

CURRICULUM VITAE

I. GENERAL INFORMATION

Name: David P. Bichell, M.D.

Office Address: Professor, Cardiac Surgery
Chief, Pediatric Cardiac Surgery
Vanderbilt University
Monroe Carell Children's Hospital
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Home Address: 1510 Old Hickory Blvd.
Brentwood, TN 37027

Place of birth: Baltimore, Maryland

E-mail: david.bichell@vanderbilt.edu

Education:
1987 M.D., Columbia University College of Physicians & Surgeons

1980 B.A., Johns Hopkins University

Post-doctoral training:

1997 Chief Resident in Cardiac Surgery, Children's Hospital, Harvard Medical School

1996-97 Chief Resident in Cardiac Surgery, Brigham & Women's Hospital, Harvard Medical School

1995-96 Resident in Cardiothoracic Surgery, Brigham & Women's Hospital, Harvard Medical School

1994-95 Clinical Fellow in Cardiac Surgery, Brigham & Women's Hospital, Harvard Medical School

1988-94 Resident in General Surgery, Barnes Hospital, Washington University School of Medicine

1990-92 Research Fellow, Departments of Biochemistry and

Surgery, Washington University School of Medicine

1987-88 Intern in Pediatrics, Columbia-Presbyterian
Hospital, Columbia University

Licensure and Certification:

Medical license, State of Tennessee #40434, issued October 31, 2005

Medical license, State of Illinois #036-113863, issued June 14, 2005

Medical license, State of Hawaii #11457, issued April 2, 2001

Medical license, State of California #G084908, issued October 30, 1998

Diplomate, American Board of Thoracic Surgery #6048, June 5, 1998

Diplomate, American Board of Surgery #4095, February 27, 1996

Medical license, State of Massachusetts #78974, issued February 23,
1994

Professional Memberships:

Chicago Surgical Society

Midwest Pediatric Cardiology Society

Fellow, American College of Surgeons

Society of Thoracic Surgeons

Congenital Heart Surgeon's Society

Western Thoracic Surgical Association

Western Society of Pediatric Cardiology

Hospital or Affiliated Institution Appointments:

2006- Professor of Cardiac Surgery
Chief, Pediatric Cardiac Surgery
Vanderbilt University
Monroe Carell Jr. Children's Hospital

2005-2006 Associate Professor of Surgery

Department of Surgery, Section of Cardiothoracic Surgery
University of Chicago

- 2005-2006 Director of Pediatric Cardiac Surgery
University of Chicago Hospitals, Comer Children's Hospital
- 2000-2005 Director, Division of Cardiovascular Surgery,
Children's Hospital, San Diego
- 2000-2005 Director, The Children's Heart Institute,
Children's Hospital, San Diego
- 2000-2004 Section Chief, Thoracic Surgery, Children's Hospital, San
Diego
- 1999-2000 Associate in Cardiovascular Surgery,
Children's Hospital, San Diego
- 1997-98 Instructor, Department of Cardiovascular Surgery,
Children's Hospital Boston, Harvard Medical School

Administrative Responsibilities:

- 2003-2005 Board of Directors, Children's Specialists of San Diego
- 2000-2005 Medical Director, Children's Heart Institute, San Diego
- 2003-2005 At-Large Surgeon, Children's Specialists of San Diego

Hospital Committee Assignments:

- 2003-2005 Academic Affairs Committee, Children's Specialists of San
Diego

Other Positions:

- 1980-92 Freelance illustrator, W.B Saunders Publishers,
Little, Brown & Company Publishers, Columbia
University, Johns Hopkins University, Harvard
University Press, William Morrow Publishers

Ad Hoc Reviewer:

- 2006- Journal of Surgical Research
- 2004- Journal of Thoracic and Cardiovascular Surgery
- 2001- Annals of Thoracic Surgery

2000- New England Journal of Medicine

Awards and Honors:

1994 Eugene Bricker Award, Washington University

1992 American Federation of Clinical Investigators
Excellence in Research Award

1987 Joseph Garrison Parker Award, Columbia University

1985-87 Joseph Collins Scholarship, Columbia University

II. RESEARCH, TEACHING, AND CLINICAL CONTRIBUTIONS

A. Current Clinical Activities:

Director of Pediatric Cardiac Surgery at Monroe Carell Jr. Children's Hospital, Vanderbilt University, a department performing over 500 operations per year in a practice treating exclusively congenital heart disease.

