SYLLABUS

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21st Annual
Heart Failure 2017
An Update on Therapy
Saturday, April 22, 2017

Millennium Biltmore Hotel, Los Angeles

Program Director
Uri Elkayam, MD, FACC

Program Co-Director
Anil K. Bhandari, MD, FACC, FHRS

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COURSE DESCRIPTION

This year’s program provides a comprehensive update on the prevention, diagnosis and management of heart failure (HF). The program includes lectures presented by experts combined with interactive discussion with faculty. The extensive list of topics includes latest information on the management of hyperlipidemia, prevention of HF in patients with diabetes, management of volume overload, new drugs for the treatment of acute and chronic HF as well as pulmonary hypertension, management of electrolyte abnormalities in HF, remote hemodynamic monitoring for prevention of hospitalizations, diagnosis and management of HF with preserved ejection fraction, use of electrophysiological and cardiac assist devises, radiofrequency ablation for treatment of ventricular arrhythmias and percutaneous treatment of native and prosthetic valves. The 2017 program has been designed to provide a high level and clinically relevant update with a goal of improving the care of patients with heart failure.

PROGRAM OBJECTIVES

At the conclusion of this activity, the participants should be able to:
1. Implement effective therapy for lipid disorders
2. Manage diabetes in patients with heart failure
3. Use new FDA approved drugs for the treatment of chronic heart failure
4. Identify new therapeutic approaches for acute and chronic heart failure
5. Evaluate dyspnea in patient with preserved ejection fraction
6. Manage patients with heart failure and preserved ejection fraction (HFpEF)
7. Prevent and treat electrolyte abnormalities in heart failure patients
8. Assess and follow patients with heart failure using devices for remote monitoring
9. Manage patients with pulmonary hypertension
10. Select and manage patients on mechanical circulatory support
11. Select appropriate patients for percutaneous aortic valve replacement (TAVR)
12. Select patients for valve in valve TAVR
13. Treat heart failure associated arrhythmias
14. Select appropriate patients for prevention of sudden death with the external wearable defibrillator

TARGET AUDIENCE

The program has been designed to provide cardiologists, internists, primary care physicians, pharmacists, nurses and other healthcare providers with the necessary information to increase knowledge with the goal of improving the care of patients with HF.

NEEDS ASSESSMENT

Heart failure (HF) is common, but often unrecognized and misdiagnosed. It affects nearly 5 million Americans and is one of few cardiovascular disorders on the rise. An estimated 670,000 new cases are diagnosed each year and this condition is a major cause of morbidity and mortality (80% of men and 70% of women less than 65 years of age who have HF will die within 8 years) and is the leading cause of hospitalizations of the elderly in the U.S.

The importance of correcting deficiencies in knowledge and practice is evidenced from the results of recent studies demonstrating that increased use of evidence based, life sustaining therapies and performance measures have a significant impact on the outcome of patients with HF (OPTIMIZE HF, JAMA 2007; 297: 61).

While continuing the search for new and effective treatments, attention must be placed on prevention through early identification and better treatment of risk factors such as hypertension, diabetes mellitus, obesity and lipid disorders and on education of both patients and physicians (Circulation 2011; 123:327, UpToDate Nov 2, 2015).
Although multiple effective therapeutic modalities for HF have been developed over the last decade, their continued underutilization indicates the need for more education (Circulation Heart Failure 2008; 1:98, JACC 2016; 67:1062, Eur Heart J 2009; 30:2493) and incorporation of recent guidelines by clinicians. The development of biomarkers and imaging modalities has provided clinicians with important tools for diagnosis and assessment of prognosis, there is however a great need for education regarding an effective use of these new diagnostic modalities (Nature Reviews Cardiology 2012; 9:347). Heart failure is the leading cause of hospitalizations and management of hospitalized patients is complex and challenging (Crit Pathw Cardiol 2015; 14:12). Valvular heart disease is an important cause of HF and effective surgical therapy has been underutilized (Ann ThoracSurg 2010; 90;1904). Arrhythmias lead to worsening of HF and to sudden death; effective therapy for prevention and treatment is critical. Recent information indicates a need for effective methods to increase adoption of proven therapies and to close existing gaps between knowledge and practice in the management of arrhythmias (Zipes et al Circulation 2006; 114:1088). Atrial fibrillation (AF) is common in patients with HF and is the leading cause of cardioembolic stroke. A number of new agents have been added to the therapeutic options for prevention of thromboembolic complications in patients with AF, yet in spite of their proven efficacy approximately half of eligible patients remain untreated (JACC 2016; 67:2444). Pulmonary hypertension (PH) is a major cause of right ventricular failure and an increasing cause of death. Delayed diagnosis and underutilization of effective therapy lead to poor outcome (JACC 2015; 65:1971). Recent data have shown that drugs and devices that have been proven beneficial and are recommended in recent practice guidelines, (JACC 2016; 68:1476, JACC 2013; 62:e147) are underutilized (JACC 2016; 67:1062), at the same time non-evidence based implantation of expensive devices has been shown to be common (Sana M et al JAMA 2011; 305:43). New guidelines regarding indications for resynchronization therapy are confusing and require clarifications (Miller R The heart.org June 18, 2012). Recent introduction of cardiac assist devices provides opportunity for improvement of quality of life and prolonged survival in patients with advanced HF, inappropriate and delayed referral for this procedure often results in poor outcomes (Slaughter MS et al Curr Opin Cardiol 2011; 26:232). Recent information also suggests a significant individual variability in conformity to quality-of-care indicators and clinical outcome of patients with HF and a substantial gap in overall performance. In addition, according to a study analyzing the quality of health care in the U.S. on average, patients with HF received the recommended quality of care only 64% of the time (Heart failure performance measurement set by the ACC/AHA 2010). Establishing educational initiatives such as this program should help to reduce practice variability, eliminate gaps between guidelines and practice and improve the outcome of patients with HF (J Clin Med Res 2014; 6:173).

