

**Curriculum Vitae
Achiau Ludomirsky, M.D.**

Date: 04/2019

Personal Information:

Date of Birth: 11/15/1951

Place of Birth: Israel

Citizenship: U.S.A.

Address and Telephone Numbers:

Office: NYU School of Medicine
Pediatric Cardiology
160 East 32 St. 2nd fl.
New York, New York 10016

Home: 564 First Ave Apt 22k
New York, New York 10016
917-658-3256

Present Position:

Professor of Pediatric Cardiology
Professor of Pediatrics
Associate Chair of Pediatrics
NYU Langone Medical Center.
New York University, New York, New York

Education:

1975 MD, Sackler School of Medicine, Tel-Aviv University, Israel; M.D.
1975 Rotating Internship, Meir General Hospital, Kfar-Saba, Israel
1975-1981 Night Duty, Intensive Coronary Care Unit, Meir General Hospital Kfar-Saba, Israel
1976-1977 General Physician, Medical Corps, Israel Defence Forces, Rank: Captain
1977 Instructor, Medical Corps, Israel Defense Forces, School for Medical Trainees, Tel-Aviv, Israel
1977-1981 Physician in Research and Development Branch Medical Corps, Israel Defense Force, Tel-Aviv, Israel
1977-1981 Research Associate, Department of Pharmacology, Israel Institute for Biological Research, Prime Minister's Office, Ness Ziona, Israel
1981-1984 Resident in General Pediatrics, Hadassah University Hospital, Jerusalem, Israel
1982 Instructor in General Pediatrics, Hadassah University Hospital, Jerusalem Israel
1984-1988 Fellow in Pediatric Cardiology, Texas Children's Hospital, Baylor College of Medicine, Houston, Texas

Academic Position/Employment:

- 1989-1992 Director of Echocardiography Research, Associate in Pediatric Cardiology, Texas Children's Hospital, Assistant Professor of Pediatrics, Baylor College of Medicine, Houston, Texas
- 1992-1999 Director of Echocardiography Laboratory, Associate Professor of Pediatrics, Division of Pediatric Cardiology, University of Michigan Medical Center, Ann Arbor, Michigan
- 1999-2001 Director of Echocardiography Laboratory, Associate Professor of Pediatrics with tenure, Division of Pediatric Cardiology, University of Michigan Medical Center, Ann Arbor, Michigan
- 2001-2003 Director of Echocardiography Laboratory, Professor of Pediatrics with tenure, Division of Pediatric Cardiology, University of Michigan Medical Center, Ann Arbor, Michigan
- 2003-2008 Director, Department of Pediatrics, Division of Cardiology, The Louis Larrick Ward Professor of Pediatrics and Biomedical Engineering, Washington University School of Medicine, St. Louis, Missouri
- 2008-2015 Director, Department of Pediatrics, Division of Cardiology Professor of Pediatrics. NYU Langone Medical center. NYU, NYC, New York
- 2010-Pres The Andrall Pearson Professor of Pediatric Cardiology
- 2015-Pres Associate Chair of the Department of Pediatrics, Department of Pediatrics, NYU Langone Medical Center. NYU School of Medicine, New York, NY

Appointments and Committees:

- 1989-1992 Director of Echocardiography Research, Associate in Pediatric Cardiology, Texas Children's Hospital, Assistant Professor of Pediatrics, Baylor College of Medicine, Houston, Texas
- 1992-1999 Director of Echocardiography Laboratory, Associate Professor of Pediatrics, Division of Pediatric Cardiology, University of Michigan Medical Center, Ann Arbor, Michigan
- 1993-Pres Member, Society of Pediatric Echocardiography, committee for echocardiographic guidance in children/new business
- 1993-Pres Member, American Society of Echocardiography, Echocardiographic research
- 1993-Pres Vice President, Pediatric Council of the American Society of Echocardiography
- 1994-Pres Member, American Society of Echocardiography, Committee for Intracardiac/Intravascular Ultrasound document
- 1994-Pres Member, American Society of Echocardiography, Committee for Doppler Echocardiography in Congenital Heart Disease
- 1995-1998 Secretary, Society of Pediatric Echocardiography
- 1996-1996 Program Director, Annual Scientific session of Pediatric Council of the American Society of Echocardiography
- 1996-1999 President, Pediatric Council of American Society of Echocardiography
- 1996-Pres Program Committee, American Heart Association for the Annual Meeting of the Council of Disease in the Young
- 1997-1997 Program Co-Director Award, Session of the Pediatric Council of the American Society of Echocardiography
- 1998-1998 Technology Transfer Fund Committee, University of Michigan Medical School
- 1998-1998 Conscious Sedation Committee, University of Michigan Medical School
- 1998-Pres Member, American Society of Echocardiography nomenclature committee

1998-1998 Vice President, Society for Pediatric Echocardiography
1999-2003 Director of Echocardiography Laboratory, Associate Professor of Pediatrics with tenure, Division of Pediatric Cardiology, University of Michigan Medical Center, Ann Arbor, Michigan
1999-1999 Program Director, American Society of Echocardiography
1999-2003 Public Relations Committee, American Society of Echocardiography
1999-2003 Member - Appointment and Promotion Committee, Department of Pediatrics, University of Michigan
2000-2000 Program Director, Congenital Heart Disease in the American College of Cardiology annual meeting, Echo 2000
2001-2003 Director of Echocardiography Laboratory, Professor of Pediatrics with tenure, Division of Pediatric Cardiology, University of Michigan Medical Center, Ann Arbor, Michigan
2001-2001 Program Director, Congenital Heart Disease in the American College of Cardiology annual meeting, Echo 2001
2001-2003 President, Society of Pediatric Echocardiography
2001-2009 Senior international advisor for the University of Naples, Italy (Medical School)
2002-2003 Active Member of the University of Michigan Senate
2003-2008 Director, Department of Pediatrics, Division of Cardiology, The Louis Larrick Ward Professor of Pediatrics and Biomedical Engineering, Washington University School of Medicine, St. Louis, MO
2008-Pres Director, Department of Pediatrics, Division of Cardiology, Professor of Pediatrics, NYU Langone Medical Center. NYU, NYC, New York
2010-Pres Director, Board of Directors, Sackler School of Medicine, Tel Aviv University. Israel
2010-Pres Chairman. Committee of Appointment and Promotion. Department of Pediatrics .NYU Langone Medical Center.
2012 –Pres Senator, School of Medicine senator in the NYU Senate.

Medical Licensure and Board Certification:

Israel Medical License #12518
DEA#BL5054096
Israel Pediatric Cardiology Board Certification # 26215
MI - #060578 - inactive
1977 E.C.F.M.G #2470623
1987 CO - #28496 - inactive
1988 TX - #H4021 - inactive
2003 MO - #2003023842
2008 NY- #249906

Honors and Awards:

1973 Outstanding Student, Sackler School of Medicine, Tel-Aviv University, Israel
1976 M.D. Magna Cum Laude
1995 Honorary Member of the European Pediatric Cardiology Society
1998-2002 Best Doctors in America
2000 Honorary Member - Italian Society of Echocardiography
2005-Pres Best Doctors in America

Editorial Responsibilities:

1987-Pres Journal Reviewer, Circulation
1988-Pres Journal Reviewer, Echocardiography
1988-Pres Journal Reviewer, Catheterization and Cardiovascular Diagnosis
1989-Pres Journal Reviewer, Journal of the American College of Cardiology
1991-Pres Editorial Board, Cardiology in the Young
1993-Pres Journal Reviewer, American Journal of Cardiology
1993-Pres Editorial Board, Echocardiography
1993-Pres Editorial Board, The Five Minute Clinical Consult
1994-Pres Journal Reviewer, Pediatric Research
1994-Pres Journal Reviewer, Journal of the American Society of Echocardiography
1994-Pres Journal Reviewer, Pediatrics
1995-Pres Journal Reviewer, The Journal of Pediatrics
1997-Pres Journal Reviewer, American Heart Journal
1997-Pres Journal Reviewer, Ultrasound in Obstetrics and Gynecology

Professional Societies and Organizations:

Israel Medical Association
Fellow, American College of Cardiology
Israel Medical Society
Texas Medical Society
Harris County Medical Association
Society of Pediatric Echocardiography
American Heart Association Council on Cardiovascular Disease in the Young
American Medical Association
American Heart Association, Texas Affiliate
Michigan Chapter of American College of Cardiology
American Society of Echocardiography
European Society of Pediatric Cardiology
Italian Society of Echocardiography

Major Invited Professorships and Lectureships:

2005 Washington University School of Medicine "Cardiology Case Management 1 & 2",
March 28, 2005

2005 Fourth World Congress of Pediatric Cardiology, "Therapeutic Ultrasound for the
Fetus". September 20, 2005, Buenos Aires, Argentina.

2005 Fourth World Congress of Pediatric Cardiology, "Experimental Fetal Models".
September 21, 2005, Buenos Aires, Argentina.

2005 Fourth World Congress of Pediatric Cardiology, "Echocardiography Beyond
Morphology". September 22, 2005, Buenos Aires, Argentina.

2005 3rd Annual Symposium on Advances in Perinatal Cardiology, "Focused Ultrasound
Intervention - Preliminary Data". October 20, 2005, St. Petersburg, FL.

