VIDU GARG, M.D., F.A.A.P.

Department of Pediatrics, The Ohio State University College of Medicine
Heart Center & Center for Cardiovascular and Pulmonary Research
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Place of Birth: New Delhi, India Citizenship: USA

EDUCATION

1988 - 1994 Cooperative Six Year B.S./M.D. Program
The Pennsylvania State University
University Park, Pennsylvania
Bachelor of Science awarded August 1992
Jefferson Medical College
The Thomas Jefferson University
Philadelphia, Pennsylvania
Doctor of Medicine awarded June 1994

1994 - 1997 Intern and Resident in Pediatrics
Nationwide Children's Hospital
The Ohio State University
Columbus, Ohio
Chairman: Thomas Hansen, M.D.

1997 - 2000 Fellow in Pediatric Cardiology
Children's Medical Center Dallas
University of Texas Southwestern Medical Center
Dallas, Texas
Director of fellowship: Lynn Mahony, M.D.

2000 - 2002 Post-doctoral research fellowship
University of Texas Southwestern Medical Center
Dallas, Texas
Mentor: Deepak Srivastava, M.D.

ACADEMIC APPOINTMENTS

1994 - 1997 Clinical Instructor
Department of Pediatrics
The Ohio State University College of Medicine
Columbus, Ohio

2000 - 2002 Assistant Instructor
Department of Pediatrics, Division of Pediatric Cardiology
University of Texas Southwestern Medical Center
Dallas, Texas

2002 - 2009 Assistant Professor
Department of Pediatrics, Division of Pediatric Cardiology
University of Texas Southwestern Medical Center
Dallas, Texas

2005 - 2009 Assistant Professor
Department of Molecular Biology and McDermott Center of Human Growth and Development
Integrative Biology Graduate Program
University of Texas Southwestern Graduate School of Biomedical Sciences
University of Texas Southwestern Medical Center
Dallas, Texas

2009 – present Associate Professor (with tenure)
Department of Pediatrics
Ohio State University College of Medicine
2009 – present Investigator
Davis Heart Lung Research Institute
The Ohio State University
2010 – present Associate Professor
Molecular, Cellular and Developmental Biology Graduate Program
Integrated Biomedical Science Graduate Program
The Ohio State University
Columbus, Ohio

HOSPITAL APPOINTMENTS

2000 - 2009 Attending physician
Children's Medical Center
Dallas, Texas
2000 - 2009 Consulting physician
Parkland Memorial Hospital
Dallas, Texas
2000 – 2009 Consulting physician
St. Paul Medical Center
Dallas, Texas
2001 – 2005 22q11 Deletion Syndrome Clinic at Children's Medical Center Dallas, Director
2009 – present Attending physician
Nationwide Children's Hospital
Columbus, Ohio
2009 – present Director of Translational Research
Heart Center & Center for Cardiovascular and Pulmonary Research
Nationwide Children's Hospital
Columbus, Ohio

HONORS

1990 American Heart Association Summer Science Research Fellowship (Portland, Oregon)
1992 Hobart Amory Hare Honor Society (Medical School Honor Society)
2000 Howard Hughes Medical Institute (HHMI), Postdoctoral Research Fellowship for Physicians (declined)
2003 Overall Winner, Young Investigator Molecular Cardiovascular Forum, UT Southwestern
2004 Basil O'Connor Starter Scholar Research Award (March of Dimes)
2004 Honorable Mention, SPR Richard D. Rowe Award in Perinatal Cardiology
2004 APS/SPR Young Investigators Travel Award
2005 Finalist, Young Investigator Award, American College of Cardiology
2005 Richard D. Rowe Award in Perinatal Cardiology, Society of Pediatric Research
2005 Reynolds Associate, Donald W. Reynolds Cardiovascular Clinical Research Center
2006 Dallas Heart Ball Pediatric Cardiology Clinical Research Award

