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Personal

Born: October 30, 1958
Family: Married. Linda A. Matherne
Children: Gregory James Matherne
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Education

Texas A&M University	B.S.	1980
Texas A&M College of Medicine	M.D.	1982
Darden School of Business	MBA	2010
University of Virginia		

Post-Graduate Training

Pediatric Residency University of Oklahoma	1982-1985
Pediatric Cardiology Fellow University of Iowa Hospitals and Clinics, Iowa	1985-1988
Postdoctoral Training, Department of Pediatrics University of Iowa, Laboratory of Dr. John Robillard	1986-1988

Academic Appointments

J. Francis Dammann Endowed Professor of Pediatrics University of Virginia, School of Medicine	2006 - present
Professor, Department of Pediatrics University of Virginia, School of Medicine	2001- present
Associate Professor, Department of Pediatrics University of Virginia, School of Medicine	1994-2001
Assistant Professor, Department of Pediatrics University of Virginia, School of Medicine	1988-1994
Fellow Associate, Department of Pediatrics University of Iowa	1987-1988

Faculty Appointments

Vice Chair of Pediatrics for Clinical Affairs		2013- present
Associate Chief Medical Officer Childrens Hospital		2013- present
Vice Chair of Pediatrics for Clinical Strategy and Program Development		2011- 2013
Division Head, Pediatric Cardiology		2003 – 2012
Medical Director, Virginia Children’s Heart Center	1999 – 2001	2003 -- 2012
Associate Chair for Research Department of Pediatrics		2001 -- 2010
Director, Pediatric Cardiology Training Program		2004 -- 2008
Director, Pediatric Echocardiography Lab		2004 -- 2008

Honors

Outstanding Teaching Resident Department of Pediatrics		1984 & 1985
Clinical Investigator Award National Heart, Lung and Blood Institute		1990
Research Career Enhancement Award American Physiological Society		1997
Established Investigator Award American Heart Association		1998
Independent Scientist Award National Heart, Lung and Blood Institute		2001
Award for Clinical Excellence Department of Pediatrics		2005
UVA Children’s Hospital Career Enhancement Award		2006
Darden MBA for Executives Management Development Award (25% Scholarship)		2008
Darden MBA Award for Academic Excellence (top 10%)		2010
Darden MBA for Executives Top Student Award		2010

Other Professional honors

Best Doctors in America®		2009-present
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Other Professional Training

UVA SOM Leadership in Academic Medicine		2006
Leadership Development for Physicians in Academic Health Centers Harvard Univ., School of Public Health		2003

Certification

Federal Licensure Examination (FLEX)		1982
American Board of Pediatrics		1986
American Board of Pediatrics Cardiology Subboard		1988, 1995, 2002

Licensure

Virginia Medical License No. 0101042125 -- Issued		April 11, 1988
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Current Academic Interests

- Development of clinical guidelines and quality as it relates to clinical outcomes and screening for critical congenital heart Disease.
- Business of medicine and managing resources.
- Global Health initiatives in Africa serving intellectually disabled children.
- Saving Children's Lives- International program to train front line workers in PEARS/PALS

International Student Projects supervised

2014 Jefferson Public Citizens Award- *Hope through Mobility: next steps-Assistive Mobility Devices in Urban Communities Served by Special Hope Network in Lusaka, Zambia*

Summary: *Special Hope Network is an organization in Lusaka, Zambia, dedicated to serving the needs of community children with intellectual and developmental disabilities. This team purposes to work in conjunction with SHN, to provide these children with adaptive mobility devices sourced from a local manufacturer, Zambian Association of Children with Disabilities (ZACD). Using a sustainable, community-driven solution, we aim to increase independence and mobility in a culture that heavily stigmatizes disabilities.*

Students: Sreemoyee Som; Christopher Cai; Usnish Majumdar; Benjamin Harris; Alexa Hazel Pranay Sinha

2014 Jefferson Public Citizens Award *Ku-Punzitsa Apunzitsi: Creating a Professional Skills Program for Teachers in Lusaka, Zambia*

