*, Springer-Verlag London

2013 **Willis BC**, Hinski S. *Pediatric Respiratory Care*, in S. Hinski (ed.), *Respiratory Care Clinical Competency Lab Manual*, Elsevier, Maryland Heights, MO, USA.

Peer-Reviewed Original Publications

- 2021 Panchanathan SS, Bhavaraju VL, **Willis BC**, Garcia-Filion P. The Use of Electronic Health Record Data to Support Competence Based Graduate Medical Education. *Manuscript in submission*.
- 2021 Scheffer AL, Willyerd FA, Mruk AL, Patel S, Mirea L, Wellnitz C, Velez D, **Willis BC**. Methylene Blue Treatment of Pediatric Patients in the Cardiovascular Intensive Care Unit. *Southwest J Pulm Crit Care*. 2021. *In press*.
- 2021 Servis M, Fishman SM, Wallace MS, Henry SG, Ziedonis D, Ciccarone D, Knight KR, Shoptaw S, Dowling P, Suchard JR, Shah S, Singh N, Cedarquist LC, Alem N, Copenhaver DJ, Westervelt M, **Willis BC**. Responding to the Opioid Epidemic: Educational Competencies for Pain and Substance Use Disorder from the Medical Schools of the University of California. *Pain Medicine*, 22(1), 2021, 60–66, doi: 10.1093/pm/pnaa399
- 2020 Federico GB, Giblin CR, **Willis BC**. Physician-faculty perceptions toward teaching incentives: A case study at a children's hospital. *Medical Education*. 13 November 2020. <https://doi.org/10.1111/medu.14418>
- 2020 **Willis BC**, Lytle C, Dupper M, Tyrrell R, Morrison EH, Davis K, Barton K, Deas D. Snapshots in Medical Education: University of California, Riverside School of Medicine. *Acad Med*. 2020; 95:S63-S66. doi: 10.1097/ACM.0000000000003321.
- 2020 Devor RL, Bassi HK, Kang P, Morandi T, Richardson K, Nigro JJ, Tenaglia C, Wellnitz C, **Willis BC**. Safety and efficacy of lung recruitment maneuvers in pediatric post-operative cardiac patients. *Southwest J Pulm Crit Care*. 2020;20(1):16-28. doi: <https://doi.org/10.13175/swjpsc068-19>
- 2019 Hoehn KS, Abraham M, Gaughan J, **Willis BC**.

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- Which half are you? Almost half of pediatric oncologists and intensivists are burnt out. *Southwest J Pulm Crit Care*. 2019; 18(6):167-76.
<https://doi.org/10.13175/swjpc029-19>
- 2019 Anton-Martin P, Joshi R, Rao M, Panduranghi S, Wellnitz C, Kang P, Nigro JJ, Velez D, **Willis BC**.
Dead Space Fractions in Neonates Following First Stage Palliation for Hypoplastic Left Heart Syndrome. *Card Young*. 2019. [Volume 29, Issue 4](#)
April 2019, pp. 481-487
<https://doi.org/10.1017/S1047951119000076>
- 2019 Navaei A, Eliato, KR, Ros R, Migrino, RQ, **Willis BC**, Nikkhah M.
The Influence of Electrically Conductive and Non-conductive Nanocomposite Scaffolds on the Maturation and Excitability of Engineered Cardiac Tissues. *Biomater Sci*. 2019 Jan 29;7(2):585-595. doi: 10.1039/c8bm01050a.
- 2018 Moreira A, Anton-Martin P, Moreira A, **Willis B**.
Cell Based Therapy in Right Ventricular Dysfunction: A Systematic Review of Preclinical Studies. *Journal of Investigative Medicine*. 2018, Feb; 66(2): 566.
- 2018 Anton-Martin P, **Willis BC**, Nigro JJ, Budolfson K, Raz D, Jamshidi R.
Complete aortic transection. *J Peds Surg Case Rep*. 2018 38 (2018): 4-8.
- 2018 Devor R, Kang P, Wellnitz C, Nigro JJ, Velez D, **Willis BC**.
Pulmonary Dead Space Fraction and Extubation Success in Children after Cardiac Surgery. *Ped Crit Care Med*. 2018. Apr;19(4):301-309. doi: 10.1097/PCC.0000000000001456
- 2017 Thomas CA, Picone A, Menon S, **Willis BC**.
Empiric vancomycin dosing in pediatric patients with congenital heart disease and the impact of cardiopulmonary bypass on trough concentrations. *Pharmacotherapy*. 2017 Nov;37(11):1341-1346. doi: 10.1002/phar.2019.
- 2017 Hammond BG, Garcia-Fillon P, Kang P, Rao MY, **Willis BC**, Dalton HJ.
Identifying an Oxygenation Index Threshold for Increased Mortality in Acute Respiratory Failure. *Respir Care*. 2017; 62(10): 1249-1254.
- 2017 **Willis BC**.
In defense of eminence-based medicine. *Southwest J Pulm Crit Care*. 2017;14(2):69-72. doi: <https://doi.org/10.13175/swjpc019-17> PDF

