

SCMR

Society for Cardiovascular
Magnetic Resonance

15th Annual Scientific Sessions

February 2-5, 2012

Marriott World Center

Orlando, Florida

Jointly sponsored by SCMR
and the University of Minnesota

FINAL PROGRAM

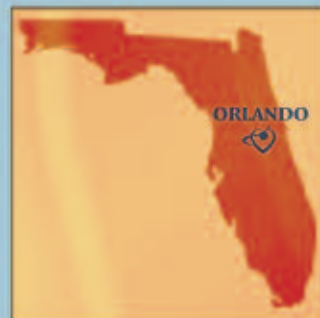
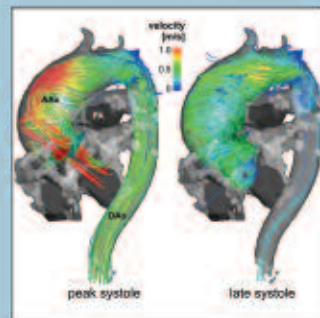
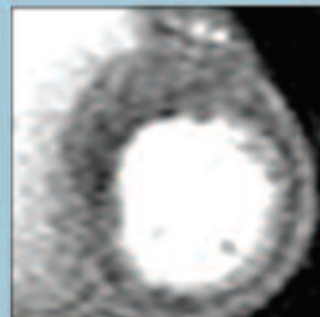
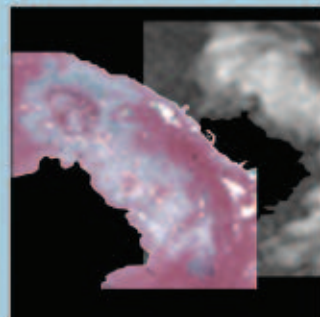
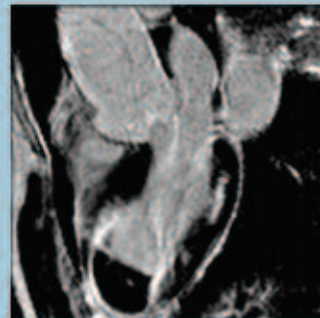
Pre-conference Courses

- Physicians
- Congenital/Pediatric

February 2, 2012

Technologist Workshop

February 3-5, 2012



www.scmr.org



15th Annual Scientific Sessions • February 2 – 5, 2012
Marriott World Center • Orlando, FL USA

PROGRAM-AT-A-GLANCE

	Sago Ballroom	Crystal Ballroom J1	Crystal Ballroom J2	Crystal Ballroom G1	Crystal Ballroom A-B-C	
TIME	WEDNESDAY, FEBRUARY 1, 2012					
8:00 AM - 6:00 PM			SCMR/ISMRM Jointly Sponsored Workshop			
TIME	THURSDAY, FEBRUARY 2, 2012					
8:00 AM - 6:00 PM		Congenital/Pediatric Pre-conference Course	SCMR/ISMRM Jointly Sponsored Workshop	Physician's Pre-Conference Course		
TIME	FRIDAY, FEBRUARY 3, 2012					
7:00 AM - 8:00 AM	Physics for Physicians 1 Crystal Ballroom P	Cardiology for Non-cardiologists 1 Crystal Ballroom M				
8:00 AM - 9:30 AM	Welcome and Opening Plenary					
9:30 AM - 10:00 AM	CMR Questionnaire					
10:00 AM - 10:30 AM	Refreshment Break/Exhibits/Posters - Royal/Sabal Ballrooms					
10:30 AM - 12:00 PM	Invited Lecture Session 1 Non-ischemic Heart Disease 1	Case Review 1 Fascinating Vascular Disease Cases	Invited Lecture Session 2 Cardiac Metabolism and Molecular Imaging	Oral Abstract Session 1 ECA Clinical	Technologist Workshop	
12:00 PM - 12:30 PM	SCMR Business Meeting					
12:30 PM - 1:30 PM	Lunch/Exhibits/Posters - Royal/Sabal Ballrooms					
1:30 PM - 3:00 PM	Invited Lecture Session 3 Coronary and Vascular CMR	Case Review 2 Congenital Heart Disease 1	Oral Abstract Session 2 ECA Basic Science	Oral Abstract Session 3 Clinical Outcome and Prognosis		
3:00 PM - 3:30 PM	Refreshment Break/Exhibits/Posters					
3:30 PM - 5:00 PM	Invited Lecture Session 4 Myocardial Perfusion and Ischemia	Case Review 3 When CMR Complements Other Modalities	Oral Abstract Session 4 ECA Basic Translational	Oral Abstract Session 5 DCM and Secondary CMP		
5:00 PM - 6:30 PM	Invited Lecture Session 5 Myocardial Infarction and Area at Risk	Case Review 4 Cardiac Masses: Correlating Imaging with Pathology	Oral Abstract Session 6 Comparison to Other Modalities and Cost Effectiveness	Oral Abstract Session 7 Vascular MRI: From Research to Clinical Application		
6:30 PM - 7:30 PM	Moderated Poster Session 1/Poster Viewing/Wine and Cheese Reception - Royal/Sabal Ballrooms					
TIME	SATURDAY, FEBRUARY 4, 2012					
7:00 AM - 8:00 AM	Physics for Physicians 2 Crystal Ballroom P	Cardiology for Non-cardiologists 2 Crystal Ballroom M				
8:00 AM - 9:30 AM	Invited Lecture Session 6 Interventional MRI - Vascular and Structural Heart Disease	Case Review 5 Myocardial Inflammation: What is the Diagnosis?	Oral Abstract Session 8 Novel Techniques for Clinical Application	Oral Abstract Session 9 Congenital Heart Disease 1	Technologist Workshop	
9:30 AM - 10:00 AM	Refreshment Break/Exhibits/Posters					
10:00 AM - 11:30 AM	Invited Lecture Session 7 Advanced CMR Techniques in Pediatric/Congenital Heart Disease	Case Review 6 Best Cases from the SCMR Website	Invited Lecture Session 8 Non-ischemic Cardiomyopathies 2	Oral Abstract Session 10 CAD Acute Myocardial Injury		
11:30 AM - 12:30 PM	Moderated Poster Session 2/Lunch/Exhibits/Posters					
12:30 PM - 2:00 PM	Invited Lecture Session 9 High Throughput CMR (Protocol Optimizing): Improving Quantification and Reproducibility	Case Review 7 Perfusion Imaging by CMR: Both Usual and Unusual Cases	Oral Abstract Session 11 Congenital Heart Disease 2	Oral Abstract Session 12 Stepping into New Insights: Enhancing Our Understanding		
2:00 PM - 2:30 PM	Refreshment Break/Exhibits/Posters					
2:30 PM - 4:00 PM	Invited Lecture Session 10 CMR Application in Cardiac Electrophysiology	Case Review 8 Surprising Findings in Valvular Disease	Oral Abstract Session 13 Non-ischemic Heart Disease: A Wide Spectrum from Technique to Disease	Oral Abstract Session 14 CAD: Assessment of Perfusion - Routine Patient Care and Research		
4:00 PM - 5:30 PM	Invited Lecture Session 11 Emerging CMR Technology	Case Review 9 Congenital Heart Disease 2	Oral Abstract Session 15 Hypertrophic Cardiomyopathy	Oral Abstract Session 16 Arrhythmias, EP, and Interventional Applications		
5:30 PM - 6:00 PM	CMR Technology Updates					
6:00 PM - 6:30 PM	Award Presentations					
6:30 PM - 8:00 PM	Awards Reception Crystal Ballroom H					
TIME	SUNDAY, FEBRUARY 5, 2012					
7:00 AM - 8:00 AM	Physics for Physicians 3 Crystal Ballroom P	Cardiology for Non-cardiologists 3 Crystal Ballroom M				
8:00 AM - 9:30 AM	Invited Lecture Session 12 Cost Effectiveness of CMR	Case Review 10 Interactive CMR Cases: State of the Heart	Invited Lecture Session 13 Informing Clinical Decision in Congenital Heart Disease	Oral Abstract Session 17 Novel Techniques - Assessment of the Myocardium	Technologist Workshop	
9:30 AM - 10:00 AM	Refreshment Break					
10:00 AM - 11:30 AM	Invited Lecture Session 14 CMR Safety - Contrast Agents, Medical Devices, and Issues Related to High Field Strengths	Invited Lecture Session 15 Towards Patient Specific Quantitative CMR and Computational Models of CV Flow and Function	Invited Lecture Session 16 CMR Imaging in Pre-clinical Research and Drug Development	Invited Lecture Session 17 Interventional MRI - Electrophysiology		
11:30 AM - 1:00 PM	Closing Plenary Session					
1:00 PM - 1:30 PM	Closing Remarks/Highlights from 2012 Scientific Sessions					

LEGEND:

Clinical

Congenital

Basic Science

Multi-track

WELCOME

Dear colleagues and friends,

Welcome to Orlando and the 15th Annual Scientific Sessions of the Society for Cardiovascular Magnetic Resonance! The Board of Trustees shares a strong commitment to advancing the science and practice of CMR and your attendance supports this goal and the vision and mission of SCMR.

I would like to thank the 2012 Program Committee, chaired by Dr. Raymond Kwong and Dr. Jeanette Schulz-Menger, for their time, expertise, and dedication given to designing a program guaranteed to be up-to-date, boundary pushing, and thought-provoking.

This year's meeting continues the trend of recent meetings that have focused on patient outcomes and cost effectiveness, with an Opening Plenary session translating these concepts onto the impact of CMR on Patient Care. We are honored and delighted to have Dr. Robert Bonow, a world recognized clinician and scientist in cardiovascular care, our own Past-President of SCMR Dr. Warren Manning, and SCMR Board Member Dr. Matthias Stuber who will be presenting in the opening plenary.

The scientific program has been developed to emphasize categories along four targeted tracks: General CMR, Congenital/Pediatric, Basic Science, and Case Studies. This year's program continues to build on prior years with the outstanding group of experts assembled to discuss the wide range of interesting topics and provide both an overview of CMR for those new to the field, along with sessions designed for those acquiring a deeper knowledge of CMR technology, techniques, and applications, as well as potential for the future. In parallel, the Technologist's Workshop will offer technologists sessions focused on both their clinical and research educational needs.

For those arriving early, the Pre-Conference programs include a Physician's Course, a Congenital/Pediatric Course, and for the first time a two-day joint workshop with ISMRM on Flow and Motion that takes advantage of the natural mutual interests our two memberships reflect. This joint workshop is the first of what we hope will be many more to come as we continue to expand our collaborative efforts with others interested in CMR and cardiovascular care.

Again, I extend a warm welcome to each of you and feel confident you will value the knowledge, contacts, and insights gained at the 2012 SCMR Scientific Sessions.

Sincerely,



Scott D. Flamm, MD
President, SCMR

COVER AND INSIDE PHOTO CREDITS: Through the courtesy of Drs. Jeanette Schulz-Menger, Otavio Coelho-Filho, and Michael Markl, the front cover features CMR images of an anterior infarction with extensive intracavitary thrombus, the histology and ex-vivo imaging of an infarction, an abnormal myocardial perfusion, and a 3D time-resolved phase-contrast flow mapping of an ascending aortic aneurysm.

Schedule at a Glance	2
Welcome	3
SCMR Vision Statement	4
Conference Goals/Accreditation	5
General Information	6
Hotel Floor Plan	7
Pre-Conference Courses	
Physicians Pre-Conference Course	8
Congenital/Pediatric Pre-conference Course	9
Friday Program	11
Saturday Program	16
Sunday Program	23
Technologist Workshop	26
Poster Directory	29
Abstract Author Disclosures	40
Faculty Disclosures	52
Exhibitor Directory	56
Exhibit Hall Floor Plan	60
Notes	61

SCMR VISION STATEMENT

The Society for Cardiovascular Magnetic Resonance (SCMR) will be the leading international representative and advocate for all physicians, scientists, and technologists working in CMR to improve patient outcomes through excellence in education, training, standards, research and development.

The Mission of SCMR is to:

- Be the premier international model and provider of CMR education, training, standards development, and accreditation.
- Maximize clinical effectiveness of CMR through coordinated comparative effectiveness research efforts resulting in evidence-based guidelines to enhance patient care and outcomes.
- Continually enhance the accuracy, efficiency, and effectiveness of CMR in cardiovascular healthcare through technological advances.
- Promote scientific exchange through organization of an annual international scientific conference, publication of the *Journal of Cardiovascular Magnetic Resonance*, and interactive internet-enabled tools including the SCMR website.
- Build an expanding global membership of physicians, scientists, technologists, and interested healthcare partners focused on clinical applications and research in CMR.
- Develop and advance close working alliances with related societies, industry partners, and governmental and regulatory agencies to more effectively integrate and elevate the use of CMR within cardiovascular healthcare.

Board of Trustees

President

Scott Flamm, MD
Cleveland Clinic
Cleveland, OH USA

Vice President

Andrew Arai, MD
NHLBI-National Institutes of Health
Bethesda, MD USA

Treasurer

Albert de Roos, MD
Leiden University Medical Center
Leiden, The Netherlands

Vice Secretary/Treasurer

Orlando Simonetti, PhD
The Ohio State University
Columbus, Ohio USA

Immediate Past President

Eike Nagel, MD
King's College London
London, United Kingdom

Board Members

David Bluemke, MD, PhD
National Institutes of Health
Bethesda, MD USA

Jens Bremerich, MD
University Hospital
Basel, Switzerland

Susan Eder, AART (MR) (RT)
(Ex officio)
Crawford Long Hospital
Atlanta, GA USA

Victor Ferrari, MD
University of Pennsylvania
Medical Center
Philadelphia, PA USA

Mark Fogel, MD
Children's Hospital of Philadelphia
Philadelphia, PA USA

Raymond Kwong, MD, MPH
Brigham and Women's Hospital
Boston, MA USA

Debiao Li, MD
Cedars-Sinai Medical Center
Los Angeles, CA USA

James Moon, MD (Ex officio)
The Heart Hospital
London, United Kingdom

Dudley Pennell, MD
Royal Brompton Hospital
London, United Kingdom

Sven Plein, MD, PhD
University of Leeds
Leeds, United Kingdom

Joseph Selvanayagam, MBBS, DPhil
Flinders Medical Centre
Adelaide, Australia

Matthias Stuber, PhD
Lausanne University
Lausanne, Switzerland

Program Committee - 2012

Raymond Kwong, MD, MPH, Chair
Brigham and Women's Hospital
Boston, MA USA

Jeanette Schulz-Menger, MD, Co-chair
Franz-Volhard-Klinik
Charite Universitätsmedizin Berlin
Berlin, Germany

Håkan Arheden, MD, PhD
Lund University Hospital
Lund, Sweden

Patricia Bandettini, MD
NHLBI-National Institutes of Health
Bethesda, MD USA

Philipp Beerbaum, MD
King's College London
London, United Kingdom

Robert Biederman, MD
Allegheny General Hospital
Pittsburgh, PA USA

David Bluemke, MD, PhD
National Institutes of Health
Bethesda, MD USA

James Carr, MD, PhD
Northwestern University
Chicago, IL USA

Ricardo Cury, MD
Baptist Hospital
Miami, FL USA

Susan Eder, AART (MR) (RT)
Crawford Long Hospital
Atlanta, GA USA

Daniel Ennis, PhD
University of California – Los Angeles
Los Angeles, CA USA

Anthony Faranesh, PhD
NHLBI-National Institutes of Health
Bethesda, MD USA

David Firmin, MD
Royal Brompton Hospital
London, United Kingdom

Jane Francis, DCR(R), DNM
The John Radcliffe Hospital
Oxford, United Kingdom

Ralph Gentry, RT(R) (MR) (CT)
William Beaumont Hospital
Royal Oak, MI USA

Tal Geva, MD
Children's Hospital Boston
Boston, MA USA

Rory Hachamovitch, MD, MPH
Cleveland Clinic
Cleveland, OH USA

Thomas Hauser, MD
Beth Israel Deaconess Medical Center
Boston, MA USA

Michael Jerosch-Herold, PhD
Brigham and Women's Hospital
Boston, MA USA

Gregory Lanza, MD, PhD
Washington University
St. Louis, MO USA

Michael Markl, PhD
Northwestern University
Chicago, IL USA

Vivek Muthurangu, MD
UCL Institute of Child Health
London, United Kingdom

Krishna Nayak, PhD
University of Southern California
Los Angeles, CA USA

Steffen Petersen, MD, DPhil
Barts and The London NHS Trust
London, United Kingdom

Andrew Powell, MD
Children's Hospital Boston
Boston, MA USA

Harald Quick, PhD
Institute of Medical Physics
Erlanger, Germany

Reza Razavi, MD
King's College London
London, United Kingdom

Tobias Schaeffter, PhD
King's College London
London, United Kingdom

Joseph Selvanayagam, MBBS, DPhil
Flinders University
Adelaide, Australia

Orlando Simonetti, PhD
The Ohio State University
Columbus, Ohio USA

Andrew Taylor, MD
UCL Institute of Child Health
London, United Kingdom

Holger Thiele, MD
University of Leipzig
Leipzig, Germany

Robert van der Geest, PhD
Leiden University Medical Center
Leiden, The Netherlands

Graham Wright, PhD
Sunnybrook Health Services Centre
Toronto, ON Canada

The Goals of the Conference are to:

- Deliver state of the art information on the science of CMR imaging and spectroscopy
- Provide a forum for the presentation of new information on CMR
- Compare and contrast CMR methods with other cardiovascular imaging approaches

At the conclusion of the Scientific Sessions, participants should be better able to:

- Discuss current and new applications where CMR helps in the diagnosis or management of adult cardiovascular disease
- Discuss current and new applications where CMR helps in the diagnosis or management of pediatric and adult congenital cardiovascular disease
- Present evidence that CMR predicts cardiovascular outcomes in patients with a wide range of diseases
- Present current evidence that CMR can be used as a valuable tool in advancing the development of new therapies for cardiovascular disease
- Explore current evidence that support CMR to be cost-effective and to improve patient care
- Present and discuss contrast enhanced and non-contrast enhanced strategies of vascular MRI
- Discuss new approaches and methodologies for CMR image acquisition in patients with cardiovascular disease
- Promote high safety standards and consistency of imaging protocols in the use of CMR in the care of patients with cardiovascular disease
- Present and discuss new approaches of molecular and interventional CMR

Accreditation

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the Society for Cardiovascular Magnetic Resonance and the University of Minnesota. The University of Minnesota is accredited by the ACCME to provide continuing medical education for physicians.

The University of Minnesota designates the educational activities listed below for the maximum of *AMA PRA Category 1 Credits™*:

Physician Pre-conference Course – 8 *AMA PRA Category 1 Credits™*

Congenital/Pediatric Pre-conference Course – 8 *AMA PRA Category 1 Credits™*

2012 Scientific Sessions – 21.25 *AMA PRA Category 1 Credits™*

Physicians and other attendees should only claim credit commensurate with the extent of their participation in the activity.

Other Healthcare Professionals who participate in this CME activity may submit their Statements of Attendance to their appropriate accrediting organizations or state boards for consideration of credit. The participant is responsible for determining whether this activity meets the requirements for acceptable continuing education.

Technologist Workshop

This activity is approved for credit by the American Society of Radiologic Technology (ASRT) for a maximum of 15.75 CE credits.

Each technologist should claim only those hours of credit actually spent in this activity.

Admission

Conference name badges are required for admission to all activities related to the 15th Annual Scientific Sessions, including the exhibit hall and social events.

Registration Hours

The 2012 SCMR Registration Desk is located at the Crystal Ballroom located in the Crystal Ballroom Foyer. The Registration Desk will be open and staffed during the following hours:

Wednesday, February 1	12:00 PM – 6:30 PM
Thursday, February 2	7:00 AM – 6:00 PM
Friday, February 3	6:30 AM – 6:30 PM
Saturday, February 4	6:30 AM – 6:30 PM
Sunday, February 5	6:30 AM – 2:00 PM

Acknowledgements

The Society for Cardiovascular Magnetic Resonance gratefully acknowledges the support of these scientific sessions and SCMR's objectives from our industry supporters:

Siemens Healthcare
Toshiba American Medical Systems
GE Healthcare
Medis medical imaging systems, Inc.
Heart Imaging Technologies
Philips Healthcare

Exhibits

Educational and informational exhibits will be available in Royal/Sabal Ballrooms during the Scientific Sessions. Exhibiting company representatives will be available to answer your questions about their products and services. Please visit the exhibits and thank the representatives for their support. The complete list of exhibits can be found on pages 56-58.

Friday, February 3	10:00 AM – 7:30 PM
Saturday, February 4	7:00 AM – 3:30 PM

Speaker Ready Room

The 2012 Program Committee is committed to providing attendees cutting edge technology and coordinated presentations at the Scientific Sessions. To be fully prepared for your session, each presenter is requested to visit the Speaker Ready Room at least 24 hours prior to your presentation. The Speaker Ready Room is located in the St. Louis Room and will be open the following days and times:

Wednesday, February 1	5:00 PM – 8:00 PM
Thursday, February 2	7:00 AM – 6:00 PM
Friday, February 3	7:00 AM – 6:00 PM
Saturday, February 4	7:00 AM – 6:00 PM
Sunday, February 5	7:00 AM – 1:00 PM

Disclosure Statement

It is the policy of the University of Minnesota - Office of Continuing Medical Education to insure balance, independence, objectivity and scientific rigor in all of its sponsored educational activities. All participating speakers and moderators, course directors, and planning committee members are required to disclose to the program audience any financial relationships related to the subject matter of this program. Relationships of spouse/partner with proprietary entities producing healthcare goods or services should be disclosed if they are of a nature that may influence the objectivity of the individual in a position to control the content of the CME activity. Disclosure information is reviewed in advance in order to manage and resolve any possible conflicts of interest. Financial disclosure information for each speaker will be shared with attendees prior to the speaker's presentation.

A complete list of disclosures is available on pages 52-54.

Marriott World Center



PHYSICIAN PRE-CONFERENCE COURSE: INTRODUCTION TO CARDIOVASCULAR MR

Thursday, February 2, 2012

8:00 AM – 6:00 PM

Crystal Ballroom G1

Chairs: Patricia Bandettini, MD, NHLBI-National Institutes of Health
Steffen Petersen, MD, DPhil, Barts and The London NHS Trust

*Pre-conference Course Educational Objectives**

- Modify sequence parameters to enhance MR image quality and to identify common artifacts
- Plan, perform, and read cardiac MRI including stress test
- Recognize the current common pulse sequence techniques and their potential clinical applications

Agenda

8:00 am – 8:10 am Introductory Remarks

Session Co-chairs: Patricia Bandettini, MD, NHLBI;
Steffen Petersen, MD, Barts and The London NHS Trust

8:10 am - 9:50 am Basics of CMR

8:10 am Basics: Spins and Hardware

Tobias Schaeffter, PhD, King's College London

8:30 am Black-blood Sequences

Anthony Aletras, PhD, University of Central Greece

8:50 am Bright-blood Sequences

Robert Judd, PhD, Duke University

9:10 am Let's Go Faster: Parallel Acquisition Techniques

Michael Hansen, PhD, National Institutes of Health

9:30 am Dealing with Breathing Artifacts and Arrhythmia

Christine Lorenz, PhD, Siemens Corporate Research, Inc.

9:50 am - 10:10 am Refreshment Break

10:10 am - 12:10 pm How To Sessions

10:10 am How to Measure Regional and Global Ventricular Function

Ceri Davies, MD, Barts and London NHS Trust

10:30 am How to Quantify Blood Flow

Alex Pitcher, MD, Oxford Centre for Clinical Magnetic Resonance Research

10:50 am How to Perform High-quality Delayed Enhancement

Alexander Dick, MD, University of Toronto

11:10 am How to Optimize MR Angiography

Christoph Herborn, MD, Medical Prevention Center Hamburg

11:30 am How to Assess the Coronary Arteries Using CMR

Hajime Sakuma, MD, MIE University

11:50 am How to Assess Myocardial Iron Overload

John Paul Carpenter, MBBS, Royal Brompton Hospital

12:10 pm - 1:10 pm Lunch (on own)

1:10 pm - 3:10 pm Clinical Applications of CMR - Part 1

1:10 pm Optimizing Efficiency of Protocols

Mark Westwood, MD, The London Chest Hospital

1:30 pm CMR to Assess the Etiology of Cardiomyopathy

Joseph Suttie, MBBS, University of Oxford

1:50 pm CMR in the Assessment of Possible Arrhythmogenic Right Ventricular Dysplasia

Matthias Friedrich, MD, Université de Montréal

2:10 pm CMR in Suspected Acute Myocarditis

Ian Paterson, MD, University of Alberta

2:30 pm CMR in Myocardial Ischemia

Stephen Harden, MD, Southampton General Hospital

2:50 pm CMR in Myocardial Viability

Phillip Yang, MD, Stanford University

3:10 pm - 3:40 pm Refreshment Break

3:40 pm - 6:00 pm Clinical Applications of CMR - Part 2

3:40 pm CMR in Congenital Heart Disease

Vivek Muthurangu, MD, UCL Institute of Child Health and Great Ormond Street Hospital

4:00 pm CMR in Valvular Disease

Erik Schelbert, MD, University of Pittsburgh

4:20 pm CMR in Pericardial Disease

Monvadi Srichai, MD, NYU School of Medicine

PHYSICIAN PRE-CONFERENCE COURSE: INTRODUCTION TO CARDIOVASCULAR MR (CONT'D)

- 4:40 pm** **CMR in the Assessment of Intracardiac Mass**
Peter Buser, MD, University Hospital Basel
- 5:00 pm** **Knowing When to Choose CMR in a Multimodality Imaging Climate**
Marcus Chen, MD, National Institutes of Health

- 5:20 pm** **Panel Discussion of Submitted Questions**
Patricia Bandettini, MD, NHLBI
Matthias Friedrich, MD, Université de Montréal
Christoph Herborn, MD, MBA, Medical Prevention Center Hamburg
Vivek Muthurangu, MD, UCL Institute of Child Health and Great Ormond Street Hospital
Steffen Petersen, MD, The Barts and The London NHS Trust
Subha Raman, MD, The Ohio State University
Tobias Schaeffter, PhD, King's College London

SCMR 2012 PRE-CONFERENCE COURSE: CONGENITAL/PEDIATRIC PRE-CONFERENCE COURSE

8:00 AM – 6:00 PM **Crystal Ballroom J1**

Chairs: Vivek Muthurangu, UCL Institute of Child Health and Great Ormond Street Hospital;
Andrew Powell, MD, Children's Hospital Boston

*Pre-conference Course Educational Objectives**

- Discuss current and new applications where CMR helps in the diagnosis or management of congenital and adult congenital cardiovascular disease.
- Better understand what CMR technology can provide in the management of congenital heart disease

8:00 am – 10:00 am **Session I - Practical Answers to Everyday Questions**

8:00 am **How to Make Sense of Congenital Cardiac Anatomy - The Segmental Approach**
Tal Geva, MD, Children's Hospital Boston

8:30 am **How to Write a Great Congenital CMR Report**
James Nielsen, MD, Mt. Sinai School of Medicine

8:50 am **Too Small or Too Big - What Are Normal Values for Ventricular Parameters in Children?**
Adam Dorfman, MD, University of Michigan Health Systems

9:10 am **What are the Risks of Anesthesia and Sedation for CMR?**
Kirsten Odegard, MD, Children's Hospital Boston

9:40 am **Which Cardiac Devices are CMR Compatible?**
Tobias Schaeffter, MD, King's College London

10:00 am – 10:30 am **Refreshment Break**

10:30 am – 12:30 pm **Session II - Sharpening Your CMR Tools**

10:30 am **Ventricular Function: How to Make the Gold Standard Shine**
Sohab Fratz, MD, Deutsches Herzzentrum München

10:55 am **Flow Imaging: Tips, Tricks, and Pitfalls**
Philipp Beerbaum, MD, PhD, King's College London

11:20 am **Contrast-enhanced Angiography: Optimizing the Protocol**
Taylor Chung, MD, Children's Hospital & Research Center

11:45 am **3D SSFP Whole Heart Imaging – A Recipe for a Clear Picture**
Gerald Greil, MD, King's College London

12:05 pm **Fibrosis Imaging: How to Get the Best from Your Scar Imaging**
Carsten Rickers, MD, University Hospital of Schleswig-Holstein

12:30 pm – 1:30 pm **Lunch (on own)**

1:30 pm – 3:30 pm **Session III - Standard Clinical Applications**

1:30 pm **Shunt Lesions**
Oliver Tann, MD, Great Ormond Street Hospital

1:55 pm **Coarctation of the Aorta**
Laureen Sena, MD, Children's Hospital Boston

SCMR 2012 PRE-CONFERENCE COURSE: CONGENITAL/PEDIATRIC PRE-CONFERENCE COURSE (CONT'D)

2:15 pm Transcatheter Pulmonary Valve Implantation
Andrew Taylor, MD, UCL Institute of Child Health

2:40 pm Fontan Operation
Rajesh Krishnamurthy, MD, Texas Children's Hospital

3:05 pm Cardiac Masses
Rebecca Beroukhim, MD, Children's Hospital Boston

3:30 pm – 4:00 pm Refreshment Break

4:00 pm – 6:00 pm Session IV - Advanced Clinical Applications

4:00 pm MR Augmented Catheterization: Luxury or Necessity?
Reza Razavi, MD, King's College London

4:25 pm Measurement of Myocardial Strain: Does It Change Anything?

