

JAGAT NARULA MD, DM, PhD, MACC, FAHA, FRCP (Edin)

Philip J. and Harriet L. Chair in Cardiovascular Medicine
Professor of Medicine

Associate Dean for Global Health

Director, Cardiovascular Imaging Program

Zena and Michael A. Wiener Cardiovascular Institute and

Marie-Josée and Henry R. Kravis Center for Cardiovascular Health

Mount Sinai School of Medicine

Editor-in-Chief, Journal of the American College of Cardiology: CV Imaging

Editor-in-Chief, Global Heart

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Synopsis:

1. EDUCATION:

Medical School, SMS Medical College, Jaipur, India, 1978
Residency, Internal Medicine, SMS Medical College, Jaipur, India, 1983
Fellowship, Cardiology, All India Institute of Medical Sciences, Delhi, India, 1986
PhD, CV Immunology, All India Institute of Medical Sciences, Delhi, India; Completed 1989, defended 1994
Fellowship, Cardiology, Massachusetts General Hospital, Harvard Medical School, Boston, 1991
Fellowship, Radiology, Massachusetts General Hospital, Boston, 1994
Fellowship, Heart Failure & Transplantation, Massachusetts General, Harvard Medical School, Boston, 1996

2. APPOINTMENTS:

Assistant Professor of Cardiology, and Director, Center for Advanced Research in Rheumatic Fever & Rheumatic Heart Disease, All India Institute of Medical Sciences, Delhi, until 1991
Clinical Assistant in Medicine (Cardiology), Massachusetts General Hospital; Instructor in Medicine, Harvard Medical School, Boston, until 1997
Thomas J. Vischer Professor of Medicine; Chief, Division of Cardiology; Vice-Chairman, Department of Internal Medicine for Research; Director, Heart Failure & Transplantation Center, until 2003.
Professor of Medicine; Chief, Division of Cardiology; Associate Dean for Research, University of California-Irvine (UCI); Director, Cardiovascular Center- UCI Douglas Hospital; Director, Memorial Heart & Vascular Institute-Long Beach Memorial Hospital; Medical Director, Edwards Lifesciences Center for Advanced CV Technology-UCI Henry Samueli School of Engineering, Irvine, until 2011.

3. RESEARCH CONTRIBUTIONS:

Prevention of acute coronary events: From bench to bedside to population. Pathology, pathogenesis and molecular mechanisms of the plaque rupture and plaque erosion underlying acute coronary events, developing novel imaging techniques for identification of high-risk plaques by CT angiographic investigation, intracoronary imaging and molecular imaging, developing algorithms for risk stratification of asymptomatic subjects susceptible to coronary events, and initiation of numerous population-based prevention programs for acute coronary events including HAPPY [Heart Attack Prevention Program for You].

Description of the phenomenon of heart muscle cell suicide (or apoptosis) in progression of heart failure, development of imaging techniques targeting myocardial apoptosis, autolysis, necrosis and interstitial fibrosis during evolution of adverse cardiac remodeling.

Funded, in part, by the grants from National Institutes of Health, considered to be a true translationist and who has distinction of publishing in the best basic science and the best clinical journals including Science, Nature (Medicine), PNAS, New England Journal of Medicine and Lancet.

Contributed more than 375 original research publications and 400 presentations, with editor of more than 25 books or journal supplements, and awarded as the best young investigator on several occasions for his research contributions. More than 20 of his fellows, working in his research laboratory, have also been awarded young investigator awards.

4. EDITORIAL RESPONSIBILITIES:

Editor-in-chief of the Journal of American College of Cardiology- Cardiovascular Imaging (official publication of the American College of Cardiology), 2007-2017.

Founder editor of the Heart Failure Clinics of North America, 2005-2007.

Designated as the editor-in-chief of one of the most famous textbooks of cardiology, Friedberg's Diseases of the Heart going in its 4th edition.

Designated Editor-in-Chief of 'Global Heart' (official publication of World Heart Federation), 2011-2016.

Education

1994 Ph D	Doctor of Philosophy (<i>CV Immunology</i>)
1985 D M	Sub-Specialty Board (<i>Cardiology</i>)
1983 M D	Primary Specialty Board (<i>Internal Medicine</i>)
1978 MB BS	Medical School

Clinical and Research Fellowships:

Jul 1995-Dec 1996	Fellow in Heart Failure/Transplantation Massachusetts General Hospital and Harvard Medical School, Boston
Jan 1995-Jun 1995	Fellow in Nuclear Cardiology Massachusetts General Hospital, Boston Harvard Medical School, Boston
Jan 1992-Dec 1994	Research Fellow in Radiology Massachusetts General Hospital and Harvard Medical School, Boston, MA
Jul 1989-Dec 1991	Fellow in Cardiology Massachusetts General Hospital and Harvard Medical School, Boston, MA
Jul 1983-Jun 1986	Fellow in Cardiology All India Institute of Medical Sciences New Delhi, India

Internships and Residency:

Jan 1982-Mar 1983	Senior Resident in Internal Medicine SMS Medical College, Jaipur, India
Oct 1979-Dec 1981	Resident in Internal Medicine SMS Medical College, Jaipur, India
Oct 1978-Sep 1979	Internship in Medicine SMS Medical College, Jaipur, India

Medical School:

Oct 1973-Sep 1978	SMS Medical College, Jaipur, India
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Board Certifications:

1999	American Board of Nuclear Medicine: Eligible
1994	<i>Ph D: Doctor of Philosophy (Cardiovascular Immunology)</i> All India Institute of Medical Sciences, Delhi
1993	<i>FLEX Components I & II</i> Federal Licensing Examination
1993	<i>USMLE Steps 1 & 2</i> United States Medical Licensure Examination
1985	Subspecialty Board Certification <i>DM: Doctor of Medicine (Cardiology);</i> All India Institute of Medical Sciences, India
1983	Primary Board Certification <i>MD: Doctor of (Internal) Medicine</i> University of Rajasthan, India
1978	<i>MB BS: Bachelor of Medicine & Surgery</i> Medical School, University of Rajasthan, India

Medical Licensure:

Jul 2011	The University of the State of New York Education Dept Registration Certificate License #262639-1 Certificate #7558405
Jan 2004	Medical Board of California Jan 2004-May 2006: 2113 Cert #F5139 May 2006: License #C 52343
Dec 1997	Commonwealth of Pennsylvania Board of Registration in Medicine; MD-063673-L (Active)
Oct 1996	Commonwealth of Massachusetts (Board of Registration in Medicine; 151563 Inactive since 7/16/1999)
Aug 1996	DEA BN5366275
Jun 1980	India, Rajasthan Medical Council Certificate of Registration; 7958

Academic Appointments

Apr 2011 -	Philip J. & Harriet L. Chair in Cardiology Professor of Medicine Mount Sinai School of Medicine, New York
Jul 2009 -	Professor of Medicine, Step VI University of California, Irvine School of Medicine, Irvine
Jul 2006 -	Professor of Medicine, Step V University of California, Irvine School of Medicine, Irvine
Nov 2003 -	Professor of Medicine, Step III University of California, Irvine School of Medicine, Irvine
Jul 2001–Oct 2003	Thomas J. Vischer Professor of Medicine Drexel University College of Medicine Philadelphia
Apr 2000–Jun 2001	Professor of Medicine Drexel University College of Medicine, Philadelphia
Jul 1997–Mar 2000	Associate Professor of Medicine Drexel University College of Medicine, Philadelphia
Jan 1997–Jun 1998	Instructor in Medicine, Cardiac Unit Massachusetts General Hospital and Harvard Medical School, Boston
Jul 1995-Jun 1997	Clinical Professor of Cardiovascular Sciences, Northeastern University, Boston
Aug 1992-Jun 1995	Clinical Assistant Professor of Cardiovascular Sciences Northeastern University, Boston
May 1988-Jun 1991	Assistant Professor, Dept of Cardiology All India Institute of Medical Sciences Delhi, India

Hospital Appointments

May 2011-	Staff Physician, Cardiovascular Institute Mount Sinai Medical Center, New York, NY
Jan 2004-Mar 2011	Staff Physician, Division of Cardiology Department of Medicine UCI Medical Center, Orange, CA
Jul 1997–Oct 2003	Staff Physician, Division of Cardiology Department of Medicine Hahnemann University Hospital, Philadelphia, PA
Jan 1997–Jun 1998	Clinical Assistant in Medicine, Cardiac Unit, Massachusetts General Hospital and Harvard Medical School, Boston, MA
May 1988-Jun 1991	Staff Physician, Dept of Cardiology All India Institute of Medical Sciences Delhi, India

Administrative Appointments

Apr 2011-	Associate Dean for Global Health Mount Sinai School of Medicine, New York
Apr 2011-	Director, Cardiovascular Imaging Program Zena and Michael A. Wiener Cardiovascular Institute & Marie-Josée and Henry R. Kravis Center for Cardiovascular Health Mount Sinai Medical Center, New York
Jul 2009-Mar 2011	Director, Memorial Heart & Vascular Institute Long Beach Memorial Hospital Long Beach, CA
Jul 2009-Mar 2011	Medical Director, Edwards Lifesciences Center for Advanced CV Technology University of California, Irvine, CA
Jan 2008-Mar 2011	Director, Cardiovascular Center UC Irvine's Douglas Hospital Orange, CA
Nov 2003-Mar 2011	Chief, Division of Cardiology University of California, Irvine Medical Center, Orange, CA
Nov 2003–Mar 2007	Associate Dean for Research University of California, Irvine School of Medicine, Irvine, CA

Mar 2002–Oct 2003	Chief, Division of Cardiology Hahnemann University Hospital Philadelphia, PA
Jan 2001–Mar 2002	Vice-Chairman for Research, Department of Medicine, Hahnemann University Hospital Philadelphia, PA
May 2000–Jul 2001	Associate Chief, Division of Cardiology Hahnemann University Hospital Philadelphia, PA
Feb 2000–Jun 2001	Co-Director, Cardiology Fellowship Program Drexel University College of Medicine Philadelphia, PA
Feb 2000–Jun 2003	Director, Heart Failure/Transplant Center Center, Hahnemann University Hospital Philadelphia, PA
Jan 1999–Jun 2003	Director, Heart Failure/Transplant Research Hahnemann University Hospital, Philadelphia
Jul 1997–Oct 2003	Director, Center for Molecular Cardiology Drexel University College of Medicine Philadelphia, PA
Aug 1992-Jun 1997	Associate Director, Center of CV Targeting Northeastern University, Boston, MA
Jul 1986-Jun 1988	Research Director, Center for Advanced Research on Rheumatic Fever & Heart Disease Dept of Cardiology, All India Institute of Medical Sciences, Delhi, India
Jul 1987-Aug 1988	Honorary Program Officer, Non-Communicable Cardiovascular Diseases, Indian Council of Medical Research, Delhi, India

Professional Activity

Awards and Honors:

2013	Master of the American College of Cardiology
2012	American College of Cardiology The Gifted Educator Award
2012	American College of Cardiology Innovators of CV Medicine (Imaging)
2012	PK Dandiya Oration SMS Medical College, Jaipur
2012	PK Sengupta Memorial Oration Indian Medical Association, Nagpur
2011	American Heart Association, Orange County Distinguished Scientist Award: Heart Hero
2010	James Seward & Jamil Tajik Award for Excellence in Cardiovascular Imaging Mayo Clinic
2010	Sujoy Roy Oration Award and Distinguished Visiting Professor, All India Institute of Medical Sciences, Delhi, India
2010	Most Distinguished Physician Award American Association of Physicians of India Annual National Convention, Washington, DC
2009	Advisory Board; Institute of Medicine (National Academies of Sciences, USA) Global Prevention of Cardiovascular Diseases
2009	Rameshwar Sharma Gold Medal of National Academies of Medical Sciences, Medical University of Rajasthan, Jaipur
2009	R.D. Lele Distinguished Physician Award, Association of Nuclear Medicine Physicians of India, Bangalore
2009	Vikram Sarabhai Oration Award, Society of Nuclear Medicine, Jaipur
2009	Einthoven Medal for contribution to Cardio- vascular Imaging Leiden, the Netherlands
2008	Honor of the City of Maastricht, the Netherlands by the Mayor of the City, for

	contributions to Heart Health of the City
2008	Shekh Abdullah Memorial Oration 2008 SMS Medical College, Jaipur, India
2008	JN Berry Memorial Oration 2008 Post-Graduate Institute of Medical Education and Research, Chandigarh, India
2008	Distinguished Physician Award, Rajasthan Medical Alumni Association, Pittsburgh
2007-2012	Editor-in-Chief, Journal of the American College of Cardiology- CV Imaging
2007	Physician of the Year Award, Indian Medical Association of California, Anaheim
2007	Premlata Seth Memorial Oration Award Cardiological Society of India, New Delhi
2007-2009	President, American Heart Association Orange County, California
2007	Faculty of the Year Award, Division of Cardiology University of California, Irvine
2007	ARISE Award for Academic Excellence University of California, Irvine
2007	UC Irvine <i>Living Our Values</i> Honor Roll
2006	Fellow of the Royal College of Physicians Edinburgh [Honoris Causa]
2005-2008	American Heart Association National Leadership Council
2004-2007	Editor-in-Chief Heart Failure Clinics of North America
Jun 2004–Sep 2005	<i>Hein JJ Wellens Distinguished Visiting Professor, The University of Maastricht Maastricht, Netherlands</i>
2003-2007	Associate Editor Journal of American College of Cardiology
2004	Mentorship Award, Division of Cardiology University of California, Irvine
2003	American Heart Association Recognition Award

- 2003 Strathmore Who's Who in America
- 2002 *Million Dollar Club* of High research dollars grantees of the Drexel University
- 2002 *Mentorship Award*, Drexel University College of Medicine from Fellows of Cardiology and Residents of Internal Medicine
- 2001 *Distinguished Physician Award*
American Association of Cardiologists of Indian Origin
- 2001 *Best Teacher Award*, Drexel University College of Medicine; Division of Cardiology
- 2000 *Best of Scientific Sessions 2000*
American Heart Association
- 2000 *Merck Young Investigator Award*
- 1997 *Academic Achievement Award* from the Indo-American Society of Nuclear Medicine
- 1997 *Best Young Investigator Award*,
CV Council, Society of Nuclear Medicine
- 1997 *Best Young Investigator Award*, ICNC-II
American Society of Nuclear Cardiology
- 1996 *Best Basic Science Paper Award*, JNC
American Society of Nuclear Cardiology
- 1996 *Nuclear Cardiology 1996*
Best Young Investigator Award
- 1996 *Young Investigator Award*, Runners-up
CV Council, Society of Nuclear Medicine
- 1995 *Best Clinical Paper Award*, JNC
American Society of Nuclear Cardiology
- 1995 Phi-Beta-Delta
Outstanding International Scholar Award
- 1995 *Best Abstract Award*, ICNC-I
American Society of Nuclear Cardiology
- 1994 *Young Investigator Award*, from CV Council
of the Society of Nuclear Medicine