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- 2016 Monroe DE, Willert J, Saba Z, Rosenfeld H, **Willis BC**. Blunt cardiac injury without external evidence of thoracic trauma: A report of two pediatric cases. *Cardiovascular and Thoracic Open*. January-December 2016 vol. 2 2055552016630491, doi: 10.1177/2055552016630491
- 2012 Sanders DB, Sowell SR, **Willis B**, Lane J, Pierce C, Pophal S, Arabia FA, Nigro JJ. The Role of Extracorporeal Life Support in Acute Myocarditis: A Bridge to Recovery? *J Extracorp Tech*. 2012; 44:205-209.
- 2011 Zhong Q, Zhou B, Ann DK, Minoo P, Liu Y, Banfalvi A, Krishnaveni MS, Dubourd M, Demaio L, **Willis BC**, Kim KJ, Dubois RM, Crandall ED, Beers MF, Borok Z. Role of ER Stress in EMT of Alveolar Epithelial Cells: Effects of Misfolded Surfactant Protein. *Am J Respir Cell Mol Biol*. 2011 Sep; 45(3): 498-509.
- 2011 Felton VM, Inge LJ, **Willis BC**, Bremner RM, Smith MA. Immunosuppression-induced bronchial epithelial-mesenchymal transition: A potential contributor to obliterative bronchiolitis. *J Thorac Cardiovasc Surg*. 2011 Feb;141(2):523-30.
- 2010 Kuniyoshi KM, Brock RS, Gebrekristos BH, Abad-Santos M, Hoang D, Modanlou HD, **Willis BC**, Beharry KD. Effects of combined hyperoxia and cyclooxygenase inhibition in neonatal rat lungs. *Am J Transl Res*. 2010 Jun; 2(3):332-344.
- 2009 Felton VM, Borok Z, **Willis BC**. N-acetylcysteine inhibits alveolar epithelial-mesenchymal transition. *Am J Physiol Lung Cell Mol Physiol*. 2009 Nov;297(5):L805-12.
- 2009 **Willis BC**, Borok Z. Epithelial-mesenchymal transition: potential role in obliterative bronchiolitis? *Thorax*. 2009 Sep;64(9):742-3.
- 2009 McCurnin DC, Pierce RA, **Willis BC**, Chang LY, Yoder BA, Yuhanna IS, Ballard PL, Clyman RI, Waleh N, Maniscalco W, Crapo JD, Grubb PH, Shaul PW. Postnatal estradiol up-regulates lung nitric oxide synthases and improves lung function in bronchopulmonary dysplasia. *Am J Respir Crit Care Med*. 2009 Mar 15;179(6):492-500.
- 2009 Bejian S, Valasek C, Nigro JJ, Cleveland DC, **Willis BC**.