B. Clinical Investigations:

Current:

Principal investigators: David Bichell, M.D., Julia Noland, PhD.

"Hearts & Minds" study: Neurodevelopmental testing in the pre-, peri-, and late postoperative period in infants undergoing single ventricle surgical palliation, including evoked response potential (ERP) and serum markers of hypoxic/ischemic stress, and novel early neurodevelopmental testing of executive function.

Sponsor: Children's Fund, Monroe Carell Jr. Children's Hospital at Vanderbilt, \$100,000

Principal Investigator: David Bichell, M.D.

The Contegra bovine jugular vein valved conduit multicenter clinical study #9202-99C (enrollment closed, follow up ongoing)

Sponsor: Medtronic, Inc., Minneapolis, MN

Principal investigator: David Bichell, M.D.

Congenital Heart Surgeons' Society (CHSS) multicenter studies of congenital heart disease

Sponsor: CHSS, The Hospital for Sick Children, Toronto

Past:

Principal Investigator: David Bichell, M.D.

Platelet aggregation inhibition in children on Clopidogrel (PICOLO), study No. PDY4422

Dose-ranging pharmacodynamic assessment of platelet aggregation inhibition with clopidogrel in children of Blalock-Taussig shunt age categories neonates and infants/toddlers
Sponsor: Sanofi-Synthelabo, Malvern, PA

Principal investigator: David Bichell, M.D.
Co-investigators: Michael Worthen, M.D., Kathleen Kaya, M.D., Michael Flynn, M.D.

ETHIC clinical study, protocol # 20,015-004. A multicenter study to evaluate the efficacy, safety, and pharmacokinetics of Brevibloc (Esmolol Hydrochloride) for the treatment of hypertension in infants and children after surgical repair of coarctation of the aorta.
Sponsor: Baxter Pharmaceutical Products, Inc., New Providence, NJ

Principal investigator: David Bichell, M.D.
Retrospective study of the surgical treatment for ostium secundum atrial septal defect – A surgical arm of the multicenter pivotal study of the HELEX septal occluder, (principal investigator: Frank Ing, M.D.)
Sponsor: W.L. Gore & Associates, Inc., Flagstaff, AZ

C. Teaching:

a. Seminars, lectures, invited presentations

Invited speaker, Nashville Surgical Society. Current Management of Hypoplastic Left Heart Syndrome. March 6, 2008, Nashville, TN.

Invited speaker, STS/Tech-Com Program: Evaluation of Adults with Congenital Heart Disease. January 27, 2008, Ft. Lauderdale, FL

Invited speaker, XLIII Congreso Chileno de Cardiología y Cirugía Cardiovascular: Advances in Cardiopulmonary Bypass: Optimizing the neurologic outcome after congenital heart surgery. November 29, 2006, Vina del Mar, Chile

Invited speaker, XLIII Congreso Chileno de Cardiología y Cirugía Cardiovascular: Primary Repair of tetralogy of Fallot in Infancy. November 30, 2006, Vina del Mar, Chile

Invited speaker, XLIII Congreso Chileno de Cardiología y Cirugía Cardiovascular: Rehabilitation of Pulmonary Arteries in Congenital Heart disease. November 30, 2006, Vina del Mar, Chile

Invited speaker, American College of Surgeons 2006: Postgraduate review course: Adult congenital cardiac disease. October 12, 2006, Chicago, IL

Invited speaker, PICS 2006: Intraoperative stents. September 13, 2006, Las Vegas, NV.