Kan Hor, MD, Cincinnati Children's Hospital Medical Center

4:50 pm Complex Cases: Test Your Knowledge
Vivek Muthurangu, MD, UCL Institute of Child Health and Great Ormond Street Hospital
Andrew Powell, MD, Children's Hospital Boston

5:30 pm Q & A Session with Panel

JOIN SCMR TODAY!

Membership Benefits

Free authorship in the open access publication *Journal of Cardiovascular Magnetic Resonance*
Annual International Scientific Sessions • Exclusive members-only web-based services
Protocols and Standards for training and practice • Discounts on SCMR educational events and materials

Membership Descriptions

Regular Member A physician, scientist or industry (community) member who satisfies the requirements of good character and who has demonstrated an interest in cardiovascular magnetic resonance. All regular members have the right to hold office and vote providing that dues are paid and current.

Trainee Member Physicians in training, doctoral candidates and post-doctoral fellows who are receiving training, experience or competence in cardiovascular magnetic resonance. Trainee members are eligible for up to 4 years and must provide a letter of verification of active training from their institution yearly. Trainee members may vote and serve on committees.

Technologist/Allied Health Member Two years active, direct experience in the field are required to become a technologist/allied health member having the right to vote and to hold office, providing that dues are paid and current.

Emeritus Member Emeritus member status is available to a member in good standing for the previous five years who is retired from active practice, teaching and research, and is at least 65 years of age. Applications are reviewed and approved by the Executive Committee. Emeritus members cannot hold elected office or serve as committee chairs, but do receive member discounts to meetings, may vote and serve on committees.

Associate Member The Associate Membership category is available to medical professionals (MD and PhD) who work in developing countries where the prevailing wage makes regular Society membership dues unaffordable. The features and application procedure are detailed on the SCMR website.

Visit the SCMR website www.scmr.org for additional membership and Society information.

Friday, February 3, 2012

7:00 am – 8:00 am **Continental Breakfast** Palms Ballroom Foyer

7:00 am – 8:00 am **Physics for Physicians** Crystal Ballroom P

How to Make MR Images

Michael Hansen, PhD, National Institutes of Health

7:00 am – 8:00 am **Cardiology for Non-cardiologists** Crystal Ballroom M

7:00 am **Most Common Clinical Indications for CMR: Strengths and Weaknesses**

Afshin Farzaneh-Far, MD, PhD, University of Illinois

7:30 am **CMR-specific Artifacts**

Daniel B. Ennis, PhD, University of California – Los Angeles

8:00 am – 8:15 am **Welcome and Opening Comments** Sago Ballroom

Scott Flamm, MD, Cleveland Clinic

8:15 am – 9:30 am **Opening Plenary Session – Advancing Patient Care Using CMR Imaging**

Moderators: Raymond Y. Kwong, MD, MPH, Brigham and Women's Hospital
Jeanette Schulz-Menger, MD, Charite Universitätsmedizin Berlin

Upon completion of this educational activity, the participant should be better able to:

- Understand the current evidence surrounding viability imaging from the STICH trial and the role of cardiac magnetic resonance imaging in this area
- Recognize the current issues and the future of noninvasive imaging of the coronary arteries by magnetic resonance
- Name a number of novel technical development that can improve patient management in the near future

8:15 am **What is the Status of Viability Imaging after STICH?**

Robert Bonow, MD, Northwestern University Medical Center

8:35 am **The Present and the Future of Coronary Magnetic Resonance Angiography**

Warren Manning, MD, Beth Israel Deaconess Medical Center

8:55 am **What CMR Technology Can Take Patient Care to a New Level in the Near Future**

Matthias Stuber, PhD, Lausanne University

9:15 am **Q and A**

9:30 am – 10:00 am **CMR Questionnaire**

Moderator: Gerald Pohost, MD, University of Southern California

10:00 am – 10:30 am **Refreshment Break** Royal/Sabal Ballrooms

10:30 am – 12:00 pm **Concurrent Sessions**

Invited Lecture 1 – Non-ischemic Heart Disease 1

Sago Ballroom

Moderators: Ricardo Cury, MD, Radiology Associates of South Florida

Steffen Petersen, MD, The Barts and The London NHS Trust

Upon completion of this educational activity, the participant should be better able to:

- Optimize the CMR protocols used in non-ischemic heart disease
- Differentiate cardiomyopathies using CMR
- Discuss the impact of CMR on the management of non-ischemic heart disease

10:30 am **DCM**

Ravi Assomull, MRCP, Royal Brompton Hospital

10:45 am **Myocarditis**

Saidi Mohiddin, MBChB, London Chest Hospital

11:00 am **Heritable Cardiomyopathies**

Ali Yilmaz, MD, Robert-Bosch-Krankenhaus

11:15 am **Progress in ARVD/C Diagnosis**

David Bluemke, MD, PhD, National Institutes of Health

11:30 am **Impact of CMR on Treatment of NICM**

Saman Nazarian, MD, Johns Hopkins Outpatient Center

11:45 am **Q and A**

Invited Lecture 2 – Cardiac Metabolism and Molecular Imaging Crystal Ballroom J2

Moderators: Gregory Lanza, MD, PhD, Washington University
Graham Wright, MD, Sunnybrook Health Sciences Centre

Upon completion of this educational activity, the participant should be better able to:

- Appreciate in overview the current status of imaging atherosclerosis and cardiac energetics with MRI today
- Recognize emerging MRI molecular imaging agents that can build upon these current capabilities
- Understand the clinical unmet need and opportunity that molecular imaging offers in the management of cardiovascular patients

10:30 am **Targeted Agents for Atherosclerosis Characterization**

David Sosnovik, MD, Harvard Medical School

10:45 am **Carotid Angiogenesis and 19F Imaging**
Shelton Caruthers, PhD, Washington University – St. Louis

11:00 am **Cardiac Energetics**
Stefan Neubauer, MD, John Radcliffe Hospital

11:15 am **Visualizing Cardiomyocyte Function Using Carbon-13 MR**
Marie Schroeder, MD, University of Oxford

11:30 am **13C Imaging of Metabolic Disorders - Physiological Considerations**
Craig Malloy, MD, University of Texas Southwestern Medical Center

11:45 am **Q and A**

Case Review 1 – Fascinating Vascular Disease Cases **Crystal Ballroom J1**

Moderators: Richard Coulden, MD, University of Alberta
Uma Valeti, MD, University of Minnesota
Presenters: Lucien Abboud, MD, Debaquey and Heart Vascular Institute
Christine Heilmaier, MD, HELIOS Klinikum Krefeld
Mayil Krishnam, MRCP, FRCR, University of California - Irvine

Oral Abstract Session 1 – Early Career Award – Clinical **Crystal Ballroom G1**
Moderators: Joao Lima, MD, Johns Hopkins University
Dudley J. Pennell, MD, Royal Brompton Hospital

10:35 am **O1 MRI in Childhood Arrhythmogenic Right Ventricular Cardiomyopathy and Proposed Modification of the Task Force Criteria for Children**
Lars Grosse-Wortmann, MD, Hospital for Sick Children

10:49 am **O2 Feasibility and Prognostic Value of Stress-perfusion CMR in Obesity**
Ravi Shah, MD, Brigham and Women's Hospital

11:03 am **O3 Stress CMR Myocardial Perfusion Imaging (CMR-MPI) Is Cost-effective Compared to Nuclear SPECT: A Retrospective Cost-effectiveness Analysis**
Sanjeev Francis, MD, Massachusetts General Hospital

11:17 am **O4 Impact of CMR Parameters on Prognosis after ST-Elevation Myocardial Infarction – A Comparison to Traditional Outcome Markers**
Suzanne de Waha, University of Leipzig, Heart Center

11:31 am **O5 Non-invasive Assessment of Interstitial Myocardial Fibrosis in Pressure-Overload Left Ventricular Hypertrophy**
Andrew Jabbour, Cardiology Fellow, Royal Brompton and Harefield NHS Foundation Trust, Imperial College London

11:45 am **O6 Prognostic Significance of Midwall Fibrosis in Dilated Cardiomyopathy**
Ankur Gulati, Royal Brompton Hospital

12:00 pm – 12:30 pm **SCMR Business Meeting** **Sago Ballroom**

12:30 pm – 1:30 pm **Posters, Exhibits, Lunch (on own)** **Royal/Sabal Ballrooms**

1:30 pm – 3:00 pm **Concurrent Sessions**

Invited Lecture 3 – Coronary and Vascular CMR **Sago Ballroom**

Moderators: James Carr, MD, PhD, Northwestern University
Warren Manning, MD, Beth Israel Deaconess Medical Center
Upon completion of this educational activity, the participant should be better able to:

- Know the optimal dose reduction strategies for performing MRA in the at risk patient
- Understand the current role of coronary MRA in clinical practice
- Have a better understanding of MRI capability and shortcomings for coronary lumen and arterial wall imaging

1:30 pm **Coronary Lumen and Arterial Wall Imaging with MRI**
Debiao Li, PhD, Cedars Sinai Medical Center

1:50 pm **MRA in the "At Risk" Patient - Dose Reduction Strategies and Non-Contrast Techniques**
Robert Edelman, MD, Evanston Hospital

2:10 pm **Coronary MRA in Real Practice: Is it Feasible and Cost-effective?**
Hajime Sakuma, MD, MIE University Hospital

2:30 pm **MRI of the Peripheral Vasculature - The New Gold Standard?**
J. Paul Finn, MD, University of California – Los Angeles

2:50 pm **Q and A**

Case Review 2 – Congenital Heart Disease 1

Crystal Ballroom J1

Moderators: Reza Rezavi, MD, King's College London
Michael Taylor, MD, Cincinnati Children's Hospital Medical Center
Presenters: Jaspreet Singh, MD, University of Arizona
Supriya Jain, MD, Children's Hospital Boston
Mark Rabbat, MD, Loyola University Medical Center
Rebecca Beroukham, MD, Children's Hospital Boston
Anil Attili, MD, University of Kentucky
Sandra Kocina, MD, Emory University
Sowmya Balasubramanian, MD, Children's Hospital Boston

Oral Abstract Session 2 – Early Career Award - Basic Science

Crystal Ballroom J2

Dedicated to the memory of Stefan Fischer

Moderators: Dara Kraitchman, VMD, PhD, Johns Hopkins University
Stefan Neubauer, MD, John Radcliffe Hospital

- 1:35 pm** **O7** **A New CMR Protocol for Non-destructive, High Resolution, Ex-vivo Assessment of the Area At Risk Simultaneous with Infarction: Validation with Histopathology**
Lowie Van Assche, MD, Duke University
- 1:49 pm** **O8** **Left Atrial Scar Assessment Using Imaging with Isotropic Spatial Resolution and Compressed Sensing**
Mehmet Akcakaya, PhD, Beth Israel Deaconess Medical Center
- 2:03 pm** **O9** **Interactive Real-time Mapping and Ablation of the Pulmonary Veins and Cavotricuspid Isthmus in an Ovine Model with an Externally-irrigated MRI-compatible Ablation Catheter**
Anand Ganesan, MBBS PhD, University of Adelaide
- 2:17 pm** **O10** **MRI Based Non-invasive Detection of Cardiomyocyte Hypertrophy and Cell-volume Changes**
Otavio Coelho-Filho, MD, MPH, State University of Campinas
- 2:31 pm** **O11** **Probing Atherosclerotic Angiogenesis with New Manganese-based Nanocolloid for T1-weighted MRI**
Kezheng Wang, MD, PhD, 4th Affiliated Hospital of Harbin Medical University, Washington University School of Medicine - St.Louis
- 2:45 pm** **O12** **Accurate Method for Measuring Arterial Pulse Wave Velocity by Cardiovascular Magnetic Resonance**
El-Sayed Ibrahim, PhD, University of Florida

Oral Abstract Session 3 – Clinical Outcome and Prognosis

Crystal Ballroom G1

Moderators: Ingo Eitel, MD, University of Leipzig
Michael McConnell, MD, Stanford University School of Medicine

- 1:35 pm** **O13** **Prognostic Value of Delayed Enhancement Cardiovascular Magnetic Resonance in Patients with Sarcoidosis**
Han Kim, MD, Duke University
- 1:47 pm** **O14** **Assessment of Warranty Time for Dobutamine Stress Magnetic Resonance Imaging in 3138 Consecutive Patients: A Bi-center Study**
Sebastian Kelle, MD, German Heart Institute Berlin
- 1:59 pm** **O15** **Impact of Ejection Fraction on Long-Term Outcome after ST-Elevation Myocardial Infarction – Comparison between Cardiac Magnetic Resonance Imaging and Transthoracic Echocardiography**
Suzanne de Waha, University of Leipzig, Heart Center
- 2:11 pm** **O16** **End Systolic Volume and Scar Burden are Incremental and Independent Predictors of Survival in Patients with Severe Ischemic Cardiomyopathy**
Deborah Kwon, MD, Cleveland Clinic
- 2:23 pm** **O17** **Gray-zone Late Gadolinium Enhancement Greatly Enriches the Prediction of Ventricular Arrhythmia; A Cardiovascular MRI Study**
Asghar Fakhri, Allegheny General Hospital
- 2:35 pm** **O18** **Quantification of Infarct Tissue Heterogeneity and Remote Myocardial Fibrotic Burden during Convalescent Phase After Acute Myocardial Infarction (MI) Provided Strong and Complementary Evidence of Ventricular Arrhythmogenicity from Quantitative Microvolt T-wave Alternans Testing (PROSPECT-CMR Study)**
Bobby Heydari, MD, Brigham and Women's Hospital
- 2:47 pm** **O19** **Design and Rationale of the MR-INFORM Study: Stress Perfusion MRI to Guide the Management of Patients with Stable Coronary Artery Disease**
Shazia Hussain, MbChB, Kings College

3:00 pm – 3:30 pm **Refreshment Break** Royal/Sabal Ballrooms

3:30 pm – 5:00 pm Concurrent Sessions

Invited Lecture 4 – Myocardial Perfusion and Ischemia Sago Ballroom

Moderators: Michael Jerosch-Herold, PhD, Brigham and Women's Hospital
Joseph Selvanayagam, MBBS, DPhil, Adelaide Hospital
Upon completion of this educational activity, the participant should be better able to:

- Better understand the pros and cons of CMR perfusion for ischemia assessment
- Understand why perfusion artifacts occur and how to recognize them and minimize them in clinical practice
- Understand the potential of non-contrast perfusion methods in current practice

3:30 pm CMR Perfusion Imaging in Clinical Cardiology: Comparison with Other Non-invasive Imaging Modalities
Timothy Christian, MD, University of Vermont

3:45 pm How to do CMR Perfusion in Real World Practice: Tricks and Tips
Sven Plein, MD, PhD, University of Leeds

4:00 pm Quantitative CMR Perfusion: Does It Add Value?
Andrew Arai, MD, NHLBI

4:15 pm Non-contrast Perfusion Methods: Ready for Prime Time?
Krishna Nayak, PhD, University of Southern California

4:30 pm Moving Towards Whole-heart Perfusion Imaging with MRI
Sebastian Kozerke, PhD, Institute for Biomedical Engineering University and ETH Zurich

4:45 pm Q and A

Case Review 3 – When CMR Complements Other Modalities Crystal Ballroom J1

Moderators: Ron Blankstein, MD, Brigham & Women's Hospital
Edward Martin, MD, Oklahoma Heart Institute
Presenters: Joel Wilson, MD, NHLBI
Christopher Miller, MBChB, University of Manchester
Anthon Fuisz, MD, Washington Hospital Center
Edward Hulten, MD, Brigham and Women's Hospital
Scott Bingham, MD, Central Utah Imaging
Juan Battle, MD, Radiology Associates of South Florida

Oral Abstract Session 4 – Early Career Award - Basic Translational Crystal Ballroom J2

Moderators: Christopher Kramer, MD, University of Virginia
Gerald Pohost, MD, University of Southern California

3:35 pm 020 Automatic Segmentation of Myocardium at Risk in T2-weighted Cardiovascular Magnetic Resonance
Jane Sjogren, MSc, Skåne University Hospital

3:49 pm 021 Free-breathing Late Gadolinium Enhancement CMR with a Fixed Short Scan Time Using CosMo
Mehdi Moghari, Harvard Medical School

4:03 pm 022 Improved Late Gadolinium Enhancement Imaging of Left Ventricle with Isotropic Spatial Resolution
Mehmet Akcakaya, PhD, Beth Israel Deaconess Medical Center

4:17 pm 023 Interstitial Expansion in Health and Disease – An Equilibrium Contrast CMR Study
Daniel Sado, MRCP, The Heart Hospital

4:31 pm 024 Quantifying the Area at Risk Using the Infarct Lateral Border: Importance of Infarct Transmurality
Christoph Jensen, MD, Elisabeth Hospital Essen

4:45 pm 025 Improve of Arrhythmogenic Right Ventricular Cardiomyopathy/Dysplasia Evaluation by Magnetic Resonance Using Ventricular Arrhythmia Suppression with Intravenous Lidocaine
Afonso Shiozaki, MD, PhD, Maringá Imaging Institute

Oral Abstract Session 5 – DCM and Secondary CMP Crystal Ballroom J1

Moderators: Herbert Frank, MD, University of Vienna
Subha Raman, MD, The Ohio State University

3:35 pm 027 Non-contrast T1 Mapping Characterizes the Myocardium Beyond That Achieved by Late Gadolinium Enhancement in Both Hypertrophic and Dilated Cardiomyopathy
Joseph Suttie, MD, University of Oxford

3:47 pm 028 Measurement of Extracellular Volume Fraction by Cardiac Magnetic Resonance Imaging Detects Diffuse Myocardial Fibrosis in Systemic Sclerosis
Daniel Lee, MD, Northwestern University, Feinberg School of Medicine

3:59 pm 029 Cardiovascular Magnetic Resonance T2 Mapping Detects Myocardial Edema in Patients with Chronic Dilated Cardiomyopathy
Taigang He, PhD, Royal Brompton Hospital

4:11 pm **O30 Left Ventricular Mass by Cardiac Magnetic Resonance Imaging and Adverse Cardiovascular Outcomes in Patients Treated with Anthracycline-based Chemotherapy**
Tomas Neilan, MD, Massachusetts General Hospital

4:23 pm **O31 Regional Expression of Myocardial Sheet Dysfunction in Dystrophin-deficient Cardiomyopathy Elucidated with Diffusion Tensor MRI and Optical Calcium Mapping**
Ya-Jian Cheng, MS, Washington University - St. Louis

4:35 pm **O32 In-vitro Evaluation of a Novel MR-compatible Cardiac Biopsy Catheter for MR-guided Myocardial Biopsies**
Sebastian Seitz, PhD, University of Heidelberg

5:00 pm – 6:30 pm Concurrent Sessions

Invited Lecture 5 - Myocardial Infarction and Area at Risk Sago Ballroom

Moderators: Christopher Kramer, MD, University of Virginia
Holger Thiele, MD, University of Leipzig
Upon completion of this educational activity, the participant should be better able to:

- Select the optimal MR sequences for myocardial salvage and hemorrhage imaging, and understand all potential pitfalls and artifacts
- Understand the pathophysiology, clinical scenarios, and the prognostic impact influencing myocardial salvage, microvascular obstruction, and hemorrhage in clinical practice
- Have a glimpse into current and future research, understand into which direction research is directed in acute coronary syndromes, and how/when CMR is used in clinical research

5:00 pm **Assessing Myocardial Salvage - State of the Art**
Anthony Aletras, PhD, University of Central Greece

5:20 pm **CMR in Acute Coronary Syndromes for Prognosis Estimation - Infarct Size, Microvascular Obstruction, or Myocardial Salvage. Better than Other Clinical Risk Tools?**
Ingo Eitel, MD, University of Leipzig Heart Center

5:40 pm **Beyond Salvage, Infarct Size and Microvascular Obstruction - Can T2 - or T2*-Weighted Images Identify Hemorrhage?**
Adam Mather, MD, University of Leeds

6:00 pm **Clinical and Research Use of CMR in Acute Coronary Syndromes**
Raymond Kim, MD, Duke Cardiovascular MRI Center

6:20 pm **Q and A**

Case Review 4 - Cardiac Masses: Correlating Imaging with Pathology

Crystal Ballroom J1

Moderators: Carlos Rochitte, MD, Heart Institute – InCor
Ralf Wassmuth, MD, HELIOS-Charite Berlin
Presenters: Joel Wilson, MD, NHLBI
Saad Alhumayyd, MD, University of Toronto

Oral Abstract Session 6 – Crystal Ballroom J2 Comparison to Other Modalities and Cost Effectiveness

Moderators: Otavio Coelho-Filho, MD, MPH, State University of Campinas
Edward Martin, MD, Oklahoma Heart Institute

5:05 pm **O33 Can CMR Be the New 'Gold Standard' for Constrictive Pericarditis?**
John Power, University of Rochester, Allegheny General Hospital

5:17 pm **O34 Cardiovascular Magnetic Resonance with Late Gadolinium Enhancement Improves Mortality Prediction beyond Echocardiography: A Comparative Effectiveness Study**
Erik Schelbert, MD, University of Pittsburgh

5:29 pm **O35 Treadmill Exercise Stress Cardiac MRI for the Assessment of Left Ventricular Wall Motion: A Comparison with Stress Echocardiography in Healthy Volunteers**
Paaladinesh Thavendiranathan, MD, MSc, Cleveland Clinic Foundation

5:41 pm **O36 Unrecognized Myocardial Infarction by Echocardiography in Relation to Infarct Characteristics as Assessed by Cardiovascular Magnetic Resonance Imaging**
Caroline Jaarsma, MD, Maastricht University Medical Center

5:53 pm **O37 The Effect of Myocardial Fibrosis on Left Ventricular Diastolic Function Assessed by Non-invasive Cardiac Magnetic Resonance and Echocardiography**
Azarakhsh Babolian, MD, Tehran University of Medical Sciences

6:05 pm **O38 Validating Feature Tracking MRI for the Assessment of Strain Rate in Patients with Various Hemodynamic States**
Dvorah Holtzman, MD, St. Francis Hospital

6:17 pm **O39 Self-gated Cardiac Magnetic Resonance Perfusion Imaging compared with X-ray Angiography: A Pilot Study**
Alexis Harrison, University of Utah

Oral Abstract Session 7 – Vascular MRI: From Research to Clinical Application

Crystal Ballroom G1

Moderators: Jens Bremerich, MD, University Hospital Basel
J. Paul Finn, MD, University of California – Los Angeles

5:05 pm 040 High Resolution Slice-selective Fourier Velocity Encoding Using Spiral SENSE with Velocity Unwrap

Jennifer Steeden, PhD, UCL

5:17 pm 041 PPACK and Bivalirudin Nanoparticles Enable Simultaneous Imaging and Potent Inhibition of Acute Clotting

Jacob Myerson, MS, Washington University - St. Louis

5:29 pm 042 Copper Nanocolloids: A New Thrombus Molecular Imaging Approach to Ruptured Plaque

Dipanjan Pan, Washington University Medical School

5:41 pm 043 Paradoxical Changes in Lumen Size During Progression and Regression of Carotid Atherosclerosis

Sobhan Kodali, MD, Allegheny General Hospital

5:53 pm 044 Prospective Swallowing Motion Self-gating: A Feasibility Study in Carotid Artery Wall MRI Using 3D Variable-Flip-Angle TSE

Zhaoyang Fan, PhD, Cedars-Sinai Medical Center

6:05 pm 045 The Feasibility of 350 Micron Spatial Resolution Coronary MRA at 3T in Humans

Ahmed Gharib, MB, CHB, National Institutes of Health

6:17 pm 046 The Association between Aortic Stiffness Parameters and Left Ventricular Deformation: Preliminary Results from the MESA 5 Study

Atul Chugh, Johns Hopkins University

6:30 pm – 8:00 pm Moderated Poster Session 1, Poster Session 1, and Wine and Cheese Reception

Royal/Sabal Ballrooms

Saturday, February 4, 2012

6:45 am – 8:00 am Continental Breakfast

Royal/Sabal Ballrooms

7:00 am – 8:00 am Physics for Physicians

Crystal Ballroom P

7:00 am Tissue Characterization: T1 Techniques

Anthony Aletras, PhD, University of Central Greece

7:30 am Tissue Characterization: T2 and T2* Techniques

Anthony Aletras, PhD, University of Central Greece

7:00 am – 8:00 am Cardiology for Non-cardiologists

Crystal Ballroom M

7:00 am Clinical Uses of Myocardial T1 Imaging

Subha Raman, MD, The Ohio State University

7:30 am Clinical Uses of Myocardial T2 and T2* Imaging

Subha Raman, MD, The Ohio State University

8:00 am – 9:30 am Concurrent Sessions

Invited Lecture 6 - Interventional MRI - Vascular and Structural Heart Disease

Sago Ballroom

Moderators: Anthony Faranesh, PhD, NHLBI
Harald Quick, PhD, Institute of Medical Physics

Upon completion of this educational activity, the participant should be better able to:

- Recognize recent advances in CMR of congenital heart disease
- Understand the strength and weaknesses of computer modeling based on CMR data
- Be familiar with the use of CMR for fetal cardiac evaluation

8:00 am Interventional Cardiovascular MRI

Robert Lederman, MD, NHLBI

8:15 am Fusing MRI and Ultrasound for Intervention Guidance

Reza Razavi, MD, King's College London

8:30 am Fusing MRI and X-Ray for Stem Cell Therapies

Amish Raval, MD, University of Wisconsin Medical School

8:45 am Devices for iMRI in Vascular / Valvular Procedures

Harald Quick, PhD, Institute of Medical Physics

9:00 am Real-time MRI for Interventional Guidance

Juan Santos, PhD, Stanford University

9:15 am Q and A

Case Review 5 - Myocardial Inflammation: What is the Diagnosis?

