# **CURRICULUM VITAE** Mark Evans Dunlap, M.D.

Updated April 2018

#### 1) Personal data

Professor of Medicine, Physiology, and Biophysics Title and Address:

Case Western Reserve University

Director, Heart Failure Section, Heart and Vascular Center

The MetroHealth System 2500 MetroHealth Drive Cleveland, Ohio 44109 Citizenship: USA

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Education

1972 Oak Ridge High School, Oak Ridge, Tennessee

Also attended Lahore American School, Lahore, Pakistan

1976 BA-Math, Oberlin College, Oberlin, Ohio; also attended Brown University MD, University of Tennessee College of Medicine, Memphis, Tennessee 1982

Internships, Residencies, Fellowships

1982-1985 Residency, Department of Internal Medicine, Medical College of Virginia,

Richmond, Virginia

1985-1986 Cardiovascular Fellowship, Medical College of Virginia, Richmond, Virginia 1987-1989

Research Fellowship, Hunter Holmes McGuire VA Medical Center and

Medical College of Virginia, Richmond, Virginia

Specialized training

2000 American Heart Association 10-day Seminar on the Epidemiology and Prevention

of Cardiovascular Disease, Tahoe City, California

Randomized Clinical Trials Course 2003

Department of Veterans Affairs Cooperative Studies Program, Chicago, IL

2008 Essentials of Leadership Excellence, MetroHealth Medical Center, Cleveland, OH

#### 2) **Professional Appointments**

#### **Academic Appointments**

1987-1989 Instructor, Department of Medicine, Medical College of Virginia, Richmond, Virginia 1989-1997 Assistant Professor of Medicine, Case Western Reserve University, Cleveland, OH

Assistant Professor of Physiology and Biophysics 1995-1997

Case Western Reserve University

1997-2009 Associate Professor of Medicine, Physiology and Biophysics, CWRU

Professor of Medicine, Case Western Reserve University 2009-present

2014-present Professor of Physiology and Biophysics, Case Western Reserve University

## **Hospital Appointments**

1987-1989 Associate Investigator, Hunter Holmes McGuire VA Medical Center

Richmond, Virginia

Research Associate, VA Medical Center, Cleveland, Ohio 1990-1993

1995-1999	Clinical Investigator, Louis Stokes VA Medical Center, Cleveland, Ohio
1994-2006	Director, Heart Failure Program, Louis Stokes VA Medical Center, Cleveland, Oh
2000	Acting Chief, Cardiology Section, Louis Stokes VA Medical Center, Cleveland, Oh
1998-2006	Associate Chief, Cardiology Section, Louis Stokes VA Medical Center
	Cleveland, Ohio
2006-present	Director, HF Section, Heart and Vascular Center, The MetroHealth System,
	Cleveland, OH
2012-2013	Interim Co-Director, Heart and Vascular Center, The MetroHealth System,
	Cleveland, OH
2012-2013	Director, Cardiovascular Fellowship Program, The MetroHealth System
	Cleveland, OH

# 3) Licensure and Board Certification

1985	American Board of Internal Medicine
1987	American Board of Internal Medicine, Cardiovascular Subspecialty Boards
1989	Ohio State Board of Medicine

# 4) Membership in Professional Societies

Fellow, Council on Basic Cardiovascular Sciences (AHA)

Fellow, Council on Clinical Cardiology (AHA)

Fellow, Council on High Blood Pressure Research (AHA)

Fellow, American College of Cardiology

Heart Failure Society of America

Prior memberships:

Central Society for Clinical Research American Federation for Medical Research

American Physiological Society

Neural Control and Autonomic Regulation Section (APS)

Society of Heart Brain Medicine (past President)

## 5) Honors and Awards

2017

May 1982	IMHOTEP Society - Leadership Recognition
June 1982	University of Tennessee Center for the Health Sciences Distinguished Student Service Award
	University of Tennessee Center for the Health Sciences
November 1992	Finalist, Melvin L. Marcus Young Investigator Award in Cardiovascular Integrated
	Physiology, American Heart Association
September 1998	Federal Employee Recognition Award, Cleveland Federal Executive Board
November 2002	Department of Veterans Affairs Certificate of Appreciation Award,
	Advanced Clinic Access Initiative
June 2008	Department of Medicine Teaching Excellence Award Honorable Mention
	MetroHealth Medical Center, Cleveland, OH
January 2009	Best Research Clinical Paper, Frontiers of Cardiology, Winter Park, Colorado
2011-2015	Best Doctors, Cleveland Magazine

Top Communicator Award, The MetroHealth System, Cleveland, OH

## 6) Professional Service

Study Sections

1995 NIH, Experimental Cardiovascular Sciences Study Section (ad hoc)
1997 NIH, Respiratory and Applied Physiology Study Section (ad hoc)

1996-1999 Member, Clinical and Integrative Cardiovascular Physiology and Pathophysiology II

Study Section, American Heart Association National Center

1999 NIH, CVA Cardiovascular Study Section (ad hoc)

2002-2005 Member, Health Services Research Career Development Awards Study Section,

Department of Veterans Affairs

2004-2006 Member, Cardiology B Merit Review Study Section

Department of Veterans Affairs

2005-2006 Chairman, Cardiology B Merit Review Study Section

Department of Veterans Affairs

#### Editorial and Review Boards

1991-92	Abstract reviewer, American Heart Association Scientific Sessions
1995-2007	Abstract reviewer, American Heart Association Scientific Sessions
2012-2017	Abstract reviewer, American Heart Association Scientific Sessions

1996-1999 Journal of Applied Physiology

1999-2004 American Journal Physiology: Heart & Circulatory Physiology

2003 Jay N. Cohn New Investigator Award Review Committee, Heart Failure Society of

America

2001-2009 Curriculum Editor, National Heart Failure Training (N-HeFT) Program

Case Western Reserve University, Cleveland, OH

2004-2011 Journal of Cardiac Failure, Editorial Board

2005-2012 Abstract reviewer, American College of Cardiology Scientific Sessions

2006 Chairman, Poster Judging Committee, Ohio-ACC 16th Annual Meeting, Columbus,

Ohio

2006-2007 Review Board, HeartLine, Communication on Heart Failure, the Heart.org from

WebMD

2015-current Member, Publications and Presentations Committee (PPC)

NIH sponsored Heart Failure Research Network

### Ad hoc Reviewer

American Heart Journal

American Journal of Physiology

American Journal of Respiratory and Critical Care Medicine

Autonomic Neuroscience: Basic and Clinical

Cardiovascular Research

Circulation

Circulation: Heart Failure Circulation Research

Hypertension

Journal of the American College of Cardiology

Journal of Applied Physiology

Journal of the Autonomic Nervous System

Journal of Cardiac Failure
Journal of Cardiology

Journal of Cardiovascular Pharmacology Journal of Laboratory and Clinical Medicine Journal of Molecular and Cellular Cardiology Journal of Negative Results in Biomedicine

	Experimental Physiology
	European Heart Journal
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Other	
2005-2014	Member, Planning Committee, Carl J. Wiggers Memorial Lecture, Ohio Chapter,
	American College of Cardiology
2006-2009	Chairman, Planning Committee, Carl J. Wiggers Memorial Lecture, Ohio Chapter,
	American College of Cardiology
2012-2017	Research Reception Planning Committee, Cleveland Metro Division of the
	American Heart Association
Advisory Groups	
1997-2004	Steering Committee, PEACE Study (sponsored by NHLBI)
1998-2003	
1996-2003	US National Leader and Vice Chair of the US Investigator Committee, CHARM
	program
2000-2003	International Steering Committee, CHARM program
2000-2004	Clinical Chairman, CHF-Quality Enhancement Research Initiative (QUERI)
	Steering Committee, Department of Veterans Affairs
2001-2006	Astra Zeneca Advisory Board
2002	Coalition for the Advancement of Cardiovascular Health (COACH),
	National Steering Committee
2002-2003	Bristol-Myers Squibb Advisory Board
2002-2004	Program Committee, Heart Failure Society of America
2002-2005	Endorsement Committee, Heart Failure Society of America
2002-2006	Advanced Clinic Access National Coach, Department of Veterans Affairs
2002-2008	Clinical Endpoint Committee, HF-ACTION trial (sponsored by NHLBI)
2003-2005	Innovative Medical Practices Advancing Cardiovascular Therapy (IMPACT)
0004 0000	Program Faculty
2004-2006	Chairman, Endpoints Committee, Heart Failure Home Care Trial (sponsored by
	Centers for Medicare and Medicaid Services)
2005-2011	Member, Care Standards / Quality of Care Committee, Heart Failure Society of
	America
2005-2013	US National Leader, Darbepoitin alfa in Heart Failure Trial (RED-HF)
2008-2013	Chair, US National Leadership, Darbepoitin alfa in Heart Failure Trial (RED-HF)
2006	Tolvaptan Scientific Advisory Board Meeting, Miami, Florida
2006	Cell Therapy Network Grant, Mark Penn, MD, PI - External Reviewer
	Cleveland Clinic Foundation
2006	Advisory Board on BiDil, NitroMed, Atlanta, Georgia
2006	Advisory Board on Nibivolol, New York, New York
2006	Advisory Board on Lovenox, Sanofi Aventis, Charleston, South Carolina
2006, 2007, 2008	Invited Member, International Heart Failure Biomarker Research Workshop
2000, 2007, 2000	Cannes, France
2000 2011	,
2006-2011	Member, Steering Committee, ASCEND-HF Trial
2007	Nebivolol Executive Heart Failure Advisory Board, New York, New York
2007	Advisory Board on BiDil, NitroMed, Washington DC
2007	CME Activity Director: "Acute Decompensated Heart Failure in the ED and Beyond"
	MetroHealth Medical Center/Case Western Reserve University
2007	Senior National Advisory Board on Crestor, Chicago, IL
2007-2010	Member, Clinical Events Committee: "PREVENT HF: PREVENTion of Heart
	Failure events with impedance cardiography testing"
2007-2009	President, Society for Heart-Brain Medicine (SHBM)
2008-2012	Chair, Better Health Greater Cleveland Heart Failure Sub-Committee, MetroHealth
2000-2012	Onaii, Detter Fleatin Oreater Oleveland Fleatt Failure Sub-Committee, Metrofleatin