- 1993 *Outstanding Abstract Award*
from the Controlled Release Society
- 1993 *Outstanding Manuscript of the Year*
Controlled Release Society
- 1993 *Young Investigator Award* from the CV
Council of the Society of Nuclear Medicine
- 1986 *Best Young Investigator Award* of the
Cardiological Society of India
- 1986 Gold Medal for the *Best Fellow*
in Cardiology
- 1983 Gold Medal for the *Best Resident*
in Internal Medicine
- 1978 Gold Medal for the *Best Medical Student*
- 1976 Gold Medal for the *highest scores*, Second
(Professional) Medical Board Examination
- 1975 Gold Medal for the *highest score*, First
(Professional) Medical Board Examination
- 1973 Gold Medal for the *Best Premedical Student*
Excellence in all pre-med disciplines
including Physics, Chemistry and Biology

Awards to Fellows/Mentees in Training:

- 2008 *Young Investigator Award Finalist*
(Partho Sengupta)
Association of the American Cardiologists
of Indian Origin
- 2008 *Judkin's Young Investigator Award Finalist*
(Satoru Ohshima, Research Fellow)
AHA Committee on Radiology
American Heart Association, Orlando
- 2007 *Young Investigator Award Finalist*
(Shinichiro Fujimoto, Research Fellow)
AHA Committee on Radiology
American Heart Association, Orlando
- 2007 *Young Investigator Award Finalist*
(Shoturo Oshima, Research Fellow)
AHA Committee on Atherosclerosis, Thrombosis,
and Vascular Biology
American Heart Association, Orlando
- 2006 *Young Investigator Award Finalist*
(Satoshi Isobe, Research Fellow)
CV Council Society of Nuclear Medicine
San Diego
- 2006 *Young Investigator Travel Grant Award*
(Johan Verjans, Research Fellow)
Society of Molecular Imaging, Hawaii
- 2005 *Young Investigator Award Finalist*
(Johan Verjans, Research Fellow)
American Heart Association WSA, Irvine
- 2004 *Young Investigator Award, First Runner-up*
(Johan Verjans, Research Fellow)
American Society of Echocardiography
San Diego
- 2004 *Young Investigator Award, Second Runner-up*
(Mashayoshi Sarai, Research Fellow)
Cardiovascular Council
Society of Nuclear Medicine, Philadelphia
- 2003 *Fujisawa Young Investigator Award*
(Dagmar Hartung, Research Fellow)
American Society of Nuclear Cardiology
Indianapolis
- 2003 *Young Investigator Award, Runner-Up*
(Dagmar Hartung, Research Fellow)

- CV Council, Society of Nuclear Medicine
New Orleans
- 2003 *Best of the Best Abstracts Award*
(Dagmar Hartung, Research Fellow),
International Congress of Nuclear Cardiology
Florence, Italy
- 2003 *Best Abstract Award: North American Region*
(Dagmar Hartung, Research Fellow)
International Congress of Nuclear
Cardiology, Florence, Italy
- 2003 *Amersham Young Investigator Research Award*
(Gurusher Panjarath, Research Fellow)
American Society of Nuclear Cardiology '03-04
Co-mentor with Diwaker Jain, MD
- 2002 *Amersham Young Investigator Clinical Research
Award* (Sabu George, Cardiology Fellow)
American Society of Nuclear Cardiology '02-03
- 2002 *Young Investigator Award Finalist*
(Paulina Gorodin, Internal Medicine Resident)
Society of Nuclear Medicine, Los Angeles
- 2002 *Young Investigator Award Finalist*
(Carina Mari, Research Fellow, Stanford)
Society of Nuclear Medicine, Los Angeles
Co-mentor with H. William Strauss, MD
- 2001 *Best Young Investigator Award Winner*
(Ahsan Chowdhury, Cardiology Fellow)
American Society of Nuclear Cardiology
Boston
- 2001 *Best Young Investigator Award, Winner*
(Kimberly Urban, Cardiology Fellow)
International Congress of Nuclear Cardiology
Vienna, Austria
- 2001 *Young Investigator Award Finalist*
(José DaSilva, Research Fellow)
International Congress of Nuclear Cardiology
Vienna, Austria
Co-mentor with Ban-An Khaw, PhD
- 1999 *Young Investigator Award, Winner*
(Nezam Haider, Research Fellow)
PA Chapter American College of Cardiology
Philadelphia, PA
- 1999 *Young Investigator Award, Winner*

- (Farid Al-Khouri, Cardiology Fellow)
PA Chapter American College of Cardiology,
Philadelphia
Co-mentor with Ami E. Iskandrian, MD
- 1999 *Young Investigator Award*
(Carina Mari, Nuclear Medicine Fellow)
CV Council, Society of Nuclear Medicine
Los Angeles
Co-mentor with Ignasi Carrio, MD, Barcelona
- 1999 *Young Investigator Award, Second Runner-Up*
(Albert Flotats, Nuclear Medicine Fellow)
CV Council, Society of Nuclear Medicine
Los Angeles
Co-mentor with Ignasi Carrio, MD, Barcelona
- 1999 *Best Young Investigator Award, Winner*
(Ali Zarrinkhameh, Cardiology Fellow)
Nuclear Cardiology Today: 2000 and Beyond...
Cesena, Italy
- 1999 *Young Investigator Award Finalist*
(Neil Kabous, Cardiology Fellow)
Nuclear Cardiology Today: 2000 and Beyond...
Cesena, Italy
- 1997 *Best Young Investigator Award, Winner*
(Mireia Puig, Cardiology Fellow)
Cardiovascular Targeting Symposium, Boston
Co-mentor with Manel Ballester, MD, Barcelona

Visiting/Distinguished Visiting Professorships:

Oct 2011	University of Texas, Houston, TX James T. Willerson Distinguished Professor
Jun 2011	University of California, Irvine, CA Graduation Speaker Ralph J. Cicerone Distinguished Professor
May 2011	Columbia University, College of Physicians and Surgeons, New York, NY
Feb 2011	Cleveland Clinic Foundation, Cleveland
Sep 2010	Mayo Clinic, Rochester, MN
Sep 2010	All India Institute of Medical Sciences Delhi, India
May 2010	Massachusetts General Hospital, Boston, MA
Jun 2009	University of California, Davis, CA
Jun 2009	University of British Columbia, Vancouver, BC
Mar 2009	Northwestern University, Chicago, IL
Jan 2009	Leiden University Medical Center, Leiden, The Netherlands
Dec 2008	SMS Medical College, Jaipur, India
Nov 2008	Post-Graduate Institute of Education & Research Chandigarh, India
Feb 2007	Yale University School of Medicine New Haven, CT
Jan 2007	Columbia University College of Physicians and Surgeons, New York, NY
Dec 2006	<i>Molecular Imaging Program at Stanford (MIPS)</i> Stanford University School of Medicine Stanford
Apr 2006	Massachusetts General Hospital, Boston
Apr 2006	University of Maryland, Baltimore
Jun 2004–Sep 2005	University of Maastricht, the Netherlands <i>Hein JJ Wellens Distinguished Professor</i>

Nov 2005	Fujita University of Health Sciences Toyoaki, Japan
Apr 2004	The University of Toronto, Toronto, Canada Heart & Stroke Foundation Professor
Apr 2004	University of Toronto, Toronto, Canada <i>Merck-Frost Distinguished Visiting Professor</i>
Jul 2004	<i>Distinguished Braun Professor</i> University of California, Los Angeles
Oct 2004	University of California, San Diego
Oct 2004	Mayo Clinic Foundation, Rochester
Sep 2003	University of Arkansas Medical Centre Little Rock, AR
Sep 2003	University of Alabama Medical Centre, Birmingham, AL
Jan 2003	<i>Joint Program in Nuclear Medicine</i> Harvard Medical School, Boston
Jan 2003	Rush-Presbyterian-St. Luke's Medical Centre Chicago, IL
Dec 2002	Academic University of Maastricht The Netherlands
Oct 2002	University of Minnesota School of Medicine Minneapolis VA Hospital, Minneapolis
Dec 2001	Triviglio Hospital, University of Bergamo Treviglio, Italy
Dec 2001	Ospedale M. Bufalini, Cesena, Italy <i>Bufalini Distinguished Visiting Professor</i>
Nov 2001	University of Michigan, Ann Arbor, MI
Jul 2001	University of Texas Medical Branch Galvestone, TX
Sep 2000	University of Arkansas Medical Centre, Little Rock, AR
Oct 1999	Weill Medical College, Cornell University New York <i>Howard Gilman Foundation Distinguished Visiting Professor</i>

Apr 1999

University of Virginia School of Medicine,
Charlottesville, VA

Feb 1997–Apr 1997

Autonomous University of Barcelona and
Sant Pau Hospital, Barcelona, Spain

Offices Held in Professional Societies and Scholarly Organizations:

2009-	Imaging Council, <i>Ex-Officio</i> American College of Cardiology
2007-	Publications Committee, <i>Ex-Officio</i> American College of Cardiology
2007 - 2009	President, American Heart Association Orange County
2007 - 2009	Research Committee American Heart Association Western States Affiliate
2005-2008	National Leadership Council, Clinical Cardiology, American Heart Association
2006	Coordinator, International Mentoring Program in Clinical Cardiology American Heart Association
2006-2007	President-Elect, American Heart Association Orange County
2006-2009	Re-elected to Clinical Cardiology Council, Scientific Program Committee; National Center American Heart Association
2005-	Vice-President (Research) Heart Valve Society of America
2005-2006	Vice-President, American Heart Association Orange County
2005	AHA/ACC/ESC Joint Scientific Statement Writing Group: The Role of Endomyocardial Biopsy in the Management of CVD
2005	Judges Panel Jermaih Stamler Young Investigator Awards Northwestern University, Chicago
2005	American Heart Association, Western States Chairman, Young Investigator Awards University of California, Irvine
2004	American Heart Association, Writing Group Guidelines for Primary Prevention of Heart Failure

- 2004 American Heart Association
Designated Reviewer
Guidelines for Management of Heart Failure
- 2004 Executive Board of Directors
American Heart Association, Orange County
- 2003-2004 Chairman, Global Epidemiology of Valve Disease
International Society of Heart Valve Disease
- 2003-2006 Clinical Cardiology Council
Scientific Sessions Program Committee
National Center American Heart Association
- 2003-2005 Council on Nutrition and Metabolism
American Heart Association Obesity Committee
- 2001-2003 Council for Clinical Cardiology
American Heart Association; AHA-ACC Committee
for Heart Failure and Transplantation
- 2002 *Co-Chair, Nuclear Cardiology Molecular
Imaging Recommendation Panel*
5th American Society of Nuclear Cardiology
Working Group, Wintergreen, VA
- 2001-2003 *Chairman, National Awards & Grants Committee*
American Society of Nuclear Cardiology
- 2001 *Member, Publications Committee*
American Society of Nuclear Cardiology
- 2001 Molecular Nuclear Cardiology Task Force
American Society of Nuclear Cardiology
- 2001 Heart Failure Council
International Society of Heart and Lung
Transplantation
- 2000 *Rapporteur, World Health Organization
Guidelines Development Group: Diagnosis of
Rheumatic Fever*
- 2000 *Special Writing Group*
*Committee of Rheumatic Fever, Council of CVD
in Young, American Heart Association*
Proceedings of the Jones Criteria Workshop
- 2000 *Co-Chair, Nuclear Cardiology Recommendation Panel*
Molecular Probes in Future of Nuclear Imaging
4th American Society of Nuclear Cardiology
Working Group, Bar Harbor, ME

1998-2000	President Indo-US Society of Nuclear Medicine
1997-1998	President-Elect Indo-US Society of Nuclear Medicine
1994-1997	Board of Trustees Indo-US Society of Nuclear Medicine

Editorial Responsibilities:

Jul 2007-Jun 2017	Editor-in-Chief Journal of the American College of Cardiology- <i>Cardiovascular Imaging</i> Publisher: Elsevier Editorial Office: San Diego, CA
Jul 2011-Jun 2016	Editor-in-Chief <i>Global Heart</i> Official Journal of World Heart Federation Publisher: Elsevier Editorial Office: London, UK
Nov 2003 –	Associate Editor <i>Journal of American College of Cardiology</i> Publisher: Elsevier Editorial Office: San Diego, CA
Jul 2007–Jan 2011	Consulting Editor <i>Current Cardiovascular Imaging Reports</i> Publisher: Springer Editorial Office: Philadelphia, PA
Jan 2004–Sep 2007	Founding Editor <i>Heart Failure Clinics of North America</i> Publisher: Elsevier Editorial Office: Philadelphia, PA Co-Editor: James B. Young
	<i>2005 Volume 1 Issues:</i> Apr 2005 Neurohumoral Modulation in Heart Failure <i>Guest Ed: Gregg Fonarow</i>
	Jul 2005 Pathogenesis of Heart Failure <i>Guest Ed: Roger Hajjar</i>
	Oct 2005 Myocarditis <i>Guest Ed: G. William Dec</i>
	<i>2006 Volume 2 Issues:</i> Apr 2006 Diabetic Stage A Heart Failure <i>Guest Ed: David HS Bell</i>
	Jul 2006 Imaging Heart Failure <i>Guest Eds: Vasken Dilsizian, Mario Garcia</i>
	Oct 2006

Natreuretic Peptides
Guest Eds: Roger Mills

2007 Volume 3 Issues:
Jan 2007
Valve Disease and Heart Failure
Guest Ed: Blasé Carabello

Apr 2007
Advances in Heart Transplantation
Guest Ed: Mandeep Mehra

Jul 2007 & Sep 2007
Surgical Options in Heart Failure
Volume-I & II
Guest Eds: Stephen Wstaby, Mario Deng

1998–2003
Section Editor: Molecular Biology & Imaging
Journal of Nuclear Cardiology:
Publisher: Mosby
Editorial Office: New Haven, CT

2006
Guest Associate Editor: Cardiology

Jul 2003–Oct 2003
Guest Associate Editor
Journal of American College of Cardiology

Editorial Boards of Journals

2011	European Journal of Cardiovascular Imaging
2006	Cardiology
2003 -	Journal of Nuclear Medicine
2003 -	European Journal of Nuclear Medicine
2002 -	American Journal of Cardiology
2002 -	Journal of Cardiovascular Pharmacology
2001 - 2005	Indian Heart Journal
1998 -	Journal of Nuclear Cardiology
1998 - 2004	Apoptosis