Crystal Ballroom J1

Moderators: Julio Chirinos, MD, University of Pennsylvania
Albert de Roos, MD, PhD, Leiden University Medical Center
Presenters: Birgit Langhans, MD, Deutsches Herzzentrum München
Elizabeth Joseph, MBBS, DMRD, DNB, CMC Vellore
Filip Zemrak, MD, MRCP, The London Chest Hospital

Oral Abstract Session 8 – Novel Techniques for Clinical Application

Crystal Ballroom J2

Moderators: Anthony Aletras, MD; University of Central Greece
Sven Plein, MD, PhD, University of Leeds

- 8:05 am 047 Validation of Dynamic Three-dimensional Whole Heart Magnetic Resonance Myocardial Perfusion Imaging against Single Photon Emission Computed Tomography for the Detection of Functionally Significant Coronary Heart Disease**
Roy Jogiya, MBBS, King's College London
- 8:17 am 048 Quantification of Myocardial Perfusion Based on Signal Intensity of Flow Sensitized MRI**
Sumeda Abeykoon, MS, University of Cincinnati
- 8:29 am 049 Diffusion MRI Tractography of the Human Heart (In Vivo) at End-Diastole and End-Systole**
Choukri Mekkaoui, Harvard Medical School
- 8:41 am 050 Cardiac Magnetic Resonance Myocardial Feature Tracking Correlates with Natural Radial Strain and Corresponds to Inotropic Stimulation**
Andreas Schuster, MD, King's College London
- 8:53 am 051 Quantitative Free-breathing 3T T2-mapping of the Heart Designed for Longitudinal Studies**
Ruud B. Van Heeswijk, PhD, University Hospital Lausanne (CHUV)
- 9:05 am 052 Slice-selective Implementation of an Adiabatic T2 Prep Sequence Increases Coronary Artery Conspicuity at 3T**
Sahar Soleimanifard, MSE, Johns Hopkins University
- 9:17 am 053 Highly Effective Fat Suppression in Clinical T1-Weighted Imaging of Ischemic and Non-Ischemic Heart Disease with DeSPAIR**
Wolfgang Rehwald, PhD, Siemens Healthcare, Duke University Medical Center

Oral Abstract Session 9 – Congenital Heart Disease 1

Crystal Ballroom G1

Moderators: James Nielsen, MD, Mt. Sinai School of Medicine
Emanuela Valsangiacomo, MD, University Children's Hospital

- 8:05 am 054 Diagnostic Accuracy of Post-mortem Cardiovascular Magnetic Resonance Imaging in Fetuses, Newborns, and Children**
Andrew Taylor, MD, UCL Institute of Cardiovascular Science

- 8:17 am 055 Normal Values of Aortic Dimensions, Distensibility, and Pulse Wave Velocity in Children and Young Adults**
Inga Voges, MD, University Hospital Schleswig-Holstein
- 8:29 am 056 Fully-automatic, Patient-specific 3D Aortic Arch Modeling for Patient Treatment with Aortic Arch Anomalies**
Benedetta Leonardi, MD, Bambino Gesù Pediatric Hospital
- 8:41 am 057 Cardiac Magnetic Resonance Imaging and Gadolinium Angiography for Neonates and Small Infants: A 10-Year Single Institutional Experience**
Sheela Rangamani, University of Nebraska/Creighton University, Joint Division of Pediatric Cardiology, Children's Hospital and Medical Center
- 8:53 am 058 Equilibrium Contrast Cardiovascular Magnetic Resonance Shows Increased Interstitial Expansion in the Systemic Right Ventricle of Adults Late after Mustard or Senning Surgery for Transposition of the Great Arteries**
Daniel Sado, MRCP, The Heart Hospital
- 9:05 am 059 Reduced Global Longitudinal and Radial Strain with Normal Left Ventricular Ejection Fraction Late after Effective Repair of Aortic Coarctation - A CMR Feature Tracking Study**
Shelby Kutty, Joint Division of Pediatric Cardiology, University of Nebraska College of Medicine/ Creighton University School of Medicine, Children's Hospital and Medical Center
- 9:17 am 060 CMR Adenosine Stress Perfusion in Pediatrics and Congenital Heart Disease: Effects on Clinical Decision Making and Outcomes**
Michael Campbell, MD, Duke University Medical Center
- 9:30 am – 10:00 am Refreshment Break** Royal/Sabal Ballrooms

10:00 am – 11:30 am Concurrent Sessions

Invited Lecture 7 - Advanced CMR Techniques in Pediatric/Congenital Heart Disease

Sago Ballroom

Moderators: Andrew Powell, MD, Children's Hospital Boston
Andrew Taylor, MD, UCL Institute of Child Health

Upon completion of this educational activity, the participant should be better able to:

- Recognize recent advances in CMR of congenital heart disease
- Understand the strength and weaknesses of computer modeling based on CMR data
- Familiarize themselves with the use of CMR for fetal cardiac evaluation

10:00 am 4D Flow: Current Applications, Limitations, and Future Prospects

Michael Hope, MD, University of California – San Francisco

10:15 am Pre-intervention Computer Modeling in Congenital Heart Disease: From Computers to Practice

Ajit Yoganathan, PhD, Georgia Institute of Technology

10:30 am Advances in Time-resolved Angiography-Temporal vs Spatial Resolutions

Gerald Greil, MD, King's College London

10:45 am Real-time Imaging in Congenital Heart Disease

Vivek Muthurangu, MD, UCL Institute of Child Health and Great Ormond Street Hospital

11:00 am Fetal CMR: Technical Challenges and Current Applications

Michael Seed, MBBS, The Hospital for Sick Children

11:15 am Q and A

Invited Lecture 8 - Non-Ischemic Cardiomyopathies 2

Crystal Ballroom J2

Moderators: Patricia Bandettini, MD, NHLBI
Sven Plein, MD, PhD, University of Leeds

Upon completion of this educational activity, the participant should be better able to:

- Understand the differential diagnosis of non-ischemic cardiomyopathy
- Use CMR appropriately to diagnose non-ischemic cardiomyopathies
- Understand the role of CMR in the risk-stratification of patients with non-ischemic cardiomyopathies

10:00 am Non-Ischemic Cardiomyopathy – Diagnostic Challenges, New Techniques

James Moon, MD, The Heart Hospital

10:15 am Diagnostic and Prognostic Utility of CMR in Infiltrative Cardiomyopathies

Frederick Ruberg, MD, Boston University School of Medicine

10:30 am Moving Beyond Pretty Pictures: The Current and Emerging Clinical Role of CMR in Hypertrophic Cardiomyopathy

Martin Maron, MD, Tufts University

10:45 am Latest Advances in CMR of Iron Overload Cardiomyopathy

Dudley Pennell, MD, Royal Brompton Hospital

11:00 am Diastolic Heart Function: Current and Future Clinical Imaging Approaches

Hildo Lamb, MD, PhD, Leiden University Medical Center

11:15 am Q and A

Case Review 6 – Best Cases from the SCMR Website

Crystal Ballroom J1

Moderators: Chiara Bucciarelli, MD, Royal Brompton Hospital
Robert Rollings, MD, Savannah Cardiology

Oral Abstract Session 10 – CAD Acute Myocardial Injury

Crystal Ballroom G1

Moderators: Andrew Arai, MD, NHLBI
Holger Thiele, MD, University of Leipzig

10:05 am 061 Detecting Acute Reperfusion Myocardial Hemorrhage with CMR: A Translational Study

Avinash Kali, MS, University of California - Los Angeles

10:17 am 062 Diagnostic Performance of T2-Weighted CMR for Evaluation of Acute Myocardial Injury

Monvadi Srichai, MD, NYU School of Medicine

10:29 am 063 Understanding Why Edema in Salvaged Myocardium Is Difficult to Detect by Late Gadolinium Enhancement

Martin Ugander, MD, PhD, National Institutes of Health

10:41 am 064 Recovery of Regional Myocardial Function and Myocardial Oedema Following Reperfused Acute Myocardial Infarction

Ananth Kidambi, BMBCh MRCP, University of Leeds

10:53 am 065 Comparison between Magnetic Resonance Imaging and Single-Photon Emission Tomography for the Assessment of Myocardial Salvage after Coronary Revascularization in Acute Myocardial Infarction

Martin Hadamitzky, MD, Deutsches Herzzentrum München

11:05 am 066 Correlation of CMR and Biochemical Markers of Myocardial Injury in a Multi-centre Study: PROTECTION AMI CMR Sub-study

Suchi Grover, MBChB, Flinders Medical Centre, Flinders University

11:17 am 067 Impact of Chronic Statin-pretreatment on Myocardial Damage as Assessed by Cardiac Magnetic Resonance Findings in Patients with Acute ST-elevation Myocardial Infarction

Georg Fuernau, MD, University of Leipzig - Heartcenter

11:30 am – 12:30 pm

Royal/Sabal Ballrooms

Moderated Poster Session 2, Poster Session 2, Exhibits, Lunch (on own)

12:30 pm – 2:00 pm Concurrent Sessions

Invited Lecture 9 - High Throughput CMR (Protocol Optimizing): Improving Quantification and Reproducibility

Sago Ballroom

Moderators: Tobias Schaeffter, PhD, King's College London
Holger Thiele, MD, University of Leipzig

Upon completion of this educational activity, the participant should be better able to:

- Select the appropriate MR sequences for different cardiovascular pathologies
- Understand the factors that influence the quality and reproducibility of different CMR protocols
- Decide between required quality and related scan time to enable a higher throughput of CMR in clinical practice

12:30 pm Optimal Imaging Protocols for Ischemia Detection in < 30 Minutes

Matthias Friedrich, MD, Université of Montréal

12:45 pm Reliable Imaging Protocols for Delayed Enhancement and Edema Imaging

Orlando Simonetti, PhD, The Ohio State University

1:00 pm High Throughput CMR In Clinical Practice - Tips and Tricks to Get You through the Day

Scott Flamm, MD, Cleveland Clinic

1:15 pm Dedicated CMR Protocols in the Evaluation of Acute Coronary Syndromes

Ricardo Cury, MD, Radiology Associates of South Florida

1:30 pm Screening Adult Survivors of Childhood Cancer for Cardiomyopathy

Gregory Armstrong, MD, St. Jude Children's Research Hospital

1:45 pm Q and A

Case Review 7 - Perfusion Imaging by CMR: Both Usual and Unusual Cases

Crystal Ballroom J1

Moderators: David A. Bluemke, MD, PhD, National Institutes of Health
Dipan J. Shah, MD, Methodist DeBakey Heart & Vascular Center
Presenters: Helen Mathias, MD, Bristol Heart Institute
Paul Chacko, MD, The Ohio State University
Michael Salerno, MD, PhD, University of Virginia

Oral Abstract Session 11 – Congenital Heart Disease 2

Crystal Ballroom J2

Moderators: Kan Hor, MD, Cincinnati Children's Hospital Medical Center
Rajesh Krishnamurthy, MD, Texas Children's Hospital

12:35 pm 068 Aortic Dimensions on Cardiovascular Magnetic Resonance Imaging Relate to Pregnancy Outcomes in Women with Coarctation of the Aorta: A Multicenter Study

Laura Jimenez Juan, MD, Toronto General Hospital

12:47 pm 069 Cardiac Magnetic Resonance Differentiates Subtypes in Bicuspid Aortic Valve and Reveals Various Frequencies of Aortic Stenosis among Subtypes

Ralf Wassmuth, MD, Helios Klinikum and Charité University Medicine Berlin

12:59 pm 070 Multimodality Assessment of Aortic Stenosis Severity in Transcatheter Aortic Valve Implantation (TAVI): Comparison Between Cardiovascular Magnetic Resonance, Transesophageal and Transthoracic Echocardiography

Andrew Jabbour, Cardiology Fellow, Royal Brompton and Harefield NHS Foundation Trust, Imperial College London

1:11 pm 071 The Effect of Myocardial Fibrosis on Ventricular Remodeling Following Valve Replacement for Severe Aortic Stenosis. A CMR Study Comparing Transcatheter Aortic Valve Implantation and Surgical Aortic Valve Replacement

Timothy Fairbairn, MBChB, University of Leeds

1:23 pm 072 Potential of Pre-contrast T1 Mapping as a Marker of Interstitial Fibrosis in Severe Aortic Stenosis

Andrew Jabbour, Cardiology Fellow, Royal Brompton and Harefield NHS Foundation Trust, Imperial College London

1:35 pm 073 PINOT NOIR: Pulmonic INSufficiency ImprOvement with Nitric Oxide Inhalational Response

Scott Flamm, MD, Cleveland Clinic, Cleveland Clinic

Oral Abstract Session 12 – Stepping into New Insights: Enhancing Our Understanding

Crystal Ballroom G1

Moderators: Michael Markl, PhD, Northwestern University;
Florian von Knobelsdorf, MD, Charité Medical University Berlin

12:35 pm 074 Cine-ASL: A New Arterial Spin Labeling Method for Myocardial Perfusion Mapping in Mice Using a Cine-FLASH Labeling and Readout Module

Thomas Troalen, MD, Centre de Résonance Magnétique Biologique et Médicale

12:47 pm 075 Derangement of Cardiac Energy Metabolism Is Acutely Exacerbated during Exercise in Hypertrophic Cardiomyopathy, Independent of Hypertrophy or Late Gadolinium Burden

Joseph Suttie, MD, University of Oxford

12:59 pm 076 Pre-contrast ShMOLLI T1 Mapping in Cardiac AL Amyloidosis
Theodoros Karamitsos, MD, PhD, University of Oxford
Centre for Clinical Magnetic Resonance Research (OCMR)

1:11 pm 077 Determine the Myocardial T2* Cut-off Value in Thalassemia Using Gaussian Mixtures Models
Taigang He, PhD, Royal Brompton Hospital

1:23 pm 078 Mechanistic Insights and Characterization of Cardiomyopathy Due to Sickle Cell Disease
Amit Patel, MD, University of Chicago

1:35 pm 079 Is There an Alternative Explanation to Post-MI Emergence of Mitral Regurgitation; A CMR-LGE Observational Study
Hari Bogabathina, MD, Allegheny General Hospital

1:47 pm 080 Decreased Exercise Capacity in 'Asymptomatic' Patients Late after Relief of Severe Pulmonary Stenosis and Moderate Restenosis: Evidence for Diastolic Dysfunction
Soha Romeih, MD, Academic Medical Center

2:00 pm – 2:30 pm Refreshment Break Royal/Sabal Ballrooms

2:30 pm – 4:00 pm Concurrent Sessions

Invited Lecture 10 - CMR Applications in Cardiac Electrophysiology Sago Ballroom

Moderators: Thomas Hauser, MD, Beth Israel Deaconess Medical Center
Tobias Schaeffter, PhD, King's College London

Upon completion of this educational activity, the participant should be better able to:

- Describe the role of CMR for management of patients with cardiac arrhythmia
- Understand how CMR-data can be used in planning a cardiac resynchronization therapy (CRT) procedure
- Understand the benefits of using CMR data for treatment of atrial fibrillation

2:30 pm Evaluation of Pulmonary Vein Anatomy before and after AF Ablation
Thomas Hauser, MD, MPH, Beth Israel Deaconess Medical Center

2:45 pm Late Gadolinium Enhancement of the Left Atrium
Nassir Marrouche, MD, University of Utah

3:00 pm Substrate Evaluation for VT Ablation
Saman Nazarian, MD, Johns Hopkins Outpatient Clinic

3:15 pm CRT and Coronary Vein Imaging

John Oshinski, PhD, Emory University Hospital

3:30 pm Image Integration for Electrophysiology Procedures
Kawal Rhode, PhD, King's College London

3:45 pm Q and A

Case Review 8 - Surprising Findings in Valvular Disease Crystal Ballroom J1

Moderators: Marcus Chen, MD, NHLBI
Albert van Rossum, MD, PhD, VU Medical Center
Presenters: Manish Motwani, BSc, MBChB, University of Leeds
Timothy Wong, MD, University of Pittsburgh School of Medicine
Christoph Jensen, MD, Elisabeth Hospital Essen
Elisa McAlindon, MD, Bristol Heart Institute
Robert Quaife, MD, University of Colorado
Roshan Weerackody, MD, The Barts and The London NHS Trust
Federico Mordini, MD, Washington DC VA Medical Center
Sujata Shanbhag, MD, NHLBI

Oral Abstract Session 13 - Non-ischemic Heart Disease: A Wide Spectrum from Technique to Disease Crystal Ballroom J2

Moderators: Daniel Messroghli, MD, Deutsches Herzzentrum Berlin
Nathaniel Reichel, MD, St. Francis Hospital

2:35 pm 081 T2-mapping in Normal Volunteers Compared to Patients with Edema Reveals Wide Range of Myocardial T2 in Female Volunteers
Ralf Wassmuth, MD, Helios Klinikum and Charite University Medicine Berlin

2:47 pm 082 Application of a High Resolution T1 Mapping with MOLLI (hrMOLLI) in Patients in Clinical Setting: A Reproducibility Study
Valentina Puntmann, King's College London

2:59 pm 083 Quantitative T1 Mapping and the Fibrotic Index in Normal Healthy Volunteers; Relationship to Aging and Cardiac Dimensions
Tomas Neilan, MD, Brigham and Women's Hospital

3:11 pm 084 Diabetics Without Prior Cardiovascular Disease have Diffuse Interstitial Fibrosis by CMR Independent of Clinical Risk Factors
Ravi Shah, MD, Brigham and Women's Hospital

3:23 pm 085 Cardiovascular Changes in Patients with Acromegaly Assessed by CMR
Filip Zemrak, MD, MRCP, The London Chest Hospital

3:35 pm 086 Trabeculated (Non-compacted) and Compact Myocardium in Adults: The Multi-Ethnic Study of Atherosclerosis
Nadine Kawel, MD, National Institutes of Health

3:47 pm 087 Patterns of Late Gadolinium Enhancement in 94 Patients with AL or Transthyretin Cardiac Amyloidosis
Jason Dungu, BSc, MBBS, St George's University of London

Oral Abstract Session 14 – CAD: Assessment of Perfusion – Routine Patient Care and Research Crystal Ballroom G1

Moderators: Victor Ferrari, MD, University of Pennsylvania
Eike Nagel, MD, PhD, King's College London

2:35 pm 088 The Factors Limiting the Diagnostic Accuracy of Myocardial Perfusion Cardiac Magnetic Resonance Imaging: Coronary Flow Reserve and Amount of Myocardial Scar
Masaki Ishida, MD, PhD, Mie University Hospital

2:47 pm 089 High-Resolution versus Standard-resolution Cardiovascular Magnetic Resonance Perfusion Imaging for the Detection of Coronary Artery Disease
Manish Motwani, BSc, MBChB, University of Leeds

2:59 pm 090 Transmural Perfusion Gradient Analysis by High-resolution MR versus Fractional Flow Reserve for the Assessment of Coronary Artery Stenosis
Amedeo Chiribiri, MD, King's College London

3:11 pm 091 Validation of Dynamic Three-dimensional Whole Heart Magnetic Resonance Myocardial Perfusion Imaging at 3.0 Tesla Against the Duke Jeopardy Score to Assess Myocardium at Risk
Roy Jogiya, MBBS, King's College London

3:23 pm 092 Validation of Dynamic Three-dimensional Whole Heart Magnetic Resonance Myocardial Perfusion Imaging at 3.0 Tesla Against Fractional Flow Reserve for the Detection of Flow-Limiting Coronary Heart Disease
Roy Jogiya, MBBS, King's College London

3:35 PM 093 Cardiovascular Magnetic Resonance Stress Perfusion Compared to Single Photon Emission Computed Tomography (SPECT) in Patients with Left Main Stem Disease: a CE-MARC Substudy
Ananth Kidambi, BMBCh MRCP, Multidisciplinary Cardiovascular Research Centre & Leeds Institute of Genetics, Health and Therapeutics

3:47 PM 094 The Role of Cardiovascular Magnetic Resonance in Women with Suspected CAD: a CE-MARC Sub-study
Manish Motwani, BSc, MBChB, University of Leeds

4:00 pm – 5:30 pm Concurrent Sessions

Invited Lecture 11 -

Sago Ballroom

Emerging CMR Technology

Moderators: Daniel Ennis, PhD, University of California – Los Angeles
Krishna Nayak, PhD, University of Southern California

Upon completion of this educational activity, the participant should be better able to:

- Recognize and recall five emerging CMR technologies
- Summarize the rationale and applications for each of them
- Critique the advantages and disadvantages of the current state-of-the-art

4:00 pm 7T CMR: Technology and Applications
Jeanette Schulz-Menger, MD, Charite Universitätsmedizin Berlin

4:15 pm CMR Compressed Sensing: Technology and Applications
Shreyas Vasanawala, PhD, Stanford University

4:30 pm Using Hyperpolarized ¹³C to Study Cardiac Metabolism
Charles H. Cunningham, PhD, University of Toronto

4:45 pm Advances in MRA with Blood-pool Contrast Agents
Philipp Moritz Wagner, MD, Charite - University Hospital Berlin

5:00 pm Free Breathing, Motion Corrected, High-Resolution Exams
Michael Hansen, PhD, National Institutes of Health

5:15 pm Q and A

Case Review 9 – Congenital Heart Disease 2

Crystal Ballroom J1

Moderators: Sohrab Fratz, MD, Deutsches Herzzentrum München
Kevin Whitehead, MD, PhD, Children's Hospital of Philadelphia
Presenters: Andrew Crean, MD, Toronto General Hospital
Adam Dorfman, MD, University of Michigan
Michael Puchalski, MD, Primary Children's Medical Center
Ruchira Garg, MD, Miami Children's Hospital
Pierluigi Festa, MD, FTGM, Massa, Italy
Tiffanie Johnson, MD, Riley Hospital for Children
Anne Marie Valente, MD, Children's Hospital Boston

Oral Abstract Session 15 – Hypertrophic Cardiomyopathy

Crystal Ballroom J2

Moderators: Martin Maron, MD, Tufts
Sanjay Prasad, MD, Royal Brompton Hospital

- 4:05 pm 095 Not All LGE Is the Same. Scar Contrast Volume of Distribution Is Lower in HCM than in Infarction**
Thomas Treibel, MBBS, University College London
- 4:17 pm 096 Subtle Structural Abnormalities in Genotype Positive Phenotype 'Negative' Patients with Pre-clinical Hypertrophic Cardiomyopathy (HCM): A Blinded, Controlled Cardiovascular Magnetic Resonance (CMR) Study**
Djeven Deva, FRCR, MRCSI, MB BCH, University Health Network
- 4:29 pm 097 The Relationship Between Interstitial Fibrosis and Contractile Function in HCM: A Combined T1-Mapping and CSPAMM Tagging Study**
Tevfik Ismail, BSc(Hons), MB BS, MRCP, Royal Brompton Hospital
- 4:41 pm 098 Quantitative of Myocardial Extracellular Volume Fraction Improves Characterization of Fibrotic Burden in Patients with Apical Hypertrophic Cardiomyopathy Beyond Visual Assessment with Late Gadolinium Enhancement**
Eri Watanabe, MD, PhD, Brigham and Women's Hospital
- 4:53 pm 099 Characterization of Patients with Massive Hypertrophic Cardiomyopathy Using Contrast-enhanced Magnetic Resonance Imaging: Does Contrast Provide Additional Information?**
Raymond Chan, MD, Beth Israel Deaconess Medical Center
- 5:05 pm 0100 T2 Abnormalities in Patients with Hypertrophic Cardiomyopathy Characterized by Cardiovascular Magnetic Resonance Imaging: An Indicator of Myocardial Injury as Assessed by the High Sensitive Cardiac Troponin T Assay**
Stephanie Lehrke, MD, Ev.- Lutherische Diakonissenanstalt Flensburg
- 5:17 pm 0101 A Systematic Review for Sudden Cardiac Death in Hypertrophic Cardiomyopathy Patients with Myocardial Fibrosis: A CMR LGE Study**
Nackle Silva, Allegheny General Hospital

Oral Abstract Session 16 - **Crystal Ballroom G1**
Arrhythmias, EP, and Interventional Applications
 Moderators: Alexander Dick, MD, Sunnybrook Health Sciences Centre
 Ehud Schmidt, PhD, Brigham and Women's Hospital

- 4:05 pm 0102 Cardiac MRI Is Safe In Patients with Pacemakers and Defibrillators**
Alex Baher, MD, The Methodist Hospital
- 4:17 pm 0103 Interactive Real-time Mapping and Ablation of the Pulmonary Veins and Cavotricuspid Isthmus in an Ovine Model with an Externally-irrigated MRI-compatible Ablation Catheter**
Anand Ganesan, MBBS, PhD, University of Adelaide
- 4:29 pm 0104 Correlation of Cardiac Magnetic Resonance Imaging and Electrophysiology Study Findings among Patients with Frequent Premature Ventricular Contractions**
Adam Helms, MD, University of Michigan
- 4:41 pm 0105 CMR Measurements of Myocardial Infarct Heterogeneity Using MCLE and IR-FGRE: Correlation with Arrhythmia Inducibility and Severe ICD Events in Patients with Ischemic Heart Disease**
Yuesong Yang, MD, PhD, Sunnybrook Health Sciences Centre
- 4:53 pm 0106 Regional Thickness of the Compacted and Trabeculated Layers of the Left Ventricle in Young Patients Presenting with Ventricular Dysrhythmias, A Cardiac MRI Study**
Moneal Shah, MD, Allegheny General Hospital
- 5:05 pm 0107 Dependence of Contrast to Noise Ratio between Ablation Scar and Other Tissues on Patient Heart Rate and Flip Angle for Late Gadolinium Enhancement Imaging of the Left Atrium**
Sathya Vijayakumar, MS, University of Utah
- 5:17 pm 0108 Characteristics of Right Ventricular Free Wall Motion in Young Patients with Ventricular Arrhythmia, A Cardiac MRI Study**
Daniel Katz, MD, St. Francis Hospital
- 5:30 pm – 6:00 pm CMR Technology Updates** **Sago Ballroom**
- 6:00 pm – 6:30 pm Presentation of Awards** **Sago Ballroom**
- 6:30 pm – 8:00 pm Awards Reception** **Crystal Ballroom H**

Sunday, February 5, 2012

6:45 am – 8:00 am Continental Breakfast Palms Ballroom Foyer

7:00 am – 8:00 am Physics for Physicians Crystal Ballroom P

7:00 am Fast Imaging – When and How?
Daniel Ennis, PhD, University of California – Los Angeles

7:30 am Fast Imaging – Who and Why?
Dipan Shah, MD, Methodist DeBakey Heart & Vascular Center

7:00 am – 8:00 am Cardiology for Non-cardiologists Crystal Ballroom M

7:30 am Roundtable Case Presentations
Dipan Shah, MD, Methodist DeBakey Heart & Vascular Center
Afshin Farzaneh-Far, MD, PhD, University of Illinois

8:00 am – 9:30 am Concurrent Sessions

Invited Lecture 12 – Cost Effectiveness of CMR Sago Ballroom

Moderators: Rory Hachamovitch, MD, MSc, Cleveland Clinic
Raymond Kwong, MD, MPH, Brigham and Women's Hospital
Upon completion of this educational activity, the participant should be better able to:

- Understand the approaches used to evaluate the role and effectiveness of CMR
- Understand the methodologies used to assess the cost-effectiveness of cardiovascular testing
- Understand how physicians' use of testing can be assessed

8:00 am Use of Decision Analysis in Assessing the Cost Effectiveness of CMR
Raymond Kwong, MD, MPH, Brigham and Women's Hospital

8:15 am Observational Studies vs RCT for Defining the Role of CMR
Leslee Shaw, PhD, Emory University

8:30 am Assessing Referring Physician Use of CMR
Rory Hachamovitch, MD, MSc, Cleveland Clinic

8:45 am Enhancing MD Expertise in Cardiac Imaging: Will European Diplomat of Cardiac Radiology Make a Difference?
Jens Bremerich, MD, University Hospital Basel

9:00 am CMR More Cost-effective than Invasive Coronary Angiography in Assessing Cardiomyopathy?
Sanjay Prasad, MD, Royal Brompton Hospital

9:15 am Q and A

Invited Lecture 13 - Informing Clinical Decisions in Congenital Heart Disease Crystal Ballroom J2

Moderators: Philipp Beerbaum, MD, PhD, King's College London
Taylor Chung, MD, Children's Hospital and Research Center Oakland
Upon completion of this educational activity, the participant should be better able to:

- Utilize CMR data to determine timing and indications of pulmonary valve replacement in repaired tetralogy of Fallot
- Understand the principles and practical challenges in stress CMR in pediatrics
- Employ CMR in the evaluation of patients with single ventricle physiology

8:00 am Role of CMR in Timing and Outcomes of Pulmonary Valve Replacement
Tal Geva, MD, Children's Hospital Boston

8:15 am Stress MR in Congenital Heart Disease - Evidence for Added Clinical Value
Willem Helbing, MD, Erasmus Medical Center

8:30 am Scarring and Diffuse Fibrosis: So What?
Craig Broberg, MD, Oregon Health and Sciences University

8:45 am Can CMR Alone Be Used to Assess Single Ventricle Patients before TCPC?
Mark Fogel, MD, Children's Hospital of Philadelphia

9:00 am Single or Biventricular Management of Complex Congenital Heart Disease: What Can CMR Offer?
Lars Grosse-Wortmann, MD, Hospital for Sick Children

9:15 am Q and A

Case Review 10 - Interactive CMR Cases - State of the Heart Crystal Ballroom J1

Moderators: James Moon, MRCP, The Heart Hospital
Mark Westwood, MD, MRCP, The London Chest Hospital
Presenters: Thomas Burchell, MD, The London Chest Hospital
Neha Sekhri, MD, The London Chest Hospital
Marianna Fontana, MD, The Heart Hospital
Viviana Maestrini, MD, The Heart Hospital
Amedeo Chiribiri, MD, King's College London

Oral Abstract Session 17 - Novel Techniques - Assessment of the Myocardium Crystal Ballroom G1
Moderators: Thoralf Niendorf, PhD, Max-Delbrueck-Center for Molecular Medicine
Milind Desai, MD, Cleveland Clinic

- 8:05 am** **O109 Imaging Contrast Agent Concentration and Extracellular Volume Fraction in the Right Ventricle**
Joseph Pagano, MD, University of Alberta
- 8:17 am** **O110 Accelerated and Navigator-gated Look-locker Imaging for Cardiac T1 Estimation (ANGIE) with Reduced Motion Artifact**
Bhairav Mehta, University of Virginia
- 8:29 am** **O111 Histological Validation of ShMOLLI Equilibrium Contrast CMR for the Measurement of Diffuse Myocardial Fibrosis**
Steven White, The Heart Hospital
- 8:41 am** **O112 T2 Mapping of the Heart with High Temporal and Spatial Resolution Using a Radial Double Inversion Fast Spin-echo Pulse Sequence with View Sharing**
Maria Altbach, PhD, University of Arizona
- 8:53 am** **O113 Assessment and Improvement of Image Homogeneity in Black- Blood T2-weighted Turbo Spin-Echo CMR**
Benjamin Wince, MD, Medical University of South Carolina
- 9:05 am** **O114 Myocardium at Risk by Magnetic Resonance Imaging: Head-to-head Comparison of T2-Weighted Imaging and Early Gadolinium Enhanced Steady State Free Precession**
Joey Ubachs, MD, PhD, Lund University Hospital
- 9:17 am** **O115 Novel Magnetic Resonance Imaging Marker of Diffuse Myocardial Fibrosis in Hypertensive Heart Disease: The Role of Transcytolemmal Water-Exchange**
Otavio Coelho-Filho, MD, State University of Campinas

9:30 am – 10:00 am Refreshment Break Royal/Sabal Ballrooms

10:00 am – 11:30 am Concurrent Sessions

Invited Lecture 14 - CMR Safety - Contrast Agents, Medical Devices, and Issues Related to High Field Strengths

Sago Ballroom

Moderators: David Bluemke, MD, PhD, National Institutes of Health
Jeanette Schulz-Menger, MD, Charite Universitätsmedizin Berlin

Upon completion of this educational activity, the participant should be better able to:

- Describe safety concerns for patients with pacemakers and ICDs who require MRI
- Understand the major risk factors for nephrogenic systemic fibrosis
- Describe MRI contrast agents that are available and their off-label use in cardiac MRI
- Understand the potential for high field MRI and its challenges related to safety and image quality

- 10:00 am Pacemakers and ICD**
Pro: Henry Halperin, MD, MA, Johns Hopkins University School of Medicine
Con: Frank Shellock, PhD, University of Southern California

- 10:30 am Contrast Agents and NSF**
Martin Prince, MD, PhD, Cornell University

- 10:45 am Overview of Contrast Agents and Dose, Safety (non-NSF)**
Marcelo Nacif, MD, National Institutes of Health

- 11:00 am CMR at High and Ultra-high Field Strengths: Hope or Hope?**
Thoralf Niendorf, PhD, Max Delbrueck Center for Molecular Medicine

- 11:15 am Q and A**

Invited Lecture 15 - Towards Patient Specific Quantitative CMR and Computational Models of Cardiovascular Flow and Function

Crystal Ballroom J1

Moderators: Daniel Ennis, PhD, University of California – Los Angeles
Michael Markl, PhD, Northwestern University

Upon completion of this educational activity, the participant should be better able to:

- Identify and critically evaluate new methods and applications for the comprehensive evaluation of blood flow in the cardiovascular system
- Describe and critique both novel and established methods for the assessment of regional cardiac function and their potential clinical applications
- Understand the emerging role of patient specific computational modeling techniques for the analysis of cardiac function and blood flow

- 10:00 am Quantitative 4D PC-MRI for Cardiovascular Flow: Techniques, Applications & Pitfalls**
Petter Dyverfeldt, PhD, University of California – San Francisco

- 10:15 am Potential of Computational 4D Fluid Dynamics in Cardiovascular Disease**
Ajit Yoganathan, PhD, Georgia Institute of Technology

- 10:30 am Quantitative Techniques for Measuring Cardiac Motion**
Andreas Sigfridsson, PhD, Linköping University

- 10:45 am Regional Myocardial Kinematics: Emerging Clinical Applications**
Frederick Epstein, PhD, University of Virginia

- 11:00 am Putting It All Together: Toward Patient Specific Computational Modeling of Cardiac Electromechanics and Flow**
Nic Smith, PhD, King's College London

- 11:15 am Q and A**

Invited Lecture 16 - CMR Imaging in Pre-clinical Research and Drug Development Crystal Ballroom J2

Moderators: Håkan Arheden, MD, PhD, Lund University Hospital
Rob van der Geest, PhD, Leiden University Medical Center

Upon completion of this educational activity, the participant should be better able to:

- Describe different techniques and applications of preclinical CMR
- Understand the challenges of CMR in different animals models
- Understand the role of preclinical MRI in drug development and translation research

10:00 am Pre-clinical Cardiac MRI in Pharmaceutical Research: Current Status and Perspectives

Beat Jucker, PhD, GlaxoSmithKline

10:15 am Small Animal Models in Cardiac MRI

Brent French, PhD, University of Virginia

10:30 am Large Animal Models in Cardiovascular MRI

James Hamilton, PhD, Boston University

10:45 am Assessment of Plaque Burden and Treatment Efforts with MRI

Allan Moody, MBBS, Sunnybrook Health Sciences Centre

11:00 am MR Imaging in Translational Studies of Cardio-protection

Marcus Carlsson, PhD, Lund University Hospital

11:15 am Q and A

Invited Lecture 17 - Interventional MRI – Electrophysiology Crystal Ballroom G1

Moderators: Reza Razavi, MD, King's College London
Graham Wright, PhD, Sunnybrook Health Sciences Centre

Upon completion of this educational activity, the participant should be better able to:

- Learn the current status of image guidance for electrophysiology (EP) procedures
- Understand the technical aspects of MR-guided EP procedures
- Identify remaining technical and clinical challenges for transferring experimental MR-guided EP procedures into a clinical setting

10:00 am State-of-the-Art in Image Guidance for EP Ablations

Srijoy Mahapatra, MD, St. Jude Medical

10:15 am CMR Roadmap for Electrophysiology Procedures

Reza Nezafat, PhD, Beth Israel Deaconess Medical Center

10:30 am MR- EP Devices

Steffen Weiss, MSc, Philips Technologie GmbH

11:00 am MR Lesion Characterization - Can It Be Done in Real-time?