Medicine and Science in Sports and Exercise

2008-2015	Member, Clinical Advisory Committee, Robert Wood Johnson Foundation, The MetroHealth System
2009	Advisory Board on Hyponatremia, Otsuka Pharmaceuticals, McLean, VA
2010-2012	MetroHealth Physicians Leadership Academy
	MetroHealth Campus of Case Western Reserve University, Cleveland, OH
2012	Member, Scientific Advisory Board for Renal Denervation, Medtronic, Inc.
2012	Member, Scientific Advisory Board, Otsuka Pharmaceuticals, Inc., Newark, NJ
2014	Member, Clinical Events Committee, PreSERVE AMI study, a Prospective
	Randomized Double Blinded Placebo Controlled Phase II Trial of Intra-coronary
	Infusion of AMR-001, a Bone Marrow Derived Autologous CD34+ Selected Cell
	Product, in Patients with Persistent Left Ventricular Dysfunction Following Acute ST
	Elevation Myocardial Infarction
2014	Member, Heart Failure Scientific Advisory Board, Relypsa (Patiromer),
	Washington, DC
2017-2018	Chair, Data Safety Monitoring Board for the LIPP study, "Lifestyle Intervention in
	Preparation for Pregnancy program", Patrick Catalano, MD, PI. Sponsor: NIH
2017-current	Member and U.S. Representative, Steering Committee for ADVENT-HF: A Multi-
	Centre, Randomized Study to Assess the Effects of ADaptive Servo VENTilation
	on Survival and Frequency of Cardiovascular Hospital Admissions in Patients with
	Heart Failure and Sleep Apnea

# 7) Hospital and University Service Activities

1990-1994	Quality Management Committee, Department of Medicine VA Medical Center, Cleveland, Ohio
1990-1994	Peer Review Committee, Department of Medicine, VA Medical Center, Cleveland, Ohio
1990-1997	Cardiology Fellowship Evaluation Committee, University Hospitals of Cleveland and Case Western Reserve University
1990-1997	Institutional Animal Care and Use Committee, VA Medical Center, Cleveland, Ohio
1994-1997	Chair, Institutional Animal Care and Use Committee VA Medical Center, Cleveland, Ohio
1995-1999	Research and Development Committee, VA Medical Center, Cleveland, Ohio
1998-1999	Chair, Research and Development Committee, VA Medical Center, Cleveland, Ohio
1996-1998	Co-Chair, Computerized Patient Record System Committee VA Medical Center, Cleveland, Ohio
1998-2006	Co-Chair, Clinical Informatics Committee, VA Medical Center, Cleveland, Ohio
1999-2006	Chairman, Cardiology Advanced Clinic Access Initiative
	VA Medical Center, Cleveland, Ohio
2002-2007	School of Medicine Representative, Faculty Senate Committee on Information Resources
	Case Western Reserve University
2005-2007	Chairman, Faculty Senate Committee on Information Resources
	Case Western Reserve University
2004-2006	Member, Clinical Research Center Advisory Committee
	Case Western Reserve University
2006-present	Member, Scientific Review Committee, Clinical Research Unit
	MetroHealth Campus of Case Western Reserve University, Cleveland, OH
2008-2012	Chairman, Scientific Review Committee, Clinical Research Unit
	MetroHealth Campus of Case Western Reserve University, Cleveland, OH

2009-2012	Member, Committee on Appointment, Promotions, and Tenure
2010-2011	MetroHealth Campus of Case Western Reserve University, Cleveland, OH Chair, Documentation and Consultation Process Task Force, Heart and Vascular Center
2010-2011	MetroHealth Campus of Case Western Reserve University, Cleveland, OH Member, Telemetry Task Force, Heart and Vascular Center MetroHealth Campus of Case Western Reserve University, Cleveland, OH
2011-2013	Chair, Heart and Vascular Section American Heart Associate Heart Walk  MetroHealth Campus of Case Western Reserve University, Cleveland, OH
2012-2014	Co-Chair, David S. Rosenbaum Endowment Committee  MetroHealth Campus of Case Western Reserve University, Cleveland, OH
2012-2013	Member, Search Committee, Heart and Vascular Center Director  MetroHealth Campus of Case Western Reserve University, Cleveland, OH
2012-2013	Director, Cardiovascular Fellowship Training Program  MetroHealth Campus of Case Western Reserve University, Cleveland, OH
2012-2015	Member, Cardiology Grand Rounds Selection Committee  MetroHealth Campus of Case Western Reserve University, Cleveland, OH
2014-2015	Leadership Rounding Team The MetroHealth System, Cleveland, OH
2014	Member, Planning Committee, Matthew N. Levy Symposium  Department of Physiology and Biophysics, CWRU, Cleveland, OH
2013-present	Member, Cardiovascular Fellowship Research Committee, The MetroHealth System,
2013-present	MetroHealth Campus of Case Western Reserve University, Cleveland, OH Director, Heart and Vascular Clinical Trials Unit, The MetroHealth System, MetroHealth Campus of Case Western Reserve University, Cleveland, OH
2013-current	Associate Director of Clinical Informatics, Heart and Vascular Center The MetroHealth System, Cleveland, OH
2015-current	Chair, StorySLAM Committee, Heart and Vascular Center The MetroHealth System, Cleveland, OH
2017-current	Co-Chair, CHF Care Standards Committee The MetroHealth System, Cleveland, OH
2017-current	Chair, Data Safety and Monitoring Board  "Lifestyle Intervention in Preparation for Pregnancy (LIPP) trial"  Patrick Catalano, MD and John Kirwan PhD, Co-Investigators  National Institute of Child Health & Human Development

# 8) Teaching Activities

<u>Teaching</u>	
1989-94	Sheep Heart Anatomy Lab
1989-95	Cardiovascular Systems and Dynamics
1990	Case Oriented Problem Solving
1990-2000	Homeostasis I teaching
1993-2005	Introduction to Biostatistics, Cardiology Fellows' Seminar
1990, 1994	Physical Diagnosis
1995-96	Physiology 516—Excitation Contraction Coupling seminars
1995-2002; 2006	Physiology 514—Introduction to the Cardiovascular System
1996-99	Physiology 512—Methods in Cardiovascular Research teaching
1997-2002	Physiology 518—Integrative Approaches to Cardiovascular Research
1999	Physiology 440—Cardiovascular responses to exercise
1995-97	Physiology Health Careers Enhancement Program for Minority Students

1994-96	Biomedical Engineering Thesis Advisory Committee (Alison Graves)
1994-97	Biomedical Engineering Thesis Advisory Committee (Sriram Ramini)
1995-96	Sponsor for Biomedical Engineering Senior Project for Kyle Salem
1995-98	Sponsor for laboratory rotation for Systems Physiology students
1996-2000	Ph.D. Thesis Advisor, Physiology and Biophysics, Steven Bibevski
1996-2001	Chairman, Physiology and Biophysics Ph.D.Thesis Advisory Committee (Linda
	Barrett-Stull)
1997-2001	Drug Action and Biodisposition (DAB Committee):
	Hypertension and Congestive Heart Failure (Developed Curriculum)
1997-98	Physiology and Biophysics Thesis Advisory Committee (Krista Kivilo)
1997-1999	Physiology and Biophysics Thesis Advisory Committee (Daniel Zakhary)
1997-2000	Physiology and Biophysics Thesis Advisory Committee (David Kline)
2000-2003	Physiology and Biophysics Thesis Advisory Committee (Theresa Fagan)
2004	Fundamentals of Therapeutic Agents Cardiovascular Pharmacology Lab,
	1st yr Medical Student class
2004-2005	Physiology and Biophysics Thesis Advisory Committee (Michelle Riccardi)
2005	Nursing Thesis Advisory Committee (Su-Er Guo)
2005	Review Committee, Lepow Research Day, CWRU
2005	Fundamentals of Therapeutic Agents: Heart Failure, CWRU
2005-2009	Co-Chair, Cardiology Curriculum Design Block 4, CWRU (including introductory
	lectures)
2007	Medical Student group teaching, case presentations
2007	Medical Director, CME activity entitled "Acute Decompensated HF in the ED and
	Beyond"
2027 2002	MetroHealth Medical Center/Case Western Reserve University, Cleveland, OH
2007-2009	Bioengineering PhD Thesis Advisory Committee (Maria Dikshteyn)
2005-current	Cardiology Teaching, Block 4
	(lectures, summary and integration sessions, review sessions, exam grading) Case Western Reserve University, Cleveland, OH
2008-2012	Chair, MS Thesis Committee for Cristina Bocirnea, MD, Clinical Research Scholars
2000-2012	Program
	Case Western Reserve University
2011-current	Physiology 461 Medical Physiology
2011 danont	Regulation of Arterial Pressure and Cardiac Output
	Hypertrophy/heart failure/hypertension
	Case Western Reserve University, Cleveland, OH
2014-2015	Physiology 514 teaching: Role of the Sympathetic Nervous System in Health and
	Disease
	Case Western Reserve University
2014-current	ECG teaching, MetroHealth Hospital and Case Western Reserve University,
	Cleveland, OH
-	ate Students/Trainees
1992-1993	Toru Kinugawa, MD, Post-doctoral Fellowship, American Heart Association, NE
	Ohio Affiliate: "Cardiopulmonary baroreflexes in early heart failure"
1994-1995	Brian Donelan, MD, Post-doctoral Fellowship
	American Heart Association, Northeast Ohio Affiliate
	"Central effects of endothelin on sympathetic tone and sympathoexcitation in heart
1995	failure" Michael A. Choma, Summer Stipend, American Heart Association, Northeast Objection
1990	Michael A. Choma, Summer Stipend, American Heart Association, Northeast Ohio Affiliate: "Mechanisms of altered acetylcholine release in animals with pacing
	induced heart failure"
1996	Roger D. Watson, Summer Stipend, American Heart Association, Northeast Ohio
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	Affiliate: "The role of norepinephrine, PGE <sub>2</sub> , and VIP in congestive heart failure"
1996	Michael A. Choma, Summer Stipend, Biomedical Engineering Department, CWRU:
	"Mechanisms of altered acetylcholine release in heart failure"
1997	Alison Graves, Porter Physiology Award, American Physiological Society
	"Exercise training effects in healthy and heart failure" (funding returned)
1998	Geoffrey Getnick, Summer Stipend, American Heart Association, Northeast Ohio
	Affiliate