CERTIFICATION

1997 American Board of Pediatrics
Certification, 10/8/1997
Recertification, 11/30/2004 (expires 2011)
2000 Sub-board of Pediatric Cardiology, American Board of Pediatrics
Certification, 8/7/2000
Recertification, 10/9/2007 (expires 2014)
1994 Pediatric Advanced Life Support and Basic Life Support
Recertification, 2009

LICENSURE

2009 - present State of Ohio Medical License No. 35-06-9464

1999-present State of Texas Medical License No. K7020 (Expires: 02/28/10)
1995 -2001 State of Ohio Medical License No. 35-06-9464

PROFESSIONAL SOCIETIES

1994-present American Academy of Pediatrics, Fellow
1998-2003 American College of Cardiology
1998-present American Heart Association
Council on Cardiovascular Disease in Young, Member
2005-present Society of Pediatric Research
2006-2009 Member, Richard D. Rowe Award Selection Committee (Society of Pediatric Research)
2008-present American Society of Human Genetics

INVITED LECTURES

1998 Vascular Biology Club, UT Southwestern Medical Center, Dallas, Texas
2001 Weinstein Cardiovascular Development Conference, Dallas, Texas
2001 Advances in Fetal and Perinatal Cardiology Symposium. Toronto, Ontario, Canada
2001 3rd World Congress of Pediatric Cardiology and Cardiac Surgery. Toronto, Ontario, Canada
2001 Cardiology Research Conference, Children's Medical Center, Dallas, Texas
2003 McDermott Center for Human Growth and Development Lecture Series. UT Southwestern Medical Center, Dallas, Texas
2003 Weinstein Cardiovascular Development Conference, Boston, MA
2004 Keystone Symposium: Molecular Biology of Cardiac Disease and Cardiac Development and Congenital Heart Disease, Keystone, Colorado
2004 Pediatric Grand Rounds, Children's Medical Center, Dallas, Texas
2005 Haltalin Seminar - Pediatrics for the Practitioner, Dallas, Texas
2005 Pediatric Grand Rounds, Children's Medical Center, Dallas, Texas
2005 Cardiology Grand Rounds, Department of Internal Medicine, UT Southwestern Medical Center, Dallas, Texas
2006 Neonatalogy Research Conference. UT Southwestern Medical Center. Dallas, Texas
2006 Department of Molecular Biology Retreat, UT Southwestern Medical Center. Lake Texoma, Texas
2006 International Society for Heart Research American Section. Toronto, Ontario, Canada
2006 Cardiovascular Seminar Series, Children's Hospital, Boston, MA
2006 MSTP Works-in-Progress, UT Southwestern Medical Center, Dallas, Texas
2007 Pediatric Cardiology Fellows Conference. UT Southwestern Medical Center Dallas, Texas
2007 Cardiology Research Conference, Department of Internal Medicine, UT Southwestern Medical Center, Dallas, Texas
2008 Neonatalogy Research Conference. UT Southwestern Medical Center. Dallas, Texas.
2008 American College of Cardiology 57th Annual Scientific Session, Mini-symposium: "Translation medicine in childhood heart disease" Chicago, Illinois
2008 Pediatric Academic Societies Annual Meeting, Mini-symposium: "Emerging technologies and pediatric disease" Honolulu, Hawaii
2008 Burnham Institute, "Notch Mini-Symposium" San Diego, California
2008 University of California at San Diego, San Diego, California
2008 American Heart Association Scientific Sessions, Invited Moderator, "Fetal Origins of Cardiac Malformations: Can the Phenotype Be Reversed?", New Orleans, LA
2009 Research Institute at Nationwide Children's Hospital, Columbus, OH
2009 Pediatric Cardiology and Congenital Heart Disease Career Session, American College of Cardiology, Orlando, Florida
2009 Aortic Disease Summit, Baltimore, MD
2009 Davis Heart Lung Research Institute, Columbus, OH
2009 American Heart Association Scientific Sessions/International Congress on Genetics and Genomics of Cardiovascular Disease, Orlando, FL
2010 Pediatric Grand Rounds, Nationwide Children's Hospital, Columbus, OH
2010 Pediatric Academic Societies Annual Meeting, Vancouver, BC
2010 Cincinnati Children's Heart Institute (scheduled)