Peter Nordbeck, MD, University of Wuerzburg

11:15 am MR-Guided Atrial Ablations

Eugene Kholmovski, PhD, University of Utah

11:15 am Q and A

11:30 am – 1:00 pm

Sago Ballroom

Closing Plenary Session – Evidence-based Debate

Moderators: David Bluemke, MD, PhD, National Institutes of Health
Michael Jerosch-Herold, PhD, Brigham and Women's Hospital

Upon completion of this educational activity, the participant should be better able to:

- Describe the role for CMR in population based studies of cardiovascular disease
- Identify examples where CMR has played or will play a prominent role in population-based trials of cardiovascular disease
- Describe some of the main challenges for incorporating CMR in population-based trials

11:30 am Use of CMR in Population Trials

Pro: Steffen Petersen, MD, Barts and The London NHS Trust
Con: Thomas Marwick, MD, PhD, Cleveland Clinic

12:10 pm Opinions from the Experts: Incorporation of CMR into Multi-center Clinical Trials IS Critical to the Field

Matthias Friedrich, MD, Université of Montréal

12:30 pm Limitations in Clinical Trial Design Can Adversely Affect CMR

Andrew Arai, MD, NHLBI

12:50 pm Q and A

1:00 pm – 1:30 pm Closing Remarks and Meeting Highlights

Andrew Arai, MD, NHLBI



SCMR 2012 TECHNOLOGIST WORKSHOP

Friday, February 3, 2012

Crystal Ballroom A-B-C

10:15 am Welcoming Remarks

Ralph Gentry, ARRT, Beaumont Hospital

10:20 am – 12 Noon CMR Essentials

Ralph Gentry, ARRT, Beaumont Hospital

10:20 AM Physics for CMR- Sequences and Parameters

Jack Roy, AS, University of Virginia

Upon completion of this educational activity, the participant should be better able to:

- Understand the role of MRI hardware
- Understand the basic layout of a MRI sequence
- Know the meaning of basic MRI sequence terminology

10:55 am CMR Safety

Frank Shellock, PhD, University of Southern California

Upon completion of this educational activity, the participant should be better able to:

- Discuss MRI-related bio-effects and safety issues
- Describe problems related to acoustic noise
- Implement methods to control access to MRI environment
- Utilize comprehensive screening procedures
- Appreciate information relative to 3-Tesla
- Understand MRI labeling information

11:30 am ECG Gating Strategies

Mercedes Pereyra, MBA, BS, RT, Circle Cardiovascular Imaging

Upon completion of this educational activity, the participant should be better able to:

- Different approaches to troubleshoot ECG
- Modify the scanning protocol according to the patient's heart rate
- By examples of different methods the audience will be able to take these concepts and apply them in their environment

12 Noon - 1:00 pm SCMR Business Meeting

12:30 pm - 1:30 pm Lunch (on own)

1:30 pm - 3:00 pm Vendor Breakout Session

Moderator: Ralph Gentry, ARRT, Beaumont Hospital

1:30 pm Troubleshooting/What's New with GE, Philips, Siemens & Toshiba

2:30 pm SCMR Ask the Experts

3:00 pm - 3:30 pm Refreshment Break

3:30 pm - 5:50 pm Basic CMR

Moderator: Kraig Kissinger, BS, RT, Beth Israel Deaconess Medical Center

3:30 pm Cardiac Anatomy with CMR

Emer Sonnex, M.Phil, Alberta Health Services

Upon completion of this educational activity, the participant should be better able to:

- Recognize cardiovascular anatomy in three orthogonal planes
- Understand why we use the imaging planes that are routine in cardiac MRI
- Obtain the standard imaging planes with confidence

4:05 pm Cardiac Function and Volumetric Assessment

Gillian Smith, MSc, Royal Brompton Hospital

Upon completion of this educational activity, the participant should be better able to:

- Identify the common causes of change in ventricular volumes and function
- Describe why cardiac volumes are measured in the evaluation of cardiac functional assessment. Have a good working knowledge of available analysis
- Recognize the importance of reproducible data for accurate volumetric assessment and how to ensure the acquisition is of optimal technical quality.

4:40 pm Diastolic Function and Strain Analysis

John-Paul Carpenter, MD, Royal Brompton Hospital

Upon completion of this educational activity, the participant should be better able to:

- Acquire and analyze flow sequences for assessment of diastolic function
- Appreciate signs of diastolic impairment which suggest the need for further investigation
- Have an appreciation of advanced/research techniques for assessment of diastology

5:15 pm Mechanical Dyssynchrony - Assessing Heart Failure and Improving Cardiac Resynchronization Therapy

Jonathan Suever, Georgia Tech/Emory University

Upon completion of this educational activity, the participant should be better able to:

- Describe various CMR technologies used to measure mechanical dyssynchrony in the heart
- Summarize the importance of mechanical dyssynchrony in assessing cardiac function in heart failure patients
- Explain the benefits of utilizing mechanical dyssynchrony for cardiac resynchronization therapy planning

6:30 pm – 8:00 pm Moderated Poster Session 1, Poster Session 1, Exhibits, and Wine and Cheese Reception

Royal/Sabal Ballrooms

Saturday, February 4, 2012 Crystal Ballroom A-B-C

7:45 am – 9:30 am Aortic and Valve Disease

Moderator: Jane Francis, DC R, DNM, The John Radcliffe Hospital

7:45 am Imaging the Aorta

Alison Fletcher, RT, Southampton General Hospital

Upon completion of this educational activity, the participant should be better able to:

- Understand the role of MRI in imaging the aorta
- Understand which sequences and imaging planes should be used and why
- Understand the limitations and pitfalls of imaging the aorta

8:20 am Marfans Disease Assessed with CMR

Alex Pitcher, MD, University of Oxford

Upon completion of this educational activity, the participant should be better able to:

- Understand the indications for CMR in patients with Marfan syndrome
- Know the CMR sequences which are often useful in patients with Marfan syndrome
- Recognize common CMR signs of Marfan syndrome

8:55 am Valve Disease and Flow Measurement

Yuchi Han, MD, MMSc, University of Pennsylvania

Upon completion of this educational activity, the participant should be better able to:

- Choose imaging planes for four valves
- Understand pitfalls in flow quantification
- CMR imaging of common valvular diseases

Abstract Presentations

8:55 am T2 Cardiac Magnetic Resonance Characteristics of Pediatric Cardiac Teratoma

Amy Tipton, BFA, Cincinnati Children's Medical Center

9:05 am T4 Bolus Administration T1 Mapping as a Marker of Interstitial Myocardial Fibrosis in Severe Aortic Stenosis

Rick Wage, DCR (R), Royal Brompton Hospital

9:30 am – 10:00 am Refreshment Break Royal/Sabal Ballrooms

10:00 am – 11:45 am Congenital Heart Disease

Moderator: Elizabeth Goddu, RT, Beth Israel Deaconess Medical Center

10:00 am Congenital Heart Disease- The Role of CMR

Justine Wilson, BS, RT (R), Children's Hospital of Philadelphia

Upon completion of this educational activity, the participant should be better able to:

- Image even the smallest of our pediatric patients and obtain the best images
- Evaluate what sequences are best for particular pathologies and how best to optimize them
- Look to the future of CMR and see where our technology is heading

10:25 am Pediatric CMR - The Challenges

David Annese, RT (R), Children's Hospital Boston

Upon completion of this educational activity, the participant should be better able to:

- Understand the technical challenges in imaging pediatric patients with congenital heart disease
- Understand some of the indications for cardiac MRI in pediatric patients
- Understand some basic imaging protocols in pediatric cardiac MRI

11:10 am Anomalous Coronary Arteries Assessed with CMR

Rajesh Krishnamurthy, MD, Texas Children's Hospital

Upon completion of this educational activity, the participant should be better able to:

- Understand the spectrum of coronary pathology in children
- Learn about common indications for coronary MR imaging in children, pros and cons of CT vs. MRI for coronary imaging, and common pitfalls of MR imaging
- Improve their skills in coronary MR imaging by understanding technique modifications necessary for children, and learning typical MR findings in pediatric coronary disease

11:45 am – 12:45 pm Lunch (on own)

12:45 pm – 2:00 pm Abstract Presentations

Moderator: Mary Watkins, RT, MR, C-TRAIN

12:45 pm First Place Abstract: T1 Modified Short Axis Geometry for Left Ventricular Assessment in Patients with Hemodynamically Significant Pulmonary

Amy Tipton, BFA, Cincinnati Children's Medical Center

12:55 pm Second Place Abstract: T3 Retrospective Review of Patients with Atrial Fibrillation: Does Pulmonary Vein Isolation Make a Difference?

Ronald Williams, BA, RT (R) (MR), Allegheny General Hospital

1:15 pm – 2:00 pm CMR Quiz

2:00 pm – 2:30 pm Refreshment Break Royal/Sabal Ballrooms

2:30 pm - 4:50 pm Imaging the Patient with Chest Pain!

Moderator: Alison Fletcher, RT, Southampton General Hospital

2:30 pm Myocardial Viability

Richard Coulden, MD, University of Alberta

Upon completion of this educational activity, the participant should be better able to:

- Understand the importance of assessing myocardial viability in patients being considered for revascularization
- Understand the role of CMR in assessing myocardial viability
- Understand how CMR fits in with other techniques that are widely used for assessing myocardial viability

3:05 pm Adenosine Stress Perfusion

Mark Westwood, MD, The London Chest Hospital

Upon completion of this educational activity, the participant should be better able to:

- Understand the indications for adenosine stress perfusion CMR
- Review how to perform adenosine stress perfusion in a safe manner
- Discuss potential imaging pitfalls and complications of adenosine stress perfusion CMR
- Review how to optimize workflow for adenosine stress perfusion CMR

3:40 pm Dobutamine Stress CMR

Stephen Harden, MD, Southampton General Hospital

Upon completion of this educational activity, the participant should be better able to:

- Understand why and when dobutamine stress CMR is performed
- Arrange a CMR protocol for a dobutamine CMR study
- Understand the imaging appearances in a positive and a negative study

4:15 pm The Diagnosis of Acute Myocarditis using CMR

Vanessa Ferreira, MD, University of Oxford

Upon completion of this educational activity, the participant should be better able to:

- Recognize the utility of CMR in the diagnosis of acute myocarditis
- List the CMR diagnostic criteria for myocarditis
- Understand the limitations of CMR in the diagnosis of myocarditis

5:30 pm – 6:00 pm **CMR Technology Updates** Sago Ballroom

6:00 pm – 6:30 pm **Presentation of Awards** Sago Ballroom

6:30 pm – 8:00 pm **Awards Reception** Crystal Ballroom H

Sunday, February 5, 2012 Crystal Ballroom A-B-C

7:45 am – 9:30 am MRA Techniques

Moderator: Petra Keilberg, RT, FGTM, IFC, Pisa MRI Laboratory

7:45 am Basic CE-MRA Techniques

Stephen Darty, BS, RT, Duke Cardiovascular Magnetic Resonance Center

Upon completion of this educational activity, the participant should be better able to:

- Understand proper utilization of gadolinium contrast agents in 3D CE MRA
- Understand timing of contrast administration and scan acquisition
- Understand underlying concepts of 3D angiography

8:20 am Non-contrast MRA

Debiao Li, PhD, Cedars Sinai Medical Center

Upon completion of this educational activity, the participant should be better able to:

- Obtain knowledge of current non-contrast MRA techniques and their clinical performance
- Optimize non-contrast MRA protocols
- Understand future development of non-contrast MRA

8:55 am Blood Pool and Other New Contrast Agents

J. Paul Finn, MD, University of California – Los Angeles

Upon completion of this educational activity, the participant should be better able to:

- Understand the physico-chemical properties of new and intra-vascular MR contrast agents of relevance to MR imaging
- Understand how MR imaging parameters and protocols are optimized with new vascular contrast agents
- Be familiar with the established and evolving clinical applications of vascular MR contrast agents

9:30 AM – 10:00 am **Refreshment Break**

10:00 AM – 11:45 am Advanced CMR

Moderator: Jack Roy, AS, University of Virginia

10:00 am MR Safety Consideration for High and Ultrahigh Field CMR: Implications for Routine CMR

Thoralf Niendorf, PhD, Max-Delbrueck-Center for Molecular Medicine

Upon completion of this educational activity, the participant should be better able to:

- Explain the clinical relevance of (ultra)high field CMR and recognize the technical and physical obstacles for (ultra)high field CMR
- Survey the pros and cons of (ultra)high field CMR and appreciate novel MR technology and imaging strategies driven by (ultra)high field MR
- Understand the extra added clinical value of (ultra)high field CMR consider practical implications for routine (ultra)high field CMR

10:35 am Cardiac Spectroscopy

Robert Evers, BSRT, MR, CV, CT, National Institutes of Health

Upon completion of this educational activity, the participant should be better able to:

- Understand the purpose of Cardiac Spectroscopy in MRI
- Understand the multiple ways of completing this type of difficult imaging
- Recognize common artifacts associated with Cardiac Spectroscopy in MR

11:10 am T1 and T2 Mapping Techniques

Matthew Robson, PhD, University of Oxford

Upon completion of this educational activity, the participant should be better able to:

- Understand the difference between T1 and T2 weighting and T1 and T2 mapping
- Understand the methods of acquisition for relaxation time mapping techniques
- Appreciate the sources of error and artefact and how to avoid them when using relaxation mapping methods

11:45 am Closing Remarks

Ralph Gentry, ARRT, Beaumont Hospital

FRIDAY, FEBRUARY 3, 2012

6:30 PM – 7:30 PM

Royal/Sabal Ballrooms

POSTER SESSION I – Not accredited for CME

You are invited to meet the authors of the following posters on Friday evening during the Wine and Cheese Reception.

MODERATED POSTERS:

M1- M7

BASIC TRANSLATIONAL – NEW TECHNIQUES READY FOR CLINICAL APPLICATION:

P14, P35, P50, P58, P63, P68-P69, P135, P221, P235, P242, P267-P271, P273-P276, P283, P293, P307

BASIC TRANSLATIONAL – POST-PROCESSING:

P5, P16, P56, P65-P66, P236, P244-P246, P277-P279

BASIC TRANSLATIONAL – PRE-CLINICAL VALIDATION OF AN EXISTING TECHNIQUE:

P47, P57, P60-P62, P64, P67, P106, P126, P194, P218-P220, P238-P241, P265, P281

CLINICAL OUTCOME AND PROGNOSIS:

P3, P6, P22, P46, P48, P53, P84, P86, P90, P123, P144, P147, P175, P201, P211, P223, P247, P294, P299

COST EFFECTIVENESS AND COMPARISON TO OTHER MODALITIES:

P40, P45, P76, P81, P97, P153-P155, P296-P297

HIGH THROUGHPUT AND EFFICIENT CLINICAL IMAGING:

P10, P39, P41-P44, P209, P231-P232, P256-P258, P284, P295, P298

NON-ISCHEMIC HEART DISEASE – PRIMARY AND SECONDARY CMP:

P71, P75, P141-P143, P145-P146, P148, P152, P156-P165, P167-P168, P173-P174, P176-P177, P181-P182, P185-P186, P193, P196-P197, P260, P291, P304

VASCULAR MRI:

P51, P72- P73, P77, P83, P91, P95, P127-P129, P131-P134, P136, P139, P228, P280, P292

TECHNOLOGIST POSTERS:

T1, T2, T3, T4, T5, T6, T8, T9, T10, T11, T12, T13, T14

Poster Directory

Basic Translational – New Techniques Ready for Clinical Application

M10	<i>Pang, Jianing</i>	Self-Guided Retrospective Motion Correction (SEGMO) for Free-Breathing Whole-heart Coronary MRA with 100% Acquisition Efficiency
M14	<i>Do, Loi</i>	Determination of The Volume of Coronary Microemboli Needed for Reproducible Visualization of Microinfarcts on Contrast Enhanced MDCT and MRI
P14	<i>Schuster, Andreas</i>	Cardiac Magnetic Resonance Myocardial Feature Tracking Detects Quantitative Wall Motion During Dobutamine Stress
P35	<i>Mekkaoui, Choukri</i>	Left Ventricular Remodeling Following Myocardial Infarction Revealed with a Quantitative Diffusion MRI Tractography Framework
P50	<i>Kim, Paul</i>	Manganese-Enhanced MRI in the Evaluation of Cell-Based Therapy for Myocardial Restoration
P58	<i>O h-Ici, Darach</i>	A method of studying the course of myocardial ischemia and reperfusion in rats in vivo
P63	<i>Fu, Yingli</i>	XFM-Guided Delivery of Imaging-Visible Human Mesenchymal Stem Cells into the Pericardial Space in a Porcine Model
P68	<i>Hammer, Sebastiaan</i>	Functional and Metabolic Imaging of The Right Ventricle: Short-Term Caloric Restriction Increases Myocardial Triglyceride Content and Decreases Diastolic Heart Function
P69	<i>Utz, Wolfgang</i>	Moderate Dietary Weight Loss Reduces Myocardial Triglycerides in Obese Women
P135	<i>Sosnovik, David</i>	Classification of Human Coronary Atherosclerotic Plaques with T1, T2 and Ultrashort TE MRI
P221	<i>Piechnik, Stefan</i>	Age and Gender Dependence of Pre-Contrast T1-Relaxation Times in Normal Human Myocardium at 1.5T Using ShMOLLI

SATURDAY, FEBRUARY 4, 2012

11:30 AM – 12:30 PM

Royal/Sabal Ballrooms

POSTER SESSION II – Not accredited for CME

You are invited to meet the authors on Saturday from 11:30 AM – 12:30 PM.

MODERATED POSTERS:

M8-M14

CAD ISCHEMIA AND VIABILITY:

P2, P4, P8-P9, P11-P13, P15, P17, P19-P20, P24-P28, P30, P32-P34, P36-P38, P80, P100, P188, P198, P213, P226-P227, P243, P248-P253, P263-P264, P287, P300-P302

CAD OTHER:

P21, P29, P31, P49, P52, P78, P150, P212, P225, P230, P234, P254-P255, P266, P285

CONGENITAL HEART DISEASE:

P87, P102-P122, P124, P140, P166, P199, P289

EP AND INTERVENTIONAL APPLICATIONS:

P101, P149, P200, P202-P208, P214-P217

NONE (NO SPECIFIC CATEGORY):

P1, P7, P18, P23, P82, P130, P138, P171-P172, P184, P286, P290, P303, P306

NON-ISCHEMIC HEART DISEASE – OTHER:

P79, P85, P89, P92-P94, P96, P98-P99, P125, P137, P151, P169-P170, P178-P180, P183, P187, P189-P192, P195, P210, P224, P233, P259, P288, P305

PHYSIOLOGY AND METABOLISM INCLUDING SPECTROSCOPY:

P54, P55, P59, P70, P74, P88, P222, P229, P237, P261-P262, P282

TECHNOLOGIST POSTERS:

T1, T2, T3, T4, T5, T6, T8, T9, T10, T11, T12, T13, T14

- P235** *Abd-Elmoniem, Khaled* Assessment of Coronary Artery Disease Wall Thickening using Phase-Sensitive Black-Blood MRI: Initial Experience for the Evaluation of Coronary Artery Disease
- P242** *Adluru, Ganesh* Compression2: Compressed sensing with compressed coil arrays
- P267** *Burger, Ian* Elliptical Subject Specific Model for Respiratory Motion
- P268** *Kuhara, Shigehide* Effects of Quality of Dictionary in Knowledge-Based 6-Plane Automatic Slice-Alignment Method for Cardiac Magnetic Resonance Imaging
- P269** *Nitta, Shuhei* Improvement of Knowledge-Based Automatic Slice-Alignment Method for Cardiac Magnetic Resonance Imaging
- P270** *Medrano-Gracia, Pau* Detection and Correction of Regional Shape Bias Arising from Imaging Protocol: Differences between GRE and SSFP
- P271** *Sayin, Ozan* Through-slice Dephasing for Eddy Current Artifact Reduction in bSSFP
- P273** *Wang, Jinnan* Using mDixon to remove motion artifacts in carotid artery vessel wall MRI
- P274** *Jenista, Elizabeth* Phase Sensitive Inversion Recovery with Simultaneous Dark Fat Rendering by Virtual Chemical Inversion
- P275** *Sharif, Behzad* Projection Imaging of Myocardial Perfusion: Minimizing the Subendocardial Dark-Rim Artifact
- P276** *Havla, Lukas* Improved Fat Water Separation with Water Selective Inversion Pulse for Inversion Recovery-based Cardiac MRI Sequence
- P283** *Broadbent, David* Myocardial Microvascular Function at Rest and Stress Measured With Dynamic Contrast-Enhanced MRI
- P293** *Feng, Yanqiu* On Optimal Liver T2* Measurement: Region of Interest or Pixel-Wise?
- P307** *Nam, Seunghoon* Improved Accelerated Breath-hold Radial Cine Image Reconstruction by Acquiring Additional Free-Breathing Data between Breath-holds

Basic Translational – Post-Processing

- P5** *Chiribiri, Amedeo* Quantification of Transmural Perfusion Gradients by High-Resolution MR vs Fractional Flow Reserve for the Assessment of Coronary Artery Stenosis.
- P16** *Zarinabad, Niloufar* Effect of tracer arrival time on the estimation of the myocardial perfusion in DCE-CMR.
- P56** *Positano, Vincenzo* Segmental Analysis of Cardiac Metabolism by Hyperpolarized [1-13C] Pyruvate: An in-vivo 3D MRI Study in Pigs
- P65** *Schneider, Jurgen* Highly Accelerated Cardiac Functional MRI in Rodent Hearts Using Compressed Sensing and Parallel Imaging at 9.4T
- P66** *Kung, Geoffrey* Microstructural Remodeling in the Post-infarct Porcine Heart Measured by Diffusion Tensor MRI and T1-Weighted Late Gadolinium Enhancement MRI
- P236** *Roy, Christopher* Dynamic MRI of the Fetal Myocardium
- P244** *Augustine, Daniel* CMR Right Ventricular Strain Assessment Using Feature Tracking Cine Images: Agreement With Echocardiography.
- P245** *Shaw, Jaime* Improved Navigator-gated Motion Compensation in Cardiac MR Using Additional Constraint of Magnitude of Motion-Corrupted Data
- P246** *Moghari, Mehdi* Improved Data Acquisition Efficiency for Respiratory Motion Correction in Coronary MRI
- P277** *Miller, Christopher* Comparison of Local Sine Wave Modelling with Harmonic Phase Analysis for the Assessment of Circumferential Myocardial Strain from Tagged Cardiovascular Magnetic Resonance Images
- P278** *Chung, Sohae* Correction for Non-Uniform K-Space Data Weighting Effects in First-Pass Cardiac Perfusion Imaging with TurboFLASH Readout
- P279** *Seiberlich, Nicole* Through-Time 3D Radial GRAPPA for Whole Heart Cardiac Imaging

Basic Translational – Pre-clinical Validation of an Existing Technique

- M11** *Lingala, Sajan Goud* Motion Compensated Reconstruction for Myocardial Perfusion MRI
- M8** *Goette, Matthew* In Vivo Quantitative Imaging of Angiogenesis-targeted PFOB Nanoparticles in a Hypercholesterol Rabbit Model using 19F-MRI with Ultra-Short Echo Time Balanced SSFP
- M9** *Kitagawa, Toshiro* RGD Targeting of Human Ferritin Iron-Oxide Nanoparticles Enhances In Vivo Molecular MRI of Experimental Aortic Aneurysms
- P47** *Sarnari, Roberto* CMR Myocardial Infarct Evaluation in a Canine Model by Three Different Contrast Agents
- P57** *Schneider, Jurgen* Accurate Infarct-Size Measurements from Accelerated, Compressed Sensing Reconstructed Cine-MRI Images in Mouse Hearts
- P60** *Belin, Alexandre* Cine Interleaved Sequences Enabled Imaging of Mice on Clinical 3T MRI and Analysis of Their Cardiac Function After Myocardial Infarction
- P61** *Jogiya, Roy* First Pass Vasodilator-Stress Myocardial Perfusion CMR in Mice on a Whole-Body 3Tesla Scanner: Validation Against Microspheres
- P62** *Dash, Rajesh* Manganese-Enhanced MRI Detects Live Human Amnion-derived Mesenchymal Stem Cells In Vivo After Transplantation and Restoration of Myocardial Function in a Pig Ischemia-Reperfusion Injury Model.