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- Prolonged use of dexmedetomidine in the pediatric cardiothoracic intensive care unit. *Cardiol Young*. 2009 Feb;19(1):98-104.
- 2008 Rosenfeld CR, Zagariya AM, Liu XT, **Willis BC**, Fluharty S, Vidyasagar D.
Meconium Increases Type 1 Angiotensin II Receptor Expression and Alveolar Cell Death. *Pediatr Res*. 2008 Mar;63(3):251-256.
- 2007 **Willis BC**, Borok Z.
TGF- β -induced EMT: mechanisms and implications for pulmonary disease. *Am J Physiol Lung Cell Mol Physiol*. 2007 Sep;293(3):L525-34.
- 2007 Vyas-Read S, Shaul PW, Yuhanna I, **Willis BC**.
Nitric oxide attenuates epithelial-mesenchymal transition in alveolar epithelial cells. *Am J Physiol Lung Cell Mol Physiol*. 2007 Jul; 293(1): L212-21.
- 2007 Jain R, Shaul PW, Borok Z, **Willis BC**.
Endothelin-1 induces alveolar EMT through ET-A-mediated production of transforming growth factor- β 1. *Amer J Respir Cell Mol Biol*. 2007 Jul; 37(1): 38-47.
- 2006 **Willis BC**, du Bois RM, Borok Z.
Epithelial origin of myofibroblasts during fibrosis in the lung. *Proc Am Thorac Soc*. 2006 Jun; 3(4):377-82.
- 2005 **Willis BC**, Graham AS, Yoon E, Wetzel RC, Newth CJL.
Pressure-rate products and phase angles in children on minimal support ventilation and after extubation. *Intensive Care Med*. 2005 Dec;31(12):1700-5.
- 2005 **Willis BC**, Liebler JM, Luby-Phelps K, Nicholson AG, Crandall ED, du Bois RM, Borok Z.
Induction of epithelial-mesenchymal transition in alveolar epithelial cells by transforming growth factor- β 1: potential role in idiopathic pulmonary fibrosis. *Am J Pathol*. 2005 May;166(5): 1321-1332.
- 2005 Chen SP, Zhou B, **Willis BC**, Sandoval AJ, Liebler JM, Kim K-J, Ann DK, Crandall ED, Borok Z.
Effects of transdifferentiation and EGF on claudin isoform expression in alveolar epithelial cells. *J Appl Physiol*. 2005 Jan;98(1):322-8.
- 2005 Kim KJ, Borok Z, Ehrhardt C, **Willis BC**, Lehr CM, Crandall ED.
Estimation of paracellular conductance of primary rat alveolar epithelial cell monolayers. *J Appl Physiol*. 2005 Jan;98(1):138-43.

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- 2004 **Willis BC**, Graham AS, Wetzel R, Newth CJL.
Use of respiratory inductance plethysmography to diagnose bilateral diaphragmatic paralysis: a case report. *Pediatr Crit Care Med.* 2004 Jul;5(4):399-402.
- 2003 **Willis BC**, Kim KJ, Li X, Liebler J, Crandall ED, Borok Z.
Modulation of ion conductance and active transport by TGF- β 1 in alveolar epithelial cell monolayers. *Am J Physiol Lung Cell Mol Physiol.* 2003 Dec; 285(6):L1192-1200.
- 1996 **Willis B**, Ablin A, Weinberg V, Zoger S, Wara WM, Matthay KK.
Disease course and late sequelae of Langerhans' Cell Histiocytosis: 25 year experience at the University of California, San Francisco. *J Clin Oncol* 1996; 14: 2073-2082.

Complete Pubmed search list of publications:

willis bc [au] OR willis b [au] AND (san francisco [ad] OR los angeles [ad] OR texas [ad] OR phoenix [ad] NOT veterans [ad] NOT willis bl [au])

Other Publications

- 2020 Cortez E, **Willis BC**.
Evidence Based Medicine Reading Elective: A submission for learning experiences without patient contact during COVID-19
AAMC Resource Library <https://www.aamc.org/resource-library/clinical-teaching-and-learning-experiences/evidence-based-medicine-reading-elective>
- 2019 **Willis BC** et al, for the AAMC GRA Leadership Competencies Committee
AAMC GME Leadership Competencies Assessment Tool. AAMC iCollaborative.
- 2016 **Willis BC**.
In defense of eminence-based medicine. *The Differential* 2016.
- 2016 **Willis BC**.
Happy. *Celebrating Humanities in Medicine through Art* 2016.
- 2015 **Willis BC**.
Choice. *Celebrating Humanities in Medicine through Art* 2015.
- 2011 Trifunovic A, **Willis BC**, Diab KA.
Use of Recombinant Tissue Plasminogen Activator for the Treatment of Intracardiac Thrombosis in Premature Infants. *Congenital Cardiology Today* 2011; 9(2): 1-5.