Reviewer for Journals

Nature Medicine
New England Journal of Medicine
Proceedings of National Academy of Sciences
Annals of Internal Medicine
Circulation
Circulation Research
Journal of American College of Cardiology
American Journal of Cardiology
American Heart Journal
American Journal of Physiology

American Journal of Pathology
Journal of Molecular & Cellular Cardiology
Journal of Nuclear Medicine
Journal of Nuclear Cardiology
Journal of Cardiovascular Pharmacology
Journal of Biomedical Optics
Laboratory Investigation
Apoptosis
European Heart Journal
European Journal of Nuclear Medicine
FASEB (Federation of American Society of
Experimental Biology)
International Journal of Cardiology

Grant Support, Contracts and Research Awards

10/01/04–09/30/09	NIH/NHLBI R01 HL 078681 (Jagat Narula) Direct Cost \$1000,000 <i>Targeting MMPs to image atherosclerosis</i>
12/01/01–11/30/07	NIH/NHLBI RO1 HL 68657 (Jagat Narula) Direct Cost \$750,000 <i>Imaging Apoptosis to Detect Unstable Atherosclerotic Plaque</i>
12/01/04–11/30/07	NIH 5 R01 HL075038 (Co-I: Jagat Narula;) University of Pittsburgh, PI: Dennis McNamara Direct Subcontract Cost: \$15,500 (\$887.5/patient×10) <i>Genetic Modulation of LV Recovery in Recent Onset Cardiomyopathy</i>
11/01/05–10/31/08	TOSHIBA Unrestricted educational Grant University of California Irvine (PI: Jagat Narula) Direct Cost \$1,500,000 (For 3 Years) Detection of Vulnerable Plaques (e-APP) # 879 (Jagat Narula) <i>Heart Attack Prevention Program for You (HAPPY): Cohort Study for Possible Prevention of Acute Coronary Events</i> (e-APP) # 259 (Jagat Narula) <i>The Effect of a low carbohydrate, FAt BURNing diet on Life-Style For Overweight Under Statins (FABULOUS) Protection:</i>
3/1/09–2/28/10	Contractual Grant (PI: Jagat Narula) Clear Vascular, Inc. Direct Cost \$80,000 <i>Molecular Imaging of Atherosclerosis</i>
1/23/09–7/31/09	Contractual Grant (PI: Jagat Narula) Malinckrodt, Inc. Direct Cost \$44,500 <i>Imaging Apoptosis with Intracellular Molecular Probes</i>
9/1/07–8/31/08	Award No. CVI-42867(Jagat Narula) Clear Vascular, Inc. Direct Cost \$334,500 <i>Sn-117-Labeled-Annexin A5 Apoptosis Imaging</i>
9/1/07–8/31/09	Award 42865 HS#2007-5763 (Jagat Narula) Direct Cost \$34,500 <i>SPARC Multicenter Study.</i> <i>A study of Myocardial Perfusion and Coronary Anatomy: Imaging Roles in CAD</i>

- 10/1/05–8/31/08 Award GEHC 156-00-222 (PI: Jagat Narula)
General Electric Healthcare America
Direct Cost \$ 168,631 (\$7,900/patient×15)
MBG 312 An Open-label, multicentre, Phase 3 study evaluating the prognostic usefulness of I-123 mIBG scintigraphy for identifying subjects with heart failure who will experience an adverse cardiac event
- MBG 311 A Pilot phase 3, International, Multicenter, Open-label, Dual-Injection, Myocardial Imaging and Safety of MIBG in Patients with suspected Ischemic Disease"*
- 9/1/05-8/31/08 SCIOS-37663 (PI: Jagat Narula)
Scios Nova Inc
ADHERE Registry
- 08/17/04–10/31/05 RSA-030162 (PI: Jagat Narula)
Fujisawa HealthCare
Direct Cost 227,042 (\$19,010/patient×10)
A Phase 2, Dose Escalation Evaluation of Pharmacokinetic and Hemodynamic Effects of Carperitide in Subjects with Heart Failure
- 9/1/05–12/31/05 TP-37257 (PI: Jagat Narula)
Titan Healthcare
Direct Cost \$44,829.00 (\$8,336/patient×5)
A Multi-Center, Randomized, Double-Blind, Placebo-Controlled Study of DITPA in patients with NYHA Class III and IV Congestive Heart Failure who have low Serum T3 Levels
- 12/1/00–12/21/01 (PI: Jagat Narula)
Theseus Biotechnology
Direct Cost \$5,450/patient×15 patients
Phase II Noninvasive Detection of Myocardial Apoptosis in Cardiac Allograft Rejection with Tc-99m-Labeled Annexin-V
- 3/1/01–12/31/02 (PI: Jagat Narula)
Theseus Biotechnology
Direct Cost \$5,400/patient×10 patients
Noninvasive Detection of Myocardial Apoptosis in Acute Myocardial Infarction with Tc-99m-Labeled Annexin-V
- 3/1/00–2/28/03 (PI: Jagat Narula)
Direct Cost \$2,44,000
DuPont Pharmaceuticals
Development of Targeting Strategies for the Detection of Unstable Atherosclerotic Plaques

2/1/02–6/30/03	DFI4510 (PI: Jagat Narula) Sanofi-Synthelabo Direct Cost \$7,132 per patient×20 Patients <i>A Randomized, Double Blind, Multicenter, Placebo Controlled Study of the SR121463B as Aquaretic Vasopressin V2 Receptor Inhibitor Trial in Congestive Heart Failure</i>
10/1/02–	Novartis Pharmaceuticals (PI: Jagat Narula) Direct Cost \$83,000 <i>Comparison of C0 and C2 Cyclosporin Levels for Prediction Of Calcneurin Inhibitor-Induced Renal Toxicity and Cardiac Allograft Rejection</i>
7/1/02–6/30/03	Drexel University, Synergy Grant Award (PI: Jagat Narula from Medicine) (Co-PI: Ryszard M. Lec From Bioengineering) Direct Cost \$20,000 <i>Exploiting palpography for the detection of atherosclerotic plaques vulnerable to rupture</i>
7/1/03–6/30/04	Drexel University, Synergy Grant Award (PI: Jagat Narula from Medicine) (Co-PI: Som Tyagi From Biophysics) Direct Cost \$20,000 <i>Nanoimaging for noninvasive detection of vulnerable atherosclerotic plaques</i>
7/1/01–6/30/03	Drexel University, State Tobacco Funds (Co-PI: Mani Vannan & Jagat Narula) Direct Cost \$47,000 <i>Ultrasound-based targeting of unstable atherosclerotic plaques</i>
7/1/97–6/30/00	Allegheny Health, Education and Research Foundation (PI: Jagat Narula) Direct Annual Cost \$162,500, Unrestricted <i>Center for Molecular Cardiology</i>
9/1/98–6/30/99	Commonwealth of Pennsylvania State Grant (Co-PI: Jagat Narula; PI: Susan Brozena) Direct Annual Cost \$125,000 <i>Stress Signaling and Apoptosis Interruptus in Heart Failure</i>
5/1/98–4/30/99	Novartis Industrial Grant (PI: Jagat Narula) Direct Cost \$10,000 <i>Potential Reversal of Apoptosis after LVAD Placement</i>

- 11/1/99–4/30/00 Parke-Davis 1025-012 (PI: Jagat Narula)
Direct Cost \$11,750 per patient
A Randomized, Double Blind, Multicenter, Placebo Controlled Study of the IV YM087 (CI1025) on Cardiopulmonary Hemodynamics in Patients with Class III-IV Heart Failure
- 12/1/99–11/30/01 (PI: Jagat Narula)
Theseus Biotechnology
Direct Cost \$5,450/patient×31 patients
Phase I Noninvasive Detection of Myocardial Apoptosis in Cardiac Allograft Rejection with Tc-99m-Labeled Annexin-V
- 12/1/00–6/30/01 Award #156-00-222 (PI: Jagat Narula)
Otsuka America Pharmaceutical,
Direct Cost \$13,000 per patient
VICTOR: Multicenter Randomized, Double Blind, Placebo Controlled Parallel Group, Efficacy and Safety Study to Evaluate the Effects of Tolvaptan (OPC-41061) when Compared to Frusemide in Patients with Heart Failure
- 12/1/00–6/30/01 Award #156-00-222 (PI: Jagat Narula)
Otsuka America Pharmaceutical
Direct Cost \$3,500 per patient
VITAL: Multicenter Randomized, Double Blind, Placebo Controlled Parallel Group, Efficacy and Safety Study to Evaluate the Effects of Tolvaptan (OPC-41061) on the Chronic Outcomes in Patients with Congestive Heart Failure
- 12/1/00–12/30/01 Award #IE3-99-02-035 (PI: Jagat Narula)
Searle Pharmaceutical
Direct Cost \$4,100 per patient
EPHESUS: Multicenter Randomized, Double Blind, Placebo Controlled Parallel Group, Efficacy and Safety Study to Evaluate Effects of Eplerenone in Patients with Heart Failure After Acute Myocardial Infarction
- 7/1/00–6/30/02 Drexel University, Synergy Grant Award
(PI: Jagat Narula from Medicine and
Co-PI: Steven Wrenn from Bioengineering)
Fluorescence Imaging of Unstable Atherosclerotic Plaques

Invited National and International Presentations

National Presentations:

1. Apoptosis in atherosclerosis. Lofland Conference of Atherosclerosis. Washington DC; June 1998; *[Conference Faculty]*.
2. Society of Thoracic Surgeons. *[Plenary Session]* New Treatment Modalities in Heart Failure: Recent insights in the pathogenesis of heart failure indicate the superiority of surgical management. Fort Lauderdale; January 2000.
3. Spring Meeting of American Heart Association: Council on Cardiovascular Disease in Young. Improving the diagnostic accuracy of Jones criteria in rheumatic fever. April 2000; *[Special Writing Group of the Committee on RF, Endocarditis and Kawasaki Disease]*.
4. 4th Scientific Meeting of the Heart Failure Society of America. *[Debate- For the Motion]* Does apoptosis contributes to heart failure? Boca Raton, FL, October 2000.
5. 4th Scientific Meeting of the Heart Failure Society of America. Targeting molecular alterations for noninvasive detection of apoptosis. Boca Raton, FL, September 2000 *[Conference Faculty]*.
6. 50th Scientific Sessions of the American College of Cardiology. *[Mini-Course]* Advances in nuclear cardiology: Noninvasive diagnosis of atherosclerotic lesions. American College of Cardiology, Orlando, FL, March 2001.
7. 50th Scientific Sessions of the American College of Cardiology. *[Plenary Session]* Why does the heart fail? Role of Apoptosis. Orlando, FL, March 2001.
8. 5th Scientific Meeting of the Heart Failure Society of America. *[Debate]* Apoptosis contributes to heart failure [for], (against, Jutta Schaper, MD), Washington, DC, October 2001.
9. 2001 Scientific Sessions of the American Heart Association. *[Mini-Course]* Novel Molecular Tracers in Nuclear Cardiology: Apoptosis and Necrosis, Anaheim, CA, November 2001.
10. 6th Scientific Sessions of the American Society of Nuclear Cardiology, *[Plenary Session]* Advances in radiopharmaceuticals: Imaging cell death. Boston, MA, September 2001.
11. 51st Scientific Sessions of the American College of Cardiology. *[Session 0079]* Emerging Imaging Modalities: Imaging Apoptosis. Atlanta, GA, March 2002.
12. 51st Scientific Sessions of the American College of Cardiology. *[Chairman, Brown Bag Lunch Panel Session 322]* Rheumatic Fever Forgotten but Not Gone... Atlanta, GA, March 2002.
13. 49th Annual Meeting of Society of Nuclear Medicine. *[Plenary Session]* Molecular Imaging in Cardiovascular Diseases, Los Angeles, CA, June 2002.

14. 7th Scientific Sessions of the American Society of Nuclear Cardiology, *[Plenary Session]* Advances in radiotracers: Imaging apoptosis and necrosis. Baltimore, MD, September 2002.
15. 2002 Scientific Sessions of the American Heart Association *[Session 1061-CVS.51; What constitutes optimum nuclear imaging in 2002?]*. Imaging Apoptosis and Necrosis, Chicago, IL, November 2002.
16. 52nd Scientific Sessions of the American College of Cardiology. *[Session 77; Special considerations in heart failure]* Imaging transplant rejection. Chicago, IL, March 2003.
17. 52nd Scientific Sessions of the American College of Cardiology. *[Session 651; Nuclear Cardiology: Beyond perfusion and function]* Imaging Atherosclerosis. Chicago, IL, March 2003.
18. 52nd Scientific Sessions of the American College of Cardiology. *[Brown Bag Lunch Panel Session 309]* How to Set Up and Manage a Heart Failure Program, March 2003.
19. 50th Annual Meeting of Society of Nuclear Medicine. *[Plenary Session]* Imaging Atherosclerotic Lesions, New Orleans, LA, June 2003.
20. American Society of Nuclear Cardiology, *[Workshop]* Molecular radiotracers. Baltimore, MD, July 2003.
21. 8th Scientific Sessions of the American Society of Nuclear Cardiology, *[Plenary Session]* Novel Targeted Imaging of Apoptosis Process. Indianapolis, IN, September 2003.
22. 7th Scientific Meeting of the Heart Failure Society of America. Molecular imaging of cardiac remodeling. Las Vegas, NV, October 2003 *[Conference Faculty]*.
23. 53rd Scientific Sessions of the American College of Cardiology. *[CV Seminar]* Imaging of heart failure, New Orleans, LA; March 2004.
24. 15th Scientific Sessions of the American Society of Echocardiography, *[Plenary Session]* Molecular basis of imaging heart failure. San Diego, CA, Jun 2004.
25. 15th Scientific Sessions of the American Society of Echocardiography, *[Plenary Session]* Imaging coronary arteries. San Diego, CA, Jun 2004.
26. 51st Annual Meeting of Society of Nuclear Medicine. *[Plenary Session]* Imaging of vulnerable plaques (Japanese Chapter), Philadelphia, PA, June 2004.
27. 8th Scientific Meeting of the Heart Failure Society of America. Molecular imaging in heart failure. Toronto, September 2004 *[Conference Faculty]*.
28. 2004 Scientific Sessions of the American Heart Association. *[Geriatrics Society Symposium]* Imaging heart failure in elderly, Orlando, FL, November 2004.
29. 2004 Scientific Sessions of the American Heart Association. *[Geriatrics Society Symposium]* Imaging pathophysiology of LV dysfunction, Orlando, FL, November 2004.
30. 52nd Annual Meeting of Society of Nuclear Medicine. *[Plenary Session]* Imaging vascular biology, Toronto, Canada, June 2005.