# 9) Research Support

Grant support	
(A) Principal Inve	estigator
1987-1989	Associate Investigator Award, Veterans Administration - \$167,495
	"Mechanisms of Baroreflex Impairment in Heart Failure"; 80% effort
1989-1991	Grant-In-Aid, American Heart Associate, Virginia Affiliate - \$50,000
	"Development of Neurohumoral Abnormalities in Heart Failure:
	Role of Baroreflexes and Baroreflex Interactions"; 20% effort
1990-1994	Research Associate Award, Department of Veterans Affairs - \$266,000
	"Circulatory and Ventilatory Control in Heart Failure"; 80% effort
1991-1994	Merit Review, Department of Veterans Affairs - \$163,217
	"Baroreflex Abnormalities in Developing Heart Failure" 35% effort
1995-1999	Merit Review, Department of Veterans Affairs - \$313,700
	"Cholinergic Mechanisms in Heart Failure: Role of Acetylcholine Release"; 35%
	effort
1995-2000	Clinical Investigator Award, Department of Veterans Affairs - \$750,000
	"Cholinergic Mechanisms in Heart Failure"; 80% effort
1995-1998	RO1, NIH HL50669 - \$448,701
	"Pre- and Post-Ganglionic Vagal Mechanisms in Heart Failure"; 40% effort
1995-2000	Research Career Development Award, NIH K04 - \$312,250
	"Pre- and Post-Ganglionic Vagal Mechanisms in Heart Failure"
	(returned due to overlapping funding)
1999-2003	Merit Review, Department of Veterans Affairs - \$551,400
	"Cholinergic Mechanisms in Heart Failure: Role of Ganglionic Transmission"; 35%
	effort
2000-2005	HSR&D CHF-QUERI, Department of Veterans Affairs - \$750,000
	"Randomized Trial of a Telephone Intervention in Heart Failure Patients"; 35%
	effort
2002-2004	HSR&D CHF-QUERI, Department of Veterans Affairs - \$138,000
	Clinical Coordinator, CHF-QUERI (Houston Coordinating Center); 5% effort
2004-2006	Merit Review, Department of Veterans Affairs - \$703,500
	"Modulation of Ganglion Transmission in Heart Failure"; 30% effort
2014-2018	Investigator Initiated Study, Otsuka Pharmaceuticals \$502,175
	"Neurocognitive Impairment in Heart Failure: Prevalence and Effects of
	Hyponatremia"
(E) OIL LELL	
(B) Clinical Trial	
1990-1996	DIG: Digitalis Investigative Group: Trial to evaluate the effect of digitalis on
	mortality in heart failure; Site PI; Sponsor: Cooperative Studies Program #995
1005 1000	Jointly sponsored by NIH and Department of Veterans Affairs
1995-1996	Multicenter, randomized evaluation of the acute and long-term hemodynamic
	effects and safety of the angiotensin II receptor antagonist irbesartan in the
	treatment of heart failure; Site PI; Sponsor: Bristol-Myers Squibb, Pharmaceutical

	Research Institute
1995-1996	VEST: A randomized, double-blind, placebo controlled, multiple dose study of the
1990-1990	chronic administration of <b>VES</b> narinone in hear <b>T</b> failure; Site PI
	Sponsor: Otsuka America Pharmaceutical, Inc.
1996-2004	PEACE: Prevention of Events with Angiotensin Converting Enzyme Inhibition; Site
1000 200 1	PI (also on Steering Committee for this study); Sponsor: NIHLBI
1997-1998	Multicenter, Randomized Study of the Long-term Hemodynamic Effects and Safety
	of the Dual Metalloprotease Inhibitor (DMP-i); Site PI
	Sponsor: Bristol-Myers Squibb, Pharmaceutical Research Institute
1996-1999	MERIT-HF: "Metoprolol Randomized Intervention Trial in Congestive Heart Failure;
	Site PI
	Sponsor: Astra USA, Inc.
1997-1998	IMPRESS: Inhibition of Metallo Protease by BMS-186716 (Omapatrilat) in a
	Randomized Exercise and Symptoms Study in Subjects with Heart Failure; Site PI,
	also a Regional Coordinator for this study
4000 4000	Sponsor: Bristol-Myers Squibb, Pharmaceutical Research Institute
1998-1999	A Multicenter, Randomized, Double Blind, Lisinopril and Placebo Controlled Trial of the Antihypertensive Efficacy and Safety of Omapatrilat in Black Subjects with Mild
	to Moderate Hypertension; Site PI; Sponsor: Bristol-Myers Squibb, Pharmaceutical
	Research Institute
1998-1999	Evaluation of the Tolerability and Safety of Candesartan Cilexetil in Patients with
1000 1000	Congestive Heart Failure: A Multicenter, Double-blind, Placebo-controlled,
	Randomized, Forced Dose-Titration Study; Site PI; Sponsor: Astra
	Pharmaceuticals, LP
1998-2003	CHARM: Candesartan Cilexetil in Heart Failure Assessment of Reduction in
	Mortality and Morbidity; Site PI, also a U.S. National Leader and Steering
	Committee Member for this study, and Vice-Chair of the U.S. Investigative
	Committee
	Sponsor: Astra-Zeneca
1999-2002	OVERTURE: "Omapatrilat Vs. Enalapril Randomized Trial of Utility in Reducing
2000 2004	Events; Site PI; Sponsor: Bristol-Myers Squibb
2000-2001	Safety and efficacy of Ranolazine in heart failure; Site PI Sponsor: CV Therapeutics
2001-2002	Interpreting the Kansas City Cardiomyopathy Questionnaire (KCCQ), Site PI
2001-2002	Sponsor: University of Missouri
2000-2003	WATCH: Warfarin and Antiplatelet Therapy in Chronic Heart Failure, Site Pl
	Sponsor: Department of Veterans Affairs CSP #442
2001-2004	A-HeFT: African-American Heart Failure Trial, Site PI
	Sponsor: MIMC, NitroMed
2003-2006	Thyroid Hormone Analog: Treatment of Heart Failure (DITPA), Site PI
	Sponsor: Department of Veterans Affairs CSP #526
2005-2006	<b>ECLIPSE</b> : Multi-center, Randomized, Double-blind, Placebo-controlled Study to
	Evaluate the Effect of Single Oral Tolvaptan Tablets on Hemodynamic Parameters
0000 0040	in Subjects with HF, Site PI; Sponsor: Otsuka Maryland Research Institute, Inc.
2006-2013	RED-HF: A Double-blind, Randomized, Placebo-controlled, Multicenter Study to
	Assess the Efficacy and Safety of Darbepoetin alfa Treatment on Mortality and
	Morbidity in HF Subjects with Symptomatic Left Ventricular Systolic Dysfunction and Anemia: Reduction of Events with Darbepoetin alfa in Heart Failure Trial; Site
	co-PI and member, Steering Committee and US National Leadership; Sponsor:
	Amgen Inc.
2007-2009	PROTECT: Placebo-controlled Randomized study of the selective A1 adenosine
	receptor antagonist KW-3902 for patients hospitalized with acute HF and volume

	Overload to assess Treatment Effect on CongesTion and renal function; Site PI;
0007 0040	Sponsor: Merck & Co., Inc.
2007-2010	ASCEND-HF: Double-Blind, Placebo-Controlled, Multicenter Acute Study of
	Clinical Effectiveness of Nesiritide in Subjects With Decompensated Heart Failure; Site PI and member, Steering Committee; Sponsor: Scios/Johnson and Johnson
2008-2010	THE BALANCE Study: "Treatment of HyponatrEmia BAsed on LixivAptan in NYHA
2006-2010	Class III/IV Cardiac Patient Evaluation; Site PI; Sponsor, Cardiokine Biopharma,
	LLC
2007-2013	TOPCAT: Treatment Of Preserved Cardiac function heart failure with an
2007 2010	Aldosterone antagonist; Site PI; Sponsor: NIHLBI
2008-2012	Symplicity HTN I: Renal Denervation in Patients with Refractory Hypertension:
	Phase I Pilot Study, Site PI; Sponsor: Ardian, Inc.
2010-2013	Hyponatremia Registry, Site PI
	Sponsor: Otsuka Pharmaceuticals
2010-2015	INOVATE HF: INcrease Of VAgal TonE in chronic Heart Failure, Site PI
	Sponsor: BioControl Medical, Inc.
2010-present	ADVENT-HF: A Multi-Centre, Randomized Study to Assess the Effects of ADaptive
	Servo <b>VENT</b> ilation on Survival and Frequency of Cardiovascular Hospital
	Admissions in Patients with <b>H</b> eart <b>F</b> ailure and Sleep Apnea; Site PI and member,
	Steering Committee
	Sponsor: Canadian Institutes for Health Research (CIHR) and Philips-Respironics
0044 0040	Inc.
2011-2013	ATOMIC-HF: A Double-blind, Randomized, Placebo-controlled, Multicenter Study
	to Evaluate the Safety and Efficacy of IV Infusion Treatment with Omecamtiv Mecarbil in Subjects with Left Ventricular Systolic Dysfunction Hospitalized for
	Acute HF, Site PI
	Sponsor: Amgen, Inc.
2011-2016	Symplicity HTN III: Renal Denervation in Patients with Uncontrolled Hypertension,
2011 2010	Site PI
	Sponsor: Medtronic, Inc.
2012-2013	<b>EXACT-HF</b> : Effects of Xanthine Oxidase Inhibition in Hyperuricemic Heart Failure
	Patients, Site PI; Sponsor: NIH Heart Failure Network
2012-2013	ROSE: Renal Optimization Strategies Evaluation in Acute Heart Failure, Site PI
	Sponsor: NIH Heart Failure Network
2012-2013	RED Rose: Reliable Evaluation of Dyspnea in the HF Network ROSE Study, Site
	PI; Sponsor: NIH Heart Failure Network
2013-2015	FIGHT: Functional Impact of GLP-1 for Heart Failure Treatment, Site PI
2044 2040	Sponsor: NIH Heart Failure Network
2014-2016	ATHENA-HF: Aldosterone Targeted NeuroHormonal CombinEd with Natriuresis
2014-2016	TherApy, Site PI; Sponsor: NIH Heart Failure Network IRONOUT-HF: Oral Iron Repletion effects ON Oxygen UpTake in Heart Failure,
2014-2010	Site PI
	Sponsor: NIH Heart Failure Network
2016-current	INDIE-HFpEF: Inorganic Nitrite Delivery to Improve Exercise Capacity in HFpEF,
2010 00110111	Site PI
	Sponsor: NIH Heart Failure Network
2016-current	LIFE: Entresto <sup>™</sup> (LCZ696) In Advanced Heart FailurE, Site PI
	Sponsor: NIH Heart Failure Network
2016-current	GRAHF 2: Genomic Response Analysis of Enhanced Heart Failure Therapy in
	African Americans; Site PI
	Sponsor: NIH R01 MD009118-01, Dennis M. McNamara, PI
2017-current	<b>SUBQ-HF</b> Pilot Study: Subcutaneous Furosemide in Acute Decompensated HF

Site PI; Sponsor: NIH Heart Failure Network

2018-current Protocol Number ROX US HTN-01: A prospective, randomized, adaptive, double-

blind, sham-controlled, multicenter study to evaluate the ROX Coupler in subjects

with hypertension

Site PI; Sponsor: ROX Medical, Inc.