ACCREDITATION STATEMENT

This Live activity, 21st Annual Heart Failure 2017: An Update on Therapy , with a beginning date of 04/22/2017, has been reviewed and is acceptable for up to 6.75 Prescribed credit(s) by the American Academy of Family Physicians. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

AAFP Prescribed credit is accepted by the American Medical Association as equivalent to AMA PRA Category 1 Credit™ toward the AMA Physician's Recognition Award.

AANP: The American Academy of Nurse Practitioners accepts AAFP Prescribed credit. This program was planned in accordance with AANP CE Standards and Policies and AANP Commercial Support Standards.

ANCC: According to the ANCC, the continuing education hours approved by the AAFP meet the ANCC-accredited CNE criteria.

AAPA: The American Academy of Physician Assistants accepts AAFP Prescribed credit for AAPA Category 1 CME credit.
FACULTY DISCLOSURE

It is our policy to ensure balance, independence, objectivity and scientific rigor. All persons involved in the selection, development and presentation of content are required to disclose any real or apparent conflicts of interest. All conflicts of interest will be resolved prior to an educational activity being delivered to learners through one of the following mechanisms 1) altering the financial relationship with the commercial interest, 2) altering the individual’s control over CME content about the products or services of the commercial interest, and/or 3) validating the activity content through independent peer review. All persons are also required to disclose any discussions of off label/unapproved uses of drugs or devices. Persons who refuse or fail to disclose are disqualified from participating in the CME activity. Participants will be asked to evaluate whether the speaker’s outside interests reflect a possible bias in the planning or presentation of the activity. This information is used to plan future activities.

CULTURAL AND LINGUISTIC COMPETENCY.

This activity is in compliance with California Assembly Bill 1195 which requires continuing medical education activities with patient care components to include curriculum in the subjects of cultural and linguistic competency. Cultural competency is defined as a set of integrated attitudes, knowledge, and skills that enables health care professionals or organizations to care effectively for patients from diverse cultures, groups, and communities. Linguistic competency is defined as the ability of a physician or surgeon to provide patients who do not speak English or who have limited ability to speak English, direct communication in the patient’s primary language. Cultural and linguistic competency was incorporated into the planning of this activity.

HEART FAILURE SOCIETY OF AMERICA

Officially endorsed by the Heart Failure Society of America. The opinions presented in this educational activity do not necessarily reflect the opinions or recommendations of the HFSA.
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The following have no relevant financial relationships to disclose: Francisco A. Arabia, MD, Craig Selzman, MD

The CME staff, meeting planners, and CME committee reviewers do not have any relevant financial relationships to disclose.

This educational activity may contain discussion of unlabeled and/or investigational uses of agents that are not approved by the FDA. Please consult the prescribing information for each product.
6:30am  Registration and Coffee

7:00  Product Theatre Breakfast (Non-CME)
XARELTO to Treat Thrombosis and Reduce Thrombotic Risk for Patients with Non-Valvular Atrial Fibrillation and Heart Failure
Anil Bhandari, MD
Support provided by: Janssen Pharmaceuticals, Inc.