Invited speaker, PICS 2006: Dealing with stents in the operating room. September 12, 2006, Las Vegas, NV

Visiting professor invited presentation, Mary Bridge Children's Hospital: Challenges in the treatment of complex pulmonary artery problems. August 11, 2006, Tacoma WA

Invited Speaker, SCAI 29th Annual Scientific Sessions: Critical aortic valve stenosis in the neonate: Surgery should be the first option. May 11, 2006, Chicago, IL

Invited speaker, PICS IX/ENTICHS 2005: Long term outcome following the surgical closure of atrial septal defect. September 16, 2005, Buenos Aires, Argentina

Invited speaker, Mexican Society of Cardiac Surgery XIV International Congress: Right ventricle to pulmonary artery conduits. March 31, 2005, Monterrey, Mexico

Invited speaker, Mexican Society of Cardiac Surgery XIV International Congress: Management strategies for pulmonary hypertension. March 31, 2005, Monterrey, Mexico

Visiting professor presentation, Vanderbilt University: Right ventricle to pulmonary artery conduits: Alternatives to the homograft. March 4, 2005, Nashville, Tennessee

Invited speaker, The Fetus & Newborn: State of the Art Care Conference: Practical neonatal cardiology: What you really need to know. October 20, 2004, La Jolla, California

Invited speaker, 2004 Neonatal-perinatal symposium: Advances in Neonatal Cardiothoracic Surgery. September 10, 2004, Long Beach California

Program Director, Congenital Cardiovascular Surgery Symposium, October 15-16, 2004, San Diego, California

Speaker, Congenital Cardiovascular Surgery Symposium: Homografts in Infants and Children. October 15, 2004, San Diego, California

Invited speaker, III Congresso Internazionale de Terapia Intensiva Pediatrica: Management of Hypoplastic Left Heart Syndrome and Cardiac Transplantation. June 21-25, 2004, Monterrey, Mexico

Invited Speaker, ENT Division lecture series, Children's Hospital San Diego. Vascular Rings. June 13, 2003

Invited Speaker, Balboa Naval Hospital, Department of Pediatrics. Single Ventricle Physiology. April 22, 2003, San Diego, California

Invited speaker, Grand Rounds, Children's Hospital San Diego: Advances in Congenital Cardiovascular Surgery. February 15, 2002, San Diego, California

Invited speaker, Grand Rounds, Mercy Hospital: Advances in Congenital Cardiovascular Surgery. May, 2000, San Diego, California

Invited speaker, California Society of Pediatric Cardiology Annual Meeting: Pacemakers. September, 1999, Del Mar, California

Invited speaker, Frontiers in Diagnosis and Management of Congenital Heart Disease: Multiple Ventricular Septal Defects: Which VSD should be Left for the Surgeon? April 30- May 2, 1998, Boston, Massachusetts

b. Local contributions, advisory and supervisory responsibilities

2000-2005: Sponsor and supervisor, clinical fellow in Congenital Cardiovascular Surgery

Rajeev Gulati, M.D. (2003-4)

Douglas C. Wallace, M.D. (2004-5)

III. BIBLIOGRAPHY

Original Articles:

Antevil JL, Doyle TP, Bichell DP, Christian KG: Congenitally Corrected Transposition of the Great Arteries: A Unique Case from Iraq. *Pediatr Cardiol* 2010;31(1): 120.

Soslow JH, Parra DA, Bichell DP, Dodd DA. Left ventricular hernia in a pediatric transplant recipient: Case report and review of literature. *Pediatr Cardiol* 2009;30:55-58.

Scott JW, Karamichalis JM, Ing FI, Shirai L, Bichell D. Staged left pulmonary artery rehabilitation in post-Fontan left pulmonary artery hypoplasia. *Ann Thorac Surg* 2007;84:2112-4.

Bichell DP, Mora BN, Mathewson JW, Kirkpatrick SK, Tyner JJ, McLees-Palinkas T. Modified technique for the surgical treatment of severe tricuspid valve deformity in Ebstein's anomaly. *Ann Thorac Surg* 2007;83:678-80

Kurio G, Bichell DP, Perry JC. Malalignment of the septum primum with abnormally positioned left atrial appendage: Unusual combination in a Shone's heart. *Pediatr Cardiol.* 2006;27:628-32.