# (C) Co-Principal Investigator

1989-1994 NIH RO1 (Marc D. Thames, MD, PI)

"Cardiac Receptor with Vagal C-Fiber Afferents"--\$810,237

1991-1995 Merit Review (Marc D. Thames, MD, PI)

"Reflex Control in Congestive Heart Failure" Department of Veterans Affairs--\$653,100

2012-2019 NIH Heart Failure Network, HL110336-01 - \$2,500,000

Co-PI, 10% effort, Cleveland Center, project entitled:

"Renal Sympathetic Denervation in Congestive Heart Failure"; Wilson Tang, MD,

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# **10) Bibliography** (underline indicates active hyperlink)

### (A) Articles

- 1. <u>Dibner-Dunlap ME</u>, Eckberg DL, Magid NM, Cintrón-Treviño NM. The long-term increase of baseline and reflexly augmented levels of human vagal-cardiac nervous activity induced by scopolamine. Circulation. 1985 Apr;71(4):797-804.
- 2. <u>Dibner-Dunlap ME</u>, Thames MD. Baroreflex control of renal sympathetic nerve activity is preserved in heart failure despite reduced arterial baroreceptor sensitivity. Circ Res. 1989 Dec;65(6):1526-35.
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### 11) Scientific and Educational Presentations

November 1989	Chairman, Session on Reflex Control in Heart Failure
November 1991	62nd Scientific Sessions of the American Heart Association Chairman, Session on Baroreflex Mechanisms in Normal and Disease States 64th Scientific Sessions of the American Heart Association
June 1992	9th Annual Health Science Association Cardiovascular Research Conference
November 1992	Young Investigators Symposium, West Point, Pennsylvania Chairman, Session on Baroreceptors and Baroreflexes
November 1993	65th Scientific Sessions of the American Heart Association Chairman, Session on Autonomic/Reflex Control: Heart Failure and Exercise
	66th Scientific Sessions of the American Heart Association
March 1995	"Neurohumoral Mechanisms of Heart Failure: Potential Utility of Angiotensin II Antagonists"; Symposium on New Therapeutic Agents in the Management of Hypertension and Heart Failure: Angiotensin II Receptor Antagonists, Division of Hypertension, Case Western Reserve University, Cleveland, OH
September 1995	CSF Levels of Angiotensin-II Are Decreased in Congestive Heart Failure American College of Cardiology, Ohio Chapter
March 1996	"Baroreflex in Heart Failure"; Neurohormones in Heart Failure Expert Panel Orlando, Florida (sponsored by Medtronic, Inc.)
April 1996	Chairman, Session on Neural Control of Circulation; Experimental Biology meeting, Washington, DC
May 1996	"Neuroexcitatory State and Disease Progression in Congestive Heart Failure" Symposium on Exercise in Congestive Heart Failure
	American College of Sports Medicine, Cincinnati, Ohio
September 1996	Special invitation to speak at XXIII Argentine Congress of Cardiology

	Decree Aires Associate
January 1000	Buenos Aires, Argentina "Challenges and Braggess in Managing Hypertansian". Detroit, Michigan
January 1998 April 1998	"Challenges and Progress in Managing Hypertension", Detroit, Michigan Invited presentation, Research Day, Cleveland VAMC:
Aprii 1990	"Congestive Heart Failure: From Leaves to Snake Venom and Beyond"
May 1998	Invited presentation, "Abnormalities of Autonomic Control in Heart Failure", Second
Iviay 1990	Annual Retreat of the Cardiac Bioelectricity Research and Training Center, CWRU
November 1998	Chairman, Session on Mechanisms of Autonomic Control in Heart Failure
140401111001 1000	71st Scientific Sessions of the American Heart Association
November 1998	"Cholinergic control in heart failure"
	Cleveland Clinic Foundation Anesthesia Grand Rounds
April 1999	"Nocturnal Hypoxemia: Congestive Heart Failure or Sleep Apnea?"
•	Invited speaker, conference on Cardio-Pulmonary Evaluation and Management in
	Clinical Practice, sponsored by University Hospitals of Cleveland and CWRU
August 1999	"Role of Ganglionic Transmission in Parasympathetic Abnormalities in Heart
	Failure"
	The Pascal Goldschmidt Invited Speaker,
	The Ohio State University Medical Center, Heart and Lung Institute, Columbus, OH
January 2000	"Issues of Aspirin and ACE Inhibition Use"
la	PEACE investigators' meeting, Palm Harbor, Florida
January 2000	"Strategies for Increasing Patient Enrollment"
February 2000	PEACE investigators' meeting, Palm Harbor, Florida "Cholinergic Mechanisms in Heart Failure"
rebluary 2000	Howard University, Department of Pharmacology, Washington DC
June 2000	Invited Speaker and Visiting Professor, "Abnormalities of Cholinergic Control in
Julic 2000	Heart Failure", University of Toronto, Toronto, Ontario, Canada
September 2000	US Representative, CHARM Steering Committee Meeting, Amsterdam, The
Coptombol 2000	Netherlands
November 2000	Chairman, Session on Autonomic Cardiovascular Control: Basic Nitric Oxide and
	Natriuretic Peptide Mechanisms, 73rd Scientific Sessions of the American Heart
	Association
December 2000	"Abnormalities of Sympathetic and Parasympathetic Control in Heart Failure";
	Brigham and Women's Hospital Cardiology Grand Rounds, Harvard University,
	Boston, Mass.
March 2001	"ARB's vs. ACEI's vs. Beta Blockers: Which Treatment for Heart Failure?"
	Symposium on CV Disease: The Promise of Prevention and Reversal of Target
lara - 0004	Organ Damage, Palm Springs, California
June 2001	"Recruitment and Retention in the PEACE trial", panel discussion
June 2001	PEACE investigators meeting, San Antonio, Texas "Mechanisms of Baroreflex Abnormalities in Heart Failure"
Julie 200 i	Simposio Internacional de Salud, Rosario, Argentina
July 2001	"Strategies to Optimize the Clinical Care of the Heart Failure Patient"
July 2001	Heart Failure Management 2001, Amelia Island, Florida
September 2001	US Representative, CHARM Steering Committee Meeting, Stockholm, Sweden
September 2001	"Pathophysiology of Heart Failure due to diastolic dysfunction"
	Common Cardiac Approaches: Focused Approaches to Evaluation and
	Management University Hospitals of Cleveland, Cleveland, Ohio
September 2001	"Acutely Decompensated Heart Failure: Presentation and Management"
-	Heart Failure Society of America Meeting, Washington, DC
October 2001	"Unusual Features of Heart Failure—sleep disordered breathing in patients with
	heart failure"; Santa Fe Colloquium on Cardiovascular Therapy, Santa Fe, New
	Mexico; Sponsored by the American College of Cardiology
November 2001	"What is the Role of Angiotensin II Receptor Antagonist in the Treatment of Heart

Failure?"

	The First WHF Global Conference on Cardiovascular Clinical Trials, Hong Kong, China
November 2001	"Trial Presentation: IMPRESS/OVERTURE"
NOVEITIDEI 2001	The First WHF Global Conference on Cardiovascular Clinical Trials, Hong Kong,
	China
November 2001	"Strategies and Designs of Clinical Trials in Heart Failure – What Are Appropriate
November 2001	Endpoints?"
	The First WHF Global Conference on Cardiovascular Clinical Trials, Hong Kong,
	China
November 2001	"Update on Pathophysiology and Treatment of Heart Failure"
	Medical Grand Rounds, Logan Hospital, Logan, West Virginia
February 2002	"Design and implementation of Cardiovascular Clinical Trials"
•	University Hospitals of Cleveland Residents conference
February 2002	"Myths and Realities of Beta Blockade in Heart Failure"; CME Symposium on
·	ABC's of Heart Failure, sponsored by Case Western Reserve University,
	Cleveland, OH
March 2002	"Neurohumoral Modulation in Heart Failure"
	Grand Rounds, West Allis Memorial Hospital, West Allis, Wisconsin
March 2002	Co-Chairman, session on "Exercise and the Heart Failure Patient: Provocative
	Observations", American College of Cardiology meetings, Atlanta, Georgia
March 2002	"Neurohumoral Modulation in Heart Failure"
	Medical Grand Rounds, McGuire VA Medical Center, Richmond, Virginia
June 2002	"Using Quality Reports in the CHARM Trial"
	CHARM International Monitors Meeting, Megève, France
July 2002	Panel Discussion, "Role of the Heart Failure Clinic Team", Heart Failure
4	Management 2002: Established Therapy and New Frontiers, Amelia Island, Florida
August 2002	"Beta-blocker use in patients with COPD and heart failure"
Navarahan 0000	Toprol-XL Core US Advisory Board Meeting, Mackinaw Island, MI
November 2002	Invited Speaker, "Beta Blockers as Part of the New Standard of Care in Heart
Fobruary 2002	Failure"; Medical Grand Rounds, St. Vincent Health Center, Erie, Pennsylvania
February 2003	"Devices in Heart Failure" Workshop; CME symposium on ABC's of Heart Failure,
April 2003	sponsored jointly by CWRU, University Hospitals, and The Cleveland Clinic "Hyperthyroid heart disease"
April 2003	Morbidity and Mortality Rounds, University Hospitals of Cleveland
April 2003	"Acute management of patients with atrial fib and flutter with rapid ventricular
April 2005	response"
	Morbidity and Mortality Rounds, Louis Stokes Cleveland VA Medical Center
May 2003	"Update on Heart Failure"; Advanced Practice Continuing Education Nursing
ay 2000	Series, Louis Stokes Cleveland VA Medical Center, Cleveland, Ohio
June 2003	"Legionnaire's Myocarditis"
	Morbidity and Mortality Rounds, Louis Stokes Cleveland VA Medical Center
July 2003	"Utilization of beta blockade in patients with potential contraindications"
,	Heart Failure Management 2003: Established Therapy and New Frontiers
	Amelia Island, Florida
August 2003	"Myths of beta blocker use in patients with cardiovascular disease"
	Medical College of Wisconsin, Milwaukee, WI
September 2003	"Control of the circulation in heart failure: effects of exercise training"
	Trends in exercise physiology and cardiac rehabilitation Symposium, Rome, Italy
September 2003	"Effect of Candesartan on reduction of events in patients with HF and preserved
	systolic function—results of the CHARM-Preserved study"
	Principle Investigators Meeting, Heart Failure Society of America, Las Vegas, NV
September 2003	CHARM program, Panel discussion; Satellite Symposium
	Heart Failure Society of America, Las Vegas, NV