- 2006 XVIII Brazilian Congress of Echocardiography. "Coarctation of the Aorta: What is the Best Imaging Modality Before and After Repair. A Comparison Between US, MRI and CT". Sao Paulo, Brazil, 4/28/2006
- 2006 XVIII Brazilian Congress of Echocardiography. "The Pediatric Cardiac Imaging Center of the 21st Century. What do We Really Need?" Sao Paulo, Brazil, 4/28/2006
- 2006 XVIII Brazilian Congress of Echocardiography. "New Imaging Modalities in the Assessment of Systolic and Diastolic Function in the Fetus". Sao Paulo, Brazil, 4/30/2006
- 2006 Grand Rounds, University of Pennsylvania, Department of Pediatrics. "How to Create an Atrial Septal Defect". The Children's Hospital of Philadelphia, PA, 10/25/06
- 2007 6th Workshop on Interventional Pediatric Cardiology. "Role of Therapeutic Ultrasounds". March 29th, 2007, San Donato Milan, Italy.
- 2007 6th Workshop on Interventional Pediatric Cardiology. "The Changes in Cardiac Strain and Strain Rate Following ASD Closure". San Donato Milan, Italy.
- 2007 6th Workshop on Interventional Pediatric Cardiology. Live case San Donato Hospital, San Donato Milan, Italy.

Consulting Relationships and Board Memberships:

- 1992-1995 Advisory Board Interspec (USA) - Cardiac Imaging Echocardiography
- 1992-Pres Tomtec Imaging (USA), Advisory board for 3-D reconstruction in congenital heart disease
- 1992-Pres Vingmed Corp (Norway), consulted for developing new Echocardiography system
- 1993-Pres Advisory board for HP company (USA) for development of archival system
- 1993-Pres Consultant, Advanced Technology Laboratories (ATL) (USA) developing new TEE transducer
- 1994-Pres Consultant, Medsim Company (USA) developing cardiac ultrasound simulation
- 1995-Pres Consultant, Acuson (USA) developing pediatric cardiac ultrasound equipment and algorithm
- 1995-Pres Consultant, Toshiba Company (Japan) assessment of new algorithm for cardiac output
- 1997-Pres Advisory Board, Angiosonic Company (USA) therapeutic ultrasound
- 1998-Pres Advisory Board - Superdimension Navigator System (USA)
- 1999-Pres Advisory Board - GE Medical, development of 3-dimensional Echo system
- 2002-Pres Research Advisor - University of Naples, Italy
- 2002-Pres Advisory Board and Consultant, Integrated Sensing Systems (USA) developing MEMS pressure and flow sensors
- 2010-Pres Director, Board of Directors, Sackler School of Medicine, Tel Aviv University. Israel

Research Support:

NIH-NO1-HR-96040, "Clinical Centers for the Study of Pediatric Lung and Heart Complications of Human Immunodeficiency Virus (HIV) Infection", Coinvestigator, May 22, 1989 - April 30, 1992, \$203,660

American Heart Association, Texas Affiliate Inc., "Cardioplegic Arrest in a Model of Congenital Heart Disease", Principal Investigator, July 1, 1990 - June 30, 1992, \$58,972

ATL Ultrasound Equipment, CV 3000 (approximately \$250,000) - \$30,000 leasing per year, 1992 - 2000

Tomtec Imaging, Tomtec 3-D Imaging (approximately \$110,000) - \$20,000 leasing per year 1993 - present

Acuson Ultrasound Equipment, HEGIS (approximately \$100,000) - \$20,000 leasing per year, 1993 - present

Vingmed Ultrasound Equipment (approximately \$250,000) - \$35,000 leasing per year, 1995 - present

Interspect Ultrasound Equipment (approximately \$150,000) - \$25,000 leasing per year, 1994 - present

Faculty Group Practice, University of Michigan, Michigan Congenital Fetal Heart Center - \$375,000, 1996 Faculty Group Practice, University of Michigan-Pediatric Stress Center \$118,000

Faculty Group Practice, University of Michigan - Mother and Child Telemedicine \$368,000, 1998

Biomechanics of Heart Muscle Tissue Function to NSF - \$466,084, 2002 three years

Pending - Echocardiography for Early Diagnosis of Cardiomyopathy: Biomechanics Approaches to SmithKline Beecham/Quality Care Research Fund - \$249,446, two years

Pending - Early Diagnosis of Cardiomyopathy: Biomechanics Approach to Michigan Life Sciences Corridor Fund - \$599,158, three years

NIH-RO1-065-3611 A1, "Therapeutic Ultrasound tissue Erosion for Cardiac Applications", Principle Investigator, \$1,769,007 April, 2005 - March 2009

Clinical Title and Responsibilities:

Clinical Activities

Hospital, 4 days per week: Diagnostic echocardiographic studies (4,400 per year), transesophageal echocardiographic examinations in the operating room, intensive care and catheterization laboratories (250 per year), fetal echocardiography examinations (175 per year). Supervision of sonographers and fellows, interpretation of studies and communication with families, referring physicians and cardiovascular surgeons, diagnoses and management of complications. Support (transesophageal echo) for electrophysiologic studies, interventional procedures in the catheterization laboratories. Provide echocardiographic interpretation for Nephrology and Hematology/Oncology patients. Provide echocardiographic interpretation for echocardiographic studies performed at St. Mary's Hospital in Grand Rapids, Michigan.

1-2 months per year: Attending responsibility for pediatric cardiology patients, care responsibility for pediatric cardiothoracic surgery patients, cardiology services to pediatric patients in Holden and Mott Hospitals and to adult patients with congenital cardiovascular defects in UMMC. Evaluation and preoperative screening of patients scheduled for elective cardiothoracic surgery at Mott Hospital. Supervision of fellows, nurse clinicians, residents, and medical students assigned to the Congenital Heart Center service.

- equipment (1993-1994) and Imaging Center, 1995-1996.
- 1992-2003 Director, Echocardiography Laboratories, C.S. Mott Children's Hospital. Supervision of technical personnel, development of policies and procedures, conduct and review of quality improvement functions, development and administration of educational materials, tracking of procedure interpretation and reporting documents, supply and inventory management. Replacement project for echocardiographic
- 1992-Pres Attending physician, Pediatric Cardiology Trenton field clinic, 7 days per year. Evaluation, management, and long-term follow-up of pediatric cardiology patients and consultation patients, interpretation of electrocardiograms, chest radiographs, Holter monitoring and echocardiograms on clinic patients.
- 1992-Pres Attending physician, Pediatric Echocardiography Laboratory, C.S. Mott Children's
- 1992-Pres Attending physician, Pediatric Cardiology Clinic, C.S. Mott Children's Hospital, ½ day per week: evaluation, management, and long-term follow-up of pediatric cardiology patients, interpretation of electrocardiograms and other laboratory tests. Supervision of fellows, residents, medical students, and nurse clinicians assigned to clinic.
- 1992-Pres Attending physician, Congenital Heart Center service, C.S. Mott Children's Hospital,
- 2003-Pres Director, Department of Pediatrics, Division of Cardiology, Washington University School of Medicine.

Research Activities

Basic Science

Animal models of Doppler flow.
Physics of stenotic lesion, especially sequential stenosis and dynamic obstruction.
Myocardial Protection - An Animal Model.

Therapeutic Ultrasound: Application in Pediatric Cardiology.
Micro Electronic Mechanical Sensor - MEMS, in cardiology applications.

Clinical

Strain on myocardial muscle nanotechnology - MEMS technology in new transducer.
Non-invasive cardiac diagnosis - further techniques.
Advanced echo/Doppler techniques for flow measurements.
Extension of animal Doppler flow studies to humans.
Invasive evaluation of left ventricular function in congenital heart disease.
Magnetic resonance imaging in congenital heart disease.
Three-dimensional echocardiographic reconstruction of congenital heart disease.
Normal LV mass and volume after six years of age.
LV mass and volume in patients with tricuspid atresia and small right ventricle.
Simultaneous transconduit gradient by catheterization and Doppler modalities.
Assessment of a new algorithm for automatic cardiac output measurements by color flow Doppler.
Tele-medicine - How, and how much to compress ultrasound data (with Dr. Zreik, Saginaw).
Intravascular ultrasound imaging of pulmonary artery endovascular stents in pediatric patients. Long term results.
In vitro assessment of three-dimensional reconstruction of volume flows (with Dr. Roger Vermilion).
Mitral valve regurgitation - Assessment of flow volumes by three-dimensional reconstruction.
Development of free hand three-dimensional reconstruction from ultrasound data.
The change in pulmonary venous pattern after Fontan operation.