31. 54th Scientific Sessions of the American College of Cardiology. Essentials of plaque biology for clinicians. Orlando, FL; March 2005.
32. 54th Scientific Sessions of the American College of Cardiology. Myocardial structural remodeling. Orlando, FL; March 2005.
33. 4th Annual Meeting of the Heart Valve Society of America. Imaging myocardial biology: the future of evaluation of valvular disease, New York, NY; Apr 2005.
34. 16th Scientific Sessions of the American Society of Echocardiography, [Plenary Session] Unwrapping the heart: the single muscle band concept. Boston, MA, Jun 2005.
35. 25th Scientific Sessions of Bangladesh Medical Association of North America [BMANA], [Inaugural Speaker] Predicting and preventing heart attacks. Washington, DC, Jul 2005.
36. State of Cardiac Imaging in 2005. Current Practice in CV Imaging, Las Vegas CME Course. Sep 2005.
37. Predicting Coronary Risk in the Asymptomatic Patient: Why do we need it and how do we do it? Current Practice in CV Imaging, Las Vegas CME Course. Sep 2005.
38. Targeted Molecular Imaging in our advances in technology. *Current Practice in CV Imaging*, Las Vegas CME Course. Sep 2005.
39. Present Status of Heart Failure Treatment. *Cutting Edge Cardiology for the Future*, Long Beach Memorial Hospital, Long Beach, CA, Oct. 2005.
40. Vulnerable Plaque: Molecular Imaging. Transcatheter Cardiovascular Therapeutics 2005, Washington, DC; Oct. 2005.
41. Imaging Low Abundance Targets. What are the Expectations of a clinician from an Imager? *Frontiers in Imaging Science*, Department of Energy. Cambridge, MA; Nov. 2005.
42. Nuclear Imaging of Heart Failure. American Heart Association Scientific Sessions, Dallas, TX, Nov. 2005.
43. Echocardiography Evaluation of Diastolic Function. American Heart Association Scientific Sessions, Dallas, TX, Nov. 2005.
44. Nuclear Cardiology Isotope Imaging and PET: Advances in Tracking Therapy and Assessing Pathophysiology. American Heart Association Scientific Sessions, Dallas, TX; Nov. 2005.
45. Obesity and Heart Failure. American Heart Association, Obesity, Lifestyle, & Cardiovascular Disease Symposium, Washington, DC; Jan. 2006.
46. Predicting Heart Failure. GE Cardiovascular Innovation Symposium, Crotonville, CT; Feb. 2006.
47. MIBG Imaging in Heart Failure. High Country Nuclear Medicine Vail, CO; Feb. 2006.

48. Can We Predict Heart Attacks 18th Annual Cardiology Symposium, Loma Linda, CA; Mar. 2006.
49. Prevention of heart attacks. Diagnostic & Therapeutic Skills in Internal Medicine, USC-UCI 50th Annual CME Symposium; Hawaii, Hi; Mar. 2006.
50. Understanding atherosclerosis for better management of coronary artery disease. Diagnostic & Therapeutic Skills in Internal Medicine, USC-UCI 50th Annual CME Symposium; Hawaii, Hi; Mar. 2006.
51. Advance in pathogenesis of heart failure. Diagnostic & Therapeutic Skills in Internal Medicine, USC-UCI 50th Annual CME Symposium; Hawaii, Hi; Mar. 2006.
52. Management of heart failure. Diagnostic & Therapeutic Skills in Internal Medicine, USC-UCI 50th Annual CME Symposium; Hawaii, Hi; Mar. 2006.
53. Primary prevention of heart failure. Diagnostic & Therapeutic Skills in Internal Medicine, USC-UCI 50th Annual CME Symposium; Hawaii, Hi; Mar. 2006.
54. Targets for Cardiovascular Imaging in Heart Failure. BMS Cardiovascular Imaging Advisory, Boston, MA; May 2006.
55. 55th Scientific Sessions of the American College of Cardiology. Using nuclear isotopes. Atlanta, GA; March 2006 [Session 54; Detection of myocardial pathology].
56. 55th Scientific Sessions of the American College of Cardiology. Apoptosis imaging. Atlanta, GA; March 2006 [Session 618; State of the art: Nuclear tracers and imaging agents].
57. 55th Scientific Sessions of the American College of Cardiology. Predicting LV remodeling. Atlanta, GA; March 2006 [Session 54; Detection of myocardial pathology].
58. 55th Scientific Sessions of the American College of Cardiology. Mechanical Activation of the Heart: Essentials for the Imager. Atlanta, GA; March 2006 [Session 67; Integrated Imaging of Left Ventricular Mechanics in Heart Failure].
59. Optical medical therapy of heart failure in 2006. Cardiac Imaging for Practitioner, University of California, Irvine, Apr 2006 [Conference Faculty].
60. 17th Scientific Sessions of the American Society of Echocardiography, Basis of contraction and relaxation. Baltimore, MD, Jun 2006 [Plenary Session].
61. 17th Scientific Sessions of the American Society of Echocardiography, Imaging diastolic dysfunction. Baltimore, MD, Jun 2006 [Plenary Session].
62. 17th Scientific Sessions of the American Society of Echocardiography, Molecular imaging of heart failure. Baltimore, MD, Jun 2006.
63. 1st Society of Cardiovascular CT Conference, Washington, DC, July 2006 [Conference Faculty].
64. Vulnerable Plaque: focus on 64-slice CT. GE Symposium; Transcatheter Cardiovascular Therapeutics 2006, Washington, DC; Oct. 2006.

65. Imaging atherosclerosis. Transcatheter Cardiovascular Therapeutics 2006, Washington, DC; Oct. 2006.
66. The burden of heart failure and 2005 Guidelines. Echo Phoenix, Mayo Clinic Foundation, Scottsdale, AZ; Oct. 2006.
67. Apoptosis in Acute ischemic syndromes. Annual American Heart Association Scientific Sessions, Chicago, IL, Nov. 2006 [*Conference Faculty; Joint Symposium of American Heart Association & Japanese Circulation Society*].
68. Plaque characteristics for imagers. *iMAX2006: Maximizing imaging strategies for superior management of cardiovascular disease*. Annual American Heart Association Scientific Sessions, Chicago, IL, Saturday, November 11, 2006.
69. Vulnerable plaque. *Cardiovascular Seminar CVS 74: Advances in Nuclear Imaging*; Annual American Heart Association Scientific Sessions, Chicago, IL, Sunday, November 12, 2006, 5:15 pm-6:45 pm S504.
70. Prevention of Heart Failure. *Special Session SS 02. Clinical Practice 2006: Practical Management of Heart Failure*. Annual American Heart Association Scientific Sessions, Chicago, IL, Monday, November 13, 2006, 9:00 am-10:15 am S100a.
71. Molecular Imaging. *Cardiovascular Seminar CVS 88b. Translational Science 2006: Imaging the Vulnerable Plaque*. Annual American Heart Association Scientific Sessions, Chicago, IL, Tuesday, November 14, 2006, 5:15 pm-6:45 pm S406b.
72. Future of cardiovascular imaging. Annual ACC Nuclear Cardiology and CT Course at Cedars Sinai. Los Angeles, January 2007.
73. Atherosclerotic plaque instability. 1st Edition of Cautionary Tales in Cardiology in Orange County. January 2007.
74. CRT: Is Imaging of Vulnerable Plaque Clinically Feasible? Washington; DC, March 2007
75. 4th GE Cardiovascular Innovation Symposium: Imaging of Atherosclerotic Plaque New York, NY, March 2007
76. 56th Scientific Sessions of the American College of Cardiology. Advances in Imaging of Heart Failure. New Orleans, LA; March 2007 [Session 54; Advances in Nuclear Imaging].
77. Lessons from epidemiology of heart failure. Mayo Clinic Update in Cardiovascular Diseases. Sedona, AZ; August 2007.
78. Vulnerable patients: who, why, when? Mayo Clinic Update in Cardiovascular Diseases. Sedona, AZ; August 2007.
79. Classification of Heart Failure. ASE 5th Annual CV Ultrasound: From Pictures to Information, Phoenix, AZ; Sep 2007.
80. Tracking contrast in LV cavity. ASE 5th Annual CV Ultrasound: From Pictures to Information, Phoenix, AZ; Sep 2007.

81. Function follows form. Mayo Clinic Integrated Imaging Course. Rancho Mirage. Oct 2007.
82. Pathogenesis of heart failure. Mayo Clinic Integrated Imaging Course. Rancho Mirage. Oct 2007.
83. Imaging fibrosis in cardiac remodeling. ASE sponsored iMAX program. Annual American Heart Association Scientific Sessions, Orlando, FL Nov 2007.
84. Plaque Characterization. Annual American Heart Association Scientific Sessions, Orlando, FL Nov 2007.
85. CT Coronary Plaque Imaging. Clinical Practice 2007: Clinical Implementation of CT Coronary Angiography, Annual American Heart Association Scientific Sessions, Orlando, FL Nov 2007.
86. Statins and plaque stabilization. Sponsored by Tanabe Pharmaceuticals, Japan for Japanese Delegates at the Annual American Heart Association Scientific Sessions, Orlando, FL 2007.
87. Cardiovascular Molecular Imaging (M143): Myocardial infarction. Radiological Society of North America: 93rd Scientific Assembly and Annual Meeting, Chicago, IL Nov 2007.
88. Cardiovascular Imaging in the Era of Molecular Medicine (RC217): Myocardium. Radiological Society of North America: 93rd Scientific Assembly and Annual Meeting, Chicago, IL Nov 2007.
89. Future of CT and Nuclear Imaging. ACC Course in CT and Nuclear Imaging, Cedars-Sinai Medical Center, Los Angeles, CA Jan 2008.
90. Multislice CT Imaging: Where are we and where do we go from here? 18th Mayo Clinic Echo Hawaii Course. Kona, HI Jan 2008.
91. Myocardial Mechanics: Vortex, the New Frontier! 18th Mayo Clinic Echo Hawaii Course. Kona, HI Jan 2008.
92. How likely am I to get a heart attack: an approach to a worried well. Cogent Lessons in Cardiology, UC Irvine Medical Center. Feb 2008.
93. Molecular imaging of apoptotic cell death in vulnerable plaques. 14th Vascular Biology Working Group with Annual Meeting of the American College of Cardiology. Chicago, April 2008.
94. What is new in imaging? [Keynote and Inaugural Address]. Annual Scientific Sessions of the Heart Valve Society of America, Las Vegas, May 2008.
95. Detection of high-risk plaques. ASNC Plenary Lecture. American Society of Nuclear Cardiology, Boston, Sep 2008.
96. Molecular imaging for plaque detection. CV Seminar; Annual American Heart Association Scientific Sessions, New Orleans, LA Nov 2008.

97. Reversal of atherosclerosis: role of CT imaging. Plenary Session; Annual American Heart Association Scientific Sessions, New Orleans, LA Nov 2008.
98. Reversibility of heart failure and novel molecular mechanisms: apoptosis. Plenary Session; Annual American Heart Association Scientific Sessions, New Orleans, LA Nov 2008.

International Presentations:

99. Pathogenesis of rheumatic fever. All India Institute of Medical Sciences, New Delhi, India; January 1991; *[Symposium Faculty]*.
100. Reversing cardiomyocyte death. All India Institute of Medical Sciences, New Delhi, India, December 1995; *[Symposium Faculty]*.
101. Newer insights in the pathogenesis of Dilated Cardiomyopathy. All India Institute of Medical Sciences, New Delhi, India, December 1995; *[Symposium Faculty]*.
102. Recent advances in diagnosis and salvage of acute cardiomyocyte necrosis. Sri Satya Sai Institute of Higher Medical Sciences, Bangalore, India, December 1995; *[Symposium Faculty]*.
103. Imaging myocardial necrosis outside the ischemic heart disease. Nuclear Cardiology Today, Cesena, Italy, May 1996; *[Symposium Faculty]*.
104. Linking molecular biology and pathophysiology of heart failure. Nuclear Cardiology Today, Cesena, Italy, May 1996; *[Symposium Faculty]*.
105. Imaging myocarditis with antimyosin antibodies. European Society of Nuclear Medicine and European College of Cardiology, Nuclear Cardiology Reunion, Madrid, Spain, February 1997; *[Symposium Faculty]*.
106. Apoptosis and the heart. Sant Pau Hospital and Autonomous University of Barcelona, Barcelona, Spain, February 1997, *[Cardiology Grand Rounds]*.
107. Antimyosin liposome for salvage of dying heart muscle cells. Hospital Vall d'Hebron and Autonomous University of Barcelona, Barcelona, Spain, March 1997; *[Cardiology Grand Rounds]*.
108. Unique components of atherosclerotic plaque for noninvasive diagnostic targeting. Facultat de Medicina, Universitat Rovira i Virgili, Reus, Spain, March 1997; *[Cardiology Grand Rounds]*.
109. Recent developments in antibody imaging. Facultat de Medicina, Hospital Santa Creu i Sant Pau, Barcelona, Spain, April 1997 *[Visiting Professorship]*.
110. Can we reverse the death of heart muscle cells? University of Manitoba, Manitoba Institute of Cell Biology. Winnipeg, Canada, December 1997 *[Cell Biology Lecture Series]*.
111. After all, why does the heart fail? Recent Advances in Cardiomyopathy and Heart Transplantation. Barcelona; September 1998 *[Inaugural Address]*.