September 2003	"How to detect breathing-related disorders in patients with heart failure"
0-1-10000	Lunch and Learn Symposium, Heart Failure Society of America, Las Vegas, NV
October 2003	"Beta blocker therapy in congestive heart failure"
October 2003	29th Annual Appleton Heart Institute Cardiovascular Conference, Appleton, WI "Heart failure in women"; Mini-Medical School Series
October 2003	Case Western Reserve University, Cleveland OH
November 2003	"New Therapeutic Strategies in HF Management: Results from the CHARM
14070111001 2000	Program"
	CME Satellite Symposium—Data Talks! The latest chapter on ARBs in HF
	American Heart Association Scientific Sessions, Orlando, Florida
	Also on the program: Marc Pfeffer, MD, PhD; Karl Swedberg, MD, PhD; Chris
	Granger, MD; James Young, MD. This program was recorded for a web-based
	CME module on TheHeart.org.
November 2003	Co-Chair, session on "Featured Research: Novel Neuronal Mechanisms of
	Cardiovascular Dysregulation", American Heart Association Meeting, Orlando, Florida
November 2003	Co-Chair, session on "Neurohumoral Control and Heart Failure"
November 2003	American Heart Association Meeting, Orlando, Florida
December 2003	"Treatment of Diastolic Dysfunction"
	American Society of Hypertension Mid-Atlantic Chapter Meeting, Washington DC
December 2003	Chair, CHARM Educational Committee Meeting, New York City
December 2003	"Myths and Realities of beta blocker use in patients with HF"
	Cleveland Clinic Foundation, HF seminar series
January 2004	"Prevent, Protect, Prolong: The Role of Beta Blockers in the Fight Against
	Cardiovascular Disease"
February 2004	Pri-Med Steering Committee Co-Chair, Faculty Training Meeting, Washington DC "Optimizing Subspecialty Outpatient and Procedure Clinics"
1 Coluary 2004	Advanced Clinic Access Implementation meeting, Department of Veterans Affairs
	Baltimore, MD
February 2004	"Myths and Realities of beta blocker use in patients with HF"
•	Cardiology Grand Rounds, University Hospitals of Cleveland, Cleveland, OH
February 2004	"New approaches in heart failure management", and
	"ARB's in HF: New evidence from the CHARM trial"
	20th Scientific Meeting of the International Society of Hypertension
March 2004	Sao Paulo, Brazil "Abnormalities of Autonomic Control in HF"
March 2004	Cardiology Grand Rounds, MetroHealth Medical Center, Cleveland, OH
March 2004	"Heart Failure: Key Learning from New Findings"
Maron 2001	Meeting of Canadian Cardiologists
	in association with the American College of Cardiology Meeting, New Orleans
March 2004	"Heart Failure with preserved systolic function: new insights from recent trials"
	Satellite Symposium, American College of Cardiology Meeting, New Orleans
March 2004	"HF patients with Pulmonary Hypertension"
	Online case presentation and discussion
March 2004	TheHeart.org [Satellite programs: Failings of the heart]
March 2004	"Neurohormonal blockade in HF: Is there an upper limit?"  VA Community Based Outpatient Clinic CME Teleconference, Cleveland, OH
April 2004	"Evaluation of the Newest Studies Impacting Heart Failure"
7 tp. 11 200 1	Academy of Managed Care Pharmacy National Meeting, San Francisco, CA
April 2004	"Heart failure with preserved systolic function:
	Current perspectives and treatment options"
	Vascular Biology Working Group meeting, Orlando, FL
April 2004	Invited presentation, Research Day, Cleveland VAMC

	"Recent advances in heart failure treatment: Far beyond leaves and snake venom"
April 2004	"Manipulation of the Renin Angiotensin System in HF: ACEIs and ARBs"
7 pm 2004	Concepts and Controversies in Heart Failure, Dallas, TX
M 000 4	Sponsored by the Dallas VA Medical Center
May 2004	"Translating the trials: Applying evidence-based medicine to clinical practice"
	Vascular Biology Working Group meeting, Philadelphia, PA
May 2004	"Heart Failure Guidelines: What's on the Horizon?"
	16th Annual National Managed Health Care Congress, Washington, DC
June 2004	"Effects of exercise on autonomic function in heart failure"
	Exercise Rehabilitation Symposium, St. Paul Hospital, Barcelona, Spain
June 2004	"Neurohormonal blockade in HF: is there an upper limit?"
04.10 200 .	Bronx Lebanon Hospital Center, Bronx NY
June 2004	"Trials of the renin angiotensin system in heart failure"; Regional Faculty
Julie 2004	
In the COO 4	Development Program, Charleston, SC (sponsored by AstraZeneca)
June 2004	"Neurohormonal blockade in HF: is there an upper limit?"
	Cardiology conference, University Hospitals of Cleveland
July 2004	"Heart Failure with an Emphasis on Ischemia: Pathophysiology, and
	How is Heart Failure Different in the Patient with Ischemia?"
	Comprehensive Treatment of Heart Failure, Seattle, Washington
	Sponsored by the American College of Cardiology (co-Director of program)
	http://www.acc.org/education/programs/brochures/pina_july04.htm
July 2004	"Medical Therapy Present and Future: Are There any New Agents in the Pipeline?"
odly 200-1	Comprehensive Treatment of Heart Failure, Seattle, Washington
lub 2004	Sponsored by the American College of Cardiology
July 2004	"Diagnosing and Treating Sleep Apnea in the Heart Failure Patient"
	Heart Failure Management 2004: Established Therapy and New Frontiers
	Amelia Island, Florida, Sponsored by the University of North Carolina
July 2004	"Utilization of Beta Blockade in Patients with Potential Contraindications"
	Heart Failure Management 2004: Established Therapy and New Frontiers
	Amelia Island, Florida, Sponsored by the University of North Carolina
August 2004	10th International Congress of Internal Medicine of the Hospital de Clínicas
ragast = c c :	Buenos Aires, Argentina
	Pre-Congress Course; four presentations:
	"Abnormalities of autonomic control in heart failure"
	"Update on treatment of heart failure"
	"Myths and realities of beta blocker use in patients with heart failure"
	"Case report—HF with Pulmonary Hypertension"
August 2004	"Heart failure in patients with preserved systolic function"
	Plenary Session, 10 <sup>th</sup> International Congress of Internal Medicine of the Hospital de
	Clínicas
	Buenos Aires, Argentina
September 2004	"Progress in the Treatment of Chronic Heart Failure"
	Satellite Symposium: Breakthroughs in Heart Failure Treatment:
	Clinical Management of Patients With Systolic and Diastolic Dysfunction
	Heart Failure Society of America Scientific Sessions, Toronto, Ontario, Canada
Contombox 2004	
September 2004	"How to Assess Diastolic Dysfunction"
•	Heart Failure Society of America Scientific Sessions, Toronto, Ontario, Canada
September 2004	"Heart failure patients with diastolic dysfunction"; TheHeart.Org
	[Satellite programs: Failings of the heart]
	http://www.theheart.org/viewArticle.do?primaryKey=298417
September 2004	"Biventricular Devices in Perspective: a Round Table Discussion"
•	17th Annual Heartbeats Fast and Slow Symposium, Cleveland, Ohio
October 2004	"Translating the trials: Applying evidence-based medicine to clinical practice"
20.000. 200 .	

October 2004	Vascular Biology Working Group regional faculty meeting, New York, New York "Neurohormonal blockade in HF: Have we reached the upper limit?" Vascular Biology and Hypertension Research Seminar
October 2004	University of Alabama, Birmingham, Alabama.  "Unique aspects of PEACE vs. HOPE and EUROPA: Comparison of baseline characteristics."
November 2004	Satellite Symposium, Canadian Cardiovascular Congress, Calgary, Alberta, CA "Neurohormonal blockade in HF: Have we reached the upper limit?" Cardiology Grand Rounds, University of Missouri, Columbia, Missouri
December 2004	"ACE Inhibitors, ARBs, and Emerging Heart Failure Treatment Strategies"  Online CME program (with Harry Leider, MD)
January 2005	"Do ACE Inhibitors offer protection in CAD patients with normal systolic function?" Symposium, Quebec Society of Hypertension, Quebec City, Quebec, Canada
January 2005	"HF in patients with preserved systolic function: Current perspective and treatment options"
February 2005 March 2005	VA Community Based Outpatient Clinics CME teleconference, Cleveland, Ohio PriMed Curriculum Review Faculty member, Washington, DC Angiotensin receptor blockers in heart failure: More than just another alternative.
April 2005	www.theheart.org [Satellite programs: Heart throb] "Quality of Life among women with heart failure: Does EF Matter?"  1st Latin American Symposium of Cardiovascular Diseases in Women
May 2005	San Juan, Puerto Rico "Understanding Heart Failure in African Americans" "Nitric Oxide-Enhancing Medication and Endothelial Dysfunction"
June 2005	"African American Heart Failure Trial (A-HeFT): Study Design and Results" Regional Advisory Board, Dearborn, Michigan "Evolution in the Treatment of Heart Failure" "Comparing CHARM with Other ARB Trials"
June 2005	Managed Markets Meeting, Philadelphia, PA "Research in the Department of Veterans Affairs"
June 2005 July 2005	Congressional Office Staff Day, Louis Stokes Cleveland VAMC, Cleveland, Ohio CHARM speaker training program (faculty), Boston, MA "Utilization of Beta Blockade in Patients with Potential Contraindications"  Amelia Island Heart Failure Undete (appropried by University of North Caroline)
August 2005	Amelia Island Heart Failure Update (sponsored by University of North Carolina) "Improving Outcomes in Heart Failure" Kettering Medical Center Grand Rounds, Kettering OH
September 2005	"How to Start and Adjust Neurohormonal Therapies in HF" Heart Failure Society of America Scientific Sessions, Boca Raton, Florida
September 2005	"New Heart Failure Guidelines: The Role of Angiotensin Receptor Blockade" Heart Failure Society of America Satellite Symposium, Boca Raton, Florida
September 2005	"From Inception to reality: The CHARM story" www.theheart.org [Satellite programs (CME): Symposium highlights]
September 2005	"An Advanced Clinic Access Approach to HF clinics: Early experience with Shared Medical Appointments" National Cardiology Advanced Clinic Access teleconference, Department of
November 2005	Veterans Affairs  "Alterations of the parasympathetic nervous system in heart failure: does restoration slow disease progression?
November 2005	MetroHealth Medical Center Research Seminar, Cleveland, OH Moderator, Samuel A. Levine Young Clinical Investigator Award
November 2005	American Heart Association Scientific Sessions, Dallas, Texas Invited Speaker and Moderator "How to Establish Best Practices for Medical Therapy of HF"