Research Collaboration

A filter based ultrasound pulse-echo coded excitation system for real time three-dimensional cardiac imaging (collaborated with Dr. Ebbini, Computer Science).
A new coded excitation ultrasound imaging basic principles and operator design (collaborated with Dr. Ebbini, Computer Science).
The potential use of miniaturized ultrasonic transducers in adult vs. pediatric cardiology; development of low cost, thin Piezoelectric fibers for ultrasonic transducers derived from polymers (collaborated with Dr. M. Laine, Materiel Science Dept.).
Modeling of the heart from three-dimensional ultrasound data using stereolithography techniques (collaborated with Dr. Hollerand, Materiel Science Dept.).
Three-dimensional reconstruction of cardiac structure using a new CT scan algorithm (collaborated with Dr. Fenster, Imaging Research Laboratory - University of Western Ontario, London, Ontario).
Therapeutic Ultrasound. Effect on cardiac tissues - (with Dr. Charles Caine, University of Michigan Biomedical Engineering).
Cardiac tissue strain characteristics (Dr. Arruda - Mechanical Engineering, University of Michigan)

Teaching Title and Responsibilities:

Teaching Assignments

Ward attending with students, pediatric residents and fellows, Sept. 1995 and May 1996, March 1997, May 1997
Echocardiography review session 1.5 hours per day with fellows
Supervisory of 1-2 M3 students in Pediatric Cardiology Clinic, ½ day per week
Supervisor - physical examination M2 student on pulmonary and cardiovascular systems
Mentor for two M2 students for physical examination, database collection and patient interview one day per week for four months
Supervising international physicians in the echo lab throughout the year
Supervising undergraduate student from undergraduate research opportunity program .(UROP) one day per week for one year
Advisor for an M.D. thesis requirement Umea University, Umea, Sweden
Senior Advisor - University of Naples, Italy, Research Initiative

Courses

Core Curriculum, Pediatric Cardiology Fellow
Pediatric Cardiac Echocardiography: sonographers, students, residents, fellows, visiting physicians
Transesophageal Echocardiography: anesthesiologists
Transesophageal Echocardiography for the General Anesthesiologist. University of Michigan, Hewlett Packard Company

Teaching Activities

1988 Faculty, Biomedical Engineering, Department of Medicine, University of Trondheim, Trondheim, Norway, September 1988.
1989 Faculty, American Academy of Pediatrics 31st Annual Meeting, Chicago, Illinois, October 1989.
1990 Faculty, 2nd International Symposium on Echo Doppler Color Flow From Fetus to Young Adult, Parma, Italy, June, 1990.
1990 Faculty, International Workshop on Pediatric Echocardiography, Sardinia, Italy, October, 1990.
1991 Faculty, Biomedical Engineering, Department of Medicine, University of Trondheim, Trondheim, Norway, January 1991.
1991 Faculty, Perioperative Echocardiography During Reconstructive Cardiac Surgery in Adults and Infants, Bergamo, Italy, March 1991.
1991 Faculty, American College of Cardiology, 40th Annual Scientific Session, Atlanta, Georgia, March 1991.
1991 Faculty, Pediatric Postgraduate Symposium: Pediatrics 1991, Baylor College of Medicine, Houston, Texas, April 1991.
1991 Faculty, 4th Annual Symposium on Echocardiography and Doppler in Cardiac Surgery, Innsbruck, Austria, May 1991.
1991 Faculty, 3rd International Symposium on Echo Doppler, Color Flow from Fetus to Young Adult, Parma, Italy, June 1991.
1991 Faculty (moderator), New Developments in Cardiac Ultrasound, an Engineering-Medical Challenge, Oslo, Norway, August 1991.

- 1991 Faculty, Recent Advances in Cardiovascular Ultrasound, Baylor College of Medicine and the Methodist Hospital, Houston, Texas, September 1991.
- 1991 Faculty, Pediatric Echocardiography: Postoperative Evaluation of Congenital Heart Disease, Naples, Italy, October 1991.
- 1991 Faculty, Transesophageal Echocardiography in Congenital Heart Disease, International Symposium and Workshop, Edinburgh, Scotland, November 1991.
- 1991 Faculty, (moderator), Introduction to Pediatric Echocardiography, Padova, Italy, November 1991.
- 1991 Faculty, New Trends in Cardiovascular Ultrasound and Interventional Cardiology, International Symposium, Hofgastein, Austria, January 1991.
- 1992 Faculty, Grand Rounds, Memorial Southwest Hospital, Houston, Texas, March 1992.
- 1992 Faculty, International Workshop on Transesophageal Echocardiography, Lugo, Italy, May 1992.
- 1992 Faculty, 3rd Echocardiography Meeting of the Italian Echocardiography Society, Milan, Italy, May 1992.
- 1992 Faculty, International Symposium on the Current Frontiers in Echocardiography, Parma, Italy, June 1992.
- 1992 Faculty, 4th International Symposium on Echo Doppler Color Flow, From Fetus to Adult, Parma, Italy, June 1992.
- 1992 Faculty, 5th Annual Symposium on Echocardiography and Doppler in Cardiac Surgery, Vienna, Austria, July 1992.
- 1992 Faculty, 3rd Echocardiography Meeting of the Nordic Pediatric Cardiology Society, Turku, Finland, September 1992.
- 1992 Faculty, 1st Interventional Symposium on Perioperative Echocardiography, Stockholm, Sweden, September 1992.
- 1993 Faculty, American College of Cardiology, 42nd Annual Scientific Session, Anaheim, California, March 1993.
- 1993 Faculty, 4th International Meeting of Pediatric Echocardiography, Naples, Italy, April 1993.
- 1993 Faculty, 1st International Meeting of Fetal Echocardiography, Padova, Italy, April 1993.
- 1993 Faculty, 3rd International Symposium of Critical Care, Padova, Italy, June 1993.
- 1993 Faculty, American Society of Echocardiography, 4th Annual Scientific Meeting, Orlando, Florida, June 1993.
- 1993 Faculty, 1st International Symposium of Pediatric Echocardiography, Seoul, Korea, October 1993.
- 1993 Faculty, Delaware Society of Echocardiography, New Echocardiography Technologies, Philadelphia, Pennsylvania, October 1993.
- 1993 Faculty, American Heart Association Moderator, 66th Annual Scientific Session, Atlanta, Georgia, November 1993.
- 1994 Faculty, 5th Annual Symposium on New Trends in Cardiovascular Ultrasound and Interventional Cardiology, International Symposium, Hofgastein, Austria, January 1994.
- 1994 Faculty, 7th Postgraduate Course, Advances in Cardiac Ultrasound, Davos, Switzerland, February 1994.
- 1994 Faculty, Grand Rounds, Michigan State University, Kalamazoo, Michigan, April 1994.
- 1994 Faculty, Heart Failure after Cardiac Surgery, Milan, Italy, May 1994.
- 1994 Faculty, American Society of Echocardiography, 5th Annual Scientific Meeting, San Francisco, California, June 1994.
- 1994 Faculty, Chinese Society of Echocardiography, Taipei, Taiwan, June 1994.
- 1994 Faculty, Republic of China, Cardiology Society, Beijing, China, July 1994.

- 1994 Faculty, Czechoslovakia Cardiology Society, Prague, Czechoslovakia, September 1994.
- 1994 Faculty, 16th Annual Seminar in Diagnostic Ultrasound, Ann Arbor, Michigan, September 1994.
- 1994 Faculty, Neonatology 1994, Ann Arbor, Michigan, October 1994.
- 1994 Faculty, Echocardiography State of the Art, Dallas, Texas, November 1994.
- 1994 Faculty, Russian Society of Echocardiography, Moscow, Russia, November 1994.
- 1995 Visiting Professor, Grand Rounds, University of Utah, Salt Lake City, Utah, February 1995.
- 1995 Faculty, Republic of China, Cardiology Society Meeting, Shanghai, China, February 1995.
- 1995 Faculty, Republic of China Pediatric Cardiology Society meeting, Quan Jo, China, March 1995.
- 1995 Faculty, Hong Kong College of Cardiology, Pediatric Cardiology Session, March 1995.
- 1995 Faculty, 4th Echocardiography Meeting of the Nordic Pediatric Cardiology Society, Turku, Finland, April 1995.
- 1995 Faculty, 12th Annual Session of the Society of European Society of Pediatric Cardiology, Bologna, Italy, May 1995.
- 1995 Faculty, 6th Annual Meeting of the American Society of Echocardiography, Toronto, Canada, June 1995.
- 1995 Faculty, 3rd International Symposium on Interventional Cardiology, Jerusalem, Israel, June 1995.
- 1995 Faculty, European College of Cardiology, Amsterdam, the Netherlands, August 1995.
- 1995 Faculty and Guest Speaker, Michigan Society of Echocardiography, Detroit, Michigan, September 1995.
- 1995 Faculty, 17th Annual Seminar in Diagnostic Ultrasound, Ann Arbor, Michigan, September 1995.
- 1995 Faculty, 11th Annual Symposium of Echocardiography in Congenital Heart Disease, Mayo Clinic, Rochester, Minnesota, October 1995.
- 1995 Faculty, 3rd Swedish Symposium on Congenital Heart Disease, Umea, Sweden, November 1995.
- 1995 Faculty, 4th International Symposium on Non-Invasive Echocardiography, Tel-Aviv, Israel, December 1995.
- 1996 Faculty, 6th Annual Symposium on New Trends in Cardiovascular Ultrasound and Interventional Cardiology, Hofgstein, Austria, January 1996.
- 1996 Visiting Professor, Grand Rounds, University of Western Ontario, London, Ontario, Canada, January 1996.
- 1996 Invited Speaker, Image Ware Company, Ann Arbor, Michigan, February 1996.
- 1996 Faculty, HP Symposium on New Inventions in Pediatric Echocardiography, Orland, Florida, March 1996.
- 1996 Faculty and Guest Speaker, Advanced Echocardiography, The Minnesota Society of Echocardiography, Minneapolis, Minnesota, April 1996.
- 1996 Faculty, Advanced Pediatric Cardiac Ultrasound, American College of Cardiology, The Heart House, Washington, D.C., April 1996.
- 1996 Faculty, 8th Conference of the Brazilian Society of Echocardiography, Sao Paulo, Brazil, May 1996.
- 1996 Faculty, 7th Annual Meeting of the American Society of Echocardiography, Chicago, Illinois, June 1996.
- 1996 Visiting Professor, Naples, Italy, July 1996.