8:00  Introduction
Uri Elkayam, MD

8:10  LDL Reduction Therapy - What is the Place of PCSK9 Inhibitors?
Pam Taub, MD

8:30  Diabetes and Heart Failure: A Potential Role of SGLT2 Inhibitors
Michael A Bush, MD

8:50  The Management of Volume Overload in Patients with Acute Decompensated Heart Failure: The Guidelines and the Art
Maria Rosa Costanzo, MD

9:10  New Drugs for the Management of Acute Heart Failure: Mechanisms of Action and Results of Clinical Trials
John Teerlink, MD

9:30  How to Maximize the use of the CardioMEMS Device for Hemodynamic Monitoring and Prevention of Heart Failure Hospitalizations
Maria Rosa Costanzo, MD

9:50  Coffee Break/Visit Exhibits

Barry Greenberg, MD

10:30  Ivabradine: Role in the Management of Chronic Heart Failure
John Teerlink, MD

10:50  Use of Vasopressin Receptor Antagonists in the Treatment of Heart Failure
Tien Ng, PharmD

11:10  Worsening of Renal Function and Hyperkalemia Associated with RAAS Inhibitors: Management Strategies
Uri Elkayam, MD

11:30  Emerging Modalities for the Management of Pulmonary Hypertension
Luanda Grazette, MD

11:50  Heart failure with Preserved Ejection Fraction: New Insight into Mechanisms and Potential Therapy
Barry Borlaug, MD

12:10pm  Product Theatre Lunch (Non-CME)
Putting Guidelines into Practice: New Recommendations for Optimal Treatment of Heart Failure with Reduced Ejection Fraction (HFrEF)
Barry Greenberg, MD
Support provided by: Novartis Pharmaceuticals Corporation

1:20  Break/Visit Exhibits

1:35  Peripartum Cardiomyopathy - Diagnosis, Prognosis and Management
Uri Elkayam, MD

2:00  Evaluation of Dyspnea in Patients with Preserved Ejection Fraction
Barry Borlaug, MD

2:20  Use of the Wearable Cardioverter Defibrillator in Cardiac Patients at High Risk of Sudden Arrhythmic Death
Barry Greenberg, MD

2:40  The DANISH Study: Should Patients with Non-Ischemic Cardiomyopathy Receive ICDs?
David Cannom, MD

3:00  Prevention of Complications in the Patients with Mechanical Assist Devices
Francisco Arabia, MD

3:20  Use of Mechanical Circulatory Support for Myocardial Recovery - Can it be Done?
Craig Selzman, MD

3:40  Coffee Break/Visit Exhibits

4:00  Radiofrequency Ablation for Sustained Ventricular Tachycardia in Patients with Heart Failure
Anil Bhandari, MD

4:20  Challenging Cases of TAVR in High-Risk Patients with Heart Failure
Ray Matthews, MD

4:40  Transcatheter Valve in Valve: Advantages and Limitations
Steven Burstein, MD

5:00  Meeting Adjourned

5:30  Cocktail Reception/Presentation (Non-CME)
Therapies in Cardiovascular Disease: Corlanor® (ivabradine) Product Overview & Repatha® (evolocumab) Product Overview
Pam R. Taub, MD
Support provided by: Amgen
Uri Elkayam, MD received his medical degree from the Tel-Aviv University, Israel, in 1973 and is presently Professor of Medicine (Cardiology) at the University of Southern California in Los Angeles. He is a past member of the executive council and chairman of the corporate affairs committee of the American Society of Cardiac Failure. Doctor Elkayam is a member of the editorial boards of the American Journal of Cardiology, JACC heart failure, Cardiology, Journal of cardiovascular pharmacology and Therapeutics and Cardiology in Review and a past member of the editorial boards of JACC and the Journal of Cardiac Failure. He is a fellow of the American College of Cardiology, American Heart Association and American College of chest physicians.

Doctor Elkayam’s research and clinical interests are in the areas of congestive heart failure, heart disease and pregnancy, valvular heart disease, cardiomyopathies and cardiovascular pharmacology. He has been involved in more than 100 self initiated; NIH and industry funded research projects and served in a leading position in numerous national and international multi-center studies. He is the author or co-author on over 190 publications and over 80 book chapters and has the distinction of being listed in Best Doctors in America and America’s Top Doctors from 2001 to 2016 and as one of the top 100 most influential Israelis in the U.S. in 2011.
Anil K. Bhandari, MD, FACC, FHRS
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Dr. Bhandari completed his cardiology fellowship at the University of Rochester in New York in 1982 and electrophysiology training in 1983 at the University of California, San Francisco under the mentorship of Melvin Scheinman. This was the era when the field of cardiac electrophysiology ablative procedures was born. While there, Dr. Bhandari worked in the dog lab to learn the fundamentals of ablative procedures and, thereafter, performed some of the earliest ablative procedures using direct current electrical energy at University of California, San Francisco. Thereafter, he joined USC as an Assistant Professor of Medicine where he started a very successful electrophysiology training program. During his tenure there he published over 50 articles in peer review journals and was promoted to Associate Professor of Medicine after 5 years.