Bichell, DP, Lamberti JJ, Pelletier GJ, Hoecker C, Cocalis MW, Ing FF, Jensen RA. Late left pulmonary artery stenosis after the Norwood procedure is prevented by a modification in shunt construction. *Ann Thorac Surg* 2005;79:1656-60.

Mathewson JW, Bichell DP, Rothman A, Ing FF. Absent posteroinferior and anterosuperior atrial septal defect rims: Factors affecting nonsurgical closure of large secundum defects using the Amplatzer occluder. *J Am Soc Echocardiogr.* 2004 Jan; 17(1): 62-9.

Nicholson IA, Bichell DP, Bacha EA, del Nido PJ. Minimal sternotomy approach for congenital heart operations. *Ann Thorac Surg* 2001;71:469-72.

Bichell DP, Geva T, Mayer JE, Jonas RA and del Nido PJ. Minimal access approach for the repair of atrial septal defect: the initial 135 patients. *Ann Thorac Surg* 2000;70:115-8.

Bichell DP, Saenz NC, Losasso BE and Sobo EJ. Pediatric aortic pseudoaneurysm associated with a gunshot wound to the chest. *J Trauma* 2000;48:791.

Laussen PC, Bichell DP, McGowan FX, Zurakowski D, DeMaso D, and del Nido PJ. Postoperative recovery in children after minimum versus full-length sternotomy. *Ann Thorac Surg* 2000;69:591-6.

Jahangiri M, Zurakowski D, Bichell D, Mayer JE, del Nido PJ and Jonas RA. Improved results with selective management in pulmonary atresia with intact ventricular septum. *J Thorac Cardiovasc Surg* 1999;118:1046-55.

Visconti KJ, Bichell DP, Jonas RA, Newberger JW, and Bellinger DC. Developmental outcome after surgical versus interventional closure of secundum atrial septal defect in children. *Circulation* 1999;100[suppl II]:II-145-50.

- del Nido P, Bichell D. 'Minimal-access' congenital heart surgery. *Seminars Thorac Cardiovasc Surg*, 1998, 1:75-80.
- Cohn LH, Adams DH, Couper GS, Bichell DP, Rosborough DM, Sears S, and Aranki SA. Minimally invasive cardiac valve surgery improves patient satisfaction while reducing costs of cardiac valve replacement and repair. *Ann Surg* 1997, 226:421-8.
- Cohn LH, Adams DH, Couper GS, and Bichell DP. Minimally invasive aortic valve replacement. *Seminars Thorac Cardiovasc Surg* 1997, 9:331-6.
- Bichell DP, Balaguer J, Aranki SA, Adams DH, Couper GS, Rizzo R, and Cohn LH. Axillo-axillary bypass: A practical alternative to femoro-femoral bypass. *Ann Thorac Surg* 1997, 64:702-5.
- Gates J, Bichell D, Rizzo R, Couper G, and Donaldson M. Thigh ischemia complicating femoral vessel cannulation for cardiopulmonary bypass. *Ann Thorac Surg* 1996, 61:730-3.
- Bichell D, Adams D, Aranki S, Rizzo R, and Cohn L. Repair of mitral regurgitation from myxomatous degeneration in the patient with a severely calcified posterior annulus. *J Cardiac Surg* 1995, 10:281-4.
- Thomas M, Kikuchi K, Bichell D and Rotwein P. Characterization of deoxyribonucleic acid-protein interactions at a Growth Hormone-inducible Nuclease hypersensitivity site in the rat Insulin-like Growth Factor-I gene. *Endocrinol* 1995, 136:562-9.
- Thomas M, Kikuchi K, Bichell D and Rotwein P. Rapid activation of rat Insulin-like Growth Factor-I gene transcription by Growth Hormone reveals no alterations in deoxyribonucleic acid-protein interaction within the major promoter. *Endocrinol* 1995, 135:1584-92.
- Bichell D, Rotwein P and McCarthy T. Prostaglandin E2 rapidly stimulates Insulin-like Growth Factor-I gene expression in primary rat osteoblast cultures: Evidence for transcriptional control. *Endocrinol* 1993, 133:1020-8.
- Rotwein P, Bichell D and Kikuchi K. Multifactorial regulation of IGF-I gene expression. *Mol Repro Devel* 1993, 35:358-64.
- Kikuchi K, Bichell D and Rotwein P. Chromatin changes accompany the developmental activation of Insulin-like Growth Factor-I gene transcription. *J Biol Chem* 1992, 267:21505-11.