CLINICAL ACTIVITIES

1. Attending physician (inpatient cardiology ward/consult service) - 4 weeks/year
2. Attending physician (outpatient cardiology clinic) - 2 days/month

Trainees (Current and former lab members)

2010-present	Nianyuan Huang (research technician)
2009-present	Chetan Hans, Ph.D. (research assistant professor)
2009-present	Chaitali Misra, Ph.D. (post-doctoral fellow)
2009-present	Sara Koenig, B.S. (research technician)
2008-present	Ashleigh Richards, M.D. (post-doctoral fellow)
2007-2009	Nita Sachan, Ph.D. (post-doctoral fellow)
2006-2009	Asha Acharya, Ph.D. (post-doctoral fellow) – supported by AHA postdoctoral fellowship
2006-2009	Meenakshi Maitra, Ph.D. (post-doctoral fellow)
2007-2009	Hubert Pan, B.S. (clinical research assistant)
2006-2009	Haley Nichols, B.S. (research technician)
2006-2008	Caryn Rothrock, Ph.D. (post-doctoral fellow) – supported by UTSW T32 training grant
2005-2006	Amanda E. Krysiak, B.S. (research technician)
2002-2004	Marie K. Schluterman, B.S. (research technician)

RESEARCH SUPPORT

Active

1. NIH/NHLBI R01HL088965 2007-2012
   Genetic Regulation of Cardiac Septation
2. Children's Heart Foundation 2008-2009
   Genetics of Hypoplastic Left Heart Syndrome

Past

1. NIH/NICHD K08-HD01382 2000-2005
   Role of UFD1 and CDC45 in Neural Crest Development
2. NIH/ Pediatric Loan Repayment Program 2002-2006
3. March of Dimes Birth Defects Foundation 5-FY03-157 2004-2006
   Molecular Mechanisms of Cardiac Septation
4. Donald W. Reynolds Cardiovascular Clinical Research Center 2005-2006
   Reynolds Associate
5. American Heart Association-Texas Affiliate 665043Y 2006-2008
   Molecular Pathways for Cardiac Septa Formation
6. Children's Medical Center Dallas Foundation 2006-2009
7. March of Dimes Birth Defects Foundation 01-FY06-381 2006-2009
   Role of GATA4 in Congenital Heart Disease
8. AHA-Texas Affiliate (Postdoctoral Fellowship) 0725032Y 2007-2009
   Asha Acharya, Ph.D. (mentored grant)

PATENTS

NOTCH1 Variants Associated with Cardiovascular Disease. U.S. Patent No. 7,629,121. Date of Patent: 12/8/2009.

PUBLICATIONS

1. *Yamagishi, H., *Garg, V., Matsuoka, R., Thomas, T., and Srivastava, D. "A molecular pathway revealing a genetic basis for human cardiac and craniofacial defects." ***Science*** 283:1158-1161 (1999). *co-first authors
2. Garg, V., Yamagishi, C., Hu, T., Kathiriya, I.S., Yamagishi, H., and Srivastava, D. "*Tbx1*, a DiGeorge syndrome candidate gene, is regulated by Sonic Hedgehog during pharyngeal arch development." ***Developmental Biology*** 235:62-73 (2001).
3. Kunte, A., Ivey, K., Yamagishi, C., Garg, V., Yamagishi, H., and Srivastava, D. "A common cis-acting sequence in the DiGeorge critical region regulates bi-directional transcription of *UFD1L* and *CDC45L*." ***Mechanisms of Development*** 108:81-92 (2001).