- 1996 Faculty, Advanced Pediatric Cardiac Ultrasound, University of Cincinnati, September 1996.
- 1996 Faculty, Annual Ultrasound Symposium, University of Michigan, Ann Arbor, September 1996.
- 1996 Faculty, American Academy of Pediatric Cardiology Section, October 1996.
- 1996 Faculty, Czech Republic Society of Cardiology, Annual Meeting, October 1996.
- 1996 Visiting Professor, Naples, Italy, November 1996.
- 1997 Faculty, 3rd International Program of International Cardiology, Israel, January 1997.
- 1997 Faculty, Annual Meeting of the Brazilian Society of Echocardiography, San Paulo, Brazil, May 1997.
- 1997 Faculty, 8th Annual Meeting of the American Society of Echocardiography, Orlando, Florida, June 1997.
- 1997 Visiting Professor, IInd Department of Medicine, General Hospital, St. Elizabeth, Austria, July 1997.
- 1997 Faculty, Annual Ultrasound Symposium, University of Michigan, Ann Arbor, September 1997.
- 1997 Faculty, 70th Annual Meeting of the American Heart Association, Orlando, Florida, November 1997.
- 1997 Visiting Professor, Grand Rounds, Cedar Sinai Medical Center, UCLA, Los Angeles, California, December 1997.
- 1998 Visiting Professor, Grand Rounds, German Heart Center, University of Munich, Munich, Germany, January 1998.
- 1998 Faculty - 9th Annual Meeting of American Society of Echocardiography, San Francisco, CA, June 1998.
- 1998 Visiting Professor, Grand Rounds, San Denato Medical Center, University of Milan, Milan, Italy, July 1998.
- 1998 Faculty Annual Meeting Ultrasound Symposium, University of Michigan, Ann Arbor, Michigan, September 1998.
- 1998 Visiting Professor and Faculty, Transesophageal Course for the Anesthesiologist, St. Vincent Hospital, University of Sydney, Sydney, Australia, November 1998.
- 1998 Visiting Professor and Faculty, Transesophageal Course for the Anesthesiologist, University of Melbourne, Melbourne, Australia, November 1998.
- 1998 Visiting Professor and Faculty, Transesophageal Course for the Anesthesiologist, University of Auckland, Auckland New Zealand, November 1998.
- 1999 Visiting Professor, University of Milan, San Denato Hospital, Milan, Italy, January 1999.
- 1999 Faculty, Fetal Echocardiography, Prague, Czech Republic, March 1999.
- 1999 Faculty, 10th Annual Meeting American Society of Echocardiography, June 1999.
- 1999 Faculty, Annual Meeting Ultrasound Symposium, University of Michigan, Ann Arbor, Michigan, September 1999.
- 1999 Faculty, Echocardiogram Course, Milan, Italy, October 1999.
- 1999 Faculty, Pediatric Cardiology Update, Naples, Italy, October 1999.
- 1999 Faculty, Echocardiography for the Technician, Grand Rapids, Michigan, November 1999.
- 2000 Faculty, 4th World Congress of Echocardiography, Cairo, Egypt, January 2000.
- 2000 Visiting Professor, Grand Rounds, St. Louis University, St. Louis, Missouri, March 2000.
- 2000 Faculty, 50th Annual Meeting of American College of Cardiology, Anaheim, California, March 2000.
- 2000 Faculty, 4th International Course in Echocardiography, San Denato, Italy, April 2000.

- 2000 Faculty, 11th Annual Meeting of American Society of Echocardiography, Chicago, Illinois, June 2000.
- 2000 Faculty, Annual meeting of the Brazilian Cardiology Society
- 2001 Faculty, Annual meeting of Italian Society of Echocardiography
- 2001 Faculty, 51th annual meeting of American College of Cardiology
- 2001 Faculty, 12th annual meeting of the American Society of Echocardiography, Seattle, Washington
- 2002 Faculty, 13th annual meeting of the American Society of Echocardiography, Orlando, Florida
- 2003 Faculty, Seventh pediatric interventional cardiac symposium, Orlando, Florida September 21-24, 2003
- 2004 Faculty, 15th Utah conference on pediatric cardiovascular disease, Park City, Utah, February 14-17, 2004.
- 2006-2006 Faculty, PICS 2006, Echocardiographic Assessment of the Aortic Valve, Las Vegas, Nevada, September 13, 2006
- 2006-2006 Faculty, PICS 2006, Echocardiographic Evaluation, Las Vegas, Nevada, September 13, 2006
- 2006-2006 Moderator, Live Cases - International Symposium on the Hybrid Approach to Congenital Heart Disease, Ohio State University, 6/28/2006.
- 2006-2006 Speaker - International Symposium on the Hybrid Approach to Congenital Heart Disease. "Therapeutic High Frequency Ultrasound in HLHS". Ohio State University, 6/28/2006.
- 2006-2006 Operator, Live Cases - International Symposium on the Hybrid Approach to Congenital Heart Disease, Ohio State University, 6/29/2006.
- 2006-2006 Instructor, Hybrid Workshop, International Symposium on the Hybrid Approach to Congenital Heart Disease, Ohio State University 6/30/2006
- 2007-2007 Faculty, PICS 2007, Fetal and Neonatal Intervention #2: AS/HLHS, Las Vegas, Nevada, July 24, 2007
- 2007-2007 Faculty, International Symposium on the Hybrid Approach to Congenital Heart Disease. Speaker: "High Frequency Ultrasound & the Atrial Septum", Columbus, Ohio, 6/27/07
- 2007-2007 Faculty, International Symposium on the Hybrid Approach to Congenital Heart Disease. Moderator: "The Future". Columbus, Ohio, June 28, 2007
- 2007-2007 Faculty, International Symposium on the Hybrid Approach to Congenital Heart Disease. Instructor, "Hybrid Workshop at University Laboratory Animal Resources, Experimental Surgery Suite". Columbus, Ohio, June 29, 2007

Clinical and Research Preceptees

United States Fellows and Visitors

- 1989-1990 Robert Hamilton, MD, Fellow, Baylor College of Medicine
- 1989-1990 LeeAnn Pearse, MD, Fellow, Baylor College of Medicine
- 1989-1990 George VanHare, M.D., Fellow, Baylor College of Medicine
- 1989-1991 Ted Carlson, M.D., Fellow, Baylor College of Medicine
- 1989-1991 David McIrvine, M.D., Fellow, Baylor College of Medicine
- 1989-1991 Charles Sang, M.D., Fellow, Baylor College of Medicine
- 1989-1991 James C. Perry, M.D., Fellow, Baylor College of Medicine
- 1989-1991 Lloyd Y. Tani, M.D., Fellow, Baylor College of Medicine

1989-1991 Jeffrey Towbin, M.D., Fellow, Baylor College of Medicine
1990-1991 John C. Plowden, M.D., Fellow, Baylor College of Medicine
1990-1992 Steven Neish, M.D., Fellow, Baylor College of Medicine
1990-1992 R. Michael Giuffre, M.D., Fellow, Baylor College of Medicine
1990-1992 Tim McQuinn, M.D., Fellow, Baylor College of Medicine
1990-1992 Paul Seib, M.D., Fellow, Baylor College of Medicine
1990-1992 Chris Erickson, M.D., Fellow, Baylor College of Medicine
1990-1992 Susan Denfield, M.D., Fellow, Baylor College of Medicine
1990-1992 Roma Ilkiw, M.D., Fellow, Baylor College of Medicine
1990-1992 Wanda C. Miller-Hance, M.D., Fellow, Baylor College of Medicine
1991-1992 Bruce D. Gelb, M.D., Fellow, Baylor College of Medicine
1991-1992 Susan L. Hess, M.D., Fellow, Baylor College of Medicine
1991-1992 Arnold L. Fenrich, M.D., Fellow, Baylor College of Medicine
1991-1992 Ronald G. Grifka, M.D., Fellow, Baylor College of Medicine
1991-1992 Michael C. Slack, M.D., Fellow, Baylor College of Medicine
1991-1992 Michael G. White, M.D., Fellow, Baylor College of Medicine
1991-1992 Carrie A. Altman, M.D., Fellow, Baylor College of Medicine
1991-1992 Tal Geva, M.D., Fellow, Baylor College of Medicine
1992-1993 Parvin Dorostkar, M.D., Fellow, University of Michigan
1992-1993 Alan Mendelsohn, M.D., Fellow, University of Michigan
1992-1993 Teresa Tacy, M.D., Fellow, University of Michigan
1992-1993 Keith Kocis, M.D., Fellow, University of Michigan
1992-1993 Gonzalo Urcelay, M.D., Fellow, University of Michigan
1992-1994 Satinder K. Sandhu, MBBS, Instructor, University of Michigan
1992-1994 Steven Schwartz, M.D., Fellow, University of Michigan
1992-1994 Reymond Fedderly, M.D., Fellow, University of Michigan
1992-1995 Elizabeth Lanford, M.D., Fellow, University of Michigan
1992-1995 John Charpie, M.D., Fellow, University of Michigan
1992-1995 Mark Russell, M.D., Fellow, University of Michigan
1993 Beth Carrol, Undergraduate Student, University of Michigan
1993-1996 Jon Donnelly, M.D., Fellow University of Michigan
1993-1996 Erik Michelfelder, M.D., Fellow, University of Michigan
1993-1996 David Shim, M.D., Fellow, University of Michigan
1994-1995 Chang Lee, Undergraduate Student, University of Michigan
1994-1995 OhadLudomirsky, Undergraduate Student, University of Michigan
1994-1995 Ross Bernard, Undergraduate Student, University of Michigan
1994-1995 Sue Berutti, Undergraduate Student, University of Michigan
1994-1997 Caren Goldberg, M.D., Fellow, University of Michigan
1994-1997 Jacqueline Smuszkovicz, M.D., Fellow, University of Michigan
1994-1997 Susan desJardins, M.D., Fellow, University of Michigan
1994-1997 Aurelio Reyes, M.D., Fellow, University of Michigan
1994-1997 Carlin Gomez, M.D., Fellow, University of Michigan
1994-1997 Cecelia Meagher, M.D., Fellow, University of Michigan
1994-1997 Lynn Straatman, M.D., Fellow, University of Michigan
1996-1999 Colin Cowley, M.D., Fellow, University of Michigan
1996-1999 Ian Law, M.D., Fellow, University of Michigan
1996-1999 Anne Boyd, M.D., Fellow, University of Michigan
1996-1999 Peter Fischblach, M.D., Fellow, University of Michigan
1997-2000 Lisa Lee, M.D., Fellow, University of Michigan
1997-2000 Kevin Maher, M.D., Fellow, University of Michigan
1997-2000 Stephen Mooradian, M.D., Fellow, University of Michigan