Dr. Bhandari joined Los Angeles Cardiology Associates in 1989 where he, along with David Cannom, has been one of the two senior electrophysiology partners. Under their leadership, the electrophysiology training program at Good Samaritan Hospital has become a nationally and internationally known program. Dr. Bhandari was instrumental in starting radiofrequency ablative procedures at Good Samaritan Hospital and performed one of the first radiofrequency ablative procedures for Wolff Parkinson White (WPW) and supraventricular tachycardia in Los Angeles.

From the very beginning he nurtured a culture of excellence for the procedure outcome and patient safety. He self taught himself the technical aspects of cardiac ablative procedures and went on to teach the skills to clinical cardiac electrophysiology fellows over the years. He has been Director of the Cardiac Electrophysiology Fellowship Program since 1992 where two fellows are trained each year. Over the years this has been a sought after program for fellows looking to be trained in advanced cardiac electrophysiology.

Dr. Bhandari has a very active tertiary level cardiac electrophysiology practice. Over the last 20 years he has performed over 300 complex radiofrequency ablative procedures on a yearly basis. His referral base extends from Los Angeles to Bakersfield to the north, Simi Valley and Oxnard to the west, Orange County to the South, and Palm Springs to the east. He has started and directed the electrophysiology laboratory at San Antonio Community Hospital in Upland and Palmdale Regional Medical Center in Lancaster. Both are very successful programs and have continued to grow over the years.

In addition, to his busy and active practice, Dr. Bhandari maintains his academic interests. He continues to publish in the peer review journals and is involved in many basic cardiac electrophysiology projects along with Dr. Robert Kloner at Good Samaritan Hospital. He has spoken at many of the national and international cardiac electrophysiology meetings and has been course director for many of the regional and national meetings. In addition, he is a member of the editorial board for the Journal of Cardiovascular Pharmacology.

Dr. Bhandari's passion lies in the field of cardiac ablative procedures and he intends to remain involved in the cutting edge technology. He aspires to spearhead the growth of a regional atrial fibrillation treatment center that will be staffed by some of the best and well known faculty. The facility will have state-of-the-art equipment for ablative procedures, should be able to provide comprehensive care to patients with drug refractory atrial fibrillation. With involvement of a strong hospital partner, this is certainly an achievable goal and he intends to pursue it with vigor.
Francisco A. Arabía, MD
Co-Director, Division of Cardiothoracic Surgery
Surgical Director, Mechanical Circulatory Support Program
Cedars-Sinai Medical Center

Francisco A. Arabía, MD, serves as both Co-Director, Division of Cardiothoracic Surgery and Surgical Director of Mechanical Circulatory Support Program at Cedars-Sinai Medical Center. Certified by the American Board of Surgery, the American Board of Thoracic Surgery and the American Heart Association in advanced cardiovascular life support, Dr. Arabía came to Cedars-Sinai from the Mayo Clinic Arizona, where in 2005 he helped to start the first heart transplant program in metropolitan Phoenix. Dr. Arabía has more than two decades of experience in the fields of thoracic, cardiothoracic vascular, and transplant surgery, and often is called upon for his expertise by national and international news agencies. He has presented his work at professional conferences and meetings throughout the world, and has published peer-reviewed research in multiple journals, including the Annals of Cardiothoracic Surgery and the Journal of Heart and Lung Transplantation. Dr. Arabía received his medical degree from the University of Pennsylvania School of Medicine and served residencies in general surgery at Tulane University Affiliated Hospitals in New Orleans and in cardiothoracic surgery at the University of Arizona, Tuscon. His undergraduate work was done at Tulane University, where he graduated magna cum laude in the field of Biomedical Engineering. Among Dr. Arabía’s professional honors and awards are the Training Award of Excellence by the American Society for Artificial Internal Organs.