Summary: *Special Hope Network (SHN) is an organization in Lusaka, Zambia that employs and trains Zambian high school graduates as teachers for Zambian children with disabilities. This JPC team will collaborate with SHN to improve the effectiveness and efficiency of the teachers by establishing and evaluating the success of a sustainable, culturally fluent program to supplement teacher training. The program will target executive functioning skills, which are high-level cognitive functions that regulate behavior, such as planning, organizing, and strategizing.*

Students: Emily Nemecc; Lauren Baetsen; Amanda Halacy; Joann Judge

Journal Publications (selected from 82 publications)

1. Matherne GP, Razook JD, Thompson WM, Lane MM, Murray CK, Elkins RC. Senning repair for transposition of the great arteries in the first week of life. *Circulation* 72:840-845, 1985.
2. Matherne P, Matson J, Marks MI. Pertussis complicated by the syndrome of inappropriate antidiuretic hormone secretion. *Clin Ped* 25:46-48, 1986.
3. Matherne GP, Frey EE, Atkins DL, Smith WL. Cine computed tomography for diagnosis of superior vena cava obstruction following the Mustard operation. *Pediatr Radio* 17:246-247, 1987.

4. Murray D, Vanderwalker G, Matherne GP, Mahoney LT. Pulsed Doppler and two-dimensional echocardiography: comparison of halothane and isoflurane on cardiac function in infants and small children. *Anesthesiology* 67:211-217, 1987.
5. Matherne GP, Nakamura KT, Robillard JE. Ontogeny of alpha-adrenoceptor responses in renal vascular bed of sheep. *Am J Physiol* 254:R277-R283, 1988.
6. Frey EE, Matherne GP, Mahoney LT, Sato Y, Stanford W, Smith WL. Coronary artery aneurysms due to Kawasaki's disease: Diagnosis with ultrafast CT. *Radiology* 167:725-726, 1988.
7. Matherne GP, Nakamura KT, Alden BM, Rusch NJ, Robillard JE. Regional variation of postjunctional alpha-adrenoceptor responses in the developing renal vascular bed of sheep. *Pediatr Res* 25:461-465, 1989.
8. Matherne GP, Headrick JP, Coleman SD, Berne RM. Interstitial transudate purines in normoxic and hypoxic immature and mature rabbit hearts. *Pediatr Res* 28:348-353, 1990.
9. Matherne GP, Headrick JP, Berne RM. Ontogeny of the adenosine response in guinea pig heart and aorta. *Am J Physiol* 259:H1637-1642, 1990.
10. Northington FS, Matherne GP, Berne RM. Competitive inhibition of nitric oxide synthase prevents the cortical hyperemia associated with peripheral nerve stimulation. *Proc Natl Acad Sci* 89:6649-6652, 1992.
11. Headrick JP, Ely SW, Matherne GP, Berne RM. Myocardial adenosine, flow, and metabolism during adenosine antagonism and adrenergic stimulation *Am J Physiol* 264:H61-H70, 1993.
12. Matherne GP, Headrick JP, Ely SW, Coleman SD, Berne RM. Changes in work rate to oxygen consumption ratio during hypoxia and ischemia in immature and mature rabbit hearts. *J Mol Cell Cardiol* 24:1409-1421, 1992.
13. Matherne GP, Headrick JP, Berr SS, Berne RM. Metabolic and functional responses of immature and mature rabbit hearts to hypoperfusion, ischemia and reperfusion. *Am J Physiol* 264:H2141-H2153, 1993.
14. Matherne GP, Girling PW, McDaniel NL. Mechanisms of increased sensitivity to A₂ adenosine receptor stimulation in immature rabbit aortic rings. *Dev Pharmacol Ther* 675 (Vol. 20, No. 3-4):121-128, 1993.
15. Holmes G, Epstein ML, Matherne GP. Maturation differences in coronary flow and interstitial transudate adenosine during alteration of perfusate oxygenation in isolated rabbit hearts. *Comp Biochem Physiol* 110A (4):367-373, 1995.
16. Matherne GP, Berr SS, Headrick JP. Integration of vascular contractile and metabolic responses to hypoxia: effects of maturation and adenosine. *Am J Physiol* 270:R895-R905, 1996.