P64	Schuster, Andreas	Cardiac Magnetic Resonance Imaging of Isolated Perfused Pig Hearts in a 3T Clinical MR Scanner
P67	Dash, Rajesh	In Vivo Detection and Treatment of Ischemia-Induced Cardiac Apoptosis Using an MRI-Detectable Molecular Probe and an Alpha-Adrenergic Receptor Agonist
P106	Nett, Elizabeth	Noninvasive pressure measurement with 4D Phase Contrast MRI in Patients with Aortic Coarctations
P126	Liu, Chia-Ying	Aortic Size, Distensibility, and Pulse Wave Velocity Changes with Aging: Longitudinal Analysis from Multi-Ethnic Study Of Atherosclerosis (MESA)
P194	Ibrahim, El-Sayed	Assessment of Iron Deposition in the Heart in Sickle Cell Patients Using 3.0 Tesla Cardiovascular Magnetic Resonance
P218	Otton, James	Direct comparison of MR and CT perfusion utilizing a myocardial perfusion phantom
P219	Khodarahmi, Iman	Accuracy of Flow Measurement with Phase Contrast MRI in a Stenotic Phantom: Where Should Flow be Measured?
P220	Ye, Qing	The Impact of Physiological Loading on Immune Cell Infiltration and Myocardial Function Evaluated by Cardiac MRI: A Comparison between Non-working Heart and Working Heart Transplant Models
P238	Niellas-Vallespin, Sonia	Diffusion Tensor MRI of the Human Heart <i>In Vivo</i> with a Navigator Based Free Breathing Approach
P239	Lingala, Sajan Goud	Accelerated imaging of rest and stress myocardial perfusion MRI using multi-coil k-t SLR: A feasibility study
P240	Reyhan, Meral	Quantitative assessment of systolic and diastolic left ventricular twist using Fourier Analysis of STimulated echoes (FAST) and CSPAMM
P241	Liu, Junmin	Simultaneous Measurement of Blood-Flow Velocity and Regional Wall Motion with Phase Unwrapping
P265	Liu, Chia-Ying	Myocardial T1 measurement: comparison of modified Look-Locker inversion recovery (MOLLI) and T1 scout in the Multi-ethnic Study of Atherosclerosis (MESA)
P281	Chow, Kelvin	T2-Dependent Errors in MOLLI T1 Values: Simulations, Phantoms, and In-Vivo Studies

CAD Ischemia and Viability

M5	Rathod, Krishnaraj	Does Change in Heart Rate and Blood Pressure During Adenosine Stress Perfusion Cardiovascular Magnetic Resonance (A-CMRP) Imaging Predict Perfusion Defects?
M12	Neizel, Mirja	A Fully Automatic Cardiac Model with Integrated Scar Tissue Information for Improved Assessment of Viability
P2	Haraldsson, Henrik	Segmental Variation of Myocardial Deformation in Patients with Suspected Ischemic Heart Disease
P4	Harker, Jodi	Assessment of Significant Coronary Artery Stenosis Using Blood Oxygen Level Dependent Cardiovascular Magnetic Resonance (BOLD-CMR).
P8	Morton, Geraint	The Diagnostic Accuracy Of Quantitative CMR Perfusion Imaging May Not Be The Same For All Coronary Arteries.
P9	Wong, Timothy	Cardiovascular Magnetic Resonance Stress Perfusion Imaging Predicts 1 Year Outcomes Following Equivocal Stress Testing.
P11	Woodard, Pamela	Feasibility of Detecting Myocardial Ischemia Using First-Pass Contrast MRI and Regadenoson
P12	Morton, Geraint	Advanced Techniques Improve The Performance Of Myocardial Perfusion Imaging
P13	Salerno, Michael	Adenosine Stress CMR with Spiral Pulse Sequences Accurately Detect CAD
P15	Andre, Florian	Feasibility of High Dose Dobutamine Stress and Scar Imaging in High Field Open MRI in Patients with Suspected Coronary Artery Disease
P17	Motwani, Manish	Systolic Versus Diastolic Myocardial Blood Flow in Patients with Suspected Coronary Artery Disease – A Cardiovascular Magnetic Resonance Study
P19	Ghugre, Nilesh	Intramyo-cardial Hemorrhage Contributes to Microvascular Obstruction in Acute Myocardial Infarction
P20	Ghugre, Nilesh	Role of Iron Chelation in Hemorrhagic Myocardial Infarction: A Quantitative CMR Study
P24	Langhans, Birgit	Gender Differences in Contrast-Enhanced Magnetic Resonance Imaging After Acute Myocardial Infarction
P25	Weissman, Gaby	CMR in Acute Myocardial Infarction: Correlation Between Myocardial Scar and Echocardiographic strain.
P26	Bourque, Jamieson	T2-Imaging of the Ischemic Area-at-Risk Predicts Recovery of Cardiac Function After Acute ST-Elevation Myocardial Infarction
P27	Chan, Winnie	SSFP Cine Images Early Post-Gadolinium Improve Detection of Myocardial Oedema in Acute Myocardial Infarction Compared to T2-Weighted Dark Blood Turbo Spin Echo Images
P28	Dall'Armellina, Erica	Characterization of Acute Myocardial Infarction by Pre-Contrast T1 Mapping
P30	Goldfarb, James	Hemorrhagic Myocardial Infarction: Detection using Susceptibility Weighted Phase Imaging
P32	Burchell, Thomas	The Natural Time Course of Myocardial Oedema in the 12 Months Post ST-Elevation MI in Patients Treated with Primary Angioplasty.
P33	Bönnner, Florian	Multimodal MRI in the Course of Cardiac Wound Healing after Myocardial Infarction
P34	Tanimoto, Takashi	Assessment of Myocardial Viability in Low Signal Intensity Areas on Cine MRI Comparison with Late Gadolinium Enhancement Imaging in Patients with Prior Myocardial Infarction

- P36** Wilson, Sean Papillary Muscle Infarction in Relation to Left Ventricular Infarct Distribution and Transmurality - Assessment by Delayed Enhancement Cardiac Magnetic Resonance Imaging
- P37** Jablonowski, Robert Infarct Quantification Using 3D Inversion Recovery and 2D Phase Sensitive Inversion Recovery, Validation in Patients and Ex Vivo.
- P38** McAlindon, Elisa CMR Endpoints for Clinical Trials: Impact of Operator Experience on The Accuracy of Image Analysis
- P80** Carballo, David Value of a Hybrid PET/MRI in the Assessment of Cardiac Viability
- P100** Goyal, Parag Mitral Apparatus Assessment by Delayed Enhancement CMR – Relative Impact of Papillary Muscle and Left Ventricular Wall Infarction on Ischemic Mitral Regurgitation
- P188** Monti, Lorenzo Short Inversion Time on Delayed-Enhancement Magnetic Resonance Improves Diagnostic Accuracy in Recent-Onset Heart Failure.
- P198** Andre, Florian Detection and Prevalence of Myocardial Infarction Early and Late After Heart Transplantation Detected by Late Gadolinium Enhanced MRI
- P213** Cheema, Omar Patterns of Myocardial Fibrosis by CMR in Patients with Conduction Abnormalities.
- P226** Asrress, Kaleab Increased Endocardial to Epicardial Flow Ratio Present at Rest Disappears During Exercise Stress Perfusion CMR in Normal Volunteers – A Potential Mechanism for Exercise Induced Subendocardial Ischaemia
- P227** Witschey, Walter Real Time Measurement of Cardiac Pressure-Volume Relationships
- P243** Kihlberg, Johan Myocardial Deformation (Strain) Measured by DENSE Reliably Detects Myocardial Scar.
- P248** Goldfarb, James Three-Compartment (3C) Pharmacokinetic Modeling is More Accurate than Two-Compartment (2C) Modeling of Myocardial Fibrosis Gadolinium Kinetics
- P249** Kino, Aya Evaluation of Fully Automated Motion Corrected First Pass Myocardial Perfusion MRI with Semi Quantitative Perfusion Parameter Maps in Patients with Ischemic Heart Disease
- P250** Shin, Taehoon Time-Resolved Early-to-Late Gadolinium Enhancement MRI Using Single Breath-Hold 3D Spiral Imaging
- P251** Giri, Shivraman Steady-State First-Pass Perfusion (SSFP): A 3D TWIST in Myocardial First-Pass Perfusion Imaging
- P252** Berger, Alexander High-Dose Dobutamine Stress SSFP Cine MRI at 3 Tesla with Patient Adaptive Local RF Shimming Using Dual-Source RF Transmission
- P253** Kino, Aya Evaluation of Semi Quantitative Perfusion Parameter Maps Generated Based on a Fully Automated Non-Rigid Motion Correction During a First Pass Myocardial Perfusion (FPMP) MRI
- P263** Chen, Zhong Infarct Myocardium Tissue Heterogeneity Assessment Using Pre-Contrast and Post-Contrast T1 Maps Acquired with Modified Look-Locker Inversion Recovery (MOLLI) Imaging
- P264** Keegan, Jennifer Dynamic T1 for late gadolinium enhancement imaging in atrial fibrillation
- P287** Vernikouskaya, Ina T2 Relaxation Time Mapping in Phantom and In Vivo Myocardial Studies to Investigate Optimal Method of Quantification
- P300** Bernhardt, Peter Blood Oxygen Level Dependent and Adenosine-Perfusion Imaging Correlates to Invasive Measurement of Fractional Flow Reserve
- P301** Kosiek, Ortrud Delayed Contrast-Enhanced Cardiac MRI at an Open 1.0T MR-system Comparison of Conventional Segmented 3D Gradient Echo and Phase-Sensitive Inversion Recovery Sequences - Initial Results
- P302** Amano, Yasuo Simultaneous Assessment of Myocardial Scar and Coronary Artery Disease by Navigator-Gated 3D Fat-Suppressed Delayed-Enhancement CMR: Comparison with 2D Delayed-Enhancement CMR, CT and CAG
- CAD Other**
- P21** Tödt, Tim Relationship Between the Duration of Ischemia and Final Infarct Size in STEMI Patients Treated with Abciximab and Primary PCI
- P29** Zia, Mohammad Diabetes is Associated with Increased and Persistent Myocardial Edema in Infarct Segment Post Acute Myocardial Infarction
- P31** McAlindon, Elisa Early Gadolinium Enhancement for the Detection of Myocardial Oedema (EGE vs T2-STIR vs ACUT2E): A New Method to Assess the Area at Risk?
- P49** Biris, Octavia A Steady-State Method for Computation of Myocardial Blood Volume with the Intravascular Contrast Agent Ablavar
- P52** Spatz, Deneen Time Course of the Effect of Ferumoxytol on T1-Relaxation Times of Blood, Liver, Myocardium, and Acute Infarction.
- P78** Kim, Hee Yeong Epicardial Adipose Tissue Thickness Assessed by Cardiac Magnetic Resonance is an Independent Indicator for Coronary Artery Stenosis in Asymptomatic Type 2 Diabetic Patients
- P150** Rao, Balaji The Role of Stress Cardiac MRI Imaging in Patients with Complete Left Bundle Branch Block
- P212** Migrino, Raymond Quantification of LVEF≤35% Misclassification by 2D-Echocardiography as Compared to Cardiac Magnetic Resonance in Coronary Artery Disease: Implications for AICD Therapy
- P225** Puntmann, Valentina Application of High Resolution T1 Mapping with MOLLI (hrMOLLI) to Differentiate Patients with Diffuse and Regional Myocardial Disease from Healthy Subjects

P230	<i>Asrress, Kaleab</i>	The Use of Feature Tracking to Assess Ventricular Strain During Exercise Stress CMR
P234	<i>Lamb, Hildo</i>	7T Clinical Cardiovascular MR imaging: Initial Experience
P254	<i>Xue, Hui</i>	Improved Real-time Exercise Stress Cardiac Cine Imaging using Self Consistent Parallel Imaging with Temporal Sensitivity Estimation (TSPIRIT)
P255	<i>Hussain, Tarique</i>	Coronary Magnetic Resonance Angiography: In vivo comparison of image quality at 1.5 Tesla versus 3.0 Tesla with Parallel Radiofrequency Transmission
P266	<i>McAlindon, Elisa</i>	T2 mapping vs T2 weighted imaging in the detection of myocardial oedema.
P285	<i>Fischer, Kady</i>	Non-Invasive Monitoring of Blood Gas-Induced Changes of Myocardial Oxygenation Using Oxygen-Sensitive CMR Clinical Outcome and Prognosis
P3	<i>Kwon, Deborah</i>	Right Ventricular Volumes vs. Right Ventricular Ejection Fraction are More Powerful Independent Predictors of Survival in Patients with Severe Ischemic Cardiomyopathy
P6	<i>Biederman, Robert</i>	Decisions Informed by Computing Entities (DICE) to Improve Prognostic Value of Myocardial Perfusion Imaging: The NHLBI-Sponsored Women's Ischemia Syndrome Evaluation (WISE) Study
P22	<i>Fuisz, Anthon</i>	Operator Volumes and Salvage Index in AMI
P46	<i>Nacif, Marcelo</i>	Gadolinium-Enhanced Cardiac Magnetic Resonance Imaging: Administered Dose in Relationship to United States Food and Drug Administration (FDA) Guidelines
P48	<i>Crowley, Anna Lisa</i>	The Incidence of Nephrogenic Systemic Fibrosis in Subjects Receiving Gadoversetamide for Cardiovascular Magnetic Resonance
P53	<i>Monti, Lorenzo</i>	India Ink Artifact on ECG-Gated SSFP Sequences Predicts Resectability of Tumours Invading the Mediastinum
P84	<i>Forouzandeh, Farshad</i>	Utility of CMR in Identification of Post Lung Transplant Cardiovascular Complications
P86	<i>Biederman, Robert</i>	Late Gadolinium Enhancement in Pulmonary Hypertension Predicts Clinical Events
P90	<i>Bull, Sacha</i>	Circumferential Strain Predicts Major Adverse Cardiac Events Independent of Myocardial Perfusion in Asymptomatic Aortic Stenosis
P123	<i>Romeih, Soha</i>	Effect of Age on Exercise Capacity and Cardiac Reserve in Patients with Pulmonary Atresia with Intact Ventricular Septum After Biventricular Repair.
P144	<i>Abbasi, Siddique</i>	Impact of a New Cardiac Magnetic Resonance (CMR) Program on Management and Clinical Decision-Making in Cardiomyopathy Patients
P147	<i>Biederman, Robert</i>	Can Cardiac MRI be the Index Metric for Risk Stratification in Dilated Cardiomyopathy; The Impact of an LV Mid-Myocardial Stripe on Subsequent Risk of LVAD, Transplantation and Death
P175	<i>Morgan, Roisin</i>	CMR Findings in Asymptomatic Male HIV Patients Compared to Healthy Male Controls
P201	<i>Walker, Jerry</i>	Left Atrial Volume Measurements Before and After Left Atrial Ablation for the Treatment of Atrial Fibrillation
P211	<i>Sommers, Dan</i>	Does Acute Pulmonary Vein Stenosis Secondary to Edema on Immediate Post Ablation Procedure CMR Increase Risk for Development of Chronic Pulmonary Vein Stenosis.
P223	<i>Andre, Florian</i>	Reference Values for the Left Ventricular Wall Thickness in Cardiac MRI in a Modified AHA 17-Segment Model
P247	<i>Lutz, Anja</i>	Volumetric Motion Quantification by 3D Velocity Encoded MRI
P294	<i>Moguillansky, Diego</i>	Myocardial Fibrosis Quantified by the Extracellular Extravascular Volume Fraction is Associated with the Left Ventricular Sphericity Index and the Left Atrial Volume Index
P299	<i>Naik, Srinivas</i>	Tricuspid Annular Plane Systolic Excursion (TAPSE) Revisited Using CMR

Congenital Heart Disease

M4	<i>Merritt, Bryce</i>	Association Between Leaflet Fusion Pattern and Thoracic Aorta Morphology in Patients with Bicuspid Aortic Valve
P87	<i>Stephensen, Sigurdur</i>	Quantification of the Contribution of Septal Movement to Stroke Volume in Healthy Subjects, Athletes, Patients with Pulmonary Insufficiency and Patients with Pulmonary Hypertension.
P102	<i>Massoud, Ikram</i>	Restrictive Right Ventricular performance assessed by Cardiac Magnetic Resonance after Balloon Valvoplasty of Severe Pulmonary Stenosis in Adolescents
P103	<i>Rutz, Tobias</i>	Right Pulmonary to Left Pulmonary Perfusion Ratio After Percutaneous Pulmonary Valve Implantation
P104	<i>Prakash, Ashwin</i>	Inter-Study Variability in CMR Measurements of Right Ventricular Volume, Mass and Ejection Fraction in Tetralogy of Fallot: A Prospective Observational Study
P105	<i>Rathod, Rahul</i>	Range of Ventricular Dimensions and Function by Steady-State Free Precession Cine Cardiac Magnetic Resonance in Patients Late after the Fontan Operation
P107	<i>Marroquin, Luis</i>	Cardiovascular Magnetic Resonance Imaging findings in Ebstein anomaly
P108	<i>Lu, Jimmy</i>	Optimization of Left Ventricular Ejection Fraction Measurement by Two-dimensional Echocardiography in Patients with Repaired Tetralogy of Fallot: Comparison of Geometric Methods with Cardiovascular Magnetic Resonance

- P109** *Gulati, Gurpreet* Cardiac Magnetic Resonance (CMR) and Three Dimensional Echocardiography (3DE) in Complete Evaluation of Ebstein Anomaly
- P110** *Garg, Ruchira* Comparison of Systolic and Diastolic 3D SSFP for Arterial Dimensions and Coronary Artery Origins in Patients with Congenital Heart Disease.
- P111** *Romeih, Soha* Is Cardiac CT a Reliable Alternative For Cardiac CMR in Adult Patients with a Systemic Right Ventricle?
- P112** *Keedy, Alexander* MR Evaluation of Tetralogy of Fallot Patients after Surgical Repair: Relationship Between Aortic Dilation and Aortic Regurgitation
- P113** *Voges, Inga* Assessment of Intraatrial Lateral Tunnel Anatomy and Venous Blood Flow in Children with Hypoplastic Left Heart Syndrome in Fontan Circulation
- P114** *Restrepo, Maria* Growth of the Inferior Cavopulmonary Pathway in Patients with a Lateral Tunnel Fontan Connection: Quantification from Serial Magnetic Resonance Images
- P115** *Taylor, Andrew* Mechanical and Morphological Properties of the Aortic Root and Arch Late After Arterial Switch Operation for Transposition of the Great Arteries
- P116** *Chen, Sylvia* The Relation Between Significant Stenosis or Dilatation at the Repair Site and Outcome in a Contemporary Cohort of Patients with Repaired Aortic Coarctation as Assessed Using Cardiovascular Magnetic Resonance
- P117** *Taylor, Andrew* Non-Invasive Single Slice Estimate of Aortic Distensibility from Phase-Contrast MRI: Application to Hypoplastic Left Heart Syndrome
- P118** *Kozak, Marcelo* Quantification of Ductal Blood Flow with Magnetic Resonance Imaging in Newborns with Obstructive Left Heart Disease
- P119** *Nguyen, Kim-Lien* CMR in Pediatric Patients with Congenital Heart Disease: Comparison at 1.5T and at 3.0T
- P120** *Galizia, Mauricio* Steady-State Magnetic Resonance Angiography of the Thoracic Vasculature in Congenital Heart Disease using a Blood Pool Contrast Agent: Evaluation of Two Different Techniques
- P121** *Madan, Nitin* Comparison Between Proximal Thoracic Vascular Measurements Obtained by Contrast Enhanced Mra and Transthoracic Echocardiography in Infants with Congenital Heart Disease.
- P122** *Chaves, Alicia* Infant Cardiac MRI Using Oscillatory Ventilation: Safe and Effective
- P124** *Luijnenburg, Saskia* Bi-atrial Function and its Relation with Biventricular Function and Clinical Parameters in Patients Operated for Tetralogy of Fallot
- P140** *Chen, Sylvia* Diastolic Prolongation of Forward Flow in Branch Pulmonary Artery Stenosis
- P166** *Potluri, Rahul* Interrelationship of LV Mass, Focal Fibrosis by LGE, and Diffuse Fibrosis by T1-Changes in Patients with Hypertrophic Cardiomyopathy
- P199** *Grotenhuis, Heynric* Aortic and Biventricular Function in Pediatric Meningococcal Septic Shock Survivors as Assessed with MRI
- P289** *Messroghli, Daniel* Optimized Assessment of Both Left and Right Ventricular Parameters from Multi-Slice Acquisitions of Single Orientations Using Reconstructed 3D Cine Data

Cost Effectiveness and Comparison to Other Modalities

- P40** *Waterhouse, Deirdre* Cost Effectiveness of Adding CMR to Evaluation of Suspected Coronary Ischaemia
- P45** *Sonnex, Emer* Imaging Diseases of the Aorta by MRI: A Cost-Effectiveness Analysis of Contrast-Enhanced Studies Compared to Non-Contrast Enhanced Angiographic Studies
- P76** *Mikolich, J. Ronald* Is Cardiac MRI Adenosine Stress Perfusion Imaging A More Appropriate Diagnostic Tool for Obese Patients?
- P81** *Afilalo, Jonathan* Learning Curve for Quantification of Right Ventricular Size and Systolic Function in Pulmonary Arterial Hypertension: Comparison of Cardiac Magnetic Resonance and Three-Dimensional Echocardiography
- P97** *Boering, Yang Chul* Comparison of Diagnostic Performance of Different Imaging Modalities for TAVI-Patients
- P153** *Andre, Florian* Comparison of Left and Right Ventricular Dimensions, Systolic and Diastolic Function between 1.0T Open MRI and 1.5T Cylindrical MRI
- P154** *Elagha, Abdalla* Mitral Valve E-Point to Septal Separation (EPSS) Measurement by Cardiac Magnetic Resonance Imaging as a Quantitative Surrogate of Left Ventricular Ejection Fraction (LVEF)
- P155** *Redheuil, Alban* Age-Related Variations in Left Ventricular Diastolic Parameters Assessed Automatically from Phase-Contrast Cardiovascular Magnetic Resonance data: Comparison against Doppler Echocardiography
- P296** *Armstrong, Anderson* Left Ventricle Mass By Cardiac Magnetic Resonance and Echocardiography: The Multi-Ethnic Study of Atherosclerosis
- P297** *Madueme, Peace* Comparison of Area-Length Method by Echocardiography versus Full Volume Quantification by Cardiac Magnetic Resonance Imaging for the Assessment of Left Atrial Volume

EP and Interventional Applications

- P101** *Muellerleile, Kai* Assessment of Changes in Cardiac Volumes Following MitraClip™ Implantation using Cardiac Magnetic Resonance Imaging
- P149** *Zia, Mohammad* The Differential Impact of Intraventricular and Interventricular Dyssynchrony on Left Ventricular Remodeling and Function in Patients with Isolated Left Bundle Branch Block
- P200** *Kholmovski, Eugene* Comparison Between Immediately and Next Day Post RF Ablation MRI in Patients with Atrial Fibrillation
- P202** *Mahnkopf, Christian* Variant Pulmonary Vein Anatomy Detected by Cardiac MRI May Predict Outcome after Pulmonary Vein Isolation in Patients with Atrial Fibrillation
- P203** *Muellerleile, Kai* Cardiac Magnetic Resonance Imaging Demonstrates Biatrial Stunning after Catheter Ablation of Persistent Atrial Fibrillation
- P204** *Brunner, Gerd* Left Atrial Scar Burden Determined by Delayed Enhancement Cardiac Magnetic Resonance at Post Radiofrequency Ablation: Association with Atrial Fibrillation Recurrence
- P205** *Gutberlet, Matthias* First Clinical Experience in Man with the IMRICOR-MR-EP System: Electrophysiology Study Guided by Real-Time MRI
- P206** *Tse, Zion* MRI Guided Electrophysiological Intervention with A Voltage-based Electro-Anatomic Mapping System
- P207** *Jones, Daniel* Magnetic Resonance Imaging Pre and Post Pulmonary Vein Isolation for Atrial Fibrillation: Diagnostic Accuracy to Detect and Characterize Ablation Lesions.
- P208** *Chang, Lowell* Pulmonary Vein Stenosis Detection by Early Cardiac Magnetic Resonance Imaging Post-Atrial Fibrillation Ablation.
- P214** *Rabbat, Mark* Left Atrial Volume Assessment in Atrial Fibrillation Using Multimodality Imaging: A Comparison of Echocardiography, Invasive Three Dimensional CARTO and Cardiac Magnetic Resonance Imaging
- P215** *Suever, Jonathan* Characterization of the Size and Location of Dyssynchronous Regions in Patients Undergoing CRT
- P216** *Clement-Guinaudeau, Stephanie* Left Ventricular Internal Flow Fraction from Cardiac Magnetic Resonance Images is Higher in Patients Who Respond to Cardiac Resynchronization Therapy
- P217** *Stirrat, John* Clinical Feasibility of Targeted Cardiac Resynchronization Lead Delivery Using a 3D MRI Cardiac Model

High Throughput and Efficient Clinical Imaging

- P10** *Weerackody, Roshan* Cardiac Magnetic Resonance Perfusion Imaging Using a Single Intravenous Line
- P39** *Sonnex, Emer* Using Self-Reported Height and Weight in Calculating Body Surface Area: Is it Good Practice in Cardiovascular Imaging?
- P41** *von Knobelsdorff-Brenkenhoff, Florian* Clinical Use, Diagnostic Efficiency and Impact on Patient Management of Cardiovascular Magnetic Resonance
- P42** *Abbasi, Siddique* Clinical Impact of a New Cardiac Magnetic Resonance Imaging Program: A Single Center US Experience
- P43** *Wattar, Abdul* Real-time and Single Shot CMR Increases Throughput and Improves Reliability
- P44** *McAlindon, Elisa* High Throughput Clinical CMR Service: Role of Technologists in LV Volume Analysis
- P209** *Rizzi, Patricia* Atrial Septum Fat Deposition and Atrial Anatomy assessed by Cardiac Magnetic Resonance: Relationship to Atrial Electrophysiology
- P231** *Tse, Zion* Cardiac MRI with Concurrent Physiological Monitoring using MRI-compatible 12-lead ECG
- P232** *Kowalik, Grzegorz* Continuous Assessment of Cardiac Output During Exercise Using Real Time Flow with Fast GPU Reconstruction.
- P256** *Chen, Zhong* Hybrid Phase Ordering with Automatic Window Selection (HybridPAWS) Improves Respiratory-Navigator Efficiency During 3D Late-Gadolinium Enhancement CMR In Patients with Chronic Heart Failure and Irregular Respiratory Pattern
- P257** *Jung, Bernd* K-t-GRAPPA accelerated flow measurements
- P258** *Nitzken, Matthew* Markov-Gibbs Random Field Model for Improved Full-Cardiac Cycle Strain Estimation from Tagged CMR
- P284** *Zakeri, Simon* CMR Validation of Fractional Changes in Annulo-Apical Angles and TAPSE for Rapid Assessment of Right Ventricular Systolic Function
- P295** *Marroquin, Luis* Comparison of Echocardiography, Magnetic Resonance Imaging and Histopathology for the Imaging Evaluation of Intracardiac Masses
- P298** *Patel, Rima* Diagnostic Utility of Cardiac MRI in Clinical Evaluation of Cardiac Masses with Histopathological Correlation

None (No specific category)

- P1** Thavendiranathan, Paaladinesh Myocardial Function and Perfusion Assessment with Exercise Stress Cardiovascular Magnetic Resonance Using an MRI-Compatible Treadmill in Patients Referred for Stress SPECT
- P7** Freed, Benjamin Regadenoson Cardiovascular Magnetic Resonance Myocardial Perfusion Imaging Predicts Need for Future Revascularization
- P18** Mandry, Damien Characterization of Subacute and Convalescent Fibrotic Burden in the Remote Myocardium After Acute Infarction Provides Strong and Incremental Prediction of Changes in Left and Right Functions and Final Infarct Size, Incremental to knowledge of the Subacute
- P23** Van Assche, Lowie A Novel Index of Infarct Morphology Predicts the Presence of Microvascular Obstruction in Patients with Acute Myocardial Infarction
- P82** Ibrahim, El-Sayed Relationship Between Pulmonary Artery Hemodynamics and Right Ventricle Function in Pulmonary Arterial Hypertension Using Cardiovascular Magnetic Resonance
- P130** Kanfi, Alisa An Evaluation of Vascular Anomalies and Incidental Findings in Patients with Turner Syndrome
- P138** Hussain, Tarique Diagnosis of Post-Transplant Coronary Artery Disease using Contrast-Enhanced Coronary Vessel Wall Imaging at 3.0 Tesla
- P171** Lin, Kai Coronary Remodeling and Stiffness in Older Hypertensive Patients: An MRI Imaging Study
- P172** Janardhanan, Rajesh Quantifying Myocardial Fibrosis in Hypertensive Left Ventricular Hypertrophy using T1 Mapping
- P184** Mikami, Yoko T2 Mapping for the Detection of Myocardial Edema in Patients with Acute Myocarditis
- P286** Ibrahim, El-Sayed Automatic Heart Volume Measurement From CMR Images Using Ant Colony Optimization with Iterative Salient Isolated Thresholding
- P290** Ferreira, Vanessa T1-Mapping Accurately Detects Acute Myocardial Edema: A Comparison to T2-weighted Cardiovascular Magnetic Resonance Imaging.
- P303** Ma, Heng Myocardial perfusion MRI with SW-CG-HYPR: A Comparison to Conventional Steady-State Free Precession and X-Ray Angiography in Patients With Suspected Coronary Artery Disease
- P306** Zaman, Arshad Robust Myocardial T2 and T2* Mapping at 3T