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Regional, National, and International Presentations

- 2020 BNGAP Regional Conference
“The Crossroads of Health Policy and Academic Medicine:
An Early Introduction to Health Policy Skills to Facilitate Change”
- 2020 Inland Empire Health Professions Conference
Keynote Address
- 2020 UC San Diego / Rady Children’s Division of Cardiology
“Mechanical Ventilation in Pediatric Cardiac Patients”
- 2020 UC San Diego / Rady Children’s Division of Cardiology
“Cardiopulmonary Interactions”
- 2019 AAMC Learn Serve Lead National Meeting
“Screening for Humanism and Professionalism in Medical Trainee
Selection Processes”
- 2019 AAMC Learn Serve Lead National Meeting
“Highlights in Medical Education: Coaching/Faculty
Development/Mentoring”
- 2018 AAMC GRA Regional Meeting
“Implementation of a Multi-Source Evaluation System for Program
Directors in a Free-Standing Children’s Hospital”
- 2015 AAMC WGSA / WGEA / OSR Regional Meeting
“Using a Video Situational Judgment Test to Predict Student Success”
- 2015 Innovations in Medical Education Conference
“Using a Video Situational Judgment Test to Predict Student Success”
- 2014 UC Davis Office of Admissions
“Using a Video Situational Judgment Test to Predict Student Success”
- 2011 Contemporary Management of Neonatal Pulmonary Disease Conference
“Perish the Dogma: Current Strategies and Future Trends in Neonatal and
Pediatric Ventilation”
- 2010 Western Society of Pediatric Cardiology
Moderator, Scientific Session
“Marfan Syndrome / Aortopathies”
- 2008 University of California, Irvine
“Nitric Oxide-Mediated Inhibition of Alveolar Epithelial-Mesenchymal
Transition”
- 2008 University of California, Irvine
“Perish the Dogma: Current Strategies and Future Trends in Neonatal and
Pediatric Ventilation”
- 2008 University of Colorado
“Perish the Dogma: Current Strategies and Future Trends in Neonatal and
Pediatric Ventilation”
- 2008 American Thoracic Society International Meeting
Chair, Mini-symposium
“Cell Plasticity: EMT and Stem Cells”
- 2007 Pediatric Critical Care Medicine Fellows Conference, Emory University

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- 2007 “Breathing Through a (Huge) Straw: Imposed Work of Breathing in Intubated Children”
Pulmonary Grand Rounds, Emory University
- 2006 “Plasticity of the Alveolar Epithelium”
Pediatric Critical Care Colloquium
“Epithelial Origin of Myofibroblasts during Fibrosis in the Lung”

Local Significant Presentations

- 2021 UCR Clinical and Administrative Leaders Program Invited Speaker
- 2021 UCR Future Physicians Leaders Panel Presenter
- 2021 UCR SOM Mentoring Program Kickoff Keynote Address
“Why mentoring can make all the difference”
- 2018 EMS4K Conference
“Evaluation and Transport of the Child with Cardiac Disease”
- 2016 University of Arizona Scholarly Teaching Symposium
“The Fourth Year of Medical School: A structured review”
- 2016 Veteran’s Administration Medical Center – Phoenix Grand Rounds
“Innovations in Medical Education”
- 2013 Phoenix Children’s Hospital “Summer Breeze” Respiratory Conference
“Productive Partnerships in Respiratory Care”
- 2011 Phoenix Children’s Hospital “Summer Breeze” Respiratory Conference
“Have a Heart: Optimizing Mechanical Ventilation for Pediatric Cardiac Patients”
- 2009 Eller Congenital Heart Center Grand Rounds
“Perish the Dogma: Current Strategies and Future Trends in Neonatal and Pediatric Ventilation”
- 2009 John C. Lincoln Hospital Respiratory Education Day
“Perish the Dogma: Current Strategies and Future Trends in Neonatal and Pediatric Ventilation”
- 2009 Arizona Society of Respiratory Care
“Perish the Dogma: Current Strategies and Future Trends in Neonatal and Pediatric Ventilation”
- 2008 Arizona Society for Respiratory Care
“Getting it Right: Lung Recruitment and Optimal PEEP”
- 2007 Pediatric Grand Rounds, Children’s Medical Center Dallas, UT Southwestern
“Extreme Plasticity of the Alveolar Epithelium: A New Paradigm for Lung Injury and Scarring?”
- 2005 Children’s Medical Center Dallas Trauma Grand Rounds
“Traumatic Lung Injury in Children”
- 2002 Children’s Hospital Los Angeles Trauma Conference
“Therapeutic Rationale for the Use of Hypertonic Saline in Pediatric Head Trauma”