1998-2001 Piers Barker, M.D., Fellow, University of Michigan
 1998-2001 David Bradley, M.D., Fellow, University of Michigan
 1998-2001 Joseph Graziano, M.D., Fellow, University of Michigan
 1999-2002 Dennis Kim, M.D., Fellow, University of Michigan
 1999-2002 Scott Lim, M.D., Fellow, University of Michigan
 1999-2002 Gail Wright, M.D., Fellow, University of Michigan
 2001-2004 Hassan Farra, M.D., Fellow, Washington University School of Medicine
 2001-2005 Nancy Lin, M.D., Fellow, Washington University School of Medicine
 2001-2005 Ramzi Nicolas, M.D., Fellow, Washington University School of Medicine
 2003-2005 Melanie Everitt, M.D., Fellow, Washington University School of Medicine
 2003-2007 D. Byron Holt, M.D., Fellow, Washington University School of Medicine
 2004-2007 Pei-Ni Jone, M.D., Fellow, Washington University School of Medicine
 2004-2007 Agnieszka Kulikowska, M.D., Fellow, Washington University School of Medicine
 2004-2007 Steven Lorch, M.D., Fellow, Washington University School of Medicine
 2005-Pres Robert Barlow, M.D., Fellow, Washington University School of Medicine
 2005-Pres Jennifer Avari, M.D., Fellow, Washington University School of Medicine
 2006-Pres Martin LaPage, M.D., Fellow, Washington University School of Medicine
 2006-Pres Mary McBride, M.D., Fellow, Washington University School of Medicine
 2006-Pres Steve Muyskens, M.D., Fellow, Washington University School of Medicine
 2007-Pres Chetana Reddy, M.D., Fellow, Washington University School of Medicine
 2007-Pres Amir Toib, M.D., Fellow, Washington University School of Medicine
 2007-Pres Sudhir Vashist, M.D., Fellow, Washington University School of Medicine

Foreign Fellows and Visitors

1990 J. Russo, MD, Visitor, Italy
 1990 M. Tommasini, MD, Visitor, Italy
 1990 M. Chu Li, M.D., Visitor, Taiway
 1994 Luetto Majani, M.D., Fellow, Botswana
 1995 P. Glossow, M.D., Visitor, San Antonio, Texas
 1995 Antonio Laudito, M.D., Visitor, New York
 1995 S. BarAm, M.D., Fellow, Israel
 1995 S. Shiesh, M.D., Fellow, Egypt
 1995 Louis Carey, M.D., Fellow, Australia
 1995 J. Nesser, M.D., Visitor, Austria
 1995 Carla Bertuci, M.D., Visitor, Italy
 1995 D. Teine, M.D., Visitor, Sweden
 1995 Armond Messa, M.D., Visitor, Italy
 1995 A. Reidberg, M.D., Visitor, Sweden
 1996 Luis Carlos Simoes, M.D., Fellow, Brazil
 1996 Gunnar A. Rosland, M.D., Visitor, Norway
 1997 Eduardo Bossini, M.D., Naples, Italy
 1997 Susan Tabich, M.D., New Mexico, USA
 1998 Gonzalo Urcelay, M.D., Santiago, Chile
 1998 Edwardo Bossone, M.D., Naples, Italy
 1999 Dianne Bossi, M.D., Milan, Italy
 2000 Sergio Pontez, M.D., San Pablo, Brazil
 2000 Brownin Parslow, Melbourne, Australia
 2001 Lucy Eun, Seoul, S. Korea
 2001 Peter Hagaman, Oslo, Norway

Military Service:

1976-1981 Medical Corps Branch of Research and Development, Israel Defense Force

Panel Discussions and Presentations:

- 1980 Ludomirsky A, Klein Ho, Teitelman U, Becker B, Hoffman S: Prolongation of the QT interval and "torsade depointe" ventricular tachycardia and fibrillation associated with organophosphorus insecticide poisoning. Presentation and exhibition at the 53rd Scientific Session of the American Heart Association, Miami Beach, Florida, 1980.
- 1984 Ludomirsky A, Rain AJJT, Simcha A, Tamir I: Sick sinus syndrome in infants. Presentation and exhibition at the 2nd International College of Pediatrics, Washington, DC, 1984.
- 1985 Ludomirsky A, Murphy D, Bash S, Huhta JC: Continuous wave Doppler estimation of ventricular septal defect gradient. Presented at the 2nd World Congress of Pediatric Cardiology, New York, NY, June 1985.
- 1985 Ludomirsky A, Vick GW, Morrow WR, Huhta JC, Murphy DJ: Two-dimensional color-flow mapping for detection of multiple/muscular ventricular septal defects. Presentation at the 58th Session of the American Heart Association, Washington, DC, 1985.
- 1986 Ludomirsky A, Marisacalco M, Fisher DJ, Smith RT, Garson A, Jefferson L, McNamara DG: Dysrhythmia during endocarditis and septicemia in children. Presentation at the Southern Society for Pediatric Research, New Orleans, LA, 1986.
- 1986 Vick GW, Ludomirsky A, Morrow WR, Huhta JC, Jurphy DJ, Morris MJ: Obstruction to pulmonary venous return in children with congenital heart disease - detection by Doppler. Presentation at the 35th Annual Scientific Session of the American College of Cardiology, Atlanta, GA, March 1986.
- 1986 Ludomirsky A, Bricker JT, Garson A, Feingold M, McNamara DG: Cardiac tumors in children. Presentation at the X World Congress of Cardiology, Washington, DC, September 1986.
- 1986 Ludomirsky A, Vick III GW, Murphy DJ, Nihill MR, Mullins CE: Balloon valvuloplasty for valve pulmonary stenosis: Two-year follow up. Presentation at the International Symposium on Interventional Cardiology, Houston, TX, September 1986.
- 1986 Mullins CE, Nihill MR, Vick III GW, Ludomirsky A, O'Laughlin MP, Bricker JT, Judd VE: Percutaneous balloon catheter dilation in congenital heart disease with double balloon technique. Presentation at the International Symposium on Interventional Cardiology, Houston, TX, September 1986.
- 1986 McNamara DG, Ludomirsky A, Mullins CE, Nihill MR, Bricker JT: Rashkind balloon atrial septostomy: Long-term follow up in 284 patients. Presentations at the International Symposium on Interventional Cardiology, Houston, TX, September 1986.
- 1986 Ludomirsky A, Vick GW, Danford DA, Nihill MR, Mullins CE, Fisher DJ: Instantaneous, mean and peak to peak pressure gradients in semilunar valve stenosis. Do they mean different things? Presentation at the American Academy of Pediatrics, Section of Cardiology, Washington, DC, November 1986.
- 1987 Mullis C, Nihill M, Vick GW, Ludomirsky A, O'Laughlin MP, Bricker JT, Judd VE: Double balloon technique for dilatation of valvular or vessel stenosis in congenital and acquired heart disease. Presentation at the 36th Annual Scientific Session of the American College of Cardiology, New Orleans, LA, March 1987.