	American Heart Association Colortific Cossists Dellas Toylo
I	American Heart Association Scientific Sessions, Dallas, Texas
January 2006	"Abnormalities of conduit vessel function in hypertension and heart failure"
	Cardiology Conference, Oklahoma University Health Science Center
	Oklahoma City, Oklahoma
January 2006	"Cardiovascular control mechanisms in health and disease"
=	Pulmonary Critical Care Research Conference, CWRU
February 2006	"Management of Acute Decompensated Heart Failure" Workshop
	CME symposium on ABC's of Heart Failure, sponsored jointly by CWRU, University
	Hospitals, The Cleveland Clinic, and the Louis Stokes Cleveland VA Medical
	Center
March 2006	Co-Chair, Meet the Experts
	"Comorbidities in Heart Failure: Sleep Apnea, Anemia, and Depression"
	"Sleep disordered breathing in patients with heart failure"
	American College of Cardiology Scientific Sessions, Atlanta, Georgia
March 2006	Clinical Controversies: Pharmacologic Therapy for Diastolic Heart Failure
	"Angiotension-Receptor BlockersOpening Arguments/Rebuttal, Antagonist"
	American College of Cardiology Scientific Sessions, Atlanta, Georgia
March 2006	"Angiotensin receptor blockers in hypertension and heart failure-
	do the differences matter?"
	"Heart failure management guidelines and their implementation in practice"
	"What is the future of ARBs in patients with cardiovascular disease?"
	Latin American Regional Cardiovascular Meeting, Guatemala City, Guatemala
April 2006	"Hospitalization and Discharge of the Heart Failure Patient"
•	Live video broadcast (video-taped and re-broadcast online)
	Sponsored by the Department of Veterans Affairs and by the Annenberg Center
	http://www.5starmeded.com/_rc/rc89.html
April 2006	"Functional Class, Quality of Life, and 6 Minute Walk test in heart failure patients
	with low vs. preserved systolic function: Baseline data from HearT-I"; Research
	ShowCASE, sponsored by Case Western Reserve University, Cleveland, Ohio
May 2006	"Acute Decompensated Heart Failure: An Updated Management"
ay 2000	2 <sup>nd</sup> International Meeting of Atherothrombosis & Panvascular Intervention of
	Guadalajara, Guadalajara, Mexico
July 2006	"Utilization of Beta Blockade in Patients with Potential Contraindications"
ouly 2000	Amelia Island Heart Failure Update (sponsored by University of North Carolina)
July 2006	"How to Conduct Shared Medical Appointments for HF Patients"
July 2000	Amelia Island Heart Failure Update (sponsored by University of North Carolina)
September 2006	"How to use Beta Blockade in Patients with Potential Contraindications"
Ocptember 2000	'How to Session', Heart Failure Society of America Scientific Sessions, Seattle,
	Washington
September 2006	"Alterations of the parasympathetic nervous system in HF:
September 2000	does restoration slow disease progression?"
	Cardiology Grand Rounds, Univ. of Colorado Health Sciences Center
Contambor 2006	Denver, Colorado  "Now Cuidolina Recommendations for UE Managements
September 2006	"New Guideline Recommendations for HF Management:
	Implications for Clinical Practice"
Oatabar 2000	Cardiology Updates, Los Angeles
October 2006	"Improving Outcomes in HF: New Insights from Vascular Biology"
	Medical Grand Rounds, WRCS Forum Health, Northside Medical Center
0-1-10000	Youngstown, OH
October 2006	"Contemporary management of the HF patient with co-morbidities:
	can't sleep, can't breathe, can't pee"
0	Cardiology Grand Rounds, MetroHealth Medical Center, Cleveland, Ohio
October 2006	"Update on the Treatment of Heart Failure"

0	CCH Providers Retreat, MetroHealth System, Cleveland, Ohio
October 2006	"Cardiac Monitoring Devices for CHF: are noninvasive alternatives just as good?"
	Cardiac Monitoring Devices for CHF, invited speaker and panel member
0 1 1 0000	Transcatheter Cardiovascular Therapeutics Annual Meeting, Washington, DC
October 2006	"Implications of Risk Factor Reduction: Clinical Trials and Meta-Analyses" and
	"Pharmacologic Differences Among ß-blockers: Recent Trials in Hypertension and
	HF"; Symposium entitled "Clarifying the Role of Beta-Blockers in the Hypertension
	Treatment Paradigm', Miami, Florida
November 2006	"Heart Failure: Exactly What is Failing and What Can We Do About It?"
	Medicine Grand Rounds, MetroHealth Medical Center, Cleveland, OH
November 2006	"Preserving Ventricular Function in HF"; AHA CME Satellite Symposium entitled
	"Targeting Novel Mechanisms in the Management of Cardiovascular Risk"
N 1 0000	Chicago, Illinois; Peter Libby, MD, Chair
November 2006	"Heart Failure Across the Ages"; theheart.org. [Satellite programs (CME) >
	Spotlight];
	Panel with Thomas Giles MD, Philip A Poole-Wilson MD, and Clyde W Yancy MD
December 2000	Webcast: http://www.theheart.org/article/752851.do
December 2006	"Beta 1-Cardioselective beta blockers for Management of Hypertension and HF:
	Evidence-based Reviews of the Current Literature and Recent Clinical Trials"
	Invited Speaker and Moderator Symposium entitled "Optimizing Clinical Strategies in Heart Disease", Dallas,
	Texas
	Webcast: http://www.or-live.com/cmeducation/1852/
December 2006	"HypertensionWRAP: Focus on Approach to Heart Failure"
December 2000	Webcast CME program: <a href="http://healthwraps.com/emailthis/default.aspx?id=256">http://healthwraps.com/emailthis/default.aspx?id=256</a>
December 2006	"Role of Vasopressin Antagonists in the Treatment of Acute Decompensated HF"
Doddingor 2000	Satellite Broadcast symposium entitled: "Acute Decompensated Heart Failure:
	Established and Emerging Treatment Strategies"; Dallas, Texas
	Webcast: http://www.i3cme.com/
December 2006	Invited guest, WZAK radio talk show, "Heart Disease in African Americans"
March 2007	"Overview of the patient with heart failure: Considerations for Exercise and Activity"
	Ohio Association for Cardiovascular and Pulmonary Rehabilitation, Cleveland, OH
April 2007	"Heart Failure: From Gene to Bedside (with emphasis on clinical aspects)"
r	International Society for Computerized Electrocardiology 32nd Annual Conference
	Cancún, Mexico
July 2007	"Utilization of Beta Blockade in Patients with Potential Contraindications"
	Heart Failure Management 2007, Amelia Island, Florida
July 2007	"How to Conduct Shared Medical Appointments for HF Patients"
·	Heart Failure Management 2007, Amelia Island, Florida
July 2007	"What's Next after ACE Inhibitors and Beta Blockers in patients with Symptomatic
	Heart Failure"; XIV Puerto Rican Congress of Cardiology, Fajardo, Puerto Rico
July 2007	"Use of Beta Blockers in Patients with Potential Contraindications"
	XIV Puerto Rican Congress of Cardiology, Fajardo, Puerto Rico
September 2007	"Effects of exercise on autonomic control in patients with heart failure"
	62 <sup>nd</sup> Brazilian Congress of Cardiology, São Paulo, Brazil
September 2007	"What should we add to ACE inhibitors and beta-blockers in the symptomatic
	patient with HF?"; 62 <sup>nd</sup> Brazilian Congress of Cardiology, São Paulo, Brazil
October 2007	"Taking the Congestion out of Heart Failure: Update on Acute Decompensated
0 1 1 000=	HF"; Medical Grand Rounds, MetroHealth Medical Center, Cleveland, OH
October 2007	"Therapeutic Objectives: Hypertension to Heart Failure"
	Reaching New Goals in Hypertension Management Symposium
October 2007	4th Annual Midwest Hypertension and Vascular Biology Update, Chicago, IL
October 2007	"Heart Failure: Recent Advances in Pharmacologic and Device Management"

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	The Central New York Academy of Medicine
	Dr. Willard H. Willis 58th Annual Heart Teaching Day, Whitesboro, NY
October 2007	"Update on Heart Failure"; Pulmonary Critical Care Fellows Conference
	MetroHealth Medical Center, Cleveland, OH
October 2007	Cardiac Monitoring Devices for CHF Debate: Role of Invasive Pressure Monitoring
	for Management of Chronic Heart Failure (Antagonist: "Nonsense: All I Need Is a
	Good Scale and a Compliant Patient!"
	Transcatheter Cardiovascular Therapeutics 2007, Washington, DC
October 2007	"Can We Take the Congestion Out of Failure and Keep the Kidney Afloat?"
00.000. 200.	Symposium, "Acute Decompensated Heart Failure in the ED and Beyond"
	MetroHealth Medical Center/Case Western Reserve University
October 2007	"From Acute to Chronic Disease Management" (with Sharon Mack, CNP)
Octobel 2001	
	Symposium, "Acute Decompensated Heart Failure in the ED and Beyond"
Na	MetroHealth Medical Center/Case Western Reserve University
November 2007	How to Manage Polypharmacy in Heart Failure: Which Drugs for Which Patients?"
	Invited Presenter at AHA Scientific Sessions, Orlando, Florida
December 2007	"Overview of CHF Management", Department of Physical Medicine and
	Rehabilitation Resident Conference, MetroHealth Medical Center, Cleveland, OH
January 2008	"Use of beta-blockers in patients with Potential Contraindications"
	Invited Speaker, 24th Annual Frontiers of Cardiology Meeting, Winter Park,
	Colorado
January 2008	"Medical Students in the 21st Century", Invited Panel Member
•	24th Annual Frontiers of Cardiology Meeting, Winter Park, Colorado
February 2008	"Update on Congestive Heart Failure"
. 0.0.00.1	CME talk for MetroHealth Internal Medicine Group, Cleveland, OH
February 2008	"Current Clinical Trials in ADHF: ASCEND and PROTECT and THE-BALANCE"
1 Oblidary 2000	Cardiology Grand Rounds, MetroHealth Medical Center, Cleveland, OH
April 2008	"Blood Pressure and New Onset Heart Failure"
April 2000	Symposium entitled "New Onset Heart Failure: What We Know and What We
	Don't Know"
A == =:L 0000	American College of Cardiology 2008 Scientific Sessions, Chicago, Illinois
April 2008	"Hyponatremia in Heart Failure: Current Concepts and Future Directions"
	Medical Grand Rounds, Alpena Regional Medical Center in Alpena, Michigan
April 2008	"Acute Decompensated Heart Failure: new and promising therapies"
	International Conference on Invasive Cardiology of Guadalajara (CICIG 2008)
	Guadalajara, Mexico
May 2008	"Evaluation & treatment of patients with heart failure, what's new on the horizon?"
	"Use of beta blockers in patients with cardiac disease when potential
	contraindication exists"
	"Taking the Congestion out of Heart Failure: Update on Acute Decompensated
	Heart Failure (ADHF)"
	"What next after ACÉ inhibitors and beta blockers in patients with chronic HF?"
	American College of Cardiology Distance Learning program
	Chandigarh and Bhopal, India
May 2008	"Acute Decompensated Heart Failure (ADHF): Risks, Recognition and Rx"
May 2000	MetroHealth Life Flight Critical Care Symposium, Cleveland, Ohio
June 2008	Moderator, session entitled "Key Papers"
JUII0 2000	·
luna 2000	Heart Brain Medicine Summit, Cleveland Clinic, Cleveland, Ohio
June 2008	Moderator, session entitled "Improving Post – Discharge Outcomes: Assessment,
	Post-Discharge Monitoring"
	5 <sup>th</sup> International Meeting, Acute Heart Failure Syndromes
	Clinical Trials & the Continued Need to Improve Post Discharge Outcomes
	Stroesa Italy