17. Matherne GP, Ely SW, Headrick JP. Maturation differences in bioenergetic state and purine formation during "supply" and "demand" ischemia. *J Mol Cell Cardiol* 28:1143-1155, 1996.
18. Matherne GP, Linden J, Byford AM, Gauthier NS, Headrick JP. Transgenic adenosine A1 receptor overexpression increases the resistance of the heart to ischemia. *Proc Natl Acad Sci* 94:6541-6546, 1997.
19. Gauthier NS, Headrick JP, Matherne GP. Myocardial function in the working mouse heart overexpressing cardiac A1 adenosine receptors. *J Mol Cell Cardiol* 30:193-198, 1998.
20. Morrison RR, Jones R, Byford AM, Stell AR, Peart J, Headrick JP, Matherne GP. Transgenic overexpression of cardiac A1 adenosine receptors mimics ischemic preconditioning. *Am J Physiol* 279:H1071-H1078, 2000.
21. Headrick JP, Gauthier NS, Morrison R, Matherne GP. Cardioprotection by K_{ATP} channels in wild-type hearts and hearts overexpressing A1 adenosine receptors. *Am J Physiol* 279(4):H1690-H1697, 2000.
22. Cerniway RJ, Yang Z, Jacobson MA, Linden J, Matherne GP. Targeted deletion of A3 adenosine receptors improves tolerance to ischemia-reperfusion injury in the mouse myocardium. *Am J Physiol* 281:H1751-1758, 2001.
23. Yang Z, Cerniway RJ, Byford AM, Berr SS, French BA, Matherne GP. Cardiac overexpression of the A1-adenosine receptor protects intact mice against myocardial infarction. *Am J Physiol*, 282: H949-H955, 2002.
24. Throckmorton AL., Allaire PE, Gutgesell HP, Matherne GP, Olsen DB, Wood HG, Allaire JH, Patel SM. Pediatric Circulatory Support Systems. *ASAIO Journal* 48(3):216-21, 2002
25. Everett A.D, Matherne GP, Feasibility of pulmonary artery pressure measurements in infants through aorto-pulmonary shunts using a micromanometer pressure wire. *Pediatric Cardiology*, 24(4):336-7, 2003
26. Ashton K, Holmgren K, Peart J, Lankford AR, Matherne GP, Grimmond S, Headrick JP. Effects of A1 adenosine receptor overexpression on normoxic and post-ischemic gene expression. *Cardiovascular Research*, 57: 715-726, 2003.
27. Regan SE, Broad M, Byford AM, Lankford AR, Cerniway RJ, Mayo MW, Matherne GP. A1 adenosine receptor overexpression attenuates ischemia-reperfusion-induced apoptosis and caspase 3 activity. *Am J Physiol*,. 284(3):H859-66, 2003.
28. Throckmorton, AL, Untaroiu A, Allaire PE, Wood HG, Matherne GP, Lim DS, Peeler BB, and Olsen DB. Computational analysis of an axial flow pediatric ventricular assist device. *Artif Organs* 28: 881-891, 2004.
29. Lim DS, Peeler BB, Matherne GP, Kron IL, Gutgesell HP. Risk-Stratified Approach to Hybrid Transcatheter-Surgical Palliation of Hypoplastic Left Heart Syndrome. *Pediatric Cardiology*. 27:1-5, 2006