Journal Review

- 2017- Associate Editor, Pediatrics, Southwestern Journal of Pulmonary and

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2005- Critical Care
Ad Hoc reviewer for Pediatric Research, Thorax, American Journal of Physiology Lung Cell and Molecular Physiology, Growth Factors, Respiratory Research, Journal of Applied Physiology, Cell Death and Differentiation, American Journal of Respiratory Critical Care Medicine, Journal of Intensive Care Medicine, and American Journal of Respiratory Cell and Molecular Biology

Current Research Support

Completed Research Support

7/1/2019-6/30/2020

Continuous Infusion versus Intermittent Ketorolac for Postoperative Pain Control in Pediatric Cardiac Surgery Patients
Phoenix Children's Hospital Heart Center Pilot Grant Fund
Role: Co-Investigator

7/1/2017-12/31/2018

Tissue Engineering of Bioinspired, Personalized Neonatal Cardiac Patches to Improve Outcomes in Pediatric Patients with Congenital Heart Disease
Phoenix Children's Hospital Leadership Fund
Role: Co-PI

7/1/2014-6/30/2015

Using a Video Situational Judgment Test to Predict Future Student Success
Western Group on Student Affairs
Role: Co-PI

7/1/2007- 12/31/2009

Mechanisms of epithelial-mesenchymal transition in pulmonary epithelium
St. Joseph's Hospital and Medical Center Foundation
Role: PI

3/1/06-2/28/07

Alveolar epithelial endothelin production and its role in pulmonary hypertension
Amon G. Carter Foundation Award
Willis (PI)
Role: PI

1/1/05-12/31/06

Epithelial-mesenchymal transition in alveolar epithelium
K12 HD047349
Willis (PI)

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Pediatric Critical Care Scientist Development Program (NICHD)
Mentored training award
Role: PI

9/1/05-8/31/06

Nitric Oxide Attenuates TGF- β 1 - Induced EMT in Alveolar Epithelial Cells: Potential Role in Bronchopulmonary Dysplasia
Children's Clinical Research Advisory Committee Read/Willis (Co-PI)
Role: Faculty Mentor / Co-PI

4/1/03-6/30/04

Pressure-rate product in children during spontaneous breathing on T-piece, T-piece and heliox, continuous positive pressure, and pressure support ventilation
02906-0 Willis (PI)
Thrasher Research Fund
Prospective study designed to determine differences in work of breathing in mechanically ventilated children during different modes of spontaneous ventilatory support.
Role: PI

Other Grant Support

5/10/2013- 6/1/2014

Optimizing blood product utilization through utilization of thromboelastography
Phoenix Children's Hospital Leadership Fund
Role: Grantee

Extracurricular, Community, and Avocational Activities

2010, 2012	International Children's Heart Foundation, Honduras Cardiac Surgical Mission
2008-2015	Co-Medical Director, Gateway Community College Respiratory Care
2005-2007	Participant, UTSW STARS Program
2003-2005	PALS Instructor
1999-2000	Children's Hospital, Oakland Housestaff President
1995-7	Western Medical Student Research Committee Member
1995-6	Medical Scholars Program
1994-8	UCSF Curricular Reform Committee
1994	Officer in Mortar Board Honor Society