112. Definition of atherosclerotic plaque morphology by radionuclide imaging. Amrita Institute of Medical Sciences, Cochin, India, December 1998; [*Symposium Faculty*].
113. Newer imaging agents for atheroma imaging. 4th International Congress of Nuclear Cardiology, Athens, Greece. April 1999; [*Congress Faculty*].
114. Strategic targeting of atherosclerotic lesions. European Association of Nuclear Medicine, Barcelona, Spain. October 1999; [*Plenary Session*].
115. Prevention of rheumatic heart disease: are we making progress. International Conference on Heart Health in Developing Countries: World Health Organization, New Delhi, India. October 1999; [*Conference Faculty*].
116. Future directions in cardiovascular research. Lleida University Hospital, Lleida, Spain. April 2000; [*Invited Lecture*].
117. Exploiting molecular biology for the radionuclide assessment of clinical diseases. Nuclear Cardiology Today, May 2000; [*Congress Faculty*].
118. Nuclear cardiology approaches to vascular imaging. Nuclear Cardiology Today, May 2000; [*Congress Faculty*].
119. Clinical applications of nuclear cardiology: an overview. Thematic Program in Health Care: International Atomic Energy Commission, Delhi, India. December 2000 [*Regional Training Course*].
120. Myocardial viability assessment - radionuclide methods. Thematic Program in Health Care: International Atomic Energy Commission, Delhi, India. December 2000 [*Regional Training Course*].
121. Nuclear Cardiology: future perspectives. Thematic Program in Health Care: International Atomic Energy Commission, Delhi, India. December 2000 [*Regional Training Course*].
122. Pathogenesis of rheumatic carditis. South Pacific Congress of Cardiology, Papeete, Tahiti, May 2001 [*Conference Faculty*].
123. Jones Criteria. South Pacific Congress of Cardiology, Papeete, Tahiti, May 2001 [*Conference Faculty*].
124. Feasibility of Nuclear Imaging of Vascular Pathology. International Congress of Nuclear Cardiology, Vienna, Austria, May 2001 [*Conference Faculty*].
125. The apoptotic cascade. University of Lleida, Lleida, Spain, Aug 2001 [*Neurobiology Grand Rounds*].
126. Strategies for noninvasive diagnosis of cardiovascular pathology. University of Lleida, Lleida, Spain, Aug 2001 [*Cardiology Grand Rounds*].
127. Noninvasive detection of apoptosis. International Society of Heart Research, Winnipeg, Manitoba, Canada, July 2001 [*Conference Faculty*].
128. Nuclear Cardiology in 21st Century. Japanese Society of Nuclear Medicine, Kanazawa, Japan, October 2001 [*Conference Faculty*].

129. Apoptosis in cardiovascular disease: its amenability to noninvasive imaging. Japanese Society of Nuclear Cardiology, Kanazawa, Japan, October 2001 [*Conference Faculty*].
130. Nuclear Cardiology in 21st Century. Japanese Society of Nuclear Medicine, Kanazawa, Japan, October 2001 [*Conference Faculty*].
131. Future of nuclear cardiology. Italian Society of Nuclear Cardiology, Rome, Italy, November 2001 [*Special Lecture*].
132. Advances in pathogenesis and management of heart failure. M. Bufalini Hospital, Cesena, Italy, December 2001 [*Bufalini Distinguished Professorship Award*].
133. Apoptosis in cardiovascular diseases. Bergamo University Hospital, Treviglio, Italy, December 2001 [*Cardiology Grand Rounds*].
134. Noninvasive strategies for the diagnosis of atherosclerosis. Royal College of Physicians, Bangkok, Thailand, April 2002 [*Symposium Faculty*].
135. Nuclear imaging of atherosclerosis: facts and fantasies. International Symposium on Cardiovascular Nuclear Medicine, International Atomic Energy Commission, Beijing, China, May 2002 [*Symposium Faculty*].
136. Worthy imaging targets in cardiovascular diseases. Amersham Health, London, UK, July 2002 [*Invited Address*].
137. Assessment of myocardial viability. National Heart Hospital, Cairo, Egypt, August 2002 [*Cardiology Grand Rounds*].
138. Future of atheroma imaging. National Heart Hospital, Cairo, Egypt, August 2002 [*Nuclear Cardiology Grand Rounds*].
139. Assessment of a dying myocyte. National Heart Hospital, Cairo, Egypt, August 2002 [*Medicine Grand Rounds*].
140. Image vascular wall, not the lumen! University of Maastricht Hospital, Maastricht, Netherlands, Dec 2002 [*Cardiology Visiting Professor Grand Rounds*].
141. Will atheroma imaging become clinically feasible? 6th International Congress of Nuclear Cardiology, Florence, Italy. April 2003; [*Congress Faculty*].
142. Imaging neurohumoral receptors in myocardium. Amersham Health, Oslo, Norway, February 2003 [*Invited Address*].
143. Developing imaging strategies for novel interventions aimed at myocardial salvage. Amersham Health, Oslo, Norway, February 2003..
144. Targeted imaging of angiotensin receptor type-I. Amersham Health, London, UK, July 2003 [*Invited Lecture*].
145. Angiotensin receptor imaging and rate of remodeling. Amersham Health, London, UK, Nov 2003.

146. Apoptosis in heart failure: process and proposal. British Heart Failure Society, Oxford, UK, Nov 2003 [*Speaking Faculty*]
147. Future of nuclear cardiology: molecular imaging. European Association of Nuclear Medicine, Helsinki, Finland. September 2004 [*Opening Lecture*].
148. Targeting atherosclerosis: apoptosis imaging. European Association of Nuclear Medicine, Helsinki, Finland. September 2004 [*CV Seminar*].
149. Algorithms for detection of atherosclerosis in asymptomatic. Shandong Society of Cardiology (Shandong Medical Association) and First Qilu International Conference on Cardiovascular Diseases, Jinan, China. September 2004 [*Inaugural Address*].
150. Management of heart failure. Shandong Society of Cardiology (Shandong Medical Association) and First Qilu International Conference on Cardiovascular Diseases, Jinan, China. September 2004 [*Symposium Faculty*].
151. In vivo detection of vulnerable plaque: noninvasive imaging. Association of European Cardiovascular Pathology, Padua, Italy. Oct 2004 [*Plenary Session*].
152. Pathogenesis and detection of atherosclerotic plaques. Joint Program of the American College of Cardiology and Portuguese Society of Cardiology, Sintra, Lisbon, Portugal. Feb 2005 [*Symposium Faculty*].
153. Pharmacogenomics and heart failure. Joint Program of the American College of Cardiology and Portuguese Society of Cardiology, Sintra, Lisbon, Portugal. Feb 2005 [*Symposium Faculty*].
154. New clinical trials for treatment of heart failure. Joint Program of the American College of Cardiology and Portuguese Society of Cardiology, Sintra, Lisbon, Portugal. Feb 2005 [*Symposium Faculty*].
155. Heart failure: Prevention is the key to success. Joint Program of the American College of Cardiology and Portuguese Society of Cardiology, Sintra, Lisbon, Portugal. Feb 2005 [*Symposium Faculty*].
156. Targeted nuclear imaging of atherosclerotic plaques. 3rd Vulnerable Plaque Meeting, Capri, Italy. Jun 2005 [*Symposium Faculty*].
157. Molecular concepts in modern cardiology: Who Gets Heart Attacks?. 8th Hungarian Academy of Sciences, Budapest, Hungary. Aug 2005 [*Symposium Faculty*].
158. Unstable Atherosclerotic Plaque: From Images to Info and Impact: Will it become clinically feasible to detect vulnerable plaques? European Society of Cardiology, Stockholm, Sweden. Sep 2005 [*Conference Faculty*].
159. Unstable plaques: Converting imaging to information. European Society of Cardiology, Stockholm, Sweden. Sep 2005 [*Seimens Symposium Faculty*].
160. Single myocardial band, myocardial mechanics and clinical implications. University of Maastricht Academic Medical Center, Maastricht, Netherlands. Sep 2005 [*Hein J.J. Wellens Clinical Lecture*].

161. Moleculare basis of detecting CV disease. University of Masstricht Academic Medical Center, Maastricht, Netherlands. Sep 2005 [*Hein J.J. Wellens Oration*].
162. Imaging apoptosis for imaging atherosclerosis. Society of Molecular Imaging, Cologne, Germany. Sep 2005 [*Symposium Faculty*].
163. Can we clinically image death in vascular tree? Life And Death of the Vascular Tree, ISPEN Foundation Symposium, College de France, Paris Sep 2005 [*Symposium Faculty*].
164. Entity called - Vulnerable Plaque. Japanese Circulation Society, Yokohama, Japan, Mar 2005 [*Conference Faculty*].
165. Histopathology of Atherosclerosis for Clinicians. Japanese Circulation Society, Yokohama, Japan, Mar 2005 [*Conference Faculty*].
166. Post-myocardial infarction heart failure: espleronone or ARB? III Joint Meeting, American College of Cardiology and Spanish Cardiology Society, Madrid, Spain, May 2006 [*Conference Faculty*].
167. Imaging of Atherosclerosis: From Macro to Molecular Level. III Joint Meeting, American College of Cardiology and Spanish Cardiology Society, Madrid, Spain, May 2006 [*Conference Faculty*].
168. 64-Slice MSCT: The Future? 4th International Vulnerable Plaque Meeting, Capri, Italy, June 2006 [*Conference Faculty*].
169. What are Vulnerable Plaques? 70th Japanese Circulation Society, Nagoya, Japan, Mar 2006 [*Fireside Session*].
170. Vulnerable Plaques. 70th Japanese Circulation Society, Nagoya, Japan, Mar 2006 [*Keynote Speaker*].
171. Histopathologic characteristics of Vulnerable Plaques. 70th Japanese Circulation Society, Nagoya, Japan, Mar 2006 [*Meet the Experts Session*].
172. It's time that we start looking at contraction and relaxation differently? 25th Echo Kobe, Japanese Society of Echocardiography, Kobe Japan, Jul 2006. [*Conference Faculty*].
173. What do we look for in vulnerable plaques: challenges to echocardiographer? 25th Echo Kobe, Japanese Society of Echocardiography, Kobe Japan, Jul 2006. [*Conference Faculty*].
174. PET-based imaging of plaque vulnerability. European Society of Cardiology Annual Meeting, Barcelona, Spain Sep 2006 [*Conference Faculty*].
175. Vulnerable plaque or vulnerable patient? Contemporary Cardiology 2006: Mayo Clinic Foundation and Vienna Medical University, Vienna, Austria. Sep 2006 [*Conference Faculty*].
176. Molecular imaging: the future is here. Contemporary Cardiology 2006: Mayo Clinic Foundation and Vienna Medical University, Vienna, Austria. Sep 2006 [*Featured Lecture*].
177. Molecular imaging of heart failure. Severance Cardiovascular Imaging Symposium 2006, Seoul, Korea, Sep 2006 [*Featured Lecture*].

178. Imaging vulnerable plaque. Severance Cardiovascular Imaging Symposium 2006, Seoul, Korea, Sep 2006 [*Featured Lecture*]
179. Going beyond luminal stenosis... 2nd Asian Interventional Cardiovascular Therapeutics, New Delhi, India, Oct. 2006 [*Conference Faculty*].
180. Imaging genetic and molecular markers in cardiomyopathy. Revolution in CV Imaging: Structure, Function and Biology, Joint symposium of University Vita-Salute San Raffaele, Milan and American College of Cardiology, Milan, Italy, Oct 2006 [*Conference Faculty*].
181. Detection of vulnerable plaque. Revolution in CV Imaging: Structure, Function and Biology, Joint symposium of University Vita-Salute San Raffaele, Milan and American College of Cardiology, Milan, Italy, Oct 2006 [*Conference Faculty*].
182. Molecular imaging: state of the art. Sights and Sounds of Cardiology; Mayo Clinic Cardiology CME, Aboard Diamond Princess Cruise, Nov. 2006 [*Conference Faculty*].
183. Nuclear imaging: not only diagnostic but prognostic as well. Sights and Sounds of Cardiology; Mayo Clinic Cardiology CME, Aboard Diamond Princess Cruise, Nov. 2006 [*Debate*].
184. ABC of treating heart failure. Sights and Sounds of Cardiology; Mayo Clinic Cardiology CME, Aboard Diamond Princess Cruise, Nov. 2006 [*Conference Faculty*].
185. The “popcorn” plaques. University of Maastricht AZM, Netherlands. December 2006 [*Cardiology Grand Rounds*].
186. Imparting brighter façade to death: nuclear of imaging cell death. Euregion Pact Meeting, Cardiovascular Research Institute of Maastricht, University of Maastricht AZM, Netherlands. December 2006 [*Symposium Faculty*].
187. Imaging of cardiovascular diseases: integrating various imaging modalities. University of Maastricht AZM, Netherlands; December 2006 [*Concluding lecture for the Hein J.J. Wellens Distinguished Visiting Professorship*].
188. Imaging Collagen Deposition in Myocardium; April 2007; 2nd Meeting of Biomarkers in Heart Failure, Cannes, France [*Conference Faculty*].
189. Imaging Apoptosis in Heart; 8th International Congress of Nuclear Cardiology, Prague, Czech Republic; May 2007 [*Conference Faculty*].
190. Rendering brighter face to death: imaging apoptosis in cardiovascular disease. 16th Japanese society of Interventional Cardiology, Fukushima, Japan; June 2007 [*Hiroyuki Yaoita Memorial Lecture*].
191. Statins and regression of atherosclerosis. Novartis Symposium at the 16th Japanese society of Interventional Cardiology, Koriyama, Japan; June 2007 [*Symposium Faculty*].
192. If I could, what would I look for in an unstable plaque? 55th Annual Scientific Sessions of the Japanese College of Cardiology, Chiba, Japan, Sep 2007 [*Keynote Speaker*].

193. Is plaque regression a reality: lessons from CT angiography. Novartis-Tanabe symposium at the Japanese College of Cardiology, Chiba, Japan, Sep 2007 [*Symposium Speaker*].
194. Molecular imaging of heart and vessels. Canadian Cardiology Society, Qubec City, Oct 2007 [*Keynote Speaker*].
195. Imaging vulnerable plaques. Robert J. Burns Memorial Lecture, Canadian Nuclear Cardiology Society, Qubec City, Oct 2007.
196. CT Angiography: looking beyond coronary stenosis. Cardiology Society of India: Delhi Chapter, October 2007 [*Seth Memorial Oration*].
197. Debate: Will CT Angiography replace invasive coronary angiography [protagonist]: Cardiology Society of India. Dec 2007.
198. Molecular and cellular basis of atherosclerosis. Mexican Cardiology Society, Mexico City. Mar 2008.
199. Noninvasive imaging of unstable plaque. Mexican Cardiology Society, Mexico City. Mar 2008.
200. CT imaging of unstable plaque. 5th Vulnerable Plaque Meeting, Athens, Greece. May 2008.
201. Clinical detection of plaque instability. European Society of Cardiology, Munich, Germany. Sep 2008.
202. How likely are you to get a heart attack? Berry Memorial Oration, Post-Graduate Institute of Medical Education and Research, Chandigarh, India. Nov 2008.
203. Who is likely to get a heart attack? Cardiological Society of India, Chennai, India. Dec 2008.
204. Predicting a heart attack? Abdullah Memorial Lecture, SMS Medical College, Jaipur, India. Dec 2008.
205. Noninvasive imaging of unstable plaque. Einthoven Lecture 2009, Leiden, the Netherlands. Jan 2009.
206. Molecular imaging: a new tool for the assessment of cardiovascular system. Vascular Disease: A multidisciplinary approach, Barcelona, Spain. Feb 2009.