30. Lim D.S, Dent J, Gutgesell HP, Matherne GP, Kron IL. Transesophageal Echocardiographic Guidance for Surgical Repair of Aortic Insufficiency in Congenital Heart Disease. *J Am. Soc. Echocardiography*, 20:1080-1085 2007
31. Lim DS, Matherne GP, Percutaneous device closure of atrial septal defect in a premature infant with rapid improvement in pulmonary status. *Pediatrics*, Feb; 119(2):398-400, 2007
32. Lim DS, Peeler BB, Matherne GP, Kramer CM. Cardiovascular magnetic resonance of pulmonary artery growth and ventricular function after Norwood procedure with Sano modification. *J Cardiovascular Magnetic Resonance*. 10(34): 2008
33. Mahle W, Newburger J, Matherne GP, Smith F, Hoke T, Koppel R, Gidding S, Beekman R, Grosse S. The Role of Pulse Oximetry in Newborn Screening for Congenital Heart Disease. *Pediatrics*;124;823-836. 2009
34. Gutgesell HP, Hillman DG, McHugh KE, Dean P, Matherne GP. Use of an Administrative Database to Determine Clinical Management and Outcomes in Congenital Heart Disease. *World Journal for Pediatric and Congenital Heart Surgery* 2(4) 593-596. 2011
35. Mahle WT, Sable C, Matherne GP, Gaynor JW, Perkins, CL, Gewitz M, Key Concepts in the Evaluation of Screening Approaches for Heart Disease in Children and Adolescents. *Circulation*;125:2796-2801. 2012
36. Longmuir PE, Brothers JA, Ferranti SD, Hayman LL, Van Hare GF, Matherne GP, Davis CK, Joy EA, McCrindle BW. Promotion of physical activity for children and adults with congenital heart disease: a scientific statement from the American Heart Association. American Heart Association Atherosclerosis, Hypertension and Obesity in Youth Committee of the Council on Cardiovascular Disease in the Young. *Circulation* 2013 May 28; 127(21):2147-59.
37. Lawless CE, Asplund C, Asif IM, Courson R, Emery MS, Fuisz A, Kovacs RJ, Lawrence SM, Levine BD, Link MS, Martinez MW, Matherne GP, Olshanksy B, Roberts WO, Salberg L, Vetter VL, Vogel RA, Whitehead J. Protecting the heart of the American athlete: proceedings of the American College of Cardiology Sports and Exercise Cardiology Think Tank, October 18, 2012.. *Journal of the American College of Cardiology*. 64(20):2146-71, 2014.
38. Maron BJ, Friedman RA, Kligfield P, Levine BD, Viskin S, Chaitman BR, Okin PM, Saul JP, Salberg L, Van Hare GF, Soliman EZ, Chen J, Matherne GP, Bolling SF, Mitten MJ, Caplan A, Balady GJ, Thompson PD. ASSESSMENT OF THE 12-LEAD ELECTROCARDIOGRAM AS A SCREENING TEST FOR DETECTION OF CARDIOVASCULAR DISEASE IN GENERAL HEALTHY POPULATIONS OF YOUNG PEOPLE (12-25 YEARS OF AGE *Circulation*. 130(15):1303-34, 2014
39. Ross RD, Brook M, Feinstein JA, Koenig P, Lang P, Spicer R, Vincent JA, Lewis AB, Martin GR, Bartz PJ, Fischbach PS, Fulton DR, Matherne GP, Reinking B, Srivastava S, Printz B, Geva T, Shirali GS, Weinberg P, Wong PC, Armsby LB, Vincent RN, Foerster SR, Holzer RJ, Moore JW, Marshall AC, Latson L, Dubin AM, Walsh EP, Franklin W, Kanter RJ, Saul JP, Shah MJ, Van Hare GF, Feltes TF, Roth SJ, Almodovar MC, Andropoulos DB, Bohn DJ, Costello JM, Gajarski RJ, Mott AR, Stout K, Valente AM,

Cook S, Gurvitz M, Saidi A, Webber SA, Hsu DT, Ivy DD, Kulik TJ, Pahl E, Rosenthal DN, Morrow R, Mahle WT, Murphy AM, Li JS, Law YM, Newburger JW, Daniels SR, Bernstein D, Marino BS. Training Guidelines for Pediatric Cardiology Fellowship Programs., *Journal of the American College of Cardiology* (), doi: 10.1016/j.jacc.2015.03.004. 2015