4. Garg, V., Kathiriya, I.S., Barnes, R., Schluterman, M.K., King, I.N., Butler, C. A., Rothrock, C.R., Eapen, R.S., Hirayama-Yamada, K., Joo, K., Matsuoka, R., Cohen, J.C., and Srivastava, D. "GATA4 mutations cause human congenital heart defects and reveal an interaction with TBX5". ***Nature*** 424(6947):443-447 (2003).
5. Garg, V., Muth, A.N., Ransom, J.F., Schluterman, M.K., Barnes, R., King, I.N., Grossfeld, P.D., and Srivastava, D. "Mutations in *NOTCH1* Cause Aortic Valve Disease". ***Nature*** 437(7056):270-274 (2005).
6. Schluterman, M.K., Krysiak, A.E., Kathiriya, I.S., Abate, N., Chandalia, M., Srivastava, D., and Garg, V. "Screening and Biochemical Analysis of *GATA4* Sequence Variations in Patients with Congenital Heart Disease". ***Am J Med Genet A*** 143(8):817-823 (2007).
7. Rajagopal, S.K., Ma, Q., Obler, D., Shen, J., Manichaikul, A., Tomita-Mitchell, A., Boardman, K, Briggs, C, Garg, V., Srivastava, D., Goldmuntz, E., Broman, K.W., Benson, D.W., Smoot, L., and Pu, W.T. 2007. Spectrum of Heart Disease Associated with Murine and Human *GATA4* Mutation. ***J Mol Cell Cardiol*** 43(6):677-85 (2007).
8. Tomita-Mitchell, A., Maslen, C.L., Morris, C.D., Garg, V., and Goldmuntz, E. "*GATA4* Sequence Variants in Patients with Congenital Heart Disease" ***J Med Genet*** 44(12): 779-783 (2007).
9. Richards, A., Jaeckle, L., Nichols, H., Crider, B., Elder, F., Hauser, N., Zinn, A.R., and Garg, V. Cryptic chromosomal abnormalities identified in children with congenital heart disease and additional birth anomalies. ***Pediatr Res*** 64(4):358-363 (2008).
10. Ransom, J.F., King, I.N., Garg, V., and Srivastava, D. "A Rare Human Sequence Variation Reveals Myocardin Autoinhibition" ***J Biol Chem***, 283(51):35845-52 (2008).
11. Maitra, M., Schluterman, M.K., Nichols, H., Richardson, J.A., Lo, C., Srivastava, D. and Garg, V. "Interaction of Gata4 and Tbx5 is critical for normal cardiac development" ***Dev Biol***, 326(2):368-77 (2009).
12. Pan, H., Richards, A.A., Xhu, X., Joglar, J.A., Yin, H.L., and Garg, V. "A novel mutation in LAMIN A/C is associated with isolated early-onset atrial fibrillation and progressive atrioventricular block followed by cardiomyopathy and sudden cardiac death" ***Heart Rhythm,*** 6(5):707-710 (2009).
13. Maitra, M., Koenig, S., Srivastava, D. and #Garg, V. "*GATA6* Sequence Variations in Human Congenital Heart Disease" ***Pediatr Res*** In press (2010).

INVITED REVIEWS

1. Srivastava, D. and Garg, V. "Potential for fetal gene therapy in congenital heart disease." ***Frontiers in Fetal Health*** 3(7):211-212 (2001).
2. Garg, V. and Srivastava, D. "22q11 deletion syndrome." ***Pediatric Society of Greater Dallas Newsletter*** (2001).
3. Garg, V. and Srivastava, D. "Cardiac development and congenital heart disease." ***American College of Cardiology Self Assessment Program V*** (2002).
4. Garg, V. and Srivastava, D. "Genetic Underpinnings of Cardiogenesis and Congenital Heart Disease". Eds. C. Patterson and M. Runge in ***Principles of Molecular Cardiology***. Humana Press (2005).
5. Garg, V. "Insights into the Genetic Basis of Congenital Heart Disease". ***Cellular Molecular Life Sciences.*** 63(10):1141-1148 (2006).
6. Garg, V. "Molecular Genetics of Aortic Valve Disease". ***Curr Opin in Cardiology*** 21(3): 180-184 (2006).
7. Richards A.A. and Garg, V. Genetics of Congenital Heart Disease. ***Current Cardiology Reviews***, 6(2):91-97 (2010).
8. Garg, V. "Growth of the Normal Human Heart" Ed. Victor R. Preedy. Handbook of Growth and Growth Monitoring in Health and Disease. In press.

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