Dr. Arabía also holds a Master of Business Administration degree from the University of Arizona.
Barry Borlaug, MD  
Associate Professor of Medicine  
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The focus of Dr. Borlaug’s research has been on the pathophysiology of exercise intolerance in HFpEF. This work has been supported by grants, career development awards, and protected research time provided by the American Heart Association, the Mayo Clinic Foundation, and the Mayo Division of Cardiovascular Diseases. His research is based upon observations made in human research studies performed in the invasive and noninvasive exercise laboratories, where patients with HFpEF develop marked hemodynamic derangements during exercise but appear well compensated at rest. This is due to a global loss of cardiovascular reserve capacity that we propose is related in part to loss of nitric oxide bioavailability. This led to hypothesize that sodium nitrite, which is preferentially converted to nitric oxide in the setting of venous hypoxia and acidosis, might provide a ‘magic bullet’ to target these hemodynamic derangements preferentially during exercise, with little effect on resting cardiovascular homeostasis. To test this hypothesis an acute invasive hemodynamic study showing that intravenous nitrite markedly attenuates the pathologic increase in filling pressures during exercise in subjects with HFpEF. This research was supported by funding and protected research time from the Mayo Clinic Cardiovascular Division. Currently proposed research would logically extend this novel application to enhance the benefits of exercise training in people with HFpEF. Dr. Borlaug has conducted and published numerous physiologic exercise studies as well as clinical trials in HFpEF over the past several years and has become experienced in all components of clinical research, including administration, subject screening and identification, staffing, budget management, data acquisition and analysis, manuscript preparation and revision, and collaboration with other researchers, including Dr. Bruce Johnson and Dr. Tom Olson.
Dr. Burstein completed his medical training in Johannesburg, South Africa, and then completed an internship and residency at Michael Reese Hospital in Chicago, Illinois. His cardiology and interventional cardiology fellowships were performed at Massachusetts General Hospital in Boston. After spending a year as Director of Cardiac Catheterization Laboratories, Dr. Burstein joined Los Angeles Cardiology Associates and has been the Director of the Cardiac Catheterization Laboratories and Interventional Cardiology since 2007. Dr. Burstein’s interests include the percutaneous management of adult congenital and structural heart disease, the endovascular management of cerebrovascular disease, and high risk percutaneous coronary intervention.
Dr. Michael Bush received his BA from Columbia University and his MD degree from the University of Southern California. He trained as a Medical Resident at Columbia-Presbyterian Medical Center and as a Research and Clinical Fellow in Endocrinology at the Massachusetts General Hospital, where his main research interest was in insulin action, studying protein phosphorylation in isolated adipose and muscle cells.

Dr. Bush is Clinical Chief in the Division of Endocrinology at Cedars-Sinai, where he founded both the Weight Control Program and DOTEC, the Diabetes Outpatient Training and Education Center. He is a Clinical Associate Professor of Medicine at the Geffen School of Medicine, UCLA.

Dr. Bush served in numerous positions in the past with the American Diabetes Association, culminating in the past as President of the ADA California Affiliate. He is currently the President of the California Affiliate of AACE and serves on the National AACE Board where, among other activities, he is on the Writing Committee for the AACE Diabetes Algorithm.

Dr Bush has an active private practice in Beverly Hills and spends his “extra” time teaching medical students, house officers, fellows, and community physicians at Cedars and other academic institutions.
David S. Cannom, MD, FACC, FHRS
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Good Samaritan Hospital
Director of Cardiovascular Trial Development and Engagement,
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UCLA School of Medicine

David S. Cannom, MD, FACC, FACP, is Clinical Professor of Medicine at the UCLA School of Medicine, Medical Director of Cardiology at the Good Samaritan Hospital in Los Angeles, California, and electrophysiologist at the Cedars-Sinai Heart Institute. He is also managing partner of a 10-man cardiology group, Los Angeles Cardiology Associates, specializing in coronary and electrophysiology interventions.

Dr. Cannom received his degree in medicine from the University of Minnesota School of Medicine in Minneapolis, Minnesota, and completed his medical training in an internship and residency at Yale-New Haven Hospital in New Haven, Connecticut, and his cardiology training at Stanford University School of Medicine in Stanford, California. Dr. Cannom is Past Governor and President of the California chapter of the American College of Cardiology. He is also Past President of the North American Society of Pacing and Electrophysiology and Past President of the Heart Rhythm Foundation.

He serves on the editorial boards of Pacing and Clinical Electrophysiology, Journal of Cardiac Electrophysiology, Cardiac Electrophysiology Review, and the Journal of Cardiovascular Pharmacology and Therapeutics. He is the author or coauthor of approximately 300 journal articles, book chapters, and abstracts.
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Medical Director, Edward Hospital Advanced Heart Failure Center
Naperville, IL

Dr. Costanzo is currently the Medical Director of the Midwest Heart Specialists – Advocate Medical Group Heart Failure and Pulmonary Arterial Hypertension Programs, and Medical Director of the Edward Hospital Center for Advanced Heart Failure.

Dr. Costanzo graduated Summa Cum Laude from the University of Bologna Medical School, Italy and obtained her Specialty in Cardiovascular Disease from Loyola University Chicago.

Dr. Costanzo directed the Loyola University Chicago Heart Failure and Cardiac Transplant Program from 1988 until 1994 and the Rush Heart Failure and Cardiac Transplant Program from 1994 until 2001.

From 1995 until 2002 Dr. Costanzo was the The John H. and Margaret V. Krehbiel Professor of Cardiology at Rush Medical College, Chicago.

From 1995 until 2000 Dr. Costanzo was the Editor in Chief of the Journal of Heart and Lung Transplantation.

Dr. Costanzo has published more than 160 peer-reviewed manuscripts and is the author of numerous review papers, monographs and book chapters.