- 1988 Ludomirsky A, Huhta JC, Paridon S, Yoon G: Color Doppler for flow quantitation. Velocity, Variance and Intensity Mapping. Presentation at the Society of Pediatric Research Annual Meeting, Washington, DC, May 1988.
- 1988 Vick GW, Rokey R, Ludomirsky A, Mulvagh S, Johnston DL: Nuclear Magnetic Resonance Imaging of the pulmonary arteries, right ventricular outflow tract and aortico-pulmonary pulmonary shunts: A comparative study with echocardiography and angiography. Presentation at the 7th Annual Meeting and Exhibition, Society of Magnetic Resonance in Medicine, San Francisco, CA, August 20-26, 1988.
- 1988 Ludomirsky A, Sang CJ, O'Laughlin MP, Nihill MR, Mullins CE, Garson A Jr: Infundibular obstruction after balloon dilation in isolated pulmonary valve stenosis. Presentation at the 30th Annual Meeting of the American Academy of Pediatrics, Section of Cardiology, San Francisco, CA, October 14-16, 1988.
- 1988 Ludomirsky A, Tani LY, Vick GW III, Murphy DJ Jr, Huhta JC, Garson A Jr: Color flow Doppler interrogation: The necessity in differentiation of supracristal VSD from pulmonary stenosis. Presentation at the 30th Annual Meeting of the American Academy of Pediatrics, Section of Cardiology, San Francisco, CA, October 14-16, 1988.
- 1988 Ludomirsky A, Tani LY, Nihill MR, O'Laughlin MP: Left ventricular mid-cavitary obstruction after balloon dilation in isolated aortic valve stenosis. Presentation at the 61st Scientific Sessions, American Heart Association Annual Meeting, Washington DC, November 14-17, 1988.
- 1988 Huhta JC, Ludomirsky A, Lee R: Is the average Doppler signal amplitude useful in grading mitral regurgitation? Presentation at the 61st Scientific Sessions, American Heart Association Annual Meeting, Washington, DC, November 14-17, 1988.
- 1989 Ludomirsky A: Echocardiography and Doppler evaluation of unusual VSDs. Presentation at the 31st Annual Meeting of the American Academy of Pediatrics, Section of Cardiology, Chicago, IL, October 20-22, 1989.
- 1989 Ludomirsky A, Huhta JC, Vick GW, Murphy DJ: Pressure gradients may be misleading in the evaluation of aortic valve angioplasty in infants? Third World Congress of Pediatric Cardiology, Bangkok, Thailand, November 26-December 1, 1989.
- 1990 Ludomirsky A, O'Laughlin MP, Mullins CE: Color flow Doppler low-velocity enhancement in the assessment of residual leaks across patent ductus arteriosus occlusion devices, 39th Annual Scientific Session of the American College of Cardiology, New Orleans, LA, March 18-22, 1990.
- 1990 Ludomirsky A, Erickson C, Grip A, Angelsen B: Miniaturized echocardiographic transducers for intraoperative and premature imaging. 3rd International Symposium on Echocardiography and Doppler in Cardiac Surgery, Vienna, Austria, May 9-12, 1990.
- 1990 Ludomirsky A, O'Laughlin MP, Nihill MR, Mullins CE: The role of echocardiography and Doppler during catheter occlusion device procedures for congenital heart diseases. 63rd Scientific Session of the American Heart Association, Dallas, TX, November 12-15, 1990.
- 1990 Cabalka AK, Ludomirsky A, O'Laughlin MP, Mullins CE: Patient selection for transcatheter occlusion of atrial septal defect: 2-D echocardiographic criteria. 63rd Scientific Session of the American Heart Association, Dallas, TX, November 12-15, 1990.
- 1991 Ludomirsky A: Transesophageal echocardiography in pediatric patients. 40th Annual Scientific Session of the American College of Cardiology, Atlanta, GA, March 3-7, 1991.

- 1992 Sahn DJ, Ricou F, Rothman A, Miller-Hance WC, Ludomirsky A: Improvements in reliability and availability for 12.5 MHz scanning frequencies for intravascular ultrasound imaging yield new applications in CHD patients: Clinical experience and animal investigations, 41st Scientific Session of the American College of Cardiology, Dallas, TX, April 12-16, 1992
- 1992 Ludomirsky A, Cabalka A, Bini RM, Kearney D: Atrial septal defect sizing: Pathology, catheterization and echocardiographic correlation. 3rd Annual Scientific Session of the American Society of Echocardiography, Boston, MA, June 15-17, 1992.
- 1992 Ludomirsky A, Bussi F: Multiplane transesophageal echocardiography - annular phased array technology - initial clinical experience. 5th Annual Symposium on Echocardiography and Doppler in Cardiac Surgery, Vienna, Austria, July 11-14, 1992.
- 1992 Ludomirsky A: Multiplane transesophageal echocardiography. Midwest Pediatric Cardiology Society, Madison, WI, September 17-18, 1992.
- 1992 Schenk M, Ludomirsky A, O'Laughlin M, Mullen CE: Patent ductus arteriosus in the adult - clinical manifestation before and after transcatheter occlusion. American Academy of Pediatrics, San Francisco, CA, October 14-16, 1992.
- 1992 Busi F, Cremondi I, Ludomirsky A: Transesophageal echocardiography. 10th European Conference of the International Society of Noninvasive Cardiology, Rotterdam, Netherlands, October 15-17, 1992.
- 1993 Ludomirsky A: Pulmonary atresia, intact ventricular septum. 3rd Annual meeting of American Society of Echocardiography, Orlando, FL, June 16-18, 1993.
- 1993 Ludomirsky A: Multiplane transesophageal echocardiography in congenital heart disease. Delaware Society of Echocardiography, Philadelphia, PA, October 23, 1993.
- 1993 Fedderly R, Lloyd T, Mendelsohn A, Sandhu S, Ludomirsky A, Beekman R: Transcatheter coil occlusion of patent ductus arteriosus. 66th Scientific Session of the American Heart Association, Atlanta, GA, November 8-11, 1993.
- 1993 Marx G, Vogel M, Pandian N, Fulton D, Ludomirsky A, Swartz S, Buhlmeyer K: Delineation of the size, shape and dynamic geometry of atrial septal defect, by real time three-dimensional echocardiography using a tomographic ultrasound approach in and out patients. 66th Scientific Session of the American Heart Association, Atlanta, GA, November 8-11, 1993.
- 1993 Ludomirsky A: Assessment of systolic and diastolic function. Council of Cardiovascular disease in the young. 66th Scientific Session of the American Heart Association, Atlanta, GA, November 8-11, 1993.
- 1994 Ludomirsky A: Heart failure in the neonate post cardiac surgery. Heart failure after cardiac surgery. Milan, Italy, May 6-7, 1994.
- 1994 Ludomirsky A: The use and abuse of echocardiography in the ICU. Milan, Italy, May 6-7, 1994.
- 1994 Ludomirsky A: Echocardiographic assessment of TOF in adult post surgical repair. 5th Scientific Session of the American Society of Echocardiography, San Francisco, CA, June 13-15, 1994.
- 1994 Ludomirsky A: The use of acoustic quantification in the pediatric age group. 5th Scientific Session of the American Society of Echocardiography, San Francisco, CA, June 13-15, 1994.
- 1994 Ludomirsky A: Echocardiographic assesment of A-V-C in the pediatric age group. 5th Scientific Session of the American Society of Echocardiography, San Francisco, CA, June 13-15, 1994.
- 1994 Ludomirsky A, Silberbach M, Kenny A, Shiota T, Rice MG, Klas B, Krauzowicz B, Klein P, Berman R, Sahn DJ: Superiority of rotational scan reconstruction strategies for transthoracic 3-dimensional real-time echocardiographic studies in pediatric

- patients with CHD. 43rd Annual Scientific Seccsion of the American College of Cardiology, Atlanta, GA, March 13-17, 1994.
- 1994 Ludomirsky A, Lloyd TR, Beekman RH, Pandian N, Serwer GA, Vermillion RP: Volume estimation of single ventricles using multiplane transesophageal echocardiography and 3-dimensional reconstruction: Validation in human pathological specimens. 43rd Annual Scientific Session of the American College of Cardiology, Atlanta, GA, March 13-17, 1994
- 1994 Ludomirsky A, Fedderly RT, Mendelsohn AM, Moorehead CP, Sandhu S Lloyd TR, Beekman RH: Serial intravascular assessment of neo-intimal coverage of aortic stents in dogs. 43rd Annual Scientific Session of the American College of Cardiology, Atlanta, GA, March 13-17, 1994.
- 1994 Mendelsohn AM, Dorostkar PC, Moorehead CP, Lupinetti FM, Reynolds PI, Ludomirsky A, Lloyd TR, Heidelberger K, Beekman RH: Stent redilation in canine models of pulmonary artery stenosis and coarctation of the aorta. 43rd Annual scientific Session of the American College of Cardiology, Atlanta, GA, March 13-17, 1994.
- 1994 Freire M, Cao QL, Azevedo A, Pollard H, Zachistal J, Ludomirsky A, Pandian N: Assessment of left ventricular volumes, ejection fraction and cardiac output by quantitative three-dimensional echocardiography from multiplane transesophageal echocardiographic studies: validation and clinical application in various patient care scenarios. 43rd Annual Scientific Session of the ACC, Atlanta, 3/13-17/94.
- 1994 Mihelfelder E, Ludomirsky A, Lloyd TR, Beekman RH, Krauzowicz B, Vermillion RP, Serwer GA: Echocardiographic assessment of aortic compliance and distensibility before and after coarctation of the aorta repair. 5th Scientific Session of the American Society of Echocardiography, San Francisco, CA, June 13-15, 1994.
- 1994 Tacy TA, Vermilion RP, Ludomirsky A: Range of normal valve annulus size in neonates - a two-dimensional echocardiographic study. 5th Scientific Session of the American Society of Echocardiography, San Francisco, CA, June 13-15, 1994.
- 1994 Ludomirsky A, Pandian N, Nesser J, Derman R, Vermilion R: Transthoracic real time three-dimensional echocardiography in children with hypoplastic left heart syndrome: clinical application and new insights. 5th Scientific Session of the American Society of Echocardiography, San Francisco, CA, June 13-15, 1994.
- 1994 Lanford L, Vermilion RP, Krauzowicz B, Serwer GA, Peters-Arnold J, Ludomirsky A: Automatic border detection using acoustic quantification in the assessment of left ventricular volum and function in children with cardiomyopathy. 5th Scientific Session of the American Society of Echocardiography, San Francisco, CA, June 13-15, 1994.
- 1994 Dorostkar PC, Tacy TA, Urcelay G, Ludomirsky A, Vermilion RP, Armstrong BJ, Dick M: Doppler detected aortic regurgitation following retrograde passage of an electrode catheter into the left ventricle is primarily a function of duration of catheter placement across the aortic valve. 5th Scientific Session of the American Society od Echocardiography, San Francisco, CA, June 13-15, 1994.
- 1994 Pandian NG, Ludomirsky A, Cao QL, Sugeng L, Delabays A, Marx G, Schwartz SL: Clinical applications of 3 different modes of data acquisition for the performance of three-dimensional echocardiography via transthoracic windows: Relative utility of parallel slicing, fan-like scanning and rotational scanning methods. 5th Scientific Session of the ASE, San Francisco, CA, June 13-15, 1994.
- 1994 Vogel M, Ho Y, Ludomirsky A, Buhlmeyer K: Evaluation of coronary arter anomalies by transthoracic three-dimensional echocardiography. 67th Scientific Session of the American Heart Association Meeting, Dallas, TX, November 14-17, 1994.