Non-ischemic Heart Disease – Other

- M1** Meloni, Antonella Different Patterns of Myocardial Iron Overload by T2* Cardiovascular MR as Markers of Risk for Cardiac Complication in Thalassemia Major
- P79** Baher, Alex Cardiac MRI Improves Identification of Etiology of Ischemic Stroke
- P85** Roldán-Alzate, Alejandro Pulmonary Arterial Distensibility – 2D Phase Contrast vs 2D bSSFP
- P89** Shafi, Nabil Right Ventricular Responses to Abnormal Preload and Afterload: A Comparison of Right Ventricular Regional Displacement by Cardiac MRI to Elevated Right Heart Pressures by Catheterization
- P92** Steadman, Christopher Cardiac Magnetic Resonance Assessed Valve Morphology and Aortic Distensibility in Severe Aortic Stenosis
- P93** Bull, Sacha Pre-Contrast T1 Mapping for Detection of Myocardial Fibrosis in Asymptomatic and Symptomatic Aortic Stenosis
- P94** Merten, Constanze Temporal Changes in Left Ventricular Function and Paravalvular Aortic Regurgitation After Transcatheter Aortic Valve Implantation: A Cardiac Magnetic Resonance Imaging Study
- P96** Fairbairn, Timothy A CMR Study Assessing Aortic Valve Hemodynamics Post-Transcatheter Aortic Valve Implantation Compared to Surgical Aortic Valve Replacement
- P98** Jabbour, Andrew Multimodality Imaging in Transcatheter Aortic Valve Implantation: Comparison Between Cardiovascular Magnetic Resonance, Cardiac Computed Tomography, Transesophageal and Transthoracic Echocardiography
- P99** Zia, Mohammad Severity of Mitral Valve Prolapse is Associated with Basal Left Ventricular Hypertrophy: A Cardiac Magnetic Resonance Study
- P125** Lossnitzer, Dirk Speckle Tracking for Cardiac MRI in Patients Pre and Post Dilatation and Stent Implantation of Aortic Coarctation
- P137** Kelle, Sebastian Delayed Contrast-Enhanced MRI of the Coronary Artery Wall in Patients With Takayasu's Arteritis: Initial Experience and Comparison to Patients with Stable Coronary Artery Disease.
- P151** Biederman, Robert If There is LV Myocardial Fibrosis Should We Expect to Find RV Myocardial Fibrosis? A Cardiovascular MRI Study
- P169** Morant, Kareem Influence of Anterior Mitral Valve Length and Septal Wall Thickness on the Prevalence of Left Ventricular Outflow Tract Obstruction in Hypertrophic Cardiomyopathy
- P170** Wu, Ming-Ting Diffuse Tensor Cardiac MRI Evaluation of Fiber Architecture of Athlete Hypertrophic Heart in Vivo
- P178** Puntmann, Valentina Contrast Enhancement Imaging in Coronary Arteries in Patients with Systemic Lupus Erythematosus
- P179** Ferreira, Vanessa The Diagnostic Performance of Non-contrast T1-Mapping in Patients with Acute Myocarditis on Cardiovascular Magnetic Resonance Imaging
- P180** Andre, Florian Non-invasive Contrast Enhanced MRI Tissue Characterisation Early and Late After Heart Transplantation

P183	Schäufele, Tim	Diagnostic Capability of CMR for the Diagnosis of Acute Myocarditis In Young Patients Is Determined by the Presence of Elevated Cardiac Enzymes
P187	Harrison, Alexis	Left Atrial Late Gadolinium Enhancement Following External Beam Radiation for Lymphoma: A Potential Model for Exploring Radiation-Related Heart Disease
P189	Meloni, Antonella	Diabetes Mellitus and Cardiac Complications in Thalassemia Major Patients.
P190	Meloni, Antonella	Are the Preferential Patterns of Myocardial Iron Overload Preserved at The CMR Follow-Up?
P191	Kobayashi, Yasuyuki	Detection of Left Ventricular Regional Dysfunction Using Strain Analysis by Feature Tracking of Cine MRI in Rheumatoid Arthritis Patients Without Cardiac Symptoms
P192	Dattani, Abhishek	Cardiovascular Changes in Patients with Adult-Onset Growth Hormone Deficiency Assessed by CMR
P195	Meloni, Antonella	Heart T2* for Prediction of Cardiac Complications in Well-Treated Thalassemia Major Patients
P210	Biederman, Robert	Mitral Regurgitation Recovery and Atrial Reverse Remodeling following Pulmonary Vein Isolation Procedure in Patients with Atrial Fibrillation: A Proof of Concept Cardiac MRI Study
P224	Chuang, Michael	Reference Values for Left Atrial Size by Cardiovascular Magnetic Resonance in the Framingham Heart Study Offspring Cohort
P233	Posina, Kanna	Relationship of Left Atrial Size and Function to Invasive Left Ventricular Filling Pressure: A Cardiac MRI Study
P259	Swoboda, Peter	Numbers Needed to Detect a Significant Change in Myocardial Strain and Left Ventricular Twist Measured by Complementary Spatial Modulation of Magnetization (CSPAMM)
P288	Li, Laura	Association of Global and Regional Central Circulation Transit time with Left Ventricular End Diastolic Pressure using Dynamic Magnetic Resonance Imaging
P305	Tanimoto, Takashi	Cardiovascular Magnetic Resonance Evaluation for Left Ventricular Diastolic Function: Analysis of Time-Volume Curve

Non-ischemic Heart Disease – Primary and Secondary CMP

M2	Leong, Tora	Giant Cell Myocarditis in the CMR Era
M3	Andre, Florian	Reference Values of Mitral and Tricuspid Annular Plane Systolic Excursion for the Evaluation of Left and Right Ventricular Performance
M6	Marzluf, Beatrice	Diffuse Myocardial Fibrosis by Post-Contrast T1-Time is Closely Related to the Degree of Heart Failure
M7	Burger, Astrid	MRI Morphological and Functional Method for Clear Distinction of Patients with Left Ventricular Non-compaction Inflammatory Dilated Cardiomyopathy and Physiological Myocardial Trabeculation
M13	Fernandes, Juliano	Myocardial T1 Mapping in Different Cardiomyopathies at 3.0T
P071	Widya, Ralph	Right Ventricular Function and Dimensions in Type 2 Diabetes Mellitus
P075	Rider, Oliver	Gender Specific Differences In Left Ventricular Remodelling in Obesity May Explain Differences In Obesity Related Mortality
P141	van Hoorn, Frans	Low Diagnostic Yield of Late Gadolinium Enhancement (LGE) in Screening Patients with Suspected Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC) by Cardiovascular Magnetic Resonance (CMR)
P142	Quarta, Giovanni	Arrhythmogenic Right Ventricular Cardiomyopathy Mimics: Clinical Impact of Cardiovascular Magnetic Resonance
P143	Miszalski-Jamka, Karol	Left Ventricular Twist Abnormalities in Patients With Left Ventricular Non-compaction. A Cardiovascular Magnetic Resonance Study
P145	Jacquier, Alexis	Potential Value of T1 Mapping in Cardiac MR Assessment of Hypertrophic Cardiomyopathy and Dilated Cardiomyopathy Patients: Preliminary Results
P146	Barrett, Matthew	The Early Role of CMR in the Assessment of Cardiomyopathy
P148	Stacey, Brandon	Comparison of Systolic and Diastolic Criteria for Isolated Left Ventricular Noncompaction in Cardiac MRI
P152	Tachi, Masaki	Evaluation of Diffuse Myocardial Fibrosis Using Contrast-Enhanced Look-Locker Cardiac MRI and its Relation with Cardiac Function in Dilated Cardiomyopathy: Comparison Between 1.5T and 3T
P156	Chan, Raymond	Late Gadolinium Enhancement is Compatible with Advanced Age in Hypertrophic Cardiomyopathy: Implications for Risk Stratification of Sudden Death
P157	Suttie, Joseph	Patients with Hypertrophic Cardiomyopathy (HCM) and HCM Gene Carriers have Attenuated Myocardial Oxygenation Response to Vasodilator Stress - A Potential Mechanism for Sudden Cardiac Death
P158	Hueper, Katja	Reduction of Relative Resting Myocardial Blood Flow is Related to Myocardial Delayed Enhancement, T2-signal abnormalities, Left-ventricular Wall Thickness and Age in Patients with Hypertrophic Cardiomyopathy
P159	Chen, Yucheng	Fibrotic Content of LV Myocardium Quantified by CMR Characterizes Left Atrial Sizes and Total Left Atrial Emptying Function Incremental to LV functional Parameters and LV Myocardial Mass Index in Patients with Hypertrophic Cardiomyopathy
P160	Gommans, Frank	Assessment of Prognostic LV Parameters with CMR in Hypertrophic Cardiomyopathy: Impact of the Papillary Muscles

- P161** *Bhatti, Sabha* Late Gadolinium Enhancement(LGE) on Cardiac MR is a Powerful Predictor of Death and “Hard” Events in Patients with Hypertrophic Cardiomyopathy (HCM)
- P162** *Saba, Shahryar* A Novel Cardiac Magnetic Resonance Imaging Technique to Evaluate Left Ventricular Diastolic Function in Patients with Hypertrophic Cardiomyopathy
- P163** *Tanacli, Radu* Predictors of Atrial Emptying Function in Patients with Hypertrophic Cardiomyopathy: Insights from Cardiovascular Magnetic Resonance
- P164** *Andre, Florian* Bio-imaging: Late Gadolinium Enhancement in Hypertrophic Cardiomyopathy and its Relation to Novel Biomarkers of Fibrosis
- P165** *Kino, Aya* Relationship between Myocardial Scar and Hypertrophy by LGE CMR in Hypertrophic Cardiomyopathy Patients With and Without Clinical Events
- P167** *Ismail, Tefvik* Role of Inflammation in the Pathogenesis of Hypertrophic Cardiomyopathy: a T2-Mapping CMR Study
- P168** *Andre, Florian* CMR derived MAPSE and TAPSE Measurements in Hypertrophic Cardiomyopathy: Comparison to Healthy Volunteers
- P173** *Andre, Florian* MRI Detected Mass Decrease in Patients with Amyloidosis after Treatment with Green Tea: A One Year Follow-Up study
- P174** *Banyersad, Sanjay* Cardiac Involvement in Cardiac AL Amyloidosis as Measured by Equilibrium Contrast Cardiovascular Magnetic Resonance
- P176** *Schmidt, Andre* Evaluation of Chagas Heart Disease by Cardiac Magnetic Resonance After an Aborted Sudden Cardiac Death Event
- P177** *Thakrar, Darshit* T2 Mapping of the Myocardium, a Quantitative Tool for Assessment of Myocarditis.
- P181** *Grover, Suchi* Early Cardiac Changes Following Anthracycline Chemotherapy in Breast Cancer: A Prospective Multi-Centre Study Using Advanced Cardiac Imaging and Biochemical Markers
- P182** *Miller, Christopher* CMR Assessment of Myocardial Mechanics and Tissue Characterization in Patients Treated with Anthracycline Chemotherapy for Acute Myeloid Leukaemia
- P185** *Rimoldi, Ornella* Relationship Between Clinical Presenting Patterns of Acute Myocarditis and Oedema and Late Enhancement Extension.
- P186** *Ismail, Tefvik* Cardiac Effects of Anabolic Steroid Use amongst Recreational Body Builders – a CMR Study
- P193** *Hor, Kan* Presence of Late Gadolinium Enhancement in Duchenne Muscular Dystrophy Patients is Associated with Age and Global Ventricular Function
- P196** *Andre, Florian* MRI Functional and Tissue Characterisation in Patients with Systemic Lupus Erythematosus
- P197** *Kasai, Yufuko* Dose T2-Weighted Short TI Inversion Recovery Images on Cardiac Magnetic Resonance Reflect Disease Activity in Cardiac Involvement of Sarcoidosis Patients?
- P260** *Andre, Florian* Early Prediction of Infarct Size by Ultra-Fast Online Assessment of Systolic Left Ventricular Longitudinal Function
- P291** *Lundin, Magnus* Extracellular Volume MRI Increases the Detection of Myocardial Abnormalities Beyond Late Gadolinium Enhancement – Initial Findings
- P304** *Andre, Florian* MRI Assessment of Diastolic Dysfunction in Comparison to Transthoracic Echocardiography

Physiology and Metabolism including Spectroscopy

- P54** *Jung, Bernd* A Comprehensive Quantitative Comparison of Myocardial Motion in Mice, Rabbits and Humans using Phase Contrast MRI
- P55** *Antkowiak, Patrick* Quantitative First-Pass MRI Measures Increased Myocardial Perfusion After Vasodilation in Mice
- P59** *Forbes, Sean* Effect of uphill running on myocardium T2 in mdx mice
- P70** *Patel, Amit* Lipid Sub-Fractionation Predicts Worsening Myocardial Perfusion Reserve in Patients with Low-Density Lipoprotein Less Than 100mg/dL: A Regadenoson Cardiac Magnetic Resonance Study
- P74** *Panjrath, Gurusher* Skeletal Muscle High Energy Phosphate Metabolism In Patients With Obesity And Impaired Fasting Blood Glucose
- P88** *Biederman, Robert* McConnell's Sign Unveiled
- P222** *Sado, Daniel* Assessment of the Interstitial Volume in Healthy Volunteers. An Equilibrium Contrast CMR Study
- P229** *von Knobelsdorff-Brenkenhoff, Florian* Physiological Stress During Cardiovascular Magnetic Resonance - Handgrip Exercise Induced Hemodynamic Effects
- P237** *Wu, Holden* Acquisition and Visualization of 5D Respiratory-Resolved Cardiac MRI
- P261** *Delattre, Benedicte* Intravoxel Incoherent Motion Applied to Cardiac Diffusion Weighted MRI Using Breath-Hold Acquisitions in Healthy Volunteers
- P262** *Sado, Daniel* Single Breath-Hold Vd(m) Calculation as Good as Multi Breath-Hold Technique in Equilibrium Contrast CMR
- P282** *Hedstrom, Erik* 3T BOLD MRI with Low Intrascan Variability and High Reproducibility of Limb Oxygenation Measurements

Vascular MRI

- P51** Galizia, Mauricio Steady State Imaging of the Thoracic Vasculature Using Inversion Recovery FLASH and SSFP with a Blood Pool Contrast Agent
- P72** Momiyama, Yukihiro Associations Between LDL/HDL-cholesterol Ratio and Thoracic and Abdominal Aortic Atherosclerosis Assessed by MRI
- P73** Hays, Allison Coronary Endothelial Function using 3T MRI is Inversely Related to Body Mass Index
- P77** Hazel, Raphael Investigation of the Relationship between Age and the Angle of Aortic Insertion on the Left Ventricle Using 3D MRI
- P83** Pandya, Bejal Analysis of the Septal Curvature with CMR in the Paediatric Population with Pulmonary Hypertension is a Useful Tool
- P91** Turin, Alexander Correlation between Bicuspid Aortic Valve Fusion Phenotype and Aortic Arch Morphology using MRI
- P95** Lam, Adrian Post-Surgical Hemodynamics in Aortic Valve Bypass (AVB) Patients Evaluated with Phase Contrast Magnetic Resonance (PCMR)
- P127** Wang, Yi Aortic Pulse Wave Velocity in Normals and Heart Failure Patients
- P128** Bensalah, Zoubir Ascending Aorta Backward Flow Parameters Estimated from Phase-Contrast Cardiovascular Magnetic Resonance Data: New Indices of Arterial Aging
- P129** Sekine-Ohmoto, Yuki Vascular Screening in Asymptomatic Subjects Using Non-Contrast MRA
- P131** Westenberg, Jos Normal Regional Pulse Wave Velocity Predicts Absence of Aortic Luminal Growth in Patients with Marfan Syndrome: A Comprehensive MRI-Study
- P132** Westenberg, Jos Association between Aortic Stiffness, Carotid Vessel Wall Thickness and Stenosis Severity in Peripheral Arterial Occlusive Disease: A Comprehensive MRI Study
- P133** Yamada, Kiyofumi High Intensity Signal on MIP Images from Routine TOF-MRA of Carotid Atherosclerotic Plaque Indicates Higher Volume of Intraplaque Hemorrhage and Lipid Rich Necrotic Core
- P134** Biasioli, Luca In-Vivo T2 Mapping of Atherosclerotic Plaques in Carotid Arteries
- P136** Lanza, Gregory Thrombus-specific Manganese-based "Nanobialys" for MR Molecular Imaging of Ruptured Plaque
- P139** Westenberg, Jos 3T Versus 1.5T MR Angiography in Peripheral Arterial Occlusive Disease: An Equivalence Trial in Comparison with Digital Subtraction Angiography
- P228** Roberts, Paul Real Time MRI Pulse Wave Velocity for Exercise Stress Testing
- P280** Grotenhuis, Heynric Pulmonary Pulse Wave Velocity as Assessed with Velocity-Encoded MRI.
- P292** Oliver, James Reproducibility of Brachial Artery Flow-Mediated and Glyceryl Trinitrate-Mediated Dilatation by 3Tesla CMR

Technologist

- T1** Tipton, Amy Modified Short Axis Geometry for Left Ventricular Assessment in Patients with Hemodynamically Significant Pulmonary Regurgitation
- T2** Tipton, Amy Cardiac Magnetic Resonance Characteristics of Pediatric Cardiac Teratoma
- T3** Williams, Ronald Retrospective Review of Patients with Atrial Fibrillation: Does Pulmonary Vein Isolation Make a Difference?
- T4** Wage, Rick Bolus Administration T1 Mapping as a Marker of Interstitial Myocardial Fibrosis in Severe Aortic Stenosis
- T5** Yang, Jun Myocardial Perfusion MRI using SW-CG-HYPR for the Detection of Coronary Artery Disease
- T6** Connelly, Kim Semi-automated Analysis of Infarct Heterogeneity on DE-MRI using Graph Cuts
- T8** Bryant, Jennifer Magnetic Resonance Imaging of Pulse Wave Velocity in Children Aged 9 Years to Assess Maternal Influences on Aortic Stiffness in the Offspring
- T9** Lee, Su-Lin Automatic Localization of Landmark Points in CMR
- T10** Yamrozik, June Can Increasing the Number of Excitations (NEX) in Late Gadolinium Enhancement (LGE) Imaging Prove Beneficial in Patients Who Cannot Hold Their Breath for the Duration of the Scan Time?
- T11** Lawton, Chris Inter- and Intra-study Reproducibility of LV Volume Analysis Performed by Technologists
- T12** Cheng, Joshua Yang Image Based Magnetic Field Background Correction for Aortic and Pulmonary Artery Flow Measurement Using Phase Contrast
- T13** Thabit, Omar Rapid Prototyping of Cardiac Models: Current Utilization and Future Directions
- T14** Francis, Jane Cardiovascular Magnetic Resonance (CMR) Imaging of the Aorta in Pregnancy: Imaging and Outcome

Abbasi, Siddique.....P144, P42
 Abboud, Lucien.....P204
 Abd-Elmoniem, Khaled.....O45, P235
 Abdel-Aty, Hassan.....P164, P168
 Abdel-Wahab, Mohamed.....P94
 Abdullah, Shuaib.....O18, P18
 Abeykoon, Sumeda.....O48
 Abidov, Aiden.....O112
 Abraham, M. Roselle.....P158
 Abraham, Theodore.....P158
 Adam, Gerhard.....P101, P203
 Adamczyk, Tomasz.....P143
 Adenaw, Nebiyu.....P172
 Adler, Gail.....O84
 Adluru, Ganesh.....O39, P242
 Adrian, Gregor.....W72
 Afilalo, Jonathan.....P81
 Agarwal, Prachi.....O104
 Aggarwal, Anshul.....P26
 Agrawal, Anoop.....P214
 Ahmad, Homaa.....O78
 Ainapurapu, Bujji.....O112
 Aijola, Olujimi.....P66
 Akasaka, Takashi.....P305, P34
 Akcakaya, Mehmet.....O21, O22, O8, P245, P307
 Al-Khalidi, Hussein.....P193
 Albert, Timothy.....P269
 Aletras, Anthony.....O63
 Alexánder, Erick.....P107, P295
 Alfredsson, Joakim.....P21
 Alizadeh Sani, Zahra.....O37
 Allen, John.....M8, O41
 Alloisio, Marco.....P53
 Almeida, Andre.....P296
 Alonso-Gonzalez, Rafael.....P116
 Alpendurada, Francisco.....O6, O70, P98
 Alshaher, Motaz.....W17
 Altbach, Maria.....O112
 Alvarez-Barredo, Maria.....P116
 Amano, Yasuo.....P152, P302, W40
 Amini, Amir.....P219, W17, W34, W45
 An, Jing.....P303, T5
 Ananthasubramaniam, Karthikeyan.....P161
 Anderson, Ashley.....W26, W4
 Anderson, Lisa.....O87
 Anderson, Paul.....P208
 Andersson, Andreas.....W14
 Andre, Florian.....M3, P153, P223, P260, P304
 Angell, Peter.....P186
 Angheloiu, George.....O43
 Ansari, Sameer.....W2
 Antkowiak, Patrick.....P55
 Antman, Elliott.....O18, P18
 Appelbaum, Evan.....O18, O99, P156, P18
 Aquaro, Giovanni.....P56
 Aquino, Alejandro.....O28, P47
 Arai, Andrew.....O26, O63, O86, P46
 Arase, Yasuji.....P129
 Ardenkjaer-Larsen, Jan Henrik.....P56
 Arheden, Håkan.....O114, O20, P37, P87, W14, W30
 Ariff, Ben.....M2
 Armstrong, Anderson.....P296
 Arnold, John.....P1
 Arora, Garima.....P224
 Arruda, Janine.....O73
 Artz, Nicole.....O78
 Ascoti, Claudio.....M1, P195
 Ashrafpoor, Golmehr.....P155
 Ashwath, Mahi.....O13
 Ashworth, Michael.....O54
 Asress, Kaleab.....P226, P230
 Assomull, Ravi.....O6
 Atkinson, David.....O40, P232, W25, W63
 Auerbach, Edward.....W72
 Augustine, Daniel.....P244
 Awojoyogbe, Bamidele.....W28
 Axel, Leon.....O62, P162, P278, P298
 Ayad, Ihab.....P119
 Azarine, Arshid.....P155
 Azene, Nicole.....P63

Babae, Nafiseh.....W15
 Babb, James.....O62
 Babolian, Azarakhsh.....O37
 Babu-Naryanan, Sonya.....P264
 Bagi, Paul.....O63
 Baher, Alex.....O102, P79
 Bairey Merz, Noel.....P275
 Bajwa, Abubakr.....P82
 Baker, Catriona.....P117
 Baker, Victoria.....P207
 Bakker, Jeanette.....P160
 Balasubramanian, Vijay.....O35, P1
 Baldus, Stephan.....P101
 Ball, Stephen.....O93, O94
 Ballard, George.....P292
 Balu, Niranjana.....P273
 Balzarini, Luca.....P188, P53
 Balzer, Jan.....M12, P97
 Banerjee, Rajarshi.....P221, P75
 Banka, Pujia.....P104
 Banner, Nicholas.....M2
 Banning, Adrian.....P28
 Banypersad, Sanjay.....O23, O76, O87, P174, P222, P262
 Barac, Ana.....P25
 Barbe, Brent.....P220
 Barker, Piers.....O60
 Barmeyer, Achim.....P101
 Barr, Tomoe.....O112
 Barrett, Matthew.....P146
 Barry, Jennifer.....P19, P20
 Bartoli, Jean Michel.....P145
 Basha, Tamer.....O22, O8, P276
 Batjer, Hunt.....W2
 Bauer, Simon.....P257
 Baumbach, Andreas.....P266, P31
 Bax, Jeroen.....P131, P71
 Beache, Garth.....P258
 Beerbaum, Philipp.....O50, O59, P14, W51, W7
 Bekkers, Sebastiaan.....O36, P23
 Belden, William.....O17, P210
 Belin, Alexandre.....P60
 Bell, Aaron.....P125
 Bell, Gregory.....O66
 Bellsham-Revell, Hannah.....P125
 Bender, Jacob.....W21, W68
 Bendok, Bernard.....W2
 Benefield, Brandon.....O28, P47, P49
 Benk, Christoph.....W29
 Bensalah, Zoubir.....P128
 Benson, D. Woodrow.....P193, T1
 Benza, Raymond.....P147, P86
 Berger, Alexander.....O14, P137, P252
 Berger, Felix.....W10, W67, W7
 Berlacher, Kathryn.....P9
 Berman, Daniel.....M10, P275
 Bernard, Monique.....O74
 Bernhardt, Peter.....P247, P287, P300, W20, W39
 Beurich, Hans-Wilko.....P94
 Beyersdorf, Friedhelm.....W29
 Bhaskar, Amit.....P26
 Bhat, Geetha.....P144
 Bhat, Himanshu.....M10
 Bhatti, Lubna.....O113, O24, P48
 Bhatti, Sabha.....P161
 Bhawe, Nicole.....P7, P70
 Bi, Xiaoming.....P51, P120, P171
 Bianchi, Giacomo.....P56
 Biasioli, Luca.....P134
 Biederman, Robert.....O101, O17, O33, O43, O79, P6, P86
 Biederman, Robert.....P88, P147, P151, P210, T10, T3
 Bigalke, Boris.....O50, O90, P14, P218, P5, P64
 Biglands, John.....P17, P226, P283
 Biglino, Giovanni.....P115, P117
 Bijsterveld, Petra.....O94
 Binter, Christian.....W50, W9
 Birchell, Shannon.....P286
 Biris, Octavia.....P47, P49
 Blackman, Daniel.....O71, P96
 Blalock, Shannon.....P104
 Blanke, Philipp.....W29

Blankenberg, StefanP101
 Blankstein, RonO18, O2, O83, O98, P18
 Blease, SusanP224
 Blom, NicoO80, P111, P123
 Bluemke, DavidO46, O86, P126, P158, P265, P270, P46
 Bock, JelenaP257, W70
 Boechat, InesP119
 Boering, Yang ChulM12, P97
 Boernert, PeterP273
 Boesiger, PeterW50
 Bogabathina, HariO79
 Bogun, FrankO104
 Bolen, MichaelO73
 Bolger, AidanO58
 Bolger, AnnW22
 Bollache, EmilieP128, P155
 Bonanno, GabrieleO51
 Bonderman, DianaM6
 Bonelli, JuanP107, P295
 Bonnet, ChristopherO17
 Booker, O. JulianO63
 Boonyasiranant, ThananyaO73
 Borg, AlexanderP277, P284
 Borg, NadineP33
 Bornstedt, AxelP247, W20, W39
 Botnar, ReneP125, P138, P178, P255, P61
 Botros, NaderP102
 Bottomley, PaulP74
 Boubertakh, RedhaP207
 Bourque, JamiesonP26
 Brachmann, JohannesP202
 Brau, AnjaW69
 Brauersreuther, VincentP60
 Breeuwer, MarcelO90, P16, P5, W46
 Brentrup, AngelaW1
 Bridgman, CameronO66
 Briller, JoanP144
 Broadbent, DavidP283
 Brooks, JeremyP172
 Brouwer, MarcP160
 Brown, JuliaO93, O94
 Brown, TristanO29, O6
 Bruguière, EricP155
 Brumback, LyndiaP296
 Brunner, GerdP204
 Bryant, JenniferT8
 Bublak, AngelikaP41
 Bucciarelli-Ducci, ChiaraP31, P38, P44, P266, T11
 Buckley, DavidP283
 Bull, SachaP90, P93, P163
 Bunck, AlexanderW1
 Burch, MichaelP138
 Burchell, ThomasO85, P32, P192
 Burger, AstridM7
 Burger, IanP267
 Burgon, NathanP187, P201, P208
 Burke, MargaretM2
 Busch, JuliaW38
 Buss, SebastianM3, P173, P196, P260, P304
 Butzbach, BrittaP178
 Byrd, IsraelP206
 Byrne, JamesP75
 Bächler, PabloW8, W66
 Bönner, FlorianM12, P33, P97
 Calder, PhilipT8
 Campbell, MichaelO60
 Cao, JieO106, O108, O38, P89, P127, P233, P288, T12, W27
 Capron, ThibautO74
 Carballo, DavidP80
 Care, MelanieO96
 Cariboni, UmbertoP53
 Carlhall, Carl JohanW22, W31
 Carlsson, MarcusO114, O20, P37, P87, W14, W30
 Carollo, AntonellaP195
 Carpenter, John-PaulO77, P293
 Carr, JamesM4, O28, P51, P91, P120, P165, P171
 Carr, James (con't.)P177, P249, P253, W2
 Carr, MariaO28
 Carroll, TimothyW2
 Caruso, VincenzoP189

Caruthers, SheltonM8, O11, O31, O41, O42, P136
 Casadei, BarbaraP163
 Castillo, FranciscoP295
 Cates, JoshuaP201
 Cava, JosephP122
 Cavanaugh, KevinP7
 Ceyrolles, WilliamP294
 Chabert, SterenW66
 Chakrabarty, AdhirajO66, P181
 Cham, MatthewP100
 Chan, RaymondO21, O22, O8, O99, P156, P245, P246
 Chan, WinnieP27
 Chang, LowelP208
 Chang, Ti-ChiunP254
 Chaves, AliciaP122
 Cheema, OmarP213
 Cheema, TariqP88
 Chefd'hotel, ChristopheM11
 Chen, DavidP303, T5
 Chen, DebbieP36, P100
 Chen, DorisO46, P126
 Chen, Enn-LinP52, P274
 Chen, JunjieO31
 Chen, MinP133
 Chen, SylviaP116, P140
 Chen, WufanP293
 Chen, XiaoO110
 Chen, YuchengO18, O2, O83, O98, P150, P159, P18
 Chen, ZhongO82, P225, P256, P263
 Chenarides, JohnO17
 Cheng, Joshua YangT12, W27
 Cheng, Ya-JianO31
 Cheng, YangP127
 Cheong, KerryP181
 Cherix, EmileO36
 Cherston, CarolineP99
 Chesler, NaomiP85
 Chester, RuthM2
 Chinitz, JasonP36, P100
 Chiodi, ElisabettaP189, P195
 Chiribiri, AmedeoO14, O19, O90, P5, P8, P12
 Chiribiri, Amedeo (con't.)P16 P61, P64, P218, P226
 Choi, Byoung WookP78
 Choudhury, LubnaP165
 Choudhury, RobinP28, P134, P179, P290
 Chow, KelvinO109, P281
 Chowienczyk, PhilP226, P230
 Chu, BaochengP133
 Chuang, MichaelP224
 Chugh, AtulO46, P126
 Chung, JaehoonP42, P62, P144
 Chung, SohaeP162, P278
 Cianiulli, PaoloP189
 Clark, DavidP277
 Clark, SusanP186
 Clarke, KieranO75
 Clarysse, PatrickO97, P277
 Clement-Guinaudeau, StephanieP95, P216, W12, W52
 Clifford, GariP231
 Cochlin, LowriO75
 Coelho-Filho, OtavioM13, O2, O3, O10, O30, O83, O115
 Cohen, JoshuaO3
 Collins, DavidT2
 Collins, JeremyP51, P120, P177, P249, P253
 Collins, StevenP238
 Colman, JackO68
 Connelly, KimO105, P29, T6
 Contijoch, FranciscoP227
 Cook, JudyP63
 Cooper, CyrusT8
 Coppo, SimoneO51
 Corsi, CristianaP7, P70
 Coulden, RichardP39, P45
 Cowan, BrettP228, P270
 Cowley, BethanP186
 Cox, ChristopherP209
 Cox, PeterP244
 Cozzone, PatrickO74
 Cramer, EtienneP160
 Crean, AndrewO68, O96, P141

