

Curriculum Vitae

Part I: General Information

Name: Mary P. Mullen

Office Address: Department of Cardiology
Children's Hospital
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Email: mary.mullen@cardio.chboston.org

Place of Birth: Newton, MA

Education:

- 1991 M.D., Harvard Medical School, Boston, MA
- 1991 Ph.D., Harvard University, Division of Medical Sciences, Cambridge and Boston, MA
- 1987 A.M., Harvard University, Division of Medical Sciences, Cambridge and Boston, MA
- 1983 A.B., Harvard College, Cambridge, MA (biology)

Postdoctoral Training:

- 6/97-6/98 Fellow in Cardiology, Massachusetts General Hospital
- 6/96-6/97 Chief Resident in Medicine, Massachusetts General Hospital
- 6/95-6/99 Fellow in Cardiology, Children's Hospital, Boston
- 6/92-6/95 Resident in Medicine/Pediatrics, Massachusetts General Hospital
- 6/91-6/92 Intern in Medicine, Massachusetts General Hospital

Licensure and Certification:

- 2000 Diplomate, Pediatric Cardiology, American Board of Pediatrics
- 1995 Diplomate, American Board of Internal Medicine
- 1995 Diplomate, American Board of Pediatrics
- 1992 Massachusetts medical license

Academic Appointments:

- 6/99-present Instructor in Pediatrics, Harvard Medical School
- 6/97-6/99 Research Fellow in Medicine, Harvard Medical School
- 6/96-6/97 Clinical Fellow in Medicine, Harvard Medical School
- 6/91-6/93 Clinical Fellow in Medicine, Harvard Medical School
- 6/93-6/96 Clinical Fellow in Pediatrics, Harvard Medical School
- 6/91-present Tutor in Medicine, Lowell House, Harvard College
- 6/86-6/91 Tutor in Medicine, Dudley House, Harvard College
- 6/86-6/87 Teaching Fellow in Biochemistry and Molecular Biology, Harvard College

Hospital Appointments:

- 2004-present Courtesy Staff, Department of Medicine, Beth Israel Deaconess Medical Center
- 2003-present Associate Physician, Affiliate Staff in Medicine, Brigham and Women's Hospital
- 6/02-present Clinical Director, Pulmonary Hypertension Service, Children's Hospital
- 6/99-present Assistant in Cardiology, Children's Hospital, Boston
- 6/97-6/03 Clinical Fellow in Cardiology, Massachusetts General Hospital
- 6/96-6/97 Assistant in Medicine, Massachusetts General Hospital
- 1994-1999 Associate Staff, Medical Department, Massachusetts Institute of Technology
- 6/95-6/99 Fellow in Cardiology, Children's Hospital, Boston

Major Committee Assignments:

- 2003-present Scientific Review Committee, Department of Cardiology, Children's Hospital
- 1998-2002 CPR Committee, Children's Hospital
- 1998-2002 Pharmacy Committee, Children's Hospital
- 2000-2004 MD-PhD Committee for Clinical Education, HMS
- 1999-2002 Admissions Committee, HMS
- 1997-1998 Dean's Committee for Evaluation of Pre-Clinical Skills, HMS
- 1996-1997 Executive Committee on Teaching and Education, MGH
- 1996-1997 Internship Selection Committee, Medical Services, MGH
- 1996-1997 Training Program Committee, Medical Services, MGH
- 1990-1991 MD-PhD Faculty Standing Committee, HMS
- 1989-1991 MD-PhD Admissions Committee, HMS
- 1986-1987 Liaison Committee on Medical Education Accreditation Project, Educational Programs Committee, HMS
- 1985 Northeast Group on Medical Education, Alexandria, VA
- 1983-1991 Committee on Educational Evaluation, HMS

Professional Societies:

- 1983-present Member, Massachusetts Medical Society

Editorial Boards:

- 1998-present Ad hoc reviewer, Pediatric Cardiology
- 2001-present Ad hoc reviewer, New England Journal of Medicine

Awards and Honors:

- 1991 Soma Weiss Research Assembly, HMS

- 1985-1991 Medical Scientist Training Program, HMS
- 1984 Betty Lee Stone Research Award, American Cancer Society, Massachusetts Division
- 1983 Memorial Education Scholar, Massachusetts Federation of Women's Clubs
- 1983 Thomas T. Hoopes Prize, Harvard University Faculty of Arts and Sciences
- 1983 *Magna cum Laude*, Harvard College
- 1983 *Summa cum Laude* thesis, "Molecular Mechanisms of Psoralen Carcinogenesis and Photosensitivity," Harvard College

Part III. Bibliography

Original Articles:

1. Mullen MP, Pathak MA, West JD, Harrist TJ, Dall'Acqua F (1984). Carcinogenic effects of monofunctional and bifunctional furocoumarins. National Cancer Institute Monographs 66:205-210.
2. Mullen MP, Smith CWJ, Patton JF, Nadal-Ginard B (1991). Alpha-tropomyosin mutually exclusive exon selection: competition between branchpoint/polypyrimidine tracts determines default exon choice. Genes and Development 5:642-655.
3. Kamisago M, Sharma, SD, DePalma, SR, Solomon S, Sharma P, McDonough B, Smoot L, Mullen MP, Woolf PK, Wigle ED, Seidman JG, Seidman CE. Mutations in sarcomere protein genes as a cause of dilated cardiomyopathy. N Eng J Med 2000; 343:1688-1695.
4. Lin, AE, Pober, B, Mullen, M, Slavotinek, A. Cardiovascular malformations in Fryns Syndrome suggest possible role for neural crest cells. Am J Med Gen 2005; 139 (3), 186-93
5. Khemani E, McElhinney DB, Rhein L, Andrade O, Lacro RV, Thomas KC, Mullen MP. Pulmonary Hypertension in Former Premature Infants with Bronchopulmonary Dysplasia: Clinical Features and Outcomes in the Current Era. Pediatrics 2007, 120:1260-1269.
6. Mullen Mary P, Wessel David L, Thomas Kristin C, Gauvreau Kimberlee, et al. The Incidence and Implications of Anti-Heparin PF4 Antibody Formation in a Pediatric Cardiac Surgical Population. Anesth and Analg. In Press, August, 2008
7. Smoot, L, McElhiney DB, Obler DL, Boardman, K., Mullen, MP. Clinical Features of Pulmonary Arterial Hypertension in Children and Adolescents with an Alk1 Mutation and Hereditary Hemorrhagic Telangiectasia, Am J. Dis Child, submitted, under revision.

8. O'Donnell Claire P, Landzberg Michael J, Marx Gerald M, Lock James E. Mullen Mary P. Lung Abscess in Adults with Pulmonary Atresia and Ventricular Septal Defect. Am J Card. Submitted, under revision.
9. Andrus, Jason, Bae, Eric H., Hirshberg, Jonathan, Rao, Sneha, Morris, Carrie, Forbes, Peter, De Moor, Carl, Nugent, Katherine, DeMason, David, Mullen, Mary. Pediatric Pulmonary Hypertension: Caregiver Adaptation and Patient Quality of Life. In preparation.

Proceedings of Meetings:

1. Proceedings from the Continuing Medical Education Satellite Symposium held during the PIC 2003 Congress, New Strategies in the Treatment of Pulmonary Hypertension, Phosphodiesterase Inhibitors, 23-25. Release date Sept 17, 2004.
2. Mullen MP, Smith CWJ, Nadal-Ginard B (1989). Splicing of alpha-tropomyosin pre-mRNA in vitro: regulation of alternative splice site selection. 1989 RNA Processing Meeting, Cold Spring Harbor, NY.
3. Mullen MP, Smith CWJ, Nadal-Ginard B (1990). Mutually exclusive exon selection in alpha tropomyosin: default selection by competition between branch point/polypyrimidine tracts, regulating switching by inhibition of default splice sites. 1990 RNA Processing Meeting, Cold Spring Harbor, NY.

Reviews, Chapters, Editorials:

1. Marelli A, Mullen MP. Congenital heart disease: onward to adulthood. Balliere's Clinical Pediatrics 1996; 4:189-214.
2. Mullen, MP. Adult Congenital Heart Disease, *Scientific American Medicine*, March 2000, 1-10.
3. Mullen, MP, Van Praagh R, Walsh EP. Development and anatomy of the cardiac conducting system. In Walsh EP et al, eds., *Cardiac Arrhythmias in Children and Young Adults*, New York: Lippincott, Williams &Wilkins, 2001.
4. Mullen, MP and Landzberg, MJ Care for Adults with Congenital Heart Disease, pp 1048-1074 in Antman, EM et al, eds. *Cardiovascular Therapeutics*, 2nd Edition, WB Saunders Co, Philadelphia, 2002.
5. Mullen, MP. Pulmonary Hypertension, Chapter 10 in Keane, JF et al, Nadas' Pediatric Cardiology 2nd Edition, Elsevier Health Sciences, PA, 2006.
6. Martucci G, Mullen, M, Landzberg MJ. Care for Adults with Congenital Heart Disease. In: *Cardiovascular Therapeutics: A Companion to Brunwald's Heart Disease*, Third Edition. Editor: Elliott Antman. Saunders Elsevier, Philadelphia. 2007.