Medicine/Cardiology Grand Rounds:

207. Endomyocardial biopsies in rheumatic fever. Michael Reese Hospital, Chicago, IL; October 1991; [*Cardiology Grand Rounds*].
208. Evolution of Jones' criteria and the diagnosis of rheumatic carditis. Cabrini Medical Center, New York, NY; March 1993; [*Medicine Grand Rounds*].

209. Antimyosin imaging for noninvasive detection of myocarditis. Ospedale M. Bufalini, University of Bologna, Cesena, Italy; April 1993; [*Cardiology Grand Rounds*].
210. Scintigraphic recognition of myocarditis masquerading as myocardial infarction. New England Deaconess Hospital, Boston, MA; April 1993; [*Cardiology Grand Rounds*].
211. Diagnosis of rheumatic fever. Beth Israel Hospital, Harvard Medical School, Boston, MA; September 1993; [*Cardiovascular Grand Rounds*].
212. Rheumatic carditis and Jones' criteria. Postgraduate Institute of Medical Education and Research, Chandigarh, India; February 1994; [*Medical Grand Rounds*].
213. Rheumatic fever. Henry Ford Hospital, Detroit, MI; January 1995; [*Cardiology Grand Rounds*].
214. Immunoimaging of atherosclerotic lesions. Brown University Rhode Island Hospital, Providence, RI; March 1995; [*Cardiology Grand Rounds*].
215. Antimyosin imaging: from bench to bedside. Armed Forces Institute of Pathology, Washington, DC; June 1995; [*Guest Speaker*].
216. Antimyosin imaging for cardiovascular disorders. Children Hospital, Harvard Medical School, Boston, MA; September 1995; [*Cardiology Grand Rounds*].
217. Use of an antibody targeted against cardiac myosin for diagnosis and salvage of myocardial damage. George Washington University Hospital Center, October 1996. [*Cardiology Grand Rounds*].
218. Contemporary techniques for the diagnosis of an old disease that licked the joints but stung the heart. George Washington University Hospital Center, October 1996. [*Medicine Grand Rounds*].
219. Imaging synthetic smooth muscle cell phenotype for the noninvasive localization of atherosclerotic lesions. Yale University School of Medicine, November 1996. [*Cardiology Grand Rounds*].
220. Antimyosin antibodies for the diagnosis and salvage of dying myocytes. Boston University Medical Center, Boston, April 1997 [*Cardiology Grand Rounds*].
221. Myocyte death, myocyte sealing and atherosclerotic imaging with monoclonal antibodies. Allegheny University of Health Sciences, Philadelphia, April 1997. [*Cardiology Grand Rounds*].
222. Using antibodies for specific *in vivo* targeting. Allegheny University Hospital, Philadelphia, July 1997 [*Pulmonary Medicine Grand Rounds*].
223. Relevance of radionuclide assessment of diffuse myocardial necrosis in various cardiovascular disorders. Medical College of Pennsylvania, Philadelphia, September 1997 [*Nuclear Cardiology Seminar Series*].
224. Imaging atherosclerotic lesions. Hahnemann Hospital, Philadelphia, September 1997 [*Nuclear Cardiology Seminar Series*].

225. Reversal of myocyte death by selective sarcolemmal repair. Northeastern University, Boston, September 1997; *[Symposium Faculty]*.
226. Noninvasive detection of heart muscle cell death. South-East Chapter of Society of Nuclear Medicine, Tampa; September 1997; *[Symposium Faculty]*.
227. Role of antimyosin imaging in management of cardiac allograft recipients. University of Miami School of Medicine, Miami, September 1997 *[Radiology Grand Rounds]*.
228. Clinical utility of scintigraphic testing with antimyosin imaging in various cardiovascular diseases. Eleventh North-East Regional Meeting of Society of Nuclear Medicine, Ryebrook, New York, October 1997; *[Symposium Faculty]*.
229. Mechanisms of myocyte death and strategies for cardiocyte salvage. Medical College of Pennsylvania, Philadelphia, October 1997 *[Physiology Seminar]*.
230. Apoptosis for beginners. Medical College of Pennsylvania, Philadelphia, March 1998 *[Physiology Seminar]*.
231. Novel strategies for radionuclide imaging of atherosclerosis. Allegheny University of the Health Sciences, Philadelphia, April 1998 *[Medicine Grand Rounds]*.
232. Identification of novel antigens on rejecting allografts for noninvasive imaging. Allegheny University of the Health Sciences, Philadelphia, April 1998 *[Nephrology Grand Rounds]*.
233. Apoptosis in heart failure. University of Minnesota Medical Center, Minneapolis, January 1999; *[Medicine Grand Rounds]*.
234. Apoptosis in cardiovascular diseases. National Institutes of Health, February 1999; *[Cardiology Grand Rounds]*.
235. Apoptosis in heart failure: Is it an aborted phenomenon? University of Virginia, Charlottesville, April 1999; *[Cardiology Grand Rounds]*.
236. Is apoptosis relevant in heart failure? University of Alabama at Birmingham, Birmingham, AL. May 1999; *[Cardiology Grand Rounds]*.
237. Imaging unstable plaque. Research and Development, DuPont Pharmaceuticals, North Billerica, MA. September 1999; *[Research Seminar]*.
238. Imaging apoptosis in cardiovascular diseases. Cornell University, New York Presbyterian Hospital, New York, NY, October 1999; *[Cardiology Grand Round]*.
239. Apoptosis: is this the missing link in progression of heart failure. In "Blocking the Angiotensin Link." Clinical Advances Conference, Hahnemann University Hospital, Philadelphia. December 1999; *[Conference Faculty]*.
240. Apoptosis in heart failure. University of California San Francisco. January 2000; *[Cardiology Grand Rounds]*.
241. Recent advances in pathogenesis of atherosclerosis. Hahnemann University Hospital. January 2000; *[Cardiology Grand Rounds]*.

242. Newly recognized mechanisms of plaque rupture. In "Unstable Angina and Coronary Artery Syndromes." Clinical Advances Conference, Hahnemann University Hospital, Philadelphia. February 2000; [Conference Faculty].
243. Apoptosis interruptus in heart failure. Massachusetts General Hospital, Boston. March 2000; [CVRC Research Seminar].
244. Is apoptosis in heart failure reversible? Massachusetts General Hospital, Boston. March 2000; [Heart Failure Research Seminar].
245. Recent advances in treatment of heart failure. Central Pennsylvania Physicians from India, June 2000; [Colloquium Speaker].
246. Is apoptosis important in heart failure? University of Arkansas Medical Center, September 2000 [Medicine Grand Rounds].
247. Apoptosis in cardiovascular diseases and its noninvasive diagnosis. University of Michigan Health Center, Ann Arbor, November 2000 [Cardiology Grand Rounds].
248. Advances in management of Heart Failure. Association of Asian Professionals, Philadelphia, PA, May 2001 [Conference Faculty].
249. Diagnosis of rheumatic fever. Valves in the Heart of the Big Apple, New York, NY, May 2001 [Symposium Faculty].
250. Role of apoptosis in ventricular remodeling. Remodeling and Progression of Heart Failure, Minneapolis, MN, July 2001 [Conference Faculty].
251. Apoptosis in heart failure. University of Texas Medical Branch, Galvestone, TX, July 2001 [Cardiology Grand Rounds and Visiting Professorship].
252. Advances in management of heart failure. Graduate Hospital, Philadelphia, December 2001 [Cardiology Grand Rounds].
253. Apoptosis interruptus. Hahnemann University, Philadelphia, December 2001 [Physiology-Pharmacology Combined Grand Rounds].
254. Novel treatment options in heart failure. St. Joseph's Hospital, Philadelphia, December 2001 [Cardiology Grand Rounds].
255. Apoptosis in cardiovascular rhythm disorders. Hahnemann University Hospital, December 2001 [Symposium Faculty].
256. Management of CHF: Drugs, devices and genes.... New Frontiers in Cardiology 2002; Pennsylvania Hospital, Philadelphia April 2002 [Symposium Faculty].
257. Survival instinct of myocytes in heart failure. Albert Einstein Medical College, April 2002 [Cardiology Grand Rounds].
258. Novel tracers for the diagnosis of valvular disease. 2nd Valves in the Heart of the Big Apple, New York, NY, May 2002 [Symposium Faculty].

259. Advances in the management of heart failure. Independence Hospital, Independence, KS Sept 2002 [*Cardiology Grand Round*].
260. Management of heart failure. Innovis Hospital, Fargo, ND Oct 2002 [*Cardiology Grand Round*].
261. Seeing death in the living. University of Minnesota Medical Center, Minneapolis, MN, October 2002 [*Cardiology Grand Rounds*].
262. Optimum management of heart failure. Wrightsville VA Hospital [*Cardiology Grand Rounds*] November 2002.
263. Beta-blockers in heart failure. Ball State Medical Center, Muncie, IN, November 2002.
264. Medical management and reverse remodeling in heart failure. Notre Dame Medical Center, South Bend, IN, November 2002.
265. Imaging myocardial damage. Harvard Medical School, Boston, MA, Jan 2003 [*Nuclear Medicine Grand Rounds*].
266. Advances in medical management of heart failure. ISJ Mayo Clinic, Mankato, MN, Jan 2003 [*Medicine Grand Rounds*].
267. Exploiting Molecular Biology for Non-Invasive Detection of Atherosclerosis. Rush, Chicago, Jan 2003 [*Nuclear Medicine Grand Rounds*].
268. Apoptosis in Heart Failure: Mechanistic, Diagnostic and Therapeutic Considerations. Rush, Chicago, Jan 2003 [*Cardiology Grand Rounds*].
269. Advances in Medical Management of Heart Failure. Green Bay, WI, Mar 2003 [*Cardiology Grand Rounds*].
270. Is Apoptosis Reversible in Myocardium? University of Maryland, Baltimore, May 2003 [*Cardiology Grand Rounds*].
271. How to Noninvasively Target Myocardial Disorders. University of California, Los Angeles, CA, Jun 2003 [*Cardiology Grand Rounds*].
272. Apoptosis in Atherosclerosis: Vicious or Virtuous? University of Arkansas Medical center, Little Rock, AR, Sep 2003 [*Cardiology Grand Rounds*].
273. Rescuing the failing hearts: can heart muscle cell death be manipulated? University of Arkansas Medical Center, Birmingham, AL, September 2003 [*Cardiology Grand Rounds*].
274. Salvaging the failing myocardium... Colorado Chapter of the American College Cardiology, Denver, CO, Nov 2003 [*Special Lecture*].
275. Beta-blockers and reverse remodeling in heart failure. Lutheran Hospital, Denver, CO Nov 2003 [*Medicine Grand Rounds*].
276. Advances in the management of heart failure. Bellin Hospital, Green Bay, WI, Nov 2003 [*Medicine Grand Rounds*].

277. Polypharmacy of heart failure. Hoag Memorial Hospital, Newport Beach, CA, May 2004 [*Cardiology Grand Rounds*].
278. Interrogation of neuronal dysfunction in heart failure: clinical relevance and prognostication. FDA Advisory Board, Washington, DC, Aug 2004 [*presented on behalf of GE Healthcare for MIBG petition*].
279. Can imaging help prevent cardiac remodeling and evolution of heart failure? GE Healthcare Innovation Center, Niskayuna, NY, Feb 2005. [*Expert Panel on Future of CV Imaging*]
280. Pathogenesis of heart failure. Mayo Clinic La Crosse Medical Center, La Crosse, WI, Apr 2005 [*Cardiology Grand Rounds*].
281. Premonition: occurrence of acute coronary syndrome.... Emanuel St. Joseph's Hospital, Mankato, MN, Apr 2005 [*Cardiology Grand Rounds*].
282. Management of acutely decompensated heart failure. Hannepin County Medical Center, Apr 2005 [*Cardiology Grand Rounds*].
283. Picking plaques that pop.... University of Minnesota (Fairview) Medical Center, Minneapolis, MN, Apr 2005 [*Cardiology Grand Rounds*].
284. Who gets the heart attack? Long Beach VA Hospital, Long Beach, CA, May 2005 [*Veterans Day Celebration, Keynote Speaker*].
285. Perfecting techniques for imaging plaque vulnerability. ERASMUS University. Rotterdam, Jun 2005 [*Cardiology Grand Rounds*].
286. Pathology of vulnerable plaque. Fujita University of Health Sciences, Japan, Nov 2005 [*Cardiology Grand Round*].
287. Plaque morphology and plaque vulnerability. Massachusetts General Hospital, Boston, MA; Apr 2006 [*Cardiology Grand Rounds*].
288. Should we change the way we look at the coronary lesions? University of Maryland Medical Center, Baltimore, MD; Apr 2006 [*Cardiology Grand Rounds*].
289. Prevention of acute coronary syndromes... Mayo Clinic, La Crosse, WI, Apr 2006 [*Cardiology Grand Rounds*].
290. Atherosclerotic plaque disruption. St. Joseph's Regional Medical Center, Milwaukee, WI, Apr 2006 [*Cardiology Grand Rounds*].
291. Pathogenesis of acute coronary syndromes. Medical College of Wisconsin, Aurora Medical Center, Milwaukee, WI, Apr 2006 [*Cardiology Grand Rounds*].
292. Molecular Imaging of the Heart. Cedars-Sinai Medical Center [*Cardiology Grand Rounds*] May 2006
293. Atherosclerosis for clinicians. University of California, Irvine. Jul 2006.
294. Heart failure: management guidelines. University of California, Irvine. Aug 2006.

295. Molecular Imaging of heart and vessels. Stanford University Medical Center [*MIPS Rounds*] Dec 2006.
296. Molecular imaging cardiac remodeling and heart failure. Ottawa University, Ottawa, Canada, Dec. 2006 [*Cardiology Ground Rounds*]
297. Can we image vulnerable plaques? Ottawa University, Ottawa, Canada, Dec. 2006 [*Noon Rounds*]
298. Plaque morphology and prognostication. Columbia University College of Physicians and Surgeons, New York [*Cardiology Ground Rounds*] Jan 2007.
299. Integrated imaging for noninvasive detection of unstable atherosclerotic plaques. Yale University School of Medicine, New Haven [*Cardiology Ground Rounds*] Feb 2007.
300. CT Angiography for atherosclerotic disease. Wisconsin Heart Hospital [*Cardiology Ground Rounds*] Jul 2007.
301. Twist and untwist function of heart: principles and clinical applications. University of California, Irvine [*Cardiology Ground Rounds*] Dec 2007.
302. HAPPY: Heart Attack Prevention Program for You. University of California, Irvine [*Medicine Ground Rounds*] Dec 2007.
303. Predicting the likelihood of a heart attack...Long Beach Memorial Hospital [*Medicine Grand Rounds*] April 2008.
304. Predicting a heart attack...Albert Einstein Medical Center, Philadelphia [*Medicine Grand Rounds*] Mar 2009.
305. Imaging for prevention of heart failure. Albert Einstein Medical Center, Philadelphia, PA [*Cardiology Grand Rounds*] March 2009.
306. Molecular imaging of atherosclerosis. Mount Sinai School of Medicine, New York, NY [*Research Seminar*] March 2009.
307. An approach to an asymptomatic high risk subject. Feinberg Cardiovascular Institute of the Northwestern University, Chicago, IL [*Cardiology Grand Rounds*] March 2009.