Crelrier, GerardW1, W8
 Crichton, SiobhanP263
 Crijns, HarryO36
 Cripe, LindaP193
 Criscito, MaressaP99
 Croisille, PierreO5, O72, O97, P261, P277
 Crowley, Anna LisaP48
 Crozier, SarahT8
 Crystal, EugeneO105
 Cuculi, FlorimP28
 Cummings, EllenO106, O108
 Curran, KathleenW41
 Cuypers, PhilippeP139
 Czobor, PeterO78, P7
 D'Andrea, AntonelloP216
 D'Cruz, DavidP178
 Dahl, AnnetteP186
 Dai, GuangpingP35, P135
 Dall'Armellina, EricaP179, P28, P290, P54
 Dalman, RonaldM9
 Daly, CarolineP175
 Damal, KavithaP187
 Danford, DavidO50, O57, O59, P14
 Daniels-Goozen, AletteP132, P139
 Darty, StephenO53, P274
 Dash, RajeshP62, P67
 Dass, SairiaO27, O75, P157
 Dattani, AbhishekO85, P192
 Dave, AmishP204
 Davidson, MichaelP70
 Davies, CeriM5, O85, P10, P32, P192, P207
 Davies, SimonO70, P98
 Dawson, DavidP81
 de Blik, HubrechtW46
 De Cesare, AlainP128
 De Marchi, DanieleP190
 De Noronha, SofiaO5
 de Rijke, YolandaP124
 de Roos, AlbertP131, P132, P139, P199, P234
 de Roos, Albert (con't.)P280, P68, P71
 De Silva, KalpaO91, O92, P226, P230
 de Waha, SuzanneO15, O4, O67
 Delattre, BenedicteP60, P261
 DePasquale, CarmineP181
 Derbyshire, JohnP271
 Desai, AnkitO78, P42, P144
 Desch, SteffenO15, O4, O67
 Dev, SandeshP212
 Deva, DjevenO96
 Devendra, GaneshO73
 Devereux, RichardP36, P100
 Dharmakumar, RohanO61, P275
 Diamant, MichaelaP71
 DiBella, EdwardM11, O39, P239, P242
 Dick, AlexanderO105, P29
 Dickerson, JenniferO35, P1, W21
 Dickinson, CatherineO93, O94
 Didier, DominiqueP80
 Diebold, BenoitP155
 Dieringer, MatthiasP229
 Dietrich, ThoreP58
 Diller, Gerhard-PaulP116
 Dimopoulos, KonstantinosP116
 Ding, YuP251, P254, W71
 Dione, DonaldW23, W65
 Do, GraceP62
 Do, LoiM14
 Dong, LiP133
 Donnino, RobertP162
 Donohue, JanetP108
 Donya, MohamedP102
 Dooley, DanielP22
 Dorfman, AdamP108
 Dougherty, LawrenceP227, W54
 Douglas, TrevorO101, O33, O43, O79, P6, P86, P88
 Doyle, MarkP147, P151, P210, T10, T3
 Doyle, Mark (con't.)P169, P217, P241, W49
 Drangova, MariaW70
 Drexler, JohannP155
 Dreyfus, JulienP155

Druey, KirkO26
 Dudley, SamuelP144
 Duecker, ManfredP202
 Duijm, LucienP132, P139
 Dumoulin, CharlesP206, P231
 Duncan, JamesW65
 Duncan, KimO57
 Duncanson, LynetteO106
 Dungu, JasonO87, P174
 Durighel, GiulianaP81
 Dweck, MarcO6
 Dyverfeldt, PetterW6
 Earley, MarkP207
 Ebberts, TinoP2, P243, W6, W22, W31
 Edelman, RobertP51, P120
 Edelstein, SophiaP149
 Edwards, ChristineO66
 Efimov, IgorO31
 Ehses, PhilippP279
 Ehtiati, TinaP63
 Eicken, AndreasP103
 Eitel, CharlotteP205
 Eitel, IngoO4, O15, O67
 El-Baz, AymanP258
 El-Mahmoud, SanaP41
 El-Sharkawy, Abdel-MonemP74
 Elagha, AbdallaP154
 Elfayoumy, SherifP286
 Elliott, PerryO23
 Engblom, HenrikO114, O20, P37
 Engeli, StefanP69
 English, KateP292
 Engvall, JanP2, P21, P243
 Ennis, DanielP240, P66
 Ensing, GregoryP108
 Epstein, FrederickO110, P055, P172, W16
 Eriksson, JonatanW22
 Estep, EmilyP7, P70
 Etoom, YousefO1
 Ettles, CallumO5, O72
 Etyngier, PatrickP247, W20, W39
 Everett, AllenO56
 Everett, ColinO93, O94
 Fairbairn, TimothyO64, O71, O89, P17, P259, P96
 Fakhri, AsgharO17
 Fan, ZhaoyangM10, O44
 Farzaneh-Far, AfshinP144, P42
 Favilli, BrunellaM1
 Febbo, JenniferP120, P51, P91
 Feeney, KristinO99
 Feiwei, ThorstenP238
 Felblinger, JacquesW53
 Feliciano, HélèneO51
 Fendelander, LahnO18
 Feng, JiazuO18, P18
 Feng, YanqiuO29, O5, O72, O77, P293
 Fenton, MatthewP138
 Ferguson, MarinaP133
 Fernandes, JulianoM13
 Ferreira, PedroO5, O72, O97
 Ferreira, VanessaO27, O76, P163, P179, P221, P28, P290, P93
 Fiedler, BarbaraW1
 Field, AaronW33, W4
 Figueiredo, GabrielM13
 Filev, PeterO24
 Finn, J. PaulP119, P270
 Firmin, DavidO29, O49, O5, O72, O77, P238, P264, P267, P293, W37, W44, W48, W56, W58, W61
 Fischbach, FrankP301
 Fischer, KadyP285
 Fischer, StefanP219, W17, W34
 Flamm, ScottO16, O73, P3
 Flammang, AaronP63
 Fleck, EckartO14, P137, P252
 Fletcher, ScottO57, O59
 Flett, AndrewO23, O95, P142, P174, P222, P262, P93
 Flewitt, JacquelineP281, P285
 Flori, AlessandraP56
 Fluckiger, JacobP249, P253
 Flögel, UlrichP33

Fodi, Eszter	O45
Fogel, Mark	P114
Foley, Lesley	P220
Forbes, Sean	P59
Forman, Daniel	O18
Fornwalt, Brandon	P215, W18
Forouzandeh, Farshad	P84
Foster, Eric	P1
Francis, Jane	P163, P179, P28, P290, P90, P93, T14
Francis, Sanjeev	O18, O3, P18
Francois, Christopher	P106, P85
Franzen, Olaf	P101
Fratz, Sohrab	P103
Freed, Benjamin	P7, P70
French, Brent	P055
Friedman, John	M10
Friedrich, Julian	P285
Friedrich, Matthias	P179, P184, P281, P285, P290, P4
Frijia, Francesca	P56
Frydrychowicz, Alex	P85, W11
Fu, Yingli	P63
Fuchs, Katharina	P229
Fuernau, Georg	O15, O4, O67
Fuisz, Anthon	P154, P22, P25
Fujikura, Kana	P36
Fung, Maggie	W69
Föll, Daniela	P54
Gabbert, Dominik Daniel	O55, P113
Gabrielsen, Anders	P291
Gaddum, Nicholas	W51
Gaffney, Patrick	O42, P136
Gahm, Jin Kyu	P66
Galizia, Mauricio	P120, P249, P253, P51
Galons, Jean-Philippe	O112
Gamberini, Maria Rita	P189
Ganesan, Anand	O103, O9
Garcia, Joe	O78
Garfinkel, Alan	P66
Garg, Ruchira	P110
Gatehouse, Peter	O49, P238, P264, P293, W37, W44, W48, W56, W58, W61
Gatzoulis, Michael	P116
Gayat, Etienne	P7
Ge, Lan	P303, T5
Ge, Xiaohu	P62
Gebker, Rolf	O14, P137, P252
Geist, Volker	P94
George, Keith	P186
Germanakis, Ioannis	P105
Germann, Joshua	P297, T1
Gerstenblith, Gary	P73, P74
Geva, Tal	P104, P105
Gewirtz, Henry	O18, O3, P18
Gharib, Ahmed	O45, P235
Ghoshhajra, Brian	P18
Ghugre, Nilesh	P19, P20, P29
Giannitsis, Evangelos	O100, O14, P260, P304
Giardini, Alessandro	P117
Gibbs, Simon	O87, P174
Gibson, C. Michael	O99, P156
Giese, Daniel	W38, W47
Gil, Carla	W41
Gill, Edward	M10
Gilliam, Andrew	W16
Gillmore, Julian	O87
Gilson, Wesley	P63
Giordani, Andressa	O25
Giovannetti, Giulio	P56
Giri, Shivraman	P251
Girotra, Sudhakar	P212
Gjesdal, Ola	O46, P296
Glenn, Martha	P187
Glielmi, Christopher	P249, P253
Glowacki, Jan	P143
Goddu, Beth	O21, O22, O8, P246, P307, W24
Godfrey, Keith	T8
Goela, Aashish	P217
Goepfert, Lois	O21, P246, W24
Goergen, Craig	P135
Goette, Matthew	M8
Goldfarb, James	P248, P30

Goldstein, Thomas	P158
Golnari, Pedram	O37
Gomes, Antoinette	O86, P126
Gommans, Frank	P160
Gona, Philimon	P224
Gong, Yongquan	P67
Gonzalez, Manuel	P22, P25
González, Nelsy	P107, P295
Gonçalves, Carla	O29
Gordian, Ken	P94
Gorman, Joseph	P227, W54, W57
Gorman, Robert	P227, W54, W57
Gottliebson, William	T1, T2
Govil, Ashul	P26
Govindapillai, Sindu	O1
Goyal, Parag	P100, P36
Goyal, Vishal	P86
Graafen, Dirk	W73
Graham, John	O105
Grant, Sandra	O43, P147, P151
Grapsa, Julia	P81
Graves, Martin	W48
Green, Christopher	W14
Green, Jordin	P281
Greenwood, John	O64, O71, O89, O93, O94, P17, P259, P292, P306, P96
Greil, Gerald	P125, P138, P230, P255, W7
Greiser, Andreas	M13, O63, O81, W36, W56
Gribben, Paul	O50, P14
Crist, Thomas	W13
Griswold, Mark	P279
Groenink, Maarten	O80, P111, P123, P131
Gropler, Robert	P11
Grosse-Wortmann, Lars	O1, P118, P236, W35
Grossman, Ashley	O85, P192
Grotenhuis, Heynric	P199, P280
Groth, Michael	P203
Grothoff, Matthias	P205
Grover, Suchi	O103, O66, O9, P181
Gruber, Angela	P196
Gruner, Christiane	O96
Grzeszczak, Melissa	P39, P45
Grünig, Sebastian	P97
Guehring, Jens	P249, P253, P63
Guensch, Dominik	P285, P4
Guetter, Christoph	P254, W19
Gula, Lorne	P217
Gulan, Utku	W50
Gulati, Ankur	O29, O5, O6, O70, O72, O97, P167, P98
Gulati, Gurpreet	P109
Gulsun, Mehmet	W36
Gutberlet, Matthias	O15, O4, P205
Haas, Tammy	O99, P156
Haberkorn, Sebastian	O32
Hachamovitch, Rory	O16, P3
Hadamitzky, Martin	O65, P24
Haggerty, Christopher	P114
Hagiwara, Nobuhisa	P197
Hahn, Horst	W70
Hakeem, Abdul	P161
Hall, Nathan	P1
Hamer, Julia	W73
Hamilton, Andrew	M2
Hammel, James	O57
Hammer, Sebastiaan	P68
Han, Jing	P248, P30
Hansen, Traudel	P113
Hanson, Mark	T8
Haraldsson, Henrik	P2, P243
Harden, Stephen	P27
Hare, James	P4
Harker, Jodi	P4
Harloff, Andreas	W70
Harnish, Phillip	P62
Harris, Jessica	P266, P31, P38, P44, T11
Harris, Kathleen	P47, P49
Harrison, Alexis	O39, P187
Harrison, James	P256
Hart, Christopher	O55, P113
Hart, Stephen	O73
Haryani, Ashish	P22

Hasan, UsamaP30
 Haslam, MarkP187
 Hasleton, JonathanO95, P222
 Hatsukami, ThomasP133
 Haufe, SvenP69
 Hausenloy, DerekO23, O95
 Hauser, ThomasO22
 Hautvast, GilionO90, P16, P5, W46
 Havla, LukasP276
 Hawkins, PhilipO23, O76, O87, P174
 Hayes, BrendaO60, P23, P48
 Hays, AllisonP73
 Hazel, RaphaelP77
 He, LiO41
 He, TaigangO29, O5, O72, O77, P167, P293
 Hedderich, JürgenO55
 Hedstrom, ErikP282
 Heiberg, EinarO20, P87, W14, W30
 Heidary, ShahriarP62
 Heindel, WalterW1
 Heinzer, SusanneP80
 Helbing, WillemP124
 Helms, AdamO104
 Hendrikse, JeroenW42
 Hennemuth, AnjaP289, W70
 Henningsson, MarkusP246
 Herrey, AnnaO95
 Herzka, DanielO45, P271
 Hess, AaronW32
 Hess, JohnP103
 Hettis, StevenM14
 Hewins, BenjaminO5, O70, O72, O97, P167, P186
 Heydari, BobbyO18, O2, O3, O83, P18
 Hezel, FabianP229
 Higgins, DavidP306
 Hilhorst-Hofstee, YvonneP131
 Hinchcliff, MoniqueO28
 Hindricks, GerhardP205
 Hinton, AliceO35, W21
 Hippe, DanieiP133
 Hirano, MasaharuP191
 Hirata, KumikoP305, P34
 Hitchens, T. KevinP220
 Ho, AshleyP118
 Ho, CarolynO98, P159
 Ho, ChienP220
 Ho, VincentO45
 Hoffman, GeorgeP122
 Hoffmann, BorisP203
 Hoffmann, UdoO18, P135, P18, P35
 Hofman, MarkP221, W48
 Hofmann, EvaP180, P198
 Hofmann, NinaP153
 Holloway, CameronO27, O75, P244, P75
 Holtzman, DvorahO38
 Holzmann, StefanP202
 Hong, SusieO21, O22, O8, O99, P156, P246
 Hope, MichaelP112
 Hor, KanP143, P193, P297, T1, T2
 Hsia, Tain-YenP117
 Hsu, Li-YuehO63
 Hu, BobP237, P250
 Hu, GraceO11
 Huang, ChuanO112
 Huang, SalingO66
 Huang, ShuningP135, P35
 Huang, VictoriaP143
 Huellebrand, MarkusP289
 Hueper, KatjaP158
 Hughes, MarinaO58
 Hundley, WilliamO86, P126, P148
 Hunter, RossP207
 Hurley, MichaelW2
 Hurtado, DanielW66
 Husain, SyedP142
 Hussain, KhalidP255
 Hussain, ShaziaO19, P218, P64, P8
 Hussain, TariqueP125, P138, P178, P255
 Hülsmann, MartinM6
 Ibrahim, El-SayedO12, P194, P286, P82

Ibrahim, TareqO65, P24
 Iida, YasunoriM9
 Ikeno, FumiakiP62
 Imai, MasamichiP268, P269
 Imobeke, CorneliusP44, T11
 Indermuehle, AndreasP178
 Infante, MaurizioP53
 Inskip, HazelT8
 Ionasec, RazvanO56
 Irarrazaval, PabloW66, W8
 Isamu, YokoeP191
 Ishida, MasakiO88, P12, P64, P8
 Ishida, NanakaO88
 Ishihara, MakikoP129
 Ishimura, RiekoP268, P269
 Islam, FahmidaP100, P36
 Ismail, NizarO29
 Ismail, TevfikO29, O5, O70, O72, O97, P167, P186, P98, T4
 Itu, LucianW36
 Ivanova, ValentynaP88
 Izquierdo-Gomez, MariaO28
 Inarra, FernandoP107, P295
 Jaarsma, CarolineO36
 Jabbour, AndrewO29, O5, O70, O72, O97, P167, P186, P98, T4
 Jablonowski, RobertP37
 Jackowski, MarcelO49, P238, P35
 Jacob, MathewsM11, P239
 Jacoby, ChristophP33
 Jacquier, AlexisP145
 Jagia, PriyaP109
 Jalba, AndreiW46
 Janardhanan, RajeshP172
 Jansen, ChristianP61
 Janzon, MagnusP21
 Javidan-Nejad, CylenP11
 Jefferies, JohnP193, P297
 Jenista, ElizabethO113, O53, P274, P52
 Jensen, ChristophO113, O24, O53, O7, P48, P52
 Jeorg, LucasO66, P181
 Jerosch-Herold, MichaelO10, O115, O18, O2, O30, O55, O83, O84, O98, P113, P157, P159, P18, P231
 Jiji, RonnyP172
 Jimenez Juan, LauraO68
 Jin, LixinP303, T5
 Jogiya, RoyO47, O91, O92, P218, P226, P230, P61
 Johnson, B.P6
 Johnson, CraigO86
 Johnson, KevinP106, P194, W26, W33, W4
 Johnson, TomP266
 Johnston, PeterP63
 Jolly, Marie-PierreP254, W19
 Jones, AlexanderO40, W25
 Jones, DanielP207
 Jordan, JensP69
 Joseph, JubinP90
 Joseph, MajoP181
 Josephson, MarkO8
 Joshi, RohitP181
 Joshi, SubodhO105, T6
 Jovinge, StefanO114
 Judd, RobertP48
 Judson, KennethO17
 Juettner, AlenaW1
 Juli, ChristophP207
 Jung, BerndP257, P54
 Kachenoura, NadjiaP128, P155
 Kadbi, MoW17
 Kadiyala, MadhaviO38, P89
 Kalaf, Jose MichelM13
 Kalahasti, SagarO73
 Kalarus, ZbigniewP143
 Kali, AvinashO61
 Kallifatidis, AlexandrosP145
 Kalra, NishantP299
 Kamel, IhabP158
 Kamen, AliW36
 Kanagaratnam, PrapaP207
 Kanfi, AlisaP130
 Kanski, MikaelP37, W30
 Karamitsos, TheodorosO27, O75, O76, P157, P163, P179, P28, P290, P90

Kardos, Attila	P179	Kotasek, Dusan	P181
Karlsson, Matts	W60	Kotys-Traugher, Melanie	P219, W17, W34
Karolyi, Mihaly	P135	Kouwenhoven, Marc	P252, P306
Kasai, Yufuko	P197	Kovács, Sándor	W30
Kato, Ryuichi	P72	Kowalik, Grzegorz	P232, W63
Kato, Shingo	O88	Kozak, Marcelo	P118
Katus, Hugo	M7, O14, O32, P15, P164, P168, P173, P180, P196, P198, P223	Kozerke, Sebastian	O47, O89, O91, O92, P226, P230, P276, P61, W38, W47, W50, W59, W9
Katz, Daniel	O108	Krahn, Andrew	P217
Katz, Stuart	P162	Kraitchman, Dara	P63
Kawel, Nadine	O86	Kramer, Christopher	O110, P055, P13, P172, P26, W62
Kc, Dipak	O112	Kramer, Hans-Heiner	O55, P113
Kecskemeti, Steven	W64	Krasuski, Richard	O73
Keedy, Alexander	P112	Krautz, Birgit	P304
Keegan, Jennifer	P238, P264, P267, W37, W44	Krieger, Eric	O68
Keilberg, Petra	M1, P189, P190, P195	Krishnamoorthy, Ashwin	P98
Kelion, Andrew	M2	Kristen, Arnt	P173
Kelle, Sebastian	O14, P137, P252	Kroeker, Randall	P251
Kellman, Peter	O26, O63, P209, P251, P291, P294	Kroft, Lucia J.M.	P131, P199
Kelm, Malte	M12, P33, P97	Kroner, Eleanore	P131, P234
Kelsey, Sheryl	P6	Kröger, Jan Robert	W1
Kern, Michael	P22, P25	Kubo, Takashi	P305, P34
Kersten, Erik	P139	Kuehne, Titus	P289, P58, W10, W67, W7, W8
Keupp, Jochen	M8	Kuhara, Shigehide	P268, P269
Khalifa, Ayman	P102	Kumar, Andreas	O61
Khalique, Zohya	O6	Kumar, Pranab	P109
Khan, Sarah	P119	Kumita, Shinichiro	P152, P302, W40
Kharbanda, Rajesh	P28	Kung, Geoffrey	P66
Khodarahmi, Iman	P219, W34	Kurvers, Michael	P160
Kholmovski, Eugene	O107, P200, P201, P208, P211	Kutty, Shelby	O50, O57, O59, P14
Kidambi, Ananth	O64, O93, P306	Kwak, Yongjun	P307, W24
Kienle, Karl-Philipp	O18, P18	Kwiecinski, Radoslaw	P143
Kihlberg, Johan	P2, P243	Kwon, Deborah	O16, P3
Kilner, Philip	P140, W48	Kwong, Raymond	O10, O115, O18, O2, O3, O30, O83, O84, O98, P150, P159, P18, P206, P231
Kim, Daniel	O62	Köstler, Herbert	P57, P65
Kim, Han	O113, O13, O24, O7, P23, P274, P48, P52	Labounty, Troy	M10, P275
Kim, Hee Yeong	P78	Lachmann, Helen	O87
Kim, Ki-Young	O24, O7	Lai, Peng	W69
Kim, Paul	P50, P62	Lai, Yongrong	O77
Kim, Raymond	O113, O13, O24, O53, O60, O7, P23, P274, P48, P52	Lam, Adrian	P95, W52
Kim, Yong-Yin	O113	Lam, Justin	P62, P67
Kim, Young Jin	P78	Lamb, Hildo	P131, P234, P68, P71
Kim, Yuli	O73, P105	Lambiase, Pier	O58
Kimura, Eric	P295	Landini, Luigi	P56
Kimura, Fumiko	P197	Lang, Di	O31
Kimura, Keizo	P305, P34	Lang, Irene	M6
King-Strunk, Melissa	T2	Lang, Roberto	O78, P7, P70
Kino, Aya	O28, P165, P177, P249, P253	Lang, Sean	P130
Kiriya, Tomonari	P302	Lange, Maximilian	P101
Kissinger, Craig	O21, O22, O8, P246, P307, W24	Langhans, Birgit	O65, P24
Kitagawa, Kakuya	O88	Lantz, Jonas	W60
Kitagawa, Toshiro	M9	Lanza, Daniela	P185
Klein, Christoph	P252	Lanza, Gregory	M8, O11, O31, O41, O42, P136
Klein, George	P217	Larghat, Abdulghani	P17, P259, P283
Klem, Igor	O24, P52	Lath, Narayan	O62
Klemm, Rolf	W29	Laub, Gerhard	P251
Kluczevska, Ewa	P143	Lauriers, Nathalie	O51
Klys, Jan	P143	Lav Madsen, Per	O66
Knobloch, Verena	W50, W9	Lawton, Chris	P44, T11
Knoester, Hennie	P199	Lazdam, Merzaka	P221
Kobayashi, Hitomi	P191	Leavitt, Marcia	O3
Kobayashi, Yasuhiro	P302	Lee, Daniel	O28, P249, P253, P270, P47, P49
Kobayashi, Yasuyuki	P191	Lee, Su-Lin	T9
Kober, Frank	O74	Leeson, Paul	P221, P244, P75
Koczwar, Bogda	P181	Lehrke, Stephanie	M7, O100, P164, P168, P173, P223
Kodali, Santhisri	O102	Leimbigger, Peter	W35
Kodali, Sobhan	O43	Leon, Angel	P216
Koenigkam-Santos, Marcel	P176	Leonardi, Benedetta	O56
Kofflard, Marcel	P160	Leong, Darryl	O66, P181
Koga, Karen	O25	Leong, Tora	M2
Koken, Peter	P273	Leong-Sit, Peter	P217
Kolbitsch, Christoph	P256	Leow, Sean	O66
Kondo, Norihiro	P227, W57	Lesniak, Donna	P11
Kondos, George	P144	Lesser, John	O99, P156
Koning, Patrick	P131	Leung, Steve	O26
Koomalsingh, Kevin	W54	Levack, Melissa	P227, W57
Korbonits, Marta	O85, P192	Levin, Matt	P149
Korosoglou, Grigorios	O14, P260	Levine, Robert	P36, P81
Korvink, Jan	W29	Lewandowski, Adam	P221, P244, P75
Kosiek, Ortrud	P301		
Kosuge, Hisanori	M9		

Ley, SebastianO68, P141
 Ley-Zaporozhan, JuliaO68
 Li, DebiaoM10, O44, P171, P275, P303, T5
 Li, KunchengP303, T5
 Li, LauraP288
 Li, LingO59
 Liew, GaryP135
 Lim, RuthO62, P298
 Lima, JoaoO46, O86, P126, P209, P265, P270, P296, P46
 Lin, BenW23, W65
 Lin, KaiP171, P303, T5
 Lindsay, AlistairP134
 Lingala, Sajan GoudM11, P239
 Liodakis, EmmanouilO6, P116
 Lionetti, VincenzoP56
 Lisignoli, VeronicaP188
 Lisko, JohnP76
 Litt, HaroldW54
 Liu, Chia-YingO46, P126, P209, P265
 Liu, JingP303, T5
 Liu, JunminP241, W49
 Liu, LiP220
 Liu, PeiguoP293
 Liu, RongO77
 Liu, SongtaoP265
 Liu, XinO44
 Liu, YingP171
 Liu, Yuan ChangP265
 Lloyd, MichaelP215, P216, W18
 Lloyd, TomO103, O9
 Lloyd-Jones, DonaldP171
 Locca, DidierO51
 Lockie, TimO90, P226, P230, P5
 Loecher, MichaelW64
 Loewe, ChristianM6
 Lombardi, MassimoM1, P189, P190, P195, P56
 Lorencete, TaisaO25
 Lorenz, RamonaW29, W70
 Lossnitzer, DirkM3, O100, P125, P196, P230
 Loudon, MargaretP93
 Loy, AislingP175
 Lu, JimmyP108
 Lu, XiaoguangW19
 Lu, YingLiT6
 Lueker, JakobP203
 Luft, FriedrichP69
 Luijnenburg, SaskiaP124
 Lukic, RyanP285
 Lumish, HeidiO18, P18
 Lund, GunnarP101, P203
 Lundin, MagnusP291
 Lurz, PhilippO15, O4
 Lutz, AnjaP247, W20, W39
 Luu, JudyP4
 Iyalina, SvetlanaP62
 Lygate, CraigP57, P65
 Lyons, JenniferP62
 Lyons, MatthewP11
 Lücke, ChristianP205
 Ma, HengP303, T5
 Macgowan, ChrisP236, W35
 Mach, FrancoisP60
 Machado, RobertoO78
 Maciel, BeneditoP176
 Madan, NitinP121
 Madueme, PeaceP193, P297
 Maestri, VivianaO23, O76, P174, P221, P222, P262
 Mahajan, AmanP66
 Mahajan, RajivO103, O9
 Mahnkopf, ChristianP202
 Maintz, DavidW1
 Majoie, CharlesW3, W42, W43
 Makowski, MarcusO50, P14, P61
 Malcolm-Lawes, LouisaP207
 Mallorie, AmyP167
 Mandry, DamienO18, P159, P18, W53
 Manghat, NathanP38
 Manias, TizianaP53
 Manka, RobertW9
 Manlhiot, CedricO1