- 1994 Ludomirsky A, Sahn DJ, Fyfe DA, Dhar P, Sandhu S: Improved anatomic understanding of congenital heart ventricular outflow tract obstruction obtained by three-dimensional echocardiography. 67th Scientific Session of the American Heart Association Meeting, Dallas, TX, November 14-17, 1994
- 1994 Vogel M, Ho Y, Ludomirsky A, Sugeng L, Delabays A, Buhlmeyer K: Transthoracic 3-dimensional echocardiography provides new information on straddling or overriding AV valves in complex heart defects. 67th Scientific Session of the American Heart Association Meeting, Dallas, TX, November 14-17, 1994.
- 1994 Ludomirsky A, Vermilion R, Nesser J, Marx G, Vogel M, Derman R, Pandian N: Improved anatomic delineation of Ebstein's anomaly from three-dimensional images obtained by echocardiography and magnetic resonance imaging. 67th Scientific Session of the American Heart Association Meeting, Dallas, TX, November 14-17, 1994.
- 1994 Cao QL, Delabays A, Sugeng L, Krauss M, Ludomirsky A, Pandian N: Quantitative three-dimensional echocardiographic evaluation of the size and geometry of ventricular septal defects: Validation studies. 67th Scientific Session of the American Heart Association Meeting, Dallas, TX, November 14-17, 1994.
- 1995 Ryberg A, Teien DE, Lloyd TR, Shim D, Beekman RH, Mosca R, Bove E, Ludomirsky A: Hemodynamic changes of late fenestration closure in patients with hypoplastic left heart syndrome after fontan operation. Society of Pediatric Research, San Diego, CA, 1995.
- 1995 Vogel M, Ludomirsky A: Three-dimensional echocardiography of hypoplastic left heart syndrome. German Society of Pediatric Cardiology, Munich, Germany, 1995.
- 1995 Gomez C, Lloyd TR, Ludomirsky A: Fontan fenestration closure in the catheterization laboratory: Is it really closed? ODICH, 1995.
- 1995 Ludomirsky A: Reconstruction of the hypoplastic left heart syndrome: American Society of Echocardiography, 6th Annual Meeting, Toronto, Canada, 1995.
- 1995 Ludomirsky A: Management of myocardial disease in the pediatric population. American Society of Echocardiography, 6th Annual Meeting, Toronto, Canada, 1995.
- 1995 Ludomirsky A: Cardiac ultrasound and interventional cardiology - imaging integration. American Society of Echocardiography, 6th Annual Meeting, Toronto, Canada, 1995.
- 1995 Sahn DJ, Silberbach GM, Kenny A, Fyfe DA, Dhar P, Ludomirsky A, Shiota T: Three-dimensional echocardiographic reconstruction of anatomy and flow in congenital mitral valve disease: Importance of new "surgeon's eye" views. 44th Annual Scientific Session of the American College of Cardiology, New Orleans, Louisiana, March 1995.
- 1995 Carey LM, Ludomirsky A, Vermilion RP, Shim D, Lloyd TR, Beekman RH: Right and left pulmonary artery size and flow disturbances after patent ductus arteriosus coil occlusion: A serial echocardiographic study. 44th Annual Scientific Session of the American College of Cardiology, New Orleans, LA, March 1995.
- 1995 Sugeng L, Cao QL, Delabays A, Magni G, Marx G, Ludomirsky A, Vogel M, Pandian N: Evaluation of the accuracy of new quantitative image processing methods in measuring the size of ventricular septal defects directly on three-dimensional echocardiograms and factors influencing its reliability. 44th Annual Scientific Session of the American College of Cardiology, New Orleans, LA, March 1995.
- 1995 Shim D, Fedderly RT, Beekman RG, Ludomirsky A, Young ML, Schork MA, Lloyd TR: Follow-up after coil occlusion of patent ductus arteriosus. 44th Annual Scientific Session of the American College of Cardiology, New Orleans, LA, March 1995.
- 1995 Marx G, Vogel M, Ludomirsky A, Sugeng L, Cao QL, Delabays A, Romero B, Fulton D, Pandian N: Utility of unique projections in dynamic transthoracic three-dimensional echocardiography in the pre- and post-operative delineation of lesions

- associated with tetralogy of fallot in neonates and infants. 44th Annual Scientific Session of the American College of Cardiology, New Orleans, LA, March 1995.
- 1995 Cao QL, Sugeng L, Delabays A, Magni G, Marx G, Ludomirsky A, Vogel M, Pandian N: Direct quantitation of atrial septal defect size by volume-rendered three-dimensional echocardiography: In vitro validation studies. 44th Annual Scientific Session of the American College of Cardiology, New Orleans, LA, March 1995.
- 1995 Vogel M, Ho SY, Anderson RH, Buhlmeyer K, Ludomirsky A, Marx G, Pandian N: Transthoracic three-dimensional echocardiography for the assessment of site and morphology of subvalvar left ventricular outflow tract obstruction in complete transposition. 6th Annual Meeting of the American Society of Echocardiography, Toronto, Canada, June 1995.
- 1995 Sugeng L, Cao QL, Delabays A, Marx G, Vogel M, Ludomirsky A, Washburn D, Vannan M, Schwartz S, Pandian N: Delineation of aortic coarctation, dissection and dilatation, supra- and subvalvular stenosis and atheromatosis in patients by volume-rendered three-dimensional echocardiography using multiplanar mode of data acquisition in the clinical scenario. 6th Annual Meeting of the ASE, Toronto, Canada, June 1995.
- 1995 Vogel M, Ho SY, Anderson RH, Buhlmeyer K, Ludomirsky A, Marx G, Pandian N. Three-dimensional echocardiography provides new information on morphology of AV septal defect. 6th Annual Meeting of the American Society of Echocardiography, Toronto, Canada, June 1995.
- 1995 Ludomirsky O, Ludomirsky A, Lloyd T, Serwer G, Vermilion RP, Mosca R, Bove E: Echocardiographic predictors for successful aortic valve replacement with pulmonary autograft (ROSS) procedure in children. 6th Annual Meeting of the American Society of Echocardiography, Toronto, Canada, June 1995.
- 1995 Michelfelder E, Vermilion RP, Ludomirsky A, Beekman RH, Lloyd TR: Comparison of simultaneous Doppler- and catheter-derived right ventricular dP/dt in hypoplastic left heart syndrome. 6th Annual Meeting of the American Society of Echocardiography, Toronto, Canada, June 1995.
- 1995 Lanford LM, Vermilion RP, Serwer GA, Ludomirsky A: Pulmonary venous anomalies in infants with hypoplastic left heart syndrome. 6th Annual Meeting of the American Society of Echocardiography, Toronto, Canada, June 1995.
- 1995 Ludomirsky A, Mosca R, Vermilion R, Donnelly J, Lloyd T, Beekman R, Serwer G, Bove E: Three-dimensional echocardiography in congenital heart disease: The surgeon's perspective and interpretation. 6th Annual Meeting of the American Society of Echocardiography, Toronto, Canada, June 1995.
- 1995 Vermilion RP, Serwer GA, Peters J, Ludomirsky A. Digital versus video tape storage of echocardiograms in a pediatric laboratory: A blinded comparison. 6th Annual Meeting of the American Society of Echocardiography. Toronto, Canada, June 1995.
- 1995 Vermilion RP, Serwer GA, Peters J, Ludomirsky A: Digital versus video tape storage of echocardiograms in a pediatric laboratory: A blinded comparison. 68th Scientific Session of the American Heart Association Meeting. Anaheim, CA, November 1995.
- 1995 Donnelly JP, Lin CH, Morgan L, Young M, Shork A, Ludomirsky A: Progressive aortic valve annulus dilatation in patients with aortic insufficiency: Implications for timing of the Ross procedure. 68th Scientific Session of the American Heart Association Meeting, Anaheim, CA, November 1995.
- 1995 Sandhu SK, Crowley DC, Lloyd TR, Ludomirsky A, Stetz SP, Vermilion RP, Beekman RH: Hemodynamic effects of Captopril in children with a bidirectional Glenn shunt. 68th Scientific Session of the American Heart Association Meeting, Anaheim, CA, November 1995.
- 1996 Ludomirsky A: Adult with congenital heart disease: An overview. American Society of Echocardiography, Chicago, IL, 1996.