Stressa, Italy

"Update on Heart Failure" July 2008 Resident Conference, MetoHealth Medical Center, Cleveland, Ohio Moderator and Case Vignettes: "What do we add after "Standard HF Therapy?" July 2008 Invited Speaker: "How to Conduct Shared Medical Appointments for HF Patients" Panel Member: "Role of the Heart Failure Clinic Team" Heart Failure Management 2008: Established Therapy and New Frontiers Amelia Island, Florida Invited Speaker: "Three Generations of ß-Blockers in Heart Failure: A Clinical September 2008 Review" Moderator: "The Heart Failure Continuum (Prevention to Destination) Is Best Managed in the USA" Moderator: "An Endomyocardial Biopsy Should Be Performed in Most HF Patients" Heart Failure Society of America 12th Annual Scientific Meeting Toronto, Ontario, Canada Moderator: "Clinical Practice 2008: Heart Failure with Preserved Systolic Function" November 2008 Scientific Sessions 2008, American Heart Association New Orleans, Louisiana Invited speaker: "Sleep Disordered Breathing in CHF" January 2009 Frontiers of Cardiology 2009, Winter Park, CO February 2009 Invited speaker: "Lessons Learned from Previous Cardiovascular Trials" Red-HF<sup>™</sup> Trial Study Coordinator Meeting, Washington, DC February 2009 Invited speaker: "ADHF-Transitions in Care from the ED and Beyond" ABC's of Heart Failure: Across the Continuum of Care from Risk Prevention to Advanced Heart Failure Diagnosis to Prognosis; Cleveland, Ohio. March 2009 "Heart Failure" Integrating Care Panel: "The Patient with Heart Failure and Co-morbid Diseases" Northeast Ohio Collaborative to Improve Chronic Disease Care, Cleveland, OH "HF Hospitalizations: a window of opportunity to impact readmission rates" **April 2009** American Heart Association Get With the Guidelines Workshop, Columbus, OH April 2009 "How-To's of Ultrafiltration" Cardiology Fellows Seminar, MetroHealth Medical Center, Cleveland, OH May 2009 "Renal denervation for the treatment of refractory hypertension" Interview on WCPN, NPR Station, Cleveland, OH http://www.wcpn.org/index.php/WCPN/news/26171/ "Medical trial testing a surgical fix for blood pressure" May 2009 Interview in the Cleveland Plain Dealer http://www.cleveland.com/healthfit/index.ssf/2009/05/medical trial testing a surgi c.html "Reviewing the Clinical Impact of Beta-Blockers in Heart Failure" May 2009 PriMed Update, Dearborn, Michigan July 2009 Panel Moderator and Case Presenter: "What do we add after "Standard Therapy?" "How to Conduct Shared Medical Appointments for HF Patients" Heart Failure Management 2009, Amelia Island, Florida August 2009 "Nuts & Bolts -Evaluation & Treatment of the patient with Decompensated HF" Resident noon conference, MetroHealth Medical Center, Cleveland, OH Society for Heart Brain Medicine Annual Meeting, Co-Chair October 2009 "Therapeutic renal nerve denervation for Resistant Hypertension" Chicago, IL October 2009 "Management of Heart Failure in a Community Clinic After Discharge" Keynote Speaker, King's Daughters Medical Center, Heart and Vascular Update 2009; Ashland, KY "Therapeutic renal nerve denervation: a paradigm shift for the treatment of HTN?" November 2009

Heart Failure Seminar, Cleveland Clinic, Cleveland, OH

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January 2010	Invited speaker: "Novel Strategies for Lowering Blood Pressure" Panel member: "Ethics in Medicine"
Ionuon, 2010	Frontiers of Cardiology 2010, Winter Park, CO
January 2010	"Heart Failure begets Sleep Apnea begets Heart Failure:
	Do you know how your Heart Failure patients do and don't sleep?"
	American Heart Association / Get With The Guidelines BREATHE teleconference
	(247 participants)
February 2010	"Navigating the Challenge of Acute Decompensated Heart failure:
	Co-Mobidity Management and new Guidelines"
	CME Symposium Activity Director
	Keynote Speaker: "Update on new Guidelines for ADHF"
	MetroHealth Medical Center, Cleveland, OH
February 2010	"Anemia in Heart Failure"
•	RED-HF Investigator's Meeting, San Francisco, CA
March 2010	"Hospitalization and Mortality in Heart Failure"
	"Cardiomyopathies Basic and Clinical II"
	ACC Poster Discussant
	American College of Cardiology 59th Annual Scientific Session, Atlanta, Georgia
March 2010	"Assessment of Sleep Disordered Breathing in Heart Failure"
March 2010	Meet the Experts Panelist
	American College of Cardiology 59th Annual Scientific Session, Atlanta, Georgia
April 2010	"Renal Denervation for Resistant Hypertension"
April 2010	
	9th Annual Ray W. Gifford, Jr. Hypertension Symposium
M0040	Invited Speaker, 2010 National Kidney Foundation Spring Meeting, Orlando, FL
May 2010	"Sympathoexcitation in health and disease: new procedural-based approaches for
	sympathoinhibition and implications for disease states"
	Physiology seminar, University of North Texas Health Sciences Center, Ft. Worth,
	Texas
May 2010	"Heart Failure in Women and Minorities: What Do We Know and Is It Different?"
	Center for Health Disparities
	University of North Texas Health Sciences Center, Ft. Worth, Texas
July 2010	Moderator, HF Case Presentations
	Heart failure Management: Established Therapy and New Frontiers
	Amelia Island, FL
September 2010	"Breaking Down the HF Core Measures: A Physician's Approach"
	American Heart Association / Get With The Guidelines teleconference (255
	participants)
October 2010	"Cell and genetic therapy in Heart Failure: Late Breaking Trials from ECS
	Congress 2010"
	Cardiology Grand Rounds, MetroHealth Medical Center, Cleveland, OH
October 2010	"Navigating the Challenge of Acute Decompensated Heart failure:
	Co-Mobidity Management and New Guidelines"
	CME Symposium Activity Director; MetroHealth Medical Center, Cleveland, OH
October 2010	"HF update: relation to pulmonary disease"
	Pulmonary conference, MetroHealth Medical Center, Cleveland, OH
December 2010	"New procedure for the treatment of resistant hypertension"
	Interview, WDOK radio
	http://wdok.radio.com/2011/02/06/can-surgery-heal-high-blood-pressure-2/
January 2011	"Use of Exercise in the Management of Heart Failure"
-aay =0 : 1	Symposium on "New Implications in Cardiac Rehabilitation"
	Frontiers of Cardiology, Winter Park, Colorado
January 2011	Panel Member, Ethics Session
January 2011	Frontiers of Cardiology, Winter Park, Colorado
	Trontiers of Cardiology, Willier Faik, Colorado

January 2011	Physician Leadership Academy
·	MetroHealth Medical Center, Cleveland, OH
February 2011	"Parasympathetic function, remodeling and progression to heart failure"
April 2011	Investigator meeting for INOVATE-HF study, Minneapolis, Minnesota "Therapeutic Renal Denervation: A Paradigm Shift for the Treatment of Hypertension?"
September 2011	Keynote Address, Annual CV Symposium, Central Baptist Hospital, Lexington KY "Redistribution of the Venous Reservoir as a Cause of Decompensation in Heart Failure: Diagnostic and Therapeutic Implications" "Parasympathetic Ganglionic Neurotransmission in Heart Failure" ISAN/AAS-2011 Satellite Meeting, Frontiers in Therapeutic Targeting of the
	Autonomic Nervous System in Autonomic Disorders and Cardiovascular Disease, Búzios, Brazil
October 2011	"Newest Solutions for Decompensated Heart Failure"  Newest Solutions for Cardiac Problems: An Essential Update for Primary Care Physicians; Independence, OH
October 2011	"Why the scale will never tell the story: a vein tale of non-sloth and non-gluttony" Cardiology Grand Rounds, MetroHealth Medical Center, Cleveland, OH
January 2012	Moderator, session on "Heart Failure & Hypertension" Invited Speaker: "Sympathetic-mediated Volume Redistribution in Heart Failure" Invited Speaker: "Graduate Medical Education: The Cardiology Fellow of the 21st Century"
	Frontiers of Cardiology, Winter Park, Colorado
February 2012	"Update on Acute Decompensated Heart Failure"
March 2012	Pulmonary Fellows' Seminar, MetroHealth Medical Center, Cleveland, OH Invited member and speaker, Sympathetic Nervous System (SNS) Scientific
	Summit 2012; Prague, Czech Republic
March 2012	"Why the scale will never tell the story: a vein tale of non-sloth and non-gluttony" Cardiology Grand Rounds, University Hospitals of Cleveland, Cleveland, OH
April 2012	"Vagal Stimulation in Heart Failure - What is the Rationale?" German Cardiology Society, Satellite Symposium: Vagal Stimulation in Heart
	Failure; Mannheim, Germany
June 2012	"Why the scale will never tell the story: a vein tale of non-sloth and non-gluttony" Heart Failure Seminar, Cleveland Clinic Foundation, Cleveland, OH
July 2012	"When the Levee Breaks: Sympathetic Control of Splanchnic Vessels Leading to Acute Heart Failure"
	Invited Lecture, Conference on Autonomic Regulation of Cardiovascular Function
September 2012	in Health and Disease, American Physiological Society, Omaha, Nebraska (USA) "Autonomic Modulation - For the Periphery or the Heart?"
	Invited lecture, Heart Failure Society of America Scientific Sessions, Seattle, WA
October 2012	"Newest approaches for treatment of hypertension: are procedures and devices ready for prime time?"
	Second Annual "Newest Solutions to Cardiology Problems", CME Program, Cleveland, OH
October 2012	"How to give a terrific talk and present an absorbing abstract"
	Cardiology Grand Rounds, MetroHealth Medical Center, Cleveland, OH
January 2013	29th Annual Frontiers of Cardiology, Winter Park, Colorado
	Session Moderator, Heart Disease Mechanisms
	Speaker: "Vagal Stimulation in Heart Failure – What is the Rationale?
	Ready for Prime Time?"  Speaker: "Serving the Indigent Population at County/City Hospitals"
February 2013	"Heart Failure and the INOVATE-HF Clinical Trial"
T Cordary 2015	Interview on "Golden Opportunities", Channel 3 TV, Cleveland, OH