Dr. Costanzo is currently chairing the preparation of the International Society of Heart and Lung Transplant Guidelines for the care of heart transplant recipients.

Dr. Costanzo is Chair of ISHLT’s Guidelines Committee
Dr. Costanzo is a Member of the AHA, ACC, ISHLT, HFSA and ACP.

In 2002 Dr. Costanzo was appointed by the U.S. Secretary of Health and Human Services, The Honorable Tommy Thompson to a four year term on the National Heart and Blood Institute Advisory Council.

Dr. Costanzo is Member of Special Panels Convened by the National Institutes of Health to review large grants in the areas of heart failure and mechanical circulatory support.

Dr. Costanzo is currently a Member of the Planning Committee for the International Symposium on the Cardiorenal Syndrome to be held at 2010 AHA Scientific Sessions in Chicago, IL.

Dr. Costanzo was the Principal Investigator for the Multicenter, Prospective Randomized Ultrafiltration Versus Intravenous Diuretics for Patients Hospitalized for Acute Decompensated Heart Failure (UNLOAD) Trial published in the Journal of the American College of Cardiology in February 2007.

ABIM Advanced Heart Failure and Cardiac Transplant.

In 2010 Dr. Costanzo became Board Certified in Advanced Heart Failure and Cardiac Transplantation.

As of July 1, 2012, Dr. Costanzo will be a Member of the ABIM Advanced Heart Failure and Cardiac Transplantation Advisory Board. This is a committee that writes the Board Exam Questions and certifies programs wanting to have ABIM-approved fellowships in Advanced Heart Failure and Cardiac Transplantation.
Luanda Grazette, MD, FACC  
Co-Director, Advanced Heart Failure and Cardiomyopathy  
Associate Professor of Clinical Medicine  
Keck School of Medicine  
University of Southern California  
Los Angeles, CA

Dr. Luanda Grazette earned her MD and MPH at Harvard University and remained in Boston to complete her internship and residency at Massachusetts General Hospital (MGH). She pursued fellowship training in clinical cardiology at Emory University and after returned to MGH for fellowship training in Advanced Heart Failure and Transplantation where she remained on staff for a number of years as a physician-scientist. She is currently an Associate Professor of Clinical Medicine at the Keck School of Medicine at the University of Southern California (USC), where as a Director of Advanced Heart Failure and Cardiomyopathy and is responsible for patient care across the spectrum of heart failure from diagnosis through advanced intervention, including transplant and mechanical circulatory support. In addition to her clinical responsibilities, Dr. Grazette is actively engaged in clinical and translational research involving the basic mechanisms of cardiac toxicity, plasticity, and survival. Her main clinical and research interests are in myocardial plasticity and the potential for cardiac recovery.
Barry H. Greenberg, MD, FACC
Director, Advanced Heart Failure Treatment Program
Distinguished Professor of Medicine
University of California San Diego Medical Center
La Jolla, CA

Barry H. Greenberg, MD, is Distinguished Professor of Medicine and Director of the Advanced Heart Failure Treatment Program at the University of California, San Diego School of Medicine (UCSD). He earned a medical degree from the State University of New York Upstate Medical University College of Medicine in Syracuse. He completed his internship at George Washington University Hospital in Washington, DC and residency in internal medicine at Yale-New Haven Hospital in New Haven, Connecticut. Following further research training at the Lipid Metabolism Branch of the National Heart, Lung, and Blood Institute in Bethesda, Maryland and the Cardiovascular Research Institute of the University of California, San Francisco School of Medicine (UCSF), he completed a fellowship in cardiology at UCSF. He then joined the faculty of Oregon Health Sciences University School of Medicine in Portland. Prior to arriving at his present position at UCSD, he was a visiting professor in residence at both the Royal Postgraduate Medical School in London, England and the Laboratoire de Médecine Expérimentale of the Collège de France in Paris.

Dr. Greenberg serves on the executive steering and data safety monitoring committees of numerous national and international clinical trials in heart failure. He is a founding member and a past President of the Heart Failure Society of America (HFSA).