Hall L, Kajimoto Y, Bichell D, Kim S, Payton J, Counts D, Nixon L, Tobin G and Rotwein P. Functional analysis of the rat Insulin-like Growth Factor-I gene promoter. *DNA Cell Biol* 1992, 11:301-13.

Bichell D, Kikuchi K and Rotwein P. Growth Hormone rapidly activates Insulin-like Growth Factor-I gene transcription in vivo. *Mol Endocrinol* 1992, 6:1899-1908.

Pollard T, Tseng P, Rimm D, Bichell D, Williams R, Sinard J and Sato M. Characterization of alpha-actin from *Acanthamoeba*. *Cell Motility Cytoskeleton* 1986, 6:649-61.

Abstracts:

Lichtenstein BJ, Seslar SP, Lamberti JJ, Connolly DM, and Bichell DP. Surgical approaches to pacemaker pocket: Does pocket location affect lead survival? Abstract P05-115, HRS Scientific Sessions, San Francisco, CA, May 16, 2008.

Kurio G, Frazer JR, Bichell DP, Lamberti JJ, Ing FF. Intra-operative Angiography and Stent Implantation: Collaboration between the surgeon and the interventionalist in the management of congenital heart disease. SCAI 28th Annual Scientific Sessions, Ponte Vedra Beach, FL, May 4-7, 2005

Boramanand NK, Goya G, Bichell DP, Perry JC. Atrial Leads in the postoperative congenital heart patient: Long term benefits of a transmural approach. NASPE San Francisco May, 2004.

Perry J, Boramanand N, Lamberti J, Maginot K, Bichell D. Atrial tachycardias following surgical approach to presumed tachycardia substrates during Fontan revision in young adults. NASPE, New York, 2003

Mathewson JW, Ing FF, Bichell DP. Absent Posterior-Inferior and Antero-Superior Atrial Septal Defect Rims: Implications for Non-Surgical Closure of Large Secundum Defects Using the Amplatzer Occluder. SCAI Scientific Sessions, Boston, May, 2003.

Bichell DP, Lamberti JJ, Cocalis MW, Ing FF and Jensen RA. Late pulmonary artery stenosis after the Norwood procedure is prevented by a modification in shunt construction. AHA Scientific Sessions November 2002, Chicago, Illinois.

Mainwaring RD, Uzark K, Bichell DP and Lamberti JJ. Hemi-Fontan versus cavopulmonary shunt: mid-term follow-up and evaluation of sinus node function. *Circulation* 2001, 104(17 Suppl II):II-710.

Jahangiri M, Zorakowski D, Bichell D, Mayer J, del Nido P and Jonas R.

Improved results with selective management in pulmonary atresia with intact ventricular septum. AATS 1999, New Orleans.

Bichell DP, Jenkins K and Mayer JE. Results of a combined catheter and surgical strategy for the treatment of multiple ventricular septal defects. *Circulation* 1998, 98(17 Suppl I):I-548.

Duncan BW, Atz AM, Bohn DJ, Benson LN, Bichell DP, Jonas RA, French JW, Black MD and Wessel DL. Mechanical circulatory support for pediatric patients with acute myocarditis. *Circulation* 1998, 98(17 Suppl I):I-116-I-117.

Bichell DP, Mayer JE, Geva T, del Nido PJ. Minimal access approach for the repair of atrial septal defect: Experience with the initial 96 patients. *Circulation* 1998, 98(17 Suppl I):I-687.

del Nido PJ, Geva T, McGowan FX and Bichell DP. Minimal access surgery for the correction of complex congenital defects. *Circulation* 1998, 98(17 Suppl I):I-687.