Educational Training of Community Physicians or Industry-Sponsored Programs:

308. Primary prevention of heart failure: role of primary physician. Philadelphia, PA, September 2001.
309. Can we prevent evolution of heart failure in hypertensives and diabetics? Philadelphia, PA, October 2001.
310. Why should we be afraid of using β -blockers in CHF? Mountain Top, PA, October 2001.
311. ACE-inhibitors in heart failure. College Park, PA, November 2001.

312. Medical management of heart failure. Philadelphia, PA, December 2001.
313. Role of beta adrenoceptor blockers in heart failure. Williamsport, PA, January 2002.
314. Role of angiotensin receptor blockers in management of heart failure. Philadelphia, PA, February 2002.
315. Management strategies in Heart Failure. Atlanta, GA, March 2002.
316. Which beta blocker should be used in Heart Failure? Atlanta, GA, March 2002.
317. Which ACE-inhibitor, which ARB? Philadelphia, PA, June 2002.
318. Role of primary care physicians in the impending epidemic of heart failure. Philadelphia, PA, September 2002.
319. Hypertension, diabetes, and heart failure. Philadelphia, PA, October 2002.
320. Can we prevent heart failure? Analogy from primary prevention of CAD prevention. Wrightsville, PA, November 2002.
321. Advances in diagnosis and management of heart failure. Fargo, ND, November 2002.
322. ACE-inhibitor versus ARB? Philadelphia, PA, November 2002.
323. Neutralizing angiotensin axis in heart failure. Philadelphia, PA, December, 2002.
324. Medical management options in heart failure. Minneapolis, MN, January 2003.
325. Heart failure: What is the role of family physicians? Green Bay, WI, May 2003.
326. Why and which neurohumoral agent in heart failure? College Park, PA, May 2003.
327. Neurohumoral antagonists in heart failure. Lancaster, PA, May 2003.
328. What do new beta blockers trials tell us? Philadelphia, PA, Aug 2003.
329. Why are beta blockers under-utilized in heart failure? Birmingham, AL, Sep 2003.
330. Advances in the management of heart failure. Annual Scientific Meeting of the Indian Medical Association of California, Irvine, CA, Nov 2003.
331. How to manage heart failure optimally? Wausau, WI, Nov 2003.
332. Heart failure: day-to-day management. El Paso, TX, Jul 2004.
333. Management of post-MI LV dysfunction. Albuquerque, NM, Jul 2004.
334. Differences among beta-blockers, Solana Beach, CA Sep 2004.
335. Advances in management of heart failure, Rochester, MN, Oct 2004.
336. Diabetic-hypertensive, type A, pre-heart failure patient, Minneapolis, MN Oct 2004.

337. Beta blockers for pharmacists, Eau Claire, WI Apr 2005.
338. Beta blockade in heart failure: from contraindication to optimism. Park Nicollette Medical Center, Minneapolis, MN, Apr 2005.
339. Neurohumoral upregulation in heart failure, CV Associates, Mesa, AZ, May 2005.
340. Management of heart failure: a primer for family physicians and nurse practitioners, Pima Heart Institute, Tucson, AZ, Aug 2005.
341. Current Insights in the Treatment of Post-MI LVD and HF. St. Paul, MN, Apr 2006.
342. Optimum management after acute myocardial infarction... Phoenix, AZ, Jul 2006.
343. Stains beyond LDL? Tustin, CA, Aug 2006.
344. Guidelines for the management of heart failure: what is missing? Irvine, CA, November 2006.
345. Selection of beta-blockers in heart failure. Wisconsin, CA, Jul 2007.
346. Coronary disease: are women different than men? State of the Heart Lecture Series, University of California, Irvine, Mar 2008.
347. Who gets the heart attack? State of the Heart Lecture Series, University of California, Irvine, April 2008.
348. Heart disease in women. State of the Heart Lecture Series, University of California, Irvine, April 2008.

Service to Professional Organizations

Organization of Conferences or Symposia:

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| 1991 | Scientific Committee
Symposium on Cardiovascular Epidemiology
and Prevention
New Delhi, January 14-18, 1991 |
| 1993 | Scientific Committee
II International Symposium:
Nuclear Cardiology Today...
Role in Clinical Decision Making
Cesena, Italy, May 21-23,1993 |
| 1995 | Scientific Committee
International Symposium on Current
Concepts in Cardiovascular Diseases
New Delhi, India, December 3-7,1995 |
| 1996 | Scientific Committee
III International Symposium:
Nuclear Cardiology Today...
Role in Clinical Decision Making
Cesena, Italy, May 23-25,1996 |
| 1997 | Scientific Committee
Symposium on Cardiovascular Targeting
Northeastern University, Boston
September 19-21, 1997 |
| 1998 | Co-Chairman, Scientific Committee,
Advances in Cardiomyopathic Disorders
and Cardiac Transplantation
Autonomous University of Barcelona, Spain
October 26-28, 1998 |
| 1998 | Chairman, Scientific Committee
Indo-American Society of Nuclear Medicine
Pune, India, December 3-5, 1998 |
| 1999 | Course Co-Director
Nuclear Cardiology Symposium
12 th Asian-Pacific Congress of Cardiology,
Lahore, Pakistan, October 17-21, 1999 |
| 1999 | Scientific Committee
Renaissance Nuclear Cardiology
Sienna, Italy, July 1999 |
| 1999 | Course Director
Clinical Symposium
Heart Failure, Hypertension and Renal Failure: |

- The Angiotensin Link
Hahnemann University Hospital
Philadelphia, December 1999
- 1999 Co-Chair, ICBM: International Consortium
for the Study of the Band of Myocardium:
Clinical Relevance of the Rediscovered
Helical Anatomy of the Heart
Denia, Spain, March 2004
- 2000 Scientific Committee
IV International Symposium
Nuclear Cardiology Today: 2000 and Beyond...
Cesena, Italy, May 2000
- 2001 Co-Chair
Inflammation in Cardiovascular Disease
Hahnemann University Hospital
Philadelphia, April 2001
- 2001 Course Director
Clinical Symposium
Renin-Angiotensin and Sympathetic
Adrenergic System in Heart Failure
Philadelphia, December 2000
- 2002 Co-Chair, Expert Panel
Future of Imaging of Heart Failure
London, November 2001
- 2002 Scientific Committee
Nuclear Cardiology Retreat
American Society of Nuclear Cardiology
Lake Tahoe, July 2002
- 2003 Co-Chair
Imaging Vulnerable Plaque
Journal of American College of Cardiology
Boston, October 2003
- 2004 Scientific Committee
Molecular Imaging Symposium
National Institutes of Health & American
Society of Nuclear Cardiology Initiative
Bethesda, May 2004
- 2004 Scientific Committee
V International Symposium
Nuclear Cardiology Today...
State-of-the-Art Clinical Practice and
Future Molecular Directions
Cesena, Italy, May 2004

- 2004
ClinCard Scientific Program Committee
(Heart Failure)
American Heart Association Scientific Sessions
New Orleans
- 2005
Scientific Program Committee
International Congress of Nuclear Cardiology
Lisbon, Portugal, May 2005
- 2005
Co-Chair
Echo Orange County
Irvine, Mar 31-Apr 2, 2005
- 2005
Co-Chair
Cardiovascular CT/MR Today
Irvine, Sep 30-Oct 2, 2005
- 2005
Chair
Young Investigators Award
American Heart Association WSA
UC Irvine, Sep 2005
- 2005
ClinCard Scientific Program Committee
(Heart Failure)
American Heart Association Scientific Sessions
Dallas, TX
- 2006
Scientific Program Committee
Diet, Obesity and Heart Disease
American Heart Association
Washington, January 2006
- 2006
Co-Chair
Echo Orange County
Irvine, Mar 31-Apr 2, 2006
- 2006
Co-Chair
iMax 2006, Pre-AHA Scientific Symposium
Chicago, Nov 11, 2006
- 2006
ClinCard Scientific Program Committee
(Heart Failure)
American Heart Association Scientific Sessions
Chicago, IL
- 2007
Co-Chair
GE CV Innovations Symposium
New York, Mar 7-9, 2007
- 2007
Program Committee
Heart failure Society of America
11th Scientific Sessions, Washington, DC

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| 2007 | Co-Director
From Pictures to Practice
American Society of Echocardiography
Rancho Mirage, Sep 2007 |
| 2007 | Co-Chair
iMax 2007, Pre-AHA Scientific Symposium
Orlando, Nov 3, 2007 |
| 2007 | ClinCard Scientific Program Committee
(Imaging)
American Heart Association Scientific Sessions
Orlando, FL |
| 2008 | Co-Chair
Nuclear Cardiology Today to
Integrated Imaging Tomorrow...
Cesena, Sep 2008. |

Leadership and Contributions to National/International Professional Organizations:

American Heart Association

Leadership Position(s)

2005-2008	Appointed to American Heart Association, Council of Clinical Cardiology National Leadership Committee
2007-2009	President; American Heart Association Orange County
2006	President-Elect; American Heart Association Orange County
2005	Vice-President; American Heart Association Orange County
2004-2005	Executive Board of Directors American Heart Association, Orange County

Writing Groups and Assignments

2000	Special Writing Group of the Committee of <i>Rheumatic Fever, Endocarditis, Kawasaki Disease</i> <i>Council of Cardiovascular Diseases in Young:</i> Jones Criteria Workshop
2004	Designated Reviewer Guidelines for Management of Heart Failure
2005	Special Writing Group Guidelines for Primary Prevention of Heart Failure
2006	Special Writing Group Guidelines on the role of myocardial biopsy in heart failure

AHA Committees

2001-2003	Council of Clinical Cardiology <i>AHA-ACC Committee for Heart Failure and Transplantation</i>
2003-2005	Council on Nutrition and Metabolism <i>Obesity Committee</i>
2003-2006	Clinical Cardiology Council

- Scientific Program Committee
National Center, American Heart Association
- 2006-2009 Renominated to Clinical Cardiology Council
Scientific Program Committee
National Center, American Heart Association
- 2006 Scientific Program Committee
Diet, Obesity and Heart Disease
American Heart Association Program
Washington, January 2006
- 2006 Clinical Cardiology Council
International Student Mentoring Program

AHA Annual Scientific Sessions

- 2001- *Conference Faculty*
(2001) Annual Scientific Sessions
Anaheim, CA
(2002) Annual Scientific Sessions
Chicago, IL
(2003) Annual Scientific Sessions
Orlando, FL
(2004) Annual Scientific Sessions
New Orleans, LA
(2005) Annual Scientific Sessions
Dallas, TX
(2006) Annual Scientific Sessions
Chicago, IL
(2007) Annual Scientific Sessions
Orlando, FL
(2008) Annual Scientific Sessions
New Orleans, LA
- 2003- *Abstract Grader*
(2003) Annual Scientific Sessions
Orlando, Florida
(2006) Annual Scientific Sessions
Chicago, IL
(2007) Annual Scientific Sessions
Orlando, FL
(2008) Annual Scientific Sessions
New Orleans, LA
- 2002- *Session Chairman and/or Poster Moderator*
(2002) Annual Scientific Sessions
Anaheim, CA
Heart Failure: What's new in management?
(2004) Annual Scientific Sessions
Orlando, FL
Novel imaging targets
(2005) Annual Scientific Sessions

Plenary Session: Management of Heart Failure
(2006) Annual Scientific Sessions
Imaging cardiac remodeling and Heart Failure
(2008) Annual Scientific Sessions

Research, Grants and Awards

1999 Grants Review Committee, Mid-Atlantic AHA
2005 Chair, Young Investigators Award,
American Heart Association
UC Irvine, Sep 2005

American College of Cardiology

Writing Groups, Conference Assignments, Committee Responsibilities, and Editorships

1998 Contributor to Self-Assessment Program
(PACCSAP)
2002 Contributor to ACCEL
2003- Guest Editor, JACC
2004-2007 Associate Editor, JACC
Feb 2005 Joint International ACC Conference with
Portuguese Cardiology Society
May 2006 Joint International ACC Conference with
Spanish Cardiology Society
Oct 2006 Joint International ACC Conference with
Italian Cardiology Society
Jul 2007- Editor-in-Chief, JACC-CV Imaging
Jul 2007 ImagingTask Force, Cardiosource
Jul 2007 ACC Interventional Forum
Jul 2007- Publications Committee, *Ex-Officio* Member
Apr 2011 Imaging Council, *Ex-Officio* Member
Apr 2010 Joint International ACC Conference with
United Arab Emirates Cardiology Society
May 2011 Joint International ACC Conference with
Mexican Cardiology Society

Scientific Sessions of the ACC

2001 *Session Chairman and/or Poster Moderator*
(2001) 50th Scientific Sessions, Orlando, FL
Congestive Heart Failure
(2002) 51st Scientific Sessions, Atlanta, GA
Brown Bag Lunch Panel Session 322
Rheumatic Fever Forgotten but Not Gone...
(2003) 52nd Scientific Sessions, Chicago, IL
Core Curriculum 706, Programmed Cell
Survival and Remodeling in Coronary
Disease and LV Dysfunction
(2004) 53rd Scientific Sessions, New Orleans
(2005) 54th Scientific Sessions, Orlando

(2006) 55th Scientific Sessions, Atlanta

2002-

Conference Faculty

(2002) 51st Scientific Sessions, Atlanta
(2003) 52nd Scientific Sessions, Chicago
(2004) 53rd Scientific Sessions, New Orleans
(2005) 54th Scientific Sessions, Orlando
(2006) 55th Scientific Sessions, Atlanta
(2007) 56th Scientific Sessions, New Orleans
(2008) 57th Scientific Sessions, Chicago
(2009) 58th Scientific Sessions, Orlando

2003-

Abstract Grader

(2003) 52nd Scientific Sessions, Chicago
(2008) 58th Scientific Sessions, Chicago

American Society of Nuclear Cardiology

Writing and Working Groups, and Editorships

1994

Nuclear Cardiology Recommendation Panel
2nd American Society of Nuclear Cardiology
Working Group, Wintergreen, VA