Dr. Greenberg has longstanding interests in the basic cellular mechanisms of heart failure and the development of new forms of therapy. He has published extensively in these areas. He is co-editor of Congestive Heart Failure: Pathophysiology, Diagnosis, and Comprehensive Approach to Management, the first comprehensive text in this field, now in its 3rd edition and editor of Myocardial Remodeling: Mechanisms and Treatment, published in 2006 and Management of Heart Failure published in 2010. He is co-author of Contemporary Diagnosis and Management of Congestive Heart Failure. He is an associate editor of the Journal of the American College of Cardiology, and he sits on the editorial boards of several other cardiology specialty and subspecialty journals. Dr. Greenberg has been recognized by his peers numerous times over the years as one of the “Best Doctors in America” and “Best Doctors in San Diego.”
Dr. Matthews was recruited to the University of Southern California faculty in 2007 to direct the Department of Interventional Cardiology. He brings 20 years of experience in high-level tertiary interventional cardiology to the institution. Dr. Matthews has emerged as a leader in the advancement of percutaneous treatment of peripheral vascular disease. He remains very active in the clinical investigation and use of new devices and techniques for the treatment of coronary artery and valvular heart disease. In addition, Dr. Matthews was among the first in Los Angeles to percutaneously close structural cardiac defects, such as atrial septal defect and to patent foramen ovale. Dr. Matthews has trained over 50 interventional cardiologists as fellows, many have gone on to successful careers all over the world.
Tien M.H. Ng, PharmD, FCCP, BCPS (AQ-C)
Director, PGY2 Residency in Cardiology
Associate Professor of Clinical Pharmacy and Medicine
School of Pharmacy & Keck School of Medicine
University of Southern California
Los Angeles, CA

Tien M.H. Ng, PharmD, FHFSM, FCCP, BCPS AQ Cardiology is an Associate Professor of Clinical Pharmacy and Medicine at the University of Southern California. He is also the director of the PGY2 pharmacy residency in cardiology at the USC School of Pharmacy. Dr. Ng completed a BS Pharmacy in 1994 from Dalhousie University in Halifax, Canada, a PharmD in 1998 from Wayne State University in Detroit and a Cardiovascular Pharmacotherapy Fellowship in 2000 from the University of Utah in Salt Lake City. He is a board certified pharmacotherapy specialist with added qualifications in cardiology. Prior to joining USC in March 2004, Dr. Ng was on faculty at the University of Nebraska Medical Center. Dr. Ng provides clinical service as part of the Cardiac Intensive Care Unit at the LA County + USC Medical Center. His primary research interests focus on heart failure pathophysiology and pharmacotherapy. Dr. Ng has published numerous peer-reviewed manuscripts, abstracts and book chapters related to heart failure pharmacotherapy. He has been an active member of ACC, HFSA, ACCP, ASHP, and AHA. Dr. Ng was the recipient of the HFSA Clinical/Integrative Physiology new investigator award in 2002.
Craig Selzman, MD
Chief, Division of Cardiothoracic Surgery
Surgical Director, Cardiac Mechanical Support and Heart Transplant
Professor of Surgery
University of Utah Health Sciences Center
Salt Lake City, UT

Dr. Craig Selzman is a Professor of Surgery and Chief of the Division of Cardiothoracic Surgery at the University of Utah who specializes in the care of patients requiring heart surgery. He earned his undergraduate degree at Amherst College and medical degree at Baylor College of Medicine. He received his General and Cardiothoracic Surgery training at the University of Colorado and is Board-Certified in both fields. Dr. Selzman was on faculty at the University of North Carolina before joining the faculty at University of Utah in 2008.

Dr. Selzman is the Surgical Director of the Cardiac Mechanical Support and Heart Transplant program as well as Surgical Director of the Lung and Heart/Lung Transplant program. In addition to his role in the advanced Heart Failure and Artificial Heart program, he specializes in complex valvular heart disease including re-operative heart surgery, adult congenital heart disease, and aortic root reconstruction. He is one of a few surgeons in the Intermountain West with significant experience with minimally invasive heart surgery for a wide variety of disease, and, in particular, mitral valve repair.

Dr. Selzman is heavily involved with clinical research related to advanced heart failure, transplantation, and ventricular assist devices. He also has an active basic science collaboration with many of our researchers here at the University of Utah. Dr. Selzman is one of a handful of cardiothoracic surgeons that runs a laboratory funded by the National Institute of Health. His laboratory is focused on transcriptional regulation and mechanisms of myocardial recovery. His team uses several models for investigation ranging from individual cardiomyocytes to transgenic mice as well as larger translational studies in sheep, goats, and humans. In addition to his clinical and research responsibilities here at the University of Utah, Dr. Selzman carries many national and international positions including NIH study sections, Thoracic Transplantation committees, and professional organizational responsibilities.

As a Professor of Cardiothoracic Surgery in the School of Medicine at the University of Utah, Dr. Selzman is heavily invested in the future of our next generation of physicians and surgeons. He is actively involved with medical student teaching, general surgical education, and training of young cardiac surgeons. He has been involved with educational strategies at the national level through his professional societies. Dr. Selzman has mentored dozens of trainees- both in the clinical and basic sciences - over the last 15 years, many which currently hold faculty positions in academic medical centers.
Pam R. Taub, MD, FACC  
Director of Step Family Foundation Cardiovascular Rehabilitation and Wellness Center  
Associate Professor of Medicine  
UC San Diego Health System  
Division of Cardiovascular Medicine  
La Jolla, CA

Dr. Pam Taub is an Associate Professor of Medicine in the Division of Cardiovascular Medicine at UC San Diego. She is the director of the Step Family Cardiac Wellness and Rehabilitation Center located in the new UC San Diego Jacobs Medical Center.