Visconti KJ, Bichell DP, Jonas RA, Newburger JW and Bellinger DC. Developmental outcome after surgical versus interventional closure of ASD in children. *Circulation* 1998, 98(17 Suppl I):I-340.

Bichell DP, Kikuchi K and Rotwein P. Growth Hormone rapidly induces Insulin-like Growth Factor-I gene transcription in vivo. Meeting of the American Society of Clinical Investigators, 1992, Baltimore, MD.

Reviews and Chapters:

Bichell DP, Christian KG. Atrial Septal Defect and Cor triatriatum. Chapter 114, In: Sabiston & Spencer: Surgery of the Chest, 8th ed., Selke FW, del Nido PJ, Swanson SJ, eds. Philadelphia, 2010, Elsevier Science.

Graham Jr. TP, Markham L, Parra DA, Bichell D. Congenitally corrected transposition of the great arteries: An update. *Curr Treat Options cardiovasc Med* 2007;9:407-13.

Bichell DP. Pulmonary atresia with intact ventricular septum. In: *Critical Heart Disease in infants and Children*, 2nd edition, Nichols DG, ed., New York, 2006 Harcourt Publ.

Bichell DP. Atrial septal defect and cor triatriatum. Chapter 10, In: *Sabiston & Spencer: Surgery of the Chest*, 7th ed., Selke FW, del Nido PJ, Swanson SJ, eds. Philadelphia, 2004, Elsevier Science.

Bichell DP. Palliative procedures: shunts and pulmonary artery banding. In: Operative Cardiac Surgery, Rob & Smith 5th ed., Spray TL and Gardner TJ, eds. London, 2004, Arnold Publ.

Maginot KR, Mathewson JW, Bichell DP, Perry JC. Applications of pacing strategies in neonates and infants. Progress in Pediatric Cardiology 2000;11:65-75.

Bichell DP. Pulmonary atresia, intact ventricular septum: Evaluation and management. Current Opinion cardiol 1999, 14(1):60-66.

Bichell DP. Surgical Procedures. In: Washington University Manual of Surgery. Little, brown & Company, Boston, 1996.

Rotwein P, Thomas MJ, Gronowski AM, Bichell DP and Kikuchi K. The somatamedin hypothesis revisited: Early events in Growth Hormone action. In: Baxter RC, Gluckman PC and Rosenfeld RG, ed. Insulin-like Growth Factors and their regulatory proteins, Elsevier Science, 1994, p13-21.

Books:

Shipman P, Walker A and Bichell D. The Human Skeleton. Cambridge: Harvard University Press, 1986.

Illustrations (books):

Flye MW (ed): Atlas of Organ transplantation. Philadelphia: WB Saunders, Inc., 1994. (386 drawings).

Shipman P, Walker A and Bichell D. The Human Skeleton. Cambridge: Harvard University Press, 1986. (122 drawings).

Becker R and Seldon G. The Body Electric. New York: William Morrow, Inc., 1985. (87 drawings).

Shipman P. Life History of a Fossil. Cambridge: Harvard University Press, 1981. (16 drawings).

Illustrations (other):

Sundt T. Heart-lung transplantation. In: Mastery of Thoracic Surgery. Boston: Little, Brown & Company, 1998. (11 drawings).

Spray T, Mallory G, Carter C and Huddleston C. Pediatric lung transplantation; Indications, technique and early results. J Thorac Cardiovasc Surg 1994, 107:990-1000.

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- Rose K and Emry R. Extraordinary fossorial adaptations in the oligocene palaeodonto epicotherium and xenocranium (mammalia). *J Morphology* 1983, 175:33-56.
- Rose K. Skeleton of Diacodes, oldest known artiodactyl. *Science* 1982, 216:621-3.
- Rose K and Brown T. New plesiadapiform primates from the eocene of Wyoming and Montana. *J Vertebrate Paleontology* 1982, 2:63-9.