1998

Question Writing Assignment for Certification
Council of Nuclear Cardiology, American
Society of Nuclear Cardiology

1998

Nuclear Cardiology Recommendation Panel
Molecular Imaging Panel
3rd American Society of Nuclear Cardiology
Working Group, Wintergreen, VA

1999

Scientific Committee: Nuclear Cardiology
Task Force Renaissance Nuclear Cardiology
San Luigi, Italy

2000

Nuclear Cardiology Recommendation Panel
Co-Chair, Molecular Probes in Future
of Nuclear Imaging
4th American Society of Nuclear Cardiology
Bar Harbor, ME

2002

Scientific Committee
5th American Society of Nuclear Cardiology
Working Group, Lake Tahoe, CA

Research and Other Leadership Roles

1998-2002

Section Editor
Journal of Nuclear Cardiology

1998-2003

Abstract Grader, American Society of

- Nuclear Cardiology and International
Congress of Nuclear Cardiology
- 1998 Selection Committee, Best Manuscript Awards
Journal of Nuclear Cardiology
- 2001 *Member, Publications Committee*
American Society of Nuclear Cardiology
- 2001 Member, Molecular Imaging Task Force
- 2001-2003 *Chairman, National Awards & Grants Committee*

ASNC Annual Scientific Sessions

- 2001- *Conference Faculty*
(2001) 6th Annual Scientific Sessions, Boston
(2002) 7th Annual Scientific Sessions
Baltimore
(2003) 8th Annual Scientific Sessions
Indianapolis
(2008) 13th Annual Scientific Sessions, Boston

International Congress of Nuclear Cardiology Scientific Sessions

- 2001- *Abstract Grader*
(2001) 5th Joint Scientific Sessions
Vienna, Austria
(2003) 6th Joint Scientific Sessions
Florence, Italy
(2005) 7th Joint Scientific Sessions
Lisbon, Portugal
(2007) 8th Joint Scientific Sessions
Prague, Czech Republic

- 1999- *Conference Faculty*
(1999) 4th Joint Scientific Sessions
Athens, Greece
(2001) 5th Joint Scientific Sessions
Vienna, Austria
(2003) 6th Joint Scientific Sessions
Florence, Italy
(2007) 8th Joint Scientific Sessions
Prague, Czech Republic
(2008) 9th Joint Scientific Sessions
Barcelona, Spain.

European Society of Cardiology

ESC Annual Scientific Sessions

- 2007 *Conference Faculty*
(2006) Annual Scientific Sessions

Stockholm, Sweden
(2007) Annual Scientific Sessions
Vienna, Austria
(2008) Annual Scientific Sessions
Munich, Germany
(2009) Annual Scientific Sessions
Barcelona, Spain

Research and Awards

2008 (2008) Judges Panel, Young Investigator Award
Munich, Germany

2008 (2009) Judges Panel, Young Investigator Award
Barcelona, Spain

Heart Failure Society of America

Committees and Working Groups

2006- Scientific Program Committee
2006- Academics and Research Committee

Annual Scientific Sessions

2000- *Conference Faculty*
(2000) 5th Annual Scientific Meeting
Boca Raton, FL
(2001) 6th Annual Scientific Meeting
Washington, DC
(2003) 8th Annual Scientific Meeting
Las Vegas, NV
(2007) 11th Annual Scientific Meeting
Las Vegas, NV

Society of Nuclear Medicine

Scientific Sessions

2002- *Conference Faculty*
(2002) 49th Annual Meeting, Los Angeles
(2003) 50th Annual Meeting, New Orleans
(2003) Mid-Winter Meeting, Anaheim
(2004) 51st Annual Meeting, Philadelphia
(2006) High Country Nuclear Medicine
Vail, CO

1996- *Session Chairman and/or Poster Moderator*
(1996) 43rd Annual Meeting, Denver
Radioimmunoassay Session

World Health Organization

- | | |
|------|---|
| 2000 | Experts Panel
<i>International Atomic Energy Commission,</i>
Thematic Program on Health Care
Asia & Pacific Region |
| 2000 | <i>Rapporteur</i>
<i>Guidelines Development Group, Diagnosis of</i>
<i>Rheumatic Fever, World Health Organization</i> |

National Institutes of Health

- | | |
|------|---|
| 2000 | <i>Special Conference</i>
Post-Transplant Disease Recurrence |
| 2000 | <i>Grantees' Meeting</i>
Molecular and Physical Characterization of
Vulnerable Plaque |
| 2003 | <i>Special Conference</i>
Molecular Imaging Symposium |

Membership in Professional Organizations

- | | |
|-------|--|
| 1986 | Cardiological Society of India |
| 1986- | Council on CV Epidemiology and Prevention |
| | International Society & Federation of Cardiology |
| 1989- | Council for CV Diseases in Young |
| 1992 | Fellow, American College of Cardiology |
| 1994 | Indo-US Society of Nuclear Medicine |
| 1996- | Society of Nuclear Medicine |
| 1997 | International Society of Heart and Lung
Transplantation |
| 1998 | American Society of Nuclear Cardiology |
| 2001 | Fellow, American Heart Association
Clinical Council |
| 2003 | Fellow, American Heart Association,
Metabolic Council |
| 2005 | Founder Member, Cardiac CT Society |
| 2006 | Fellow, Royal College of Physicians
[Edinburgh] (Hon) |
| 2009 | Advisory Board, Institute of Medicine, USA |

University Service and Hospital Committees

- | | |
|------|--|
| 1999 | Mentoring Program for Junior Faculty
National Center of Leadership
in Academic Medicine
Drexel University College of Medicine |
|------|--|

2000	Quality Control and Improvement Committee Hahnemann University Hospital
2000-2002	Fellowship Program Co-Director Division of Cardiology Drexel University College of Medicine
2000	Radiation Safety Committee Hahnemann University Hospital
2001	Director, Fellowship Education Committee Division of Cardiology Drexel University College of Medicine
2001-2002	Administrative Council Vice-Chairman (Research), Dept of Medicine Drexel University College of Medicine
2001-	Academic Promotions Committee Department of Medicine Drexel University College of Medicine

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Books and Monographs:

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2. *Rheumatic Fever*. Eds. **Jagat Narula**, R. Virmani, KS Reddy, R Tandon. American Registry of Pathology Publications, Washington, DC, 1999.
3. *Heart Failure: Pathogenesis and Management*. Eds. **Jagat Narula**, Renu Virmani, Stephen Westaby, O. Howard Frazier, James T. Willerson. Martin Dunitz, Oxford, UK, 2001.
4. *Cardiac Allograft Rejection*. Eds. William Dec, **Jagat Narula**, Manel Ballester, Ignasi Carrió. Kluwer Academic Publishers, Boston 2001.
5. *Atlas of Nuclear Cardiology. Volume Eds.* Vasken Dilsizian, **Jagat Narula**. *Series Ed.* Eugene Braunwald, Current Medicine, 2003.
6. *Atlas of Electrophysiology in Heart Failure. Volume Eds.* K Shivkumar, James Weiss, Gregg Fonarow, **Jagat Narula**. *Series Ed.* Eugene Braunwald, Current Medicine, 2005.
7. *Essentials of Heart Disease. Consulting Eds.* Baughman, Beller, Califf, Colucci, Dilsizian, Freedom, Goldhaber, Hollenberg, Holmes, Lee, Mathew, **Narula**, Rahimtoola, Scheinman, Wilson. *Ed.* Eugene Braunwald, Current Medicine, 2005.
8. *Atlas of Nuclear Cardiology. Second Edition. Volume Eds.* Vasken Dilsizian, **Jagat Narula**. *Series Ed.* Eugene Braunwald, Current Medicine, 2005.
9. *Excerpts from the Braunwald's Atlas of Nuclear Cardiology: Myocardial Function Assessment by Nuclear techniques. Volume 1 of 4.* Eds. Vasken Dilsizian, **Jagat Narula**. Current Medicine, 2007.
10. *Excerpts from the Braunwald's Atlas of Nuclear Cardiology: The Role of Myocardial Perfusion Imaging in Special Populations. Volume 2 of 4.* Eds. Vasken Dilsizian, **Jagat Narula**. Current Medicine, 2007.
11. *Excerpts from the Braunwald's Atlas of Nuclear Cardiology: Nuclear Investigation in Heart Failure and Myocardial Viability. Volume 3 of 4.* Eds. Vasken Dilsizian, **Jagat Narula**. Current Medicine, 2007.
12. *Excerpts from the Braunwald's Atlas of Nuclear Cardiology: Neuronal Dysfunction. Volume 4 of 4.* Eds. Vasken Dilsizian, **Jagat Narula**. Current Medicine, 2007.
13. *The Vulnerable Atherosclerotic Plaque*. Eds. Renu Virmani, **Jagat Narula**, Martin B. Leon, James T. Willerson. Blackwell-Futura, Boston, 2006.
14. *Atlas of Cardiovascular CT. Volume Eds.* Matthew Budoff, Stephan Achenbach, **Jagat Narula**. *Series Ed.* Eugene Braunwald, Current Medicine, 2007.
15. *Atlas of Nuclear Cardiology. Third Edition. Volume Eds.* Vasken Dilsizian, **Jagat Narula**. *Series Ed.* Eugene Braunwald, Current Medicine, 2009.

16. Revisiting Cardiac Anatomy in the post-Netter CT Era. Eds. F. Saremi, S. Achenbach, E. Arbustini, **Jagat Narula**. John Wiley & Sons, Oxford UK; 2010.
17. *Before and After Heart Transplant*. Eds. Penny Parker, Jeffrey Hosenpud, Mandeep Mehra, G. William Dec, **Jagat Narula**,. 2011 (in press).
18. *Atlas of Nuclear Cardiology*. Fourth Edition. *Volume Eds.* Vasken Dilsizian, **Jagat Narula**. *Series Ed.* Eugene Braunwald, Current Medicine, 2011 (in preparation).
19. *Rheumatic Fever*. Eds. **Jagat Narula**, R Tandon, KS Reddy, R. Virmani, Sir Magdi H. Yacoub. JayPee Brothers, New Delhi, DC, 2012 (in preparation).
20. *Appropriate Use Criteria for Cardiovascular Imaging*. Eds. **Jagat Narula**, Thomas Marwick, Stephan Achenbach, Christopher Kramer. Demos Medical Publishing, New York, 2012 (in preparation).
21. *Cardiovascular Diseases in Developing Countries*. Eds. **Jagat Narula**, K. Srinath Reddy, Robert O. Bonow. Elsevier UK, Oxford, 2012 (in preparation).
22. *Friedberg's Diseases of the Heart*. Fourth Edition. Eds. **Jagat Narula**, Anthony N. DeMaria. Cardiotext, Minneapolis, 2012 (in preparation).

Special Issues of Journals (Guest Editor):

23. Apoptosis: Apoptosis for Clinicians.
Ed. **Jagat Narula**, S. Kharbanda. March 2001.
24. *Cardiology Clinics: Apoptosis in Cardiovascular Diseases*.
Eds. **Jagat Narula**, Viswa Dixit, Leslie Miller. Feb. 2001.
25. *Journal of Nuclear Cardiology (Supplement): Noninvasive Imaging of Heart Failure*.
Editors, **Jagat Narula**, Manuel Cerqueira, James Udelson, Sep 2002.
26. *Medical Clinics of North America: Newer Treatment Options in Heart Failure*.
Eds. Raghaven Baliga, Bertram Pitt, **Jagat Narula**. Jan 2003.
27. *Cardiology Clinics. LV Assist Devices and artificial heart*.
Eds. Louis E. Samuels, **Jagat Narula**. Mar 2003.
28. *Surgical Clinics of North America: Surgical Options in Heart Failure*.
Eds. Stephen Westaby, **Jagat Narula**. Jan 2004.
29. *Medical Clinics of North America: Primary Prevention of Heart Failure*.
Eds. **Jagat Narula**, Clyde Yancy, James Young. May 2004.
30. *World Health Organization Technical Report Series: Rheumatic Fever*.
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32. **Journal of American College of Cardiology** (Supplement). Imaging Vulnerable Plaque; April 18, 2006; Vol. 47, No. 8. Eds. **Jagat Narula**, James T. Willerson.
33. *Current Opinions in Biotechnology*. Cardiovascular Molecular Imaging. Eds. Joseph Wu, **Jagat Narula**. Mar. 2007.
34. *Cardiology Clinics*. Heart Failure 2008; Volume-I. Eds. James B. Young, **Jagat Narula**. Nov. 2007.
35. *Cardiology Clinics*. Heart Failure 2008; Volume-II. Eds. James B. Young, **Jagat Narula**. Jan. 2008.
36. *Heart Failure Reviews*. Apoptosis in Heart Failure. Eds. **Jagat Narula**, Richard N. Kitsis. May 2008.
37. *Heart Failure Clinics*. Function Follows Form. *Volume Eds.* **Jagat Narula**. Elsevier, Jul 2008.
38. *Nature CV Medicine*; Cardiovascular Molecular Imaging for Clinicians, Eds. Vasken Dilsizian, Zahi Fayad, Valentin Fuster & **Jagat Narula**. Aug 2008.
39. *Mount Sinai Journal of Medicine: High-Risk Atherosclerotic Plaques*. Eds., Valentin Fuster, Zahi Fayad, **Jagat Narula**; 2012 (in preparation).
40. *Heart Failure Clinics: LV Assist Devices to Destination*, Eds. Eloisa Arbustini, **Jagat Narula**. 2012 (in preparation).
41. *Cardiology Clinics: Computed Tomography in 2012*, Eds. Stephan Achenbach, Takeshi Kondo, **Jagat Narula**. 2012 (in press).
42. *Medical Clinics of North America: Coronary Risk Factor Update*, Eds. Valentin Fuster & **Jagat Narula**. 2012 (in press).

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U.S. Patent Awards/Applications:

US Patent #5780052; *European Patent* 96912764.6-2114
Awarded: Composition and methods useful for inhibiting cell death and for delivering an agent into a cell
Co-Inventors: Ban-An Khaw, Vladimir Torchilin, Imran Vural

US Patent Application #60/039,111; Awarded
Signal enhancement of dispecific antibody-polymer probe for immunoassay use; *Co-Inventor:* Ban-An Khaw

US Patent Application; Filed Feb 21, 2001
Characterization of microbial deposition and immune response at basement membranes and methods relating thereto
Co-Inventors: E. William Rosenberg, Patricia Noah, Robert B. Skinner, Jr., Timothy D. Mandrell

US Patent Application; Filed Jun 12, 2002
Intracellular Delivery of Therapeutic and imaging agents to stressed and apoptotic cells using annexin V as targeting vector
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