Chapters/ Invited Articles (selected from 14

1. Matherne GP. Congenital anomalies of the coronary vessels and the aortic root. In: *Moss and Adams Heart Disease in Infants, Children and Adolescents - Including the Fetus and Young Adults*, Sixth edition. H. D. Allen, H. P. Gutgesell, E. B. Clark, D J. Driscoll (Eds). Williams & Wilkins, Baltimore, MD, 2000.
2. Lim DS, Peeler BB, Rheuban KS, Matherne GP. Coarctation of the aorta- an evolution of therapeutic options. *Current Cardiology Reviews* 3: 239-246, 2005
3. Matherne GP. Cloud-based Medical Information Exchange: Seamless Technology for Sharing Medical Files. *Congenital Cardiology Today*, 2012
4. Lim DS, Matherne GP. Congenital anomalies of the coronary vessels and the aortic root. In: *Moss and Adams Heart Disease in Infants, Children and Adolescents - Including the Fetus and Young Adults*, Seventh edition. Williams & Wilkins, Baltimore, MD, 2015

Invited Presentations – National (selected)

"Common Pediatric Dysrhythmias" Pediatric Grand Rounds, Texas A&M University, College Station, Texas, June 24, 1993.

"Congenital Heart Disease and Research" Keynote speaker Children's Heart Foundation Annual Meeting, Chicago, Illinois, June 1, 1998.

"Cardiac Protection with Overexpression of A1 Adenosine Receptors" Research Seminar, Introgen Inc., Houston, Texas, November 6, 1998.

"Mission Driven Health Care: Engaging the Problems Facing Academic Pediatrics" University of Mississippi, April 26, 2010

"Pulse Oximetry Screening: An Introduction to Advocacy Issues" ACC/Mended Little Hearts Webinar Panelist, July 26, 2011

Invited Presentations – International (selected)

"Pediatric Dysrhythmias," 15th Annual Pediatric Uptake - Costa Rica National Children's Hospital, San Jose, Costa Rica, March 14, 1997.

Resident teaching Conference – Cardiac Emergencies
UTH- Lusaka Zambia October 17, 2013

Screening Newborns for Critical Congenital Heart Disease – Anatomy and Physiology Review
VHD- HRSA Webinar Co-leader January 28, 2014

Introduction to cardiac exam in Children- 3rd year medical student hands on workshop
Malawi College of Medicine. Lilongwe Malawi, March 12, 2014

Pediatric Grand Rounds- Eliminating error- Is it possible?
UTH Lusaka Zambia, August 27, 2015

Savings Children's Lives Instructor Work shop
Scottish Livingston Hospital; Molepolole Botswana Septembers 26, 2015

Pediatric Grand Rounds- Eliminating error- Is it possible?
University of Botswana; Gaborone Botswana; September 18, 2015

Introduction to Congenital heart Disease
UTH Medical School lecture; UTH Lusaka Zambia, March 14, 2016

Getting better at what we do: Creating a culture of improvement: A journey to make things better
in Health Care. San Jose Costa Rica April 25, 2016

FUNDED GRANTS (selected)

<i>National Title</i>	<i>Period</i>	<i>Amount</i>
HRSA , Moline PI (Virginia Department of Health) Critical Congenital Heart Disease Newborn Demonstration program. (10% Medical Advisor)	2012-2016	\$900,000
NRSA (NHLBI), Matherne PI Pediatric Cardiovascular Research Training Program 5 T32 -- HLO7956-10	2000-2012	\$ 851,078
KO2 (NHLBI) Independent Scientist Award Mechanisms of Cardiac Protection with A1 Overexpression HL67823-05	2001-2006	\$ 518,805
RO1 (NHLBI) Myocardial Protection with A1 Receptor Overexpression -- HL59419-06	1998-2005	\$1,400,000
American Heart Association Established Investigator Grant -- 9740135N	1998-2001	\$ 300,000
Clinical Investigator Award (NHLBI) Coronary Blood Flow During Development: Role of Adenosine	1990-1995	\$ 381,184