- 1996 Ludomirsky A: Three-dimensional reconstruction of right and left ventricular volumes, American Society of Echocardiography, Chicago, IL, 1996.
- 1996 Nesser J, Tkalec W, Denning K, Drozd J, Ludomirsky A: In vivo validation of automatic cardiac output measurement from color flow Doppler velocity profile. 4th Annual Meeting of the American College of Cardiology, Orlando, FL, March 1996.
- 1996 Sahn DJ, Rice MJ, Silverman NH, Ludomirsky A, Vermillion RP, Hornberger LK, Kleinman C: Poor prognosis for fetuses with restrictive foramen ovale and left heart obstructive lesions: A multicenter study. 4th Annual Meeting of the American College of Cardiology, Orlando, FL, March 1996.
- 1996 Rydberg A, Teien DE, BarAm S, Vermilion RP, Mosca R, Bove E, Ludomirsky A: Right ventricular and tricuspid valve function during staged reconstruction for hypoplastic left heart syndrome: A longitudinal echocardiographic study. 7th Annual Meeting of the American Society of Echocardiography, Chicago, IL, June 1996.
- 1996 Bernard R, Doelling N, Fyfe D, Chung K, Ludomirsky A: Accuracy of three-dimensional echocardiography for septal defect sizing in vitro: Comparison of rotational and fan acquisition methods. 7th Annual Meeting of the American Society of Echocardiography, Chicago, IL, June 1996.
- 1996 Michelfelder E, Beruti S, Ludomirsky A: Two-dimensional left ventricular mass and volume determination: Normal ranges in the first year of life. 7th Annual Meeting of the American Society of Echocardiography, Chicago, IL, June 1996.
- 1996 BarAM S, Ludomirsky A, Rydberg A, Teien DE, Vermilion RP: The abnormal contralateral atrioventricular valve in mitral and tricuspid atresia in neonates: An echocardiographic study. 7th Annual meeting of the American Society of Echocardiography, Chicago, IL, June 1996.
- 1996 Ludomirsky A: Fetal Echocardiography; an overview. University of Michigan Annual Ultrasound Symposium. Ann Arbor, MI, September, 1996.
- 1996 Ludomirsky A: Diastology, a myth on reality. American Academy of Pediatrics, Cardiology Section. Boston, Mass., October 1996.
- 1996 Krauzowicz, Ludomirsky A, Nesser J, Denning J: Automatic on-line cardiac output measurement using color Doppler flow integration: In vivo validation in children. 69 Scientific Session of the American Heart Association Meeting, New Orleans, LA, November 1996.
- 1996 Ludomirsky A, Nesser HJ, Ebner C, Tkalec W, Jones M, Masahide C, Yamada I, Aida S, Sahn DJ: Semi-automatic color Doppler (ACM) estimation of shunt volume flow through atrial septal defects: Comparisons of accuracy using great arteries or direct ASD flow computation: Experimental animal studies and clinical validation. 69th Scientific Session of the AHA Meeting, New Orleans, LA, November 1996.
- 1996 Reyes A, Bove E, Mosca R, Kulik T, Ludomirsky A: Tricuspid valve repair in children with hypoplastic left heart syndrome during staged surgical reconstruction. 69th Scientific Session of the American Heart Association Meeting, New Orleans, LA, November 1996.
- 1997 Gomez C, Lloyd T, Mosca R, Bove E, Ludomirsky A: Fontan Fenestration closure in the catheterization laboratory-echocardiographic evaluation of residual right to left shunts. 8th Annual Meeting of the American Society of Echocardiography, Orlando, FL, June 1997.
- 1997 Straatman L, Ludomirsky A: Right ventricular force: A noninvasive predictor of right ventricular systolic function. 8th Annual Meeting of the American Society of Echocardiography, Orlando, FL, June 1997.
- 1997 Ludomirsky A: QP/QS conclusions in pediatric cardiology. 8th Annual Meeting of the American Society of Echocardiography, Orlando, FL, June 1997.

- 1997 Ludomirsky A: Diastology in the pediatric age group. 8th Annual meeting of the American Society of Echocardiography. Orlando, FL, June 1997.
- 1997 Ludomirsky A: The present and future of fetal echocardiography, University of Michigan Annual Ultrasound Symposium, Ann Arbor, MI, September 1997.
- 1997 Ludomirsky A: The role of three-dimensional echocardiography in congenital heart disease: 70th Scientific Session of the American Heart Association Meeting, Orlando, FL, November 1997.
- 1997 Ludomirsky A, Mosca RS, Bove EL, Tebich S: Atrioventricular septal defect - surgical outcome and echocardiographic predictors for operation: 70th Scientific Session of the American Heart Association Meeting, Orlando, FL, November 1997.
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- 2003 Ludomirsky A: Therapeutic Ultrasound: HLHS. 7th Pediatric Interventional Cardiac Symposium, Orlando, FL, September 21-24, 2003.
- 2003 Ludomirsky A, Burke R, Feldman T, Tworetzky W (Panelists): Live cases (Chicago, Columbus, Omaha). 7th Pediatric Interventional Cardiac Symposium, Orlando, FL, September 21-24, 2003.
- 2003 Ludomirsky A: Present techniques and future diagnostic and therapeutic modalities in pediatric cardiology. Clinical Pediatric Update CME, St. Louis Children's Hospital, St. Louis, MO, October 3, 2003.
- 2003 Ludomirsky A: New developments in fetal cardiac imaging and management. 29th Annual Symposium on Obstetrics and Gynecology, Washington University School of Medicine, St. Louis, MO, October 3, 2003.

- 2004 Ludomirsky A: New imaging and therapeutic modalities in pediatric cardiology. Pediatric Grand Rounds, Washington University School of Medicine, St. Louis, MO, February 6, 2004.
- 2004 Ludomirsky A: The power of therapeutic ultrasound. 15th Utah Conference on Pediatric Cardiovascular Disease, Park City, Utah, February 16, 2004.
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- 2004 Ludomirsky A: New innovations in fetal cardiac imaging and intervention. Clinical Pediatric Update, St. Louis Children's Hospital, St. Louis, MO, 3-19-2004.
- 2004 Ludomirsky A: Invited speaker: The potential use of therapeutic ultrasound in congenital heart disease. Department of Pediatrics - Research Retreat, St. Louis, MO, April 24, 2004.
- 2004 Ludomirsky A: Fetal Intervention: Therapeutic Ultrasound. Pediatric Interventional Cardiac Symposium VIII and Emerging New Technologies in Congenital Heart Surgery II, Chicago, IL, September 19 - 22, 2004.
- 2004 Ludomirsky A: Panelist - Live Cases. Pediatric Interventional Cardiac Symposium VIII and Emerging New Technologies in Congenital Heart Surgery II, Chicago, IL, September 19 - 22, 2004
- 2004 Ludomirsky A: Invited speaker: Coarctation: diagnosis, selection of treatment and follow-up in adults. Euroecho 8, Athens, Greece, 12/1 - 12/4/2004.
- 2005 Ludomirsky A: Invited lecturer: Therapeutic ultrasound in congenital heart disease. Israeli Pediatric Heart Association, Tiberius, Israel, March 10 - 12, 2005.
- 2005 Ludomirsky A: Invited speaker: Evaluation of the cyanotic patient. Washington University School of Medicine Pediatric Surgery Basic Science Lecture. St. Louis, MO March 22, 2005.
- 2005 Ludomirsky A: Invited lecturer: Imaging of the atrial septum before device closure. 5th International Workshop on Interventional Pediatric Cardiology. San Donato Milanese, Milan, Italy, March 31 - April 2, 2005
- 2006 Ludomirsky A: Invited speaker: "New echocardiographic modalities in the assessment of pediatric heart failure". Emerging Therapies for Pediatric Heart Failure, Chase Park Plaza, May 5, 2006
- 2006 Singh GK, Gibson AA, Kulikowska A, Wallace KD, Hoffman JJ, Ludomirsky A, Miller JG, Holland MR. "High-frequency (50MHz) Ultrasonic Integrated Backscatter Imaging Defines Myocardial Architecture in Fetal Hearts. Presented at the American Society of Echocardiography, 6/3-6/7/2006, Baltimore, Maryland
- 2006 Lorch SM, Sharkey AM, Canter CE, Singh GS, Johnson MC, Ludomirsky A. Cardiac strain and strain rate during acute rejection and following resolution of rejection in pediatric heart transplantation recipients. Poster presentation, American Society of Echocardiography, Baltimore, MD, 6/3 - 6/7/2006.
- 2006 Liao Jone PN, Ludomirsky A, Singh G, Johnson MC, Sharkey AM. Abstract presentation: "Does myocardial strain and strain rate in pediatric cardiac patients on extracorporeal membrane oxygenation predict outcome? A velocity vector imaging study. American Heart Association Scientific Sessions, Chicago, IL 11/12-11/15/2006
- 2007 Ludomirsky A: Panel Discussion: "What is new on the horizon", PICS, Las Vegas, Nevada, 7/25/07
- 2007 Holland MR, Singh GK, Kulikowska A, Kirschner C, Hicks D, Ludomirsky A. Measurements of left- and right-heart cyclic variation of backscatter in fetal human hearts at mid-gestation. 2007 American Institute of Ultrasound in Medicine Annual Convention, New York, NY, March 15-18, 2007.
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- 2009 Muyskens S, Holt B, Ludomirsky A, Pilgram T, Foerster S, Balzer D, Woodard PK, Singh GK. A Novel Method for the Non-Invasive Assessment of Homograft Function in Children after Reconstructive Congenital Cardiac Surgery: A Doppler Echo, CT Angiography, and Catheterization Correlative Study. 20th Annual Scientific Sessions, American Society of Echocardiography, Washington DC, June 6 – 10, 2009. *Journal of the American Society of Echocardiography* 2009;22(5):602.

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