The mission of the Center is to actively engage patients and the community in prevention of cardiovascular disease. The Center will be conducting research on biomarkers and other diagnostics, wearable/mobile technologies that can improve patient outcomes.

Dr. Taub’s clinical practice focuses on preventive cardiology. She is active in clinical/translational research and is funded by the National Institutes of Health, Department of Defense, and American Heart Association. Her research focuses on biomarkers for cardiovascular risk factor stratification and in the examining the effects of epicatechin (a compound present in dark chocolate) on mitochondrial function/cellular bioenergetics and exercise capacity in patients with heart failure and diabetes. She utilizes skeletal muscle biopsy and cardiopulmonary exercise testing to study mitochondrial function in patients with cardiac disease.

Dr. Taub received her medical degree at Boston University School of Medicine. She completed her internal medicine residency at the University of Washington Medical Center in Seattle and her fellowship in cardiology at UC San Diego.
John R. Teerlink, MD, FACC, FAHA, FESC, FHFSA, FRCP
Professor of Medicine,
University of California, San Francisco
Director, Heart Failure
Director, Clinical Echocardiography
San Francisco Veterans Affairs Medical Center
San Francisco, CA

Dr. Teerlink is Director of the Heart Failure Program and of the Echocardiography Laboratory at the San Francisco Veterans Affairs Medical Center in San Francisco, California. He graduated from Swarthmore College with Highest Honors in Comparative Religious Studies and Cellular Biology. After receiving his medical degree from Harvard Medical School, where he performed a year of research in the laboratory of Drs. Janice and Marc Pfeffer, he completed an internal medicine residency at the University of California San Francisco (UCSF). He continued his basic science training through a post-doctoral research fellowship at Hoffman-LaRoche in Basel, Switzerland with Drs. Martine and Jean-Paul Clozel. Dr. Teerlink completed his cardiovascular medicine fellowship and a Howard Hughes post-doctoral research fellowship at UCSF, subsequently joining the faculty, where he currently is a Professor of Clinical Medicine.

He is actively involved in the design and execution of many acute and chronic heart failure clinical trials, serving on endpoint, data safety monitoring, and steering committees for numerous international studies investigating a variety of new therapies, including tezosentan (RITZ program, VERITAS), levosimendan (REVIVE 1&2), nesiritide (ASCEND-HF), serelaxin (Pre-RELAX-AHF, RELAX-AHF, RELAX-AHF-2, RELAX-ASIA, RELAX-Repeat), rololysine (PROTECT), omecamtiv mcenteral (CY1111, CY1121, ATOMIC-AHF, COSMIC-HF, GALACTIC-HF), TRV027 (BLAST-AHF), warfarin/ aspirin (WARCEF), nitroxyl donors (STAND-UP), fineranone (FIGARRO, FIDELIO) and LCZ696 (sacubitril/ valsartan; PARADIGM-HF), as well as stem cell therapies (CHART-1) and diagnostic modalities, such as CardioMEMS device (CHAMPION, CardioMEMS Post-approval Study), left atrial pressure sensor (LAPTOP-HF) and other devices (ADAPT-Response). He serves as a consultant on clinical development programs in all areas of cardiology, as well as in cardiovascular safety for multiple non-cardiovascular indications.

Dr. Teerlink has been an active member of the Heart Failure Society of America, serving on multiple committees including the Membership, Scientific Program, Corporate Affairs, Development, Lifetime Achievement Award and Guideline Committees and currently serves on the Board of Directors. He is a founding and charter member of the American Association of Heart Failure Nurses. He has also served on the National Committee on Heart Failure and Transplantation of the American Heart Association. Dr. Teerlink completed a four-year term as a permanent member of the United States Food and Drug Administration (FDA) Cardiovascular and Renal Drugs Advisory Committee, and frequently serves as an ad hoc member of multiple other FDA advisory committees and panels for medical devices, diagnostics, biologics and drugs. He is a member of the joint FDA/ Duke University Standardized Data Collection for Cardiovascular Clinical Trials Initiative to develop standardized definitions for cardiovascular endpoints. He was an Associate Editor for the Journal of Cardiac Failure, is currently the Guest Editor-in-Chief for JACC: Heart Failure, and is a clinical scholar presenting many lectures and publications, including a chapter on Acute Heart Failure in Braunwald's Heart Disease textbook. He was profiled in The Lancet as an internationally recognized leader in heart failure.