10. Mullen MP, Wessel, DL. Pulmonary vasodilators. In: Munoz R, Schmitt C, Roth S, Da Cruz E, eds. Handbook of Pediatric Cardiovascular Drugs. Springer London., 2007.

Educational Materials:

1. Mullen MP (editor) *Course Evaluation Guide*, Harvard Medical School 1983-1987.

Theses:

1. Mullen MP. Molecular Mechanisms of Psoralen Carcinogenesis and Photosensitivity, Senior honors thesis, Harvard College, 1983.
2. Mullen MP. Alternative Pre-mRNA splicing of alpha tropomyosin, Ph.D. thesis, Graduate School of Arts and Sciences, Harvard University, 1991.

Abstracts:

1. Pathak MA, Mullen MP, Fitzpatrick TBF (1984). Role of singlet oxygen and superoxide anions in skin photosensitization by PUVA. *Journal of Investigative Dermatology* 82:423.
2. Mullen MP, Schwartz ML, Fernandes SM, Liberthson RR, Perry SB, Landzberg MJ (1996). Coronary artery abnormalities in anomalous left coronary artery from the pulmonary artery. *Circulation* 94:I-179.
3. Betit, P, Mullen, MP, Almodovar, MC, Thomas, K, Wessel DL (1999). Evaluation of a child for home nitric oxide therapy. *Respiratory Care* 44(10):1273
4. Mullen, MP, Perry, SB, Rogers, C, Liberthson RR, Landzberg, MJ (2000). Coronary artery abnormalities in patients with anomalous left coronary artery from the pulmonary artery: redefinition of a syndrome. *J Am Coll Cardiol* 35:510A.
5. Mullen, MP, Thomas K, McGowan, FX, Neufeld, EJ, Wessel DL (2000). Heparin-induced thrombocytopenia in pediatric patients undergoing cardiopulmonary bypass surgery. *Circulation* 102: II-468.

Clinical Trials:

Pfizer Protocol A 1481131 A Randomized, Double-Blind, Placebo Controlled, Dose Ranging, Parallel Group Study of Oral Sildenafil in the Treatment of Children, Aged 1-16 Years, With Pulmonary Arterial Hypertension, Children's Hospital, Boston, Co-Investigator

Pfizer Protocol A1481156 A Multicenter, Long Term Extension Study to Assess Safety of Oral Sildenafil in the Treatment of Subjects Who have Completed Study A1481131, Children's Hospital, Boston, Principle Investigator

Gilead Protocol GS-US-300-0017 – ATHENA-1 A Randomized Multicenter Study of Ambrisentan and Sildenafil Combination Therapy in Subjects with Pulmonary Arterial Hypertension who have Demonstrated a Sub-Optimal Response to Sildenafil, Children’s Hospital, Boston, Principle Investigator

Protocol # 06-10-0465—COMPASS 2-Effects of combination of bosentan and sildenafil versus sildenafil monotherapy on morbidity and mortality in symptomatic patients with pulmonary arterial hypertension – A multicenter, double - blind, randomized, placebo - controlled, parallel group, prospective, event driven Phase IV study. Co-investigator

Protocol # 07-04-0173—COMPASS 3- An Open-label, Multi-Center Study Employing a Targeted 6-MWT Distance Threshold Approach to Guide Bosentan-Based Therapy and to Assess the Utility of MRI on Cardiac Remodeling. Co-investigator

Protocol # 04-04-050—ARIES 1- Ambrisentan in PAH- A Phase III, Randomized, Double-Blind, Placebo-Controlled, Multicenter, Efficacy Study of Ambrisentan in Subjects with Pulmonary Arterial Hypertension. Co-investigator

Protocol # 04-09-120—ARIES 1 Extension- A long-term study of ambrisentan in pulmonary arterial hypertension subjects having completed AMB-320 or AMB-321. Co-investigator

Protocol # 03-08-122—BREATHE-5: A multi-center, randomized, placebo-controlled study to evaluate the effects of Tracleer (bosentan) on oxygen saturation and cardiac hemodynamics in patients with pulmonary arterial hypertension related to Eisenmenger physiology. Co-investigator

Protocol # 04-06-077—BREATH- 5 Extension- A Multi-Center, Open-Label Extension Study to Protocol AC-052-405 to Evaluate the Safety and Efficacy of Tracleer® (Bosentan) in Patients with Pulmonary Arterial Hypertension Related to Eisenmenger Physiology. Co-investigator

Advisory Committees

Ambrisentan Paediatric Advisory Committee, GSK/Gilead Pharmaceuticals. June 3, 2008, London, England

Remodulin Advisory Committee, United Therapeutics April 19, 2008, Boston, MA