March 2013	"Mechanistic links between Sleep Apnea and Acute Decompensated Heart Failure"
March 2013	Pulmonary Medicine Conference, MetroHealth Medical Center, Cleveland, OH "Chemoreceptor Hypersensitivity in Hypertension and HF: Clinical relevance and link to sleep apnea"; Cardiology Grand Rounds, MetroHealth Medical Center, Cleveland, OH
August 2013	"Systolic Heart Failure", parts 1 and 2
September 2013	Internal Medicine Residents, MetroHealth Medical Center, Cleveland, OH "What's on the Horizon: Renal Denervation for Resistant Hypertension and other Diseases"; Heart Failure Update program, Independence, OH
September 2013	"How to give a Terrific Talk and present an Absorbing Abstract"  Medical Grand Rounds, MetroHealth Medical Center, Cleveland, OH
September 2013	"Mode of Death in Contemporary Heart Failure Patients and the Impact of Structured Exercise: Insights from the HF-ACTION Trial"
September 2013	Rapid Fire Abstract, Heart Failure Society of America Meetings, Orlando, Florida "Therapeutic renal denervation – Novel clinical applications" 24th Annual Vascular Biology and Hypertension Symposium
September 2013	University of Alabama, Birmingham, Alabama "Patient Selection, Methods and Techniques Necessary to Perform the Procedure" And "Long Term Results, Complications / Limitations and the Future Perspectives" Session entitled "Critical Appraisal from Sympathetic Renal Denervation" Joint session of the Brazilian Congress of Cardiology and the American Heart Association; Rio de Janeiro, Brazil
September 2013	"Target Doses of Cardioprotective Agents Reduce Risk of Cardiovascular Hospitalization in HF Patients Compared to Lower Doses"
October 2013	Research Day, MetroHealth Medical Center, Cleveland, OH Panel member, Case Scenarios: Protocol, and Case Scenarios: Renal Denervation PRESERVE investigator meeting
November 2013	The National Conference Center, Washington DC "Physician Scientist Career Paths", Physician Scientist Seminar Series, Medical Student Cardiology Organization and the Medical Student Clinical Research Club
November 2013	University of North Texas Health Sciences Center, Ft. Worth, TX "Chemoreceptor Hypersensitivity in Hypertension and HF: Clinical relevance and link to sleep apnea"
November 2013	Department of Integrative Physiology, UNTSC, Ft. Worth, TX "Autonomic Modulation of Venous Capacitance in the Pathophysiology of Acute HF"; Vascular Biology Working Group Global Chapter Meeting at the American
September 2014	Heart Association meetings, Dallas, Texas "Updates in Cardiology: exercise and implanted hemodynamic monitoring in HF" Medical Grand Rounds, MetroHealth Medical Center, Cleveland, OH
September 2014	"How to Stop Poisoning and Love the (Redistribution) Syndrome"  Hyde Park presentation, Annual Scientific Meetings of the
October 2014	Heart Failure Society of America, Las Vegas, Nevada "Matthew N. Levy: The Gentleman Researcher and Hunter of the Wild Vagus" Matthew N. Levy Symposium
November 2014	Department of Physiology and Biophysics, CWRU, Cleveland, OH "Strategies for Reducing HF readmissions"
April 2015	Express Care provider retreat, The MetroHealth System, Cleveland, OH "How to give a terrific talk and present an absorbing abstract" Cardiology Grand Rounds, MetroHealth Medical Contar, Cleveland, OH
May 2015	Cardiology Grand Rounds, MetroHealth Medical Center, Cleveland, OH "Risk-Benefit of Diuretic Therapy in Heart Failure" Invited Speaker, American Society of Hypertension Annual Scientific Meeting Hypertension Highlights for the Hypertension Specialist 2015—Heart Failure New York, New York

June 2015 "Current Approaches and Future Directions in the Management of Patients with Resistant Heart Failure"; Invited Speaker, Cardiology 2015 Sponsored by the Georgia Chapter of the ACC and Piedmont Heart Institute The Meritage Resort and Spa, Napa Valley, California "How to Give a Terrific Talk and Present an Absorbing Abstract" July 2015 MetroHealth Resident Lecture Series September 2015 "What is the Best Way to Measure Congestion in the Patient with Heart Failure?" Session Co-Moderator 19th Annual Scientific Meeting of the Heart Failure Society of America National Harbor, Maryland November 2015 "Current Approaches and Future Directions in the Management of Patients with Resistant Heart Failure"; Invited Speaker Northern New England Chapter of the ACC Annual Meeting. Portsmouth, NH April 2016 "ACC 2016: Recent Therapeutic Updates in the Management of Patients with Reduced Ejection Fraction Heart Failure" Online CME program (with James Januzzi, MD, and Scott Solomon, MD) September 2016 Annual Scientific Meetings of the Heart Failure Society of America, Orlando, FL "Clinical Fundamentals: The Hemodynamics of HF", session moderator "Fundamental Hemodynamics in HFrEF and HFpEF", speaker "Congestion vs. Volume Overload: Pathophysiologic Roles of the Veins and Heart", speaker "Guideline Recommendations and Quality Standards for Patient Education, Self-Care, and Monitoring Caregiver Support: Role of the Multidisciplinary Care Team", speaker, CME Symposium entitled "Interpreting Therapeutic Advancements and Addressing Clinical Challenges in Heart Failure Management" November 2016 American Heart Association Scientific Sessions 2016 "Recently Approved Agents for Management of Chronic Heart Failure", speaker, CME Satellite Symposium entitled "Applying Guideline-Recommended and Recent Evidence-Based Therapies in the Treatment of Chronic Heart Failure" American Heart Association Scientific Sessions 2016 November 2016 Poster Professor: "New Insights: Digoxin, Diuretics, Nitrates, and Aspirin" December 2016 "AHA 2016: Recent Therapeutic Updates in the Management of Patients with Reduced Ejection Fraction Heart Failure" Online CME program (with Mariel Jessup, MD, and Lee Goldberg, MD) January 2017 "Chemohypersensitivity and Autonomic Modulation of Venous Capacitance" HF Research Seminar, Cleveland Clinic Foundation "Chemohypersensitivity and Fluid Redistribution in Heart Failure: a Vein Tale of February 2017 why the scale will never tell the story" Cardiology Grand Rounds, Brigham and Women's Hospital, Boston, MA "PI Responsibilities in Conducting Clinical Research"; Invited talk February 2017 Investigator Training Day Program, The MetroHealth System, Cleveland, OH March 2017 "Chronic Heart Failure: New Therapeutic Options for Improving Patient Outcomes" Grand Rounds, Nathan Littauer Hospital, Gloversville, NY **April 2017** "Chronic Heart Failure: New Therapeutic Options for Improving Patient Outcomes" Wilmington VA Medical Center, Wilmington, DE "Heart Failure: What's New Around the World--and at MetroHealth" May 2017 Medical Grand Rounds, The MetroHealth System, Cleveland, OH "Chronic Heart Failure: New Therapeutic Options for Improving Patient Outcomes" July 2017 Grand Rounds, Conemaugh Memorial Medical Center, Johnstown, PA July 2017 "PI Responsibilities in Conducting Clinical Research"; Invited talk Investigator Training Day Program, The MetroHealth System, Cleveland, OH August 2017 "Chronic Heart Failure: New Therapeutic Options for Improving Patient Outcomes" LECOM Health-Millcreek Community Hospital MCH Education Center, Erie, PA

September 2017	"Challenging Cases in the Management of HF: Individualizing Therapy to Optimize Outcomes and Reduce Admissions CERC Multidisciplinary Cardio-Endo-Renal Collaborative, New York, NY
September 2017	"Life and Career of Dr. Matthew Levy: The Gentleman Researcher"  3rd Annual Matthew Levy Lecture, Department of Physiology and Biophysics Case Western Reserve University, Cleveland, OH
December 2017	"Role of the Splanchnic bed in the Pathogenesis of Heart Failure" Invited speaker, Device Therapies for Heart Failure meeting, Berlin, Germany Also served as a panelist for the session
February 2018	"Fluid vs. Congestion in Heart Failure: Shifts in volume, thinking, and therapeutics" Cardiology Grand Rounds, Tufts University Medical Center, Boston, MA
February 2018	"Screening for study patients with hypertension: the MetroHealth experience" "Break the Tension: Redefining Hypertension Therapy" Invited Panalist, ROX Investigator meeting, Atlanta, Georgia
March 2018	"Rethinking Congestion in Heart Failure: Shifts in Volume and First-In-Man Therapeutics, Cardiology Grand Rounds, The MetroHealth System, Cleveland, OH
March 2018	"Acute Heart Failure: a Perfect Storm of fluid redistribution, accumulation, and chemohypersensitivity"; Pulmonary Fellows conference The MetroHealth System, Cleveland, OH