Manning, WarrenO21, O22, O8, O99, P156, P224, P245, P246, P276, P307, W24
 Mantione, LudmillaO56
 Manyam, HarishO17
 Manzke, RobertP300
 Marber, MichaelO19, P226, P230
 Marchlinski, FrancisP209
 Maredia, NeilO89, O93, O94
 Maret, EvaP21
 Marin-Neto, JoseP176
 Markenroth Bloch, KarinW48, W55
 Markl, MichaelM4, P120, P257, P51, P91, W2, W29, W70
 Maron, BarryO99, P156
 Maron, MartinO99, P156
 Marquering, HenkW3
 Marroquin, LuisP107, P295
 Marrouche, NassirO107, P187, P200, P201, P208
 Marsden, DebbieP38
 Martinoff, StefanO65, P103, P24
 Marwick, ThomasO16, P3
 Marzluf, BeatriceM6
 Mascherbauer, JuliaM6
 Maslanka, HerbertO32
 Massoud, IkramP102
 Masuno, TomizoP305, P34
 Mather, AdamO64, O71, P17, P96
 Mathias, HelenP38
 Matsumoto, NobuyukiP268, P269
 Matsumura, YoshioW40
 Maurel, BorisP145
 Maurer, GeraldM6
 Maurovich-Horvat, PalP135, P35
 Mazur, WojciechP143, P193, P297, T1, T2
 McAlindon, ElisaP266, P31, P38, P44, T11
 McCann, GerryO19, O71, P277, P92, P96
 McConnell, MichaelM9, P237, P250, P62
 McCrindle, BrianO1
 McElhinney, DoffP114
 McGann, ChristopherO107, O39, P187, P200, P201, P208
 McGarvey, JeremyP227, W54, W57
 McKee, AndreaP83
 McKenna, WilliamP142
 McLaughlin, JeannetteO38, P233, P288, P89
 McNeal, GaryP11
 McVeigh, ElliotP271
 Meave, AlohaP107, P295
 Medrano-Gracia, PauP270
 Medway, DebraP57
 Mehra, VishalO46
 Mehta, AtulO23
 Mehta, BhairavO110
 Meier, ChristopherP294
 Meier, SebastianW70
 Meierhofer, ChristianP103
 Meintjes, ErnestaP267
 Mekkaoui, ChoukriO49, P238, P35
 Meloni, AntonellaM1, P189, P190, P195
 Meléndez, GabrielaP107, P295
 Menichetti, LucaP56
 Merchant, NaeemP184
 Meredith, StephenW41
 Merritt, BryceM4, P91
 Merten, ConstanzeP94
 Mertens, LucP118
 Merx, MarcP97
 Merz, NoelP6
 Messroghli, DanielP289, P58, W10, W67
 Mewton, NathanP209
 Meyer, ChristopheW53
 Meyer, CraigP055, P13, W62
 Michaud, GregoryP206
 Middleton, JohnP48
 Migrino, RaymondP212
 Mihalef, ViorelW36
 Mikami, YokoP184
 Mikolich, BrandonP76
 Mikolich, J. RonaldP76
 Milazzo, AngelaP185
 Miller, ChristopherP166, P182, P277
 Min, JamesM10
 Mirabella, LuciaP114

Missere, MassimilianoP190
 Mistry, Niraj.....O97, P167, P186
 Miszalski-Jamka, KarolP143
 Miszalski-Jamka, Tomasz.....P143
 Mitchell, Andrew.....M2
 Mitchell, Richard.....O10, O115
 Mittal, Tarun.....M2
 Moat, Neil.....O70, P98
 Modarai, Bijan.....P282
 Moelker, Adriaan.....P124
 Moghaddam, Abbas.....W15
 Moghari, Mehdi.....O21, O8, P245, P246
 Moguillansky, Diego.....O34, P294, P9
 Mohajer, Kiyarash.....P119
 Mohamed, Elham.....P102
 Mohiaddin, Raad.....O5, O70, O72, P116, P98
 Mohiddin, Saidi.....P10, P32
 Moledina, Shahin.....P83
 Momiyama, Yukihiko.....P72
 Montecucco, Fabrizio.....P60
 Monti, Lorenzo.....P188, P53
 Moody, Alan.....P19, P20
 Moon, James.....O111, O23, O58, O76, O95, P142, P174, P221, P222, P262, P93
 Mor-Avi, Victor.....O78, P7, P70
 Morant, Kareem.....P169
 Morarji, Jiten.....O6
 Morarji, Kishen.....O6
 Moreira, Henrique.....P176
 Moreno, Heitor.....O10, O115
 Morgan, Roisin.....P175, P40
 Moriarty, John.....P119
 Morris, Alan.....P201
 Morrisett, Joel.....P204
 Morton, Geraint.....O19, O47, O91, O92, P12, P218, P64, P8
 Moshonov, Hadas.....O68
 Moslehi, Javid.....O30
 Mostafa, Ahmad.....P94
 Motwani, Manish.....O64, O71, O89, O93, O94, P17, P259, P96
 Moulin, Guy.....P145
 Mousseaux, Elie.....P128, P155
 Mowla, Ashkan.....P79
 Mracek, Kate.....P39
 Mueller, Gisela.....O104
 Muellerleile, Kai.....P101, P203
 Muhyieddeen, Kamil.....P84
 Mulcahy, Fiona.....P175
 Mulder, Barbara.....O80, P111, P123, P124, P131
 Muniz, Juan.....P110
 Murali, Srinivas.....P147, P86
 Murday, David.....P263
 Muthurangu, Vivek.....O40, P232, P83, W25, W63
 Muñoz, Luis.....P107
 Myerson, Jacob.....O41
 Myerson, Saul.....P163, P244, P90, P93
 Nacif, Marcelo.....O86, P265, P46
 Nadar, Mariappan.....M11
 Naeger, David.....P112
 Nagata, Masayoshi.....P72
 Nagata, Motonori.....O88
 Nagel, EikeO14, O19, O47, O50, O82, O90, O91, O92, P12, P14, P16, P178, P218, P225, P226, P230, P256, P263, P282, P5, P61, P64, P8
 Naik, Srinivas.....P299
 Nakagawa, Kaori.....P62
 Nakajima, Hiroshi.....O88
 Nakajima, Takatomo.....P197
 Nakamori, Shiro.....O88
 Nam, Seunghoon.....P307, W24
 Narang, Akhil.....P7, P70
 Nardi, Barbara.....P188
 Nayyar, Sachin.....O103, O9
 Nazir, Noreen.....P3
 Nearing, Bruce.....P209
 Nederveen, Aart.....W3, W42, W43, W5
 Neff, David.....O43
 Negahdar, Mohammadreza.....W45
 Neilan, Tomas.....O2, O30, O83, O98
 Neizel, Mirja.....M12, P97
 Nelemans, Patricia.....O36
 Nethononda, Richard.....P75
 Nett, Elizabeth.....P106

Neubauer, StefanO111, O27, O75, O76, P157, P163, P179, P221, P244, P28, P290, P57, P65, P75, P90, P93, W32
 Nezafat, Reza.....O21, O22, O8, P245, P246, P276, P307, W24
 Ngo, Jessica.....P48
 Nguyen, Elsie.....O68, P141
 Nguyen, Jie.....P106
 Nguyen, Kim-Lien.....P119
 Nguyen, Thanh.....P100, P36
 Niederstadt, Thomas.....W1
 Nielles-Vallespin, Sonia.....O49, P238
 Nielsen, James.....P121
 Niendorf, Thoralf.....P229
 Nienhaus, Gerd Ulrich.....P247, W20, W39
 Nihoyannopoulos, Petros.....P81
 Nilsson, Anders.....W55
 Nishimura, Dwight.....P237, P250
 Nitatori, Toshiaki.....P268, P269
 Nitta, Shuhei.....P268, P269
 Nitzken, Matthew.....P258
 Nixon, Jane.....O93, O94
 Nkoulou, René.....P80
 Nogueira, Guilherme.....O25
 Nomura, Arata.....P197
 Nordlund, David.....P37
 Nordmeyer, Sarah.....W10, W67, W7, W8
 Norita, Katsuya.....O5
 Novo Buján, Jorge.....T9
 Ntsinjana, Hopewell.....P115
 Ntusi, Ntobeko.....P163, P221
 O h-Ici, Darach.....P289, P58
 O'Dea, Siobhan.....P175
 O'Donnell, Christopher.....P224
 O'Loughlin, Michael.....P130
 Odening, Katja.....P54
 Oh, Charles.....P212
 O'Hanlon, Rory.....P40
 Ohayon, Jacques.....O45
 Ohmori, Reiko.....P72
 Ohsuzu, Fumitaka.....P72
 Oki, Abiola.....O63
 Olchanski, Natalia.....O3
 Oliver, James.....P292
 Olivotti, Luca.....O90, P5
 Olmos, Sergio.....P107, P295
 Olson, Peter.....P147
 Omori, Hisako.....P197
 Opitz, Christian.....P41
 Ordovas, Karen.....P112
 O'Regan, Declan.....P81
 Oshinski, John.....P215, P216, P95, W12, W18, W52
 Oster, Julien.....P231
 Ota, Shingo.....P305, P34
 Otton, James.....O47, P218
 Ozaki, Yuichi.....P305, P34
 Pacher, Richard.....M6
 Padala, Muralidhar.....P95, W52
 Padiyath, Asif.....O50, P14
 Pagano, Joseph.....O109, P281
 Pai, Vinay.....P261
 Pal, Prasanta.....W23
 Paladino, Antonio.....O101
 Palaniappan, Prashanth.....W71
 Palazzi, Giovanni.....P190
 Pan, Dipanjan.....O11, O42, P136
 Pandya, Bejal.....P232, P83, W63
 Pang, Jianing.....M10
 Panjra, Gurusher.....P74
 Pantazis, Antonios.....P142
 Papalas, John.....P48
 Paproski, Janice.....P141
 Pardun, Eileen.....O55
 Parent, Marie-Claude.....P62
 Parish, Victoria.....O50, P14
 Parker, Michele.....O113, O13, O24, O7, P23, P48
 Parrington, Diane.....P212
 Passick, Michael.....P89
 Pastor, Ana.....O82, P225
 Patel, Amit.....O78, P7, P70
 Patel, Ashish.....P282
 Patel, Rima.....P298

Patel, Swati.....	P119	Ramakrishnan, Sivasubramanian.....	P109
Paterson, Ian.....	O109	Raman, Subha.....	O35, P1, P193, P251, P254, P43, W21
Paul, Gideon.....	O105	Ramirez, Rafael.....	P66
Paul, Jan.....	P247, W20, W39	Rana, Fauzia.....	P194
Paul, Matthias.....	O19, P218, P64	Rana, Mohammad.....	O17
Paul, Narinder.....	O68, P141	Rangamani, Sheela.....	O57, O59
Pearce, Emily.....	P26	Rao, Ajay.....	O84
Pedretti, Stefano.....	P185	Rao, Balaji.....	P150
Pedrotti, Patrizia.....	P185	Rasche, Volker.....	P247, P287, W20, W39
Peebles, Charles.....	P27, T8	Rathi, Vikas.....	O43, P147, P151, P86, T3
Peel, Sarah.....	P138, P255	Rathod, Krishnaraj.....	M5, P10
Pena-Herrera, Diego.....	O30	Rathod, Rahul.....	P105
Penhall, Amy.....	P181	Ratib, Osman.....	P80
Pennell, Dudley.....	O29, O5, O72, O77, O97, P167, P186, P293	Rayarao, Geetha.....	O101, O43, P6, P88, T10
Pennell, Michael.....	O35, P1, W21	Rayatzadeh, Hussein.....	O21, O22, P276
Pepe, Alessia.....	M1, P189, P190, P195	Razavi, Reza.....	O82, P125, P225, P256, P263
Pepine, Carl.....	P6	Recchia, Fabio.....	P56
Pepper, John.....	O5, O72	Reddy, Sahadev.....	O101, P210, T3
Perdrix, Ludivine.....	P155	Redheuil, Alban.....	O46, P126, P128, P155
Perera, Divaka.....	O19, O91, O92, P64	Redwood, Simon.....	O90, O91, O92, P226, P230, P5
Pernow, John.....	O114	Reeder, Scott.....	P276, W11
Peters, Nicholas.....	P207	Reese, Timothy.....	P170, P238, P35
Peters, Rosanne.....	P124	Reeves, Barney.....	P38, P44
Petersen, Steffen.....	M5, O85, P10, P192, P207, P244, P32, P75	Rehwald, Wolfgang.....	O113, O53, P274, P52
Pettersson, Sven.....	W31, W6	Reiber, Johan.....	P131
Petrossian, George.....	P233, P89	Reichkek, Nathaniel.....	O106, P127, P233, P77, P89, T12, W27
Petrou, Mario.....	O5, O72	Reichenspurner, Herrmann.....	P101
Petry, Philip.....	P15, P153	Renella, Pierangelo.....	P119
Pettigrew, Roderic.....	O45, P235	Renz, Wolfgang.....	P229
Pfaffenberger, Stefan.....	M6	Restaino, Gennaro.....	P189
Phinikaridou, Alkystis.....	P61	Restrepo, Maria.....	P114
Piechnik, Stefan.....	O111, O27, O76, P179, P221, P262, P28, P290, P93	Reyhan, Meral.....	P240
Piehler, Kayla.....	P294	Rhee, Peter.....	O38, P233, P288, P89
Pierce, Iain.....	W61	Rice, Alexandra.....	M2
Pietrapertosa, Anna.....	M1	Richardt, Gert.....	P94
Pilla, James.....	P227, W54, W57	Rickers, Carsten.....	O55, P113
Pinheiro, Aurelio.....	P158	Rider, Oliver.....	P75
Pinney, Jennifer.....	O87, P174	Ridgway, John.....	O94
Pinochet, Natalia.....	W8	Rieger, H.....	P103
Piorkowski, Christopher.....	P205	Riesenkampff, Eugenie.....	W10, W67
Pitcher, Alex.....	P75	Rijzewijk, Luuk.....	P71
Plaisted, Roger.....	O18	Rimoldi, Ornella.....	P185
Plein, Sven.....	O19, O47, O64, O71, O89, O90, O91, O92, O93, O94, P17, P226, P230, P259, P283, P292, P306, P5, P61, P96	Rinaldi, Aldo.....	P256, P263
Plymen, Carla.....	O58	Ritscher, Guido.....	P202
Podluský, Sofia.....	O28	Rizzi, Patricia.....	P209
Pofahl, Martin.....	P69	Robbins, Robert.....	P62, P67
Pohost, Gerald.....	P6	Roberts, Paul.....	P228
Pollack, Simcha.....	P77	Robinson, Sian.....	T8
Pongiglione, Giacomo.....	O56	Robinson Wood, Melissa.....	P144
Popescu, Andrada.....	P120, P249, P253, P51	Robson, Matthew.....	O111, O27, O76, P134, P179, P221, P262, P28, P290, W32
Popovic, Zoran.....	O16, P3	Rodgers, Christopher.....	O75
Posina, Kanna.....	P233	Rodriguez, Jeffrey.....	P299
Positano, Vincenzo.....	M1, P189, P190, P195, P56	Rogers, William.....	P6
Potluri, Rahul.....	P166, P182	Roghi, Alberto.....	P185
Potters, Wouter.....	W43, W5	Roldán-Alzate, Alejandro.....	P85, W11
Powell, Andrew.....	P104, P105	Rolf, Marijn.....	W48
Power, John.....	O33	Romeih, Soha.....	O80, P111, P123
Prabhakar, Sourabh.....	O17	Romijn, Johannes.....	P68
Prakash, Ashwin.....	P104, P105	Roos-Hesselink, Jolien.....	P124
Prasad, Sanjay.....	O29, O5, O6, O70, O72, O97, P167, P186, P98	Rosental, Carlos.....	P110
Prasitdumrong, Hutsaya.....	O104	Rossi, Giuseppe.....	P195
Priatna, Agus.....	P11	Rostock, Thomas.....	P203
Price, Susanna.....	O70, P98	Rottbauer, Wolfgang.....	P247, P287, P300, W20, W39
Prince, Jerry.....	O52	Roujol, Sébastien.....	P246
Prince, Martin.....	O86, P126	Roussin, Isabelle.....	O70, P98
Prinzen, Frits.....	P216	Rovno, Hazel.....	W54
Pun, Patrick.....	P48	Roy, Christopher.....	P236
Puntmann, Valentina.....	O82, P178, P225, P256, P263	Rubens, Michael.....	O70, P98
Qamar, Muhammed Umair.....	P213	Rudolph, Volker.....	P101
Quarta, Giovanni.....	P142	Ruskin, Jeremy.....	P35
Quercoli, Alessandra.....	P80	Russe, Maximilian.....	W29
Quinones, Miguel.....	O102, P213	Rustogi, Rahul.....	P177, P253
Rabbat, Mark.....	P214	Rutz, Tobias.....	P103
Radau, Perry.....	T6	Ryan, Thomas.....	P193
Radjenovic, Aleksandra.....	O89, O94, P17, P226	Rycaj, Jaroslav.....	P143
Radonic, Teodora.....	P131	Rösch, Sabine.....	P183
Radunski, Ulf.....	P101, P203	Saba, Shahryar.....	P162
Rahman Haley, Shelley.....	M2	Sado, Daniel.....	O23, O58, O76, O95, P142, P174, P221, P222, P262
Rakowski, Harry.....	O96	Sado, Graham.....	P222
		Saeed, Ibrahim.....	P11

Saeed, MaythemM14
 Sakai, ShujiP197
 Sakuma, HajimeO88
 Salerno, MichaelO110, P13, P172, W62
 Salton, CarolP224
 Salvatori, CristinaP195
 Samaroo, YasmineO47
 Sampath, SmitaW23, W65
 Samyn, MargaretP122
 Sanagala, ThriveniP214
 Sanders, PrashanthanO103, O9
 Santarelli, Maria FilomenaP56
 Santelli, ClaudioW59
 Saremi, ArameshP212
 Sarnari, RobertoO28, P47
 Satou, GaryP119
 Sayin, OzanP271
 Scandling, DebbieO35, P1
 Schaeffter, TobiasO82, P12, P225, P256, P263, P282, P64, W47, W51, W59
 Schalla, SimonO36
 Schapiro, WilliamT12, W27
 Scheewe, JensP113
 Schelbert, ErikO34, P294, P9
 Schievano, SilviaP115, P117
 Schilling, RichardP207
 Schindler, ThomasP80
 Schlett, ChristopherP135
 Schmeisser, AlexanderP301
 Schmidt, AndreP176
 Schmidt, EhudP206, P231
 Schmidt, RegineW73
 Schmieder, AnneM8, O11, O42, P136
 Schmitt, MatthiasP166, P182, P277, P284
 Schmitt, MelanieW73
 Schmitter, SebastianW72
 Schnackenburg, BernhardP137, P15, P252, P301
 Schneeweis, ChristopherO14, P137, P252
 Schneider, JurganP54, P57, P65
 Schneider, UdoP137
 Schneiders, JoppeW3
 Schnell, SusanneW2
 Scholl, DavidP169, P217
 Scholte, ArthurP131
 Schrader, JürgenP33
 Schrauben, EricW26, W33, W4
 Schreiber, LauraW73
 Schuler, GerhardO15, O4, O67
 Schulman, StevenP74
 Schulte, RolfP56
 Schulz-Menger, JeanetteO69, O81, P229, P41, P69
 Schulze-Nieck, IngramP83
 Schuster, AndreasO19, O50, O59, O90, P12, P125, P14, P5, P64, P8
 Schweitzer, JeffreyP206
 Schwindt, WolframW1
 Schwitter, JuergO51
 Schär, MichaeO52, P73, P74
 Schäufele, TimP183
 Schömig, AlbertO65, P24
 Scott, CynthiaP212
 Scott, MichaelO42, P136
 Sebire, NeilO54
 Sechtem, UdoP183
 Seed, MikeP236
 Seethamraju, HarishP84
 Seiberlich, NicoleP279
 Seifarth, HaraldP135
 Seitz, SebastianO32
 Sekhri, NehaM5
 Sekine, TetsuroP302, W40
 Sekine-Ohmoto, YukiP129
 Seligmann, ManuelP103
 Selvanayagam, JosephO103, O66, O9, P181
 SenPan, AnganaO11, O42, P136
 Sermer, MathewO68
 Setser, RandolphO73
 Sever, EmilyP157
 Shafi, NabilP89
 Shah, AjayO19
 Shah, DipanO102, P204, P213, P79, P84
 Shah, MonealO106, O108, P88, T10

Shah, RaviO2, O3, O83, O84, O98
 Shah, SanjivO28
 Shaikh, KamranP204
 Shakeri, MostafaP219, W34
 Shakespeare, CarlO5, O72
 Shambrook, JamesP27
 Sharaf, BarryP6
 Sharif, BehzadM10, P275
 Sharma, PuneetW36
 Sharma, SanjivP109
 Sharp, M KeithP219, W34
 Shaw, JaimeP245, P276
 Shaw, LesleeP6
 Shen, BaozhongO11
 Sheppard, MaryO5
 Shetty, AnoopP263
 Shin, TaehoonP250
 Shiozaki, AfonsoO25
 Shivkumar, KalyamanP66
 Shore, DarylP116
 Shubayev, LeonP149
 Shufelt, ChrisandraP275
 Sica, ChristopherP13
 Siebelink, Hans-Marc JP234
 Sievers, BurkhardM12, P97
 Sigfridsson, AndreasW31, W9
 Silva, Jose AlvaroM13
 Silva, NackleO101
 Silversides, CandiceO68
 Simon, HelgeP202
 Simonetti, OrlandoO35, P1, P251, P254, P43, W19, W21, W68, W71
 Simpson, PaulP67
 Simpson, PippaP122
 Simpson, RobinW37, W44
 Singh, JaspreetO112
 Sinha, Anil-MartinP202
 Sinha, VikasW46
 Sinusas, AlbertW23, W65
 Siu, SamO68
 Sjogren, JaneO20
 Skrok, JanP158
 Smid, JanP301
 Smink, JoukeP256
 Smit, JohannesP68, P71
 Smith, AlbertoP282
 Smith, DavidP266
 Smith, GillianP186
 Smolensky, AlexanderW12
 Smulders, MartijnO36
 Sokos, GeorgeP147, P86
 Soleimanifard, SaharO52, P73
 Soma, Siva KumarP86
 Sommer, PhilipP205
 Sommers, DanP211
 Song, Hee KwonP227
 Song, YanP133
 Sonnemans, JeroenW46
 Sonnex, EmerP39, P45
 Sorensson, PederO114, P291
 Sorrell, VincentP299
 Sosnovik, DavidO49, P135, P238, P35
 Sotelo, JulioW66
 Sotubo, OluwatosinO5, O70, O72, P98
 Sourbron, StevenP283
 Spatz, DeneenO113, O53, P274, P48, P52
 Spears, DannaP141
 Speier, PeterP238
 Spijkerboer, AnjeO80, P111, P123
 Spinillo, AntonioP188
 Spooner, PeterP209
 Sporton, SimonP207
 Squire, ScottO112
 Srichai, MonvadiO62, P162, P298
 Srivastava, ShubhikaP121
 Stacey, BrandonO86, P148
 Stamos, ThomasP144
 Steadman, ChristopherO71, P277, P92, P96
 Steding, KatarinaP87
 Steeden, JenniferO40, P115, P117, P232, W25, W63
 Steen, HenningM3, M7, O100, O32, P15, P153, P164, P168, P180, P198, P223

Steiner, StefanP97
 Stephensen, SigurdurP87
 Stern, HeikoP103
 Steven, DanielP203
 Stevenson, WilliamP231
 Stewart, KerryP73, P74
 Sticka, JoshuaP193
 Stillson, CarolM14
 Stirrat, JohnP169, P217
 Stomp, WouterP280
 Strach, KatharinaP301
 Strange, JulianP31
 Strauss, BradleyP19, P20, P29
 Strauss, DavidP209
 Strecker, RalphM13
 Stuber, MatthiasO45, O51, O52, P137, P73, P80
 Ståhlberg, FreddyW55
 Su, Mao-YuanP170
 Suehling, MichaelO56
 Suever, JonathanP215, P216, W18
 Suinesiaputra, AvanP270
 Sullivan, SammirM14
 Sultan, ArianP203
 Sun, JieP133
 Sunnarborg, DanO103, O9
 Supariwala, AzharP149
 Suttie, JosephO27, O75, P157, P244, P90
 Suzuki, YurikoW40
 Swahn, EvaP21
 Swan, LornaP116
 Swoboda, PeterO64, P259, P292
 Syed, MushabbarP214
 Söderlind, GustafW30
 Tachi, MasakiP152, P302
 Takacs, ElizP175
 Takagi, RyoW40
 Takahashi, JunjiP129
 Takeguchi, TomoyukiP268, P269
 Tanacli, RaduP163
 Tanaka, SaraP7
 Tang, ElaineP114
 Tang, RichardO61
 Taniguchi, HiroakiP72
 Tanimoto, TakashiP305, P34
 Tarokh, VahidP307, W24
 Tarroni, GiacomoP7, P70
 Taylor, AndrewO54, O58, P115, P117, P232, W63
 Taylor, MichaelP143, P193, P297, T1, T2
 Taylor, PeterP178
 Taylor, W. RobertW12
 Teixeira-Fernandez, ElvisP116
 Teijink, JoepP132
 Teixido-Tura, GiselaO46, P126
 Tejos, CristianW66, W8
 Telich-Tarriba, JoséP107, P295
 Temme, SebastianP33
 Tereshchenko, LarisaP209
 Testa, DavidP294
 Testa, StephenP294
 Thabit, OmarT13
 Thakrar, DarshitP177, P249
 Thavendiranathan, PaaladineshO35, P1, W19, W21
 Thayyil, SudhinO54
 The, Gwat YoeP132
 Thiagalingam, AravindaP35
 Thiele, HolgerO15, O4, O67
 Thiruvoipati, ThejasviO78
 Thohan, VinayP148
 Thomas, JuliaO85, P192
 Thomas, KevinP214
 Thompson, RichardO109, P281
 Thomson, LouiseM10, P275
 Thorsson, ThorP108
 Thourani, VinodP95, W52
 Thuny, FranckP145
 Tipton, AmyT1, T2
 Toelg, RalphP94
 Toger, JohannesW14, W30
 Tollefsen, DouglasO41
 Toma, IldikoP50, P62, P67

Torguson, RebeccaP22, P25
 Toro-Salazar, OlgaP130
 Torres, FelipeP141
 Toshio, ImanishiP305, P34
 Traber, JuliusP69
 Trad, HenriqueP176
 Treibel, ThomasO95
 Trevino, SharonO78
 Troalen, ThomasO74
 Trunfio, RobertoP190
 Tse, ZionP206, P231
 Tseng, Wen-YihP170
 Tsuji, HiroyukiP129
 Tufaro, CarolineM6
 Turin, AlexanderM4, P91
 Turner, KristenO78, P7, P70
 Turschner, OliverP202
 Turski, PatrickW64
 Tyler, DamianO75
 Tödt, TimP21
 Ubachs, JoeyO114, O20, P37
 Uchida, MasakiM9
 Uebing, AnselmP116
 Ugander, MartinO26, O63, P291
 Ugurbil, KamilW72
 Underwood, StephenO47
 Uretsky, SethP149, P99
 Uribe, SergioW66, W7, W8
 Utz, WolfgangP69
 Vakil, ParmedeW2
 Valderrábano, MiguelO102, P204
 Valente, Anne MarieO68, P114
 Valenti, ValentinaP149, P99
 Valeri, GianlucaM1, P190
 Vallee, JeanP60, P80
 Valverde, IsraelW7, W8
 van Amerom, JoshuaP236, W35
 Van Assche, LowieO113, O24, O7, P23, P52
 Van de Moortele, Pierre-FrancoisW72
 van den Boogaard, PieterP131, P234
 van den Bosch, HarrieP132, P139
 van der Geest, RobO18, P124, P131, P18, P265
 van der Kouwe, AndréW32
 Van Der Meer, R. W.P68, P71
 van der Plas, MartO80, P123
 van der Wall, ErnstP131
 van Dongen, IvoO36
 Van Heeswijk, Ruud B.O51
 van Hoorn, FransP141
 van Ooij, PimW3, W42, W43, W5
 Van Schinkel, LindaP234
 vanBavel, EdW3, W42, W43, W5
 Vandenborne, KristaP59
 Varga, JohnO28
 Varghese, JobyO57
 Vasanawala, ShreyasW69
 Vazir, AliO70, P98
 Venero, JoseP147
 Venkataraman, JeevaO59
 Venkatesh, PrashanthP100
 Venner, ChristopherO87
 Verheugt, FreekP160
 Verma, Divya RatanP208
 Vernikouskaya, InaP287
 Verrier, RichardP209
 Versluis, MaartenP234
 Viallon, MagalieP261
 Vido, DianeO101, O33, O79, P147, P210, P86, T10
 Viertler, DianaO100
 Vijayakumar, SathyaO107, P200, P201, P208
 Vincenti, GabriellaP80
 Visser, FredyW42
 Vitanovski, DimeO56
 Vliegen, HubertP124
 Vogel-Claussen, JensP158
 Voges, IngaO55, P113
 Vohra, RavneetP59
 Voigt, TobiasO82, P225, P263, P282
 Volpe, GustavoP176
 Volpi, JohnP79

von Knobelsdorff-Brenkenhoff, Florian	P229, P41
Voss, Andreas	M7
Vuissoz, Pierre-Andre	W53
Wacker, Frank	P158
Wage, Rick	O5, O72, O97, P167, P186, P264, T4
Waksman, Ron	P22, P25
Walcarius, Rhonda	O105
Walcher, Thomas	P300
Wald, Rachel	O68, P141
Walker, Esteban	O73
Walker, Jerry	P201
Walter, Glenn	P59
Wang, Hui	W17, W45
Wang, INing	P50, P62
Wang, Jinnan	P273
Wang, Kezheng	O11
Wang, Lichao	T9
Wang, Meihan	W62
Wang, Yi	P100, P127, P36, T12, W27
Wansapura, Janaka	O48
Wassmuth, Ralf	O69, O81, P41
Watanabe, Eri	O2, O83, O98, P159
Waterhouse, Deirdre	P146, P40
Watkins, Hugh	O27, O75, P157, P163
Watkins, Ronald	P206
Wattar, Abdul	P251, P43
Weale, Peter	P266
Webb, Andrew	P234
Weber, Stefan	W73
Wech, Tobias	P57, P65
Wechalekar, Ashutosh	O87
Weeden, Van	P170
Weerackody, Roshan	P10
Wei, Hongjiang	P261
Weinert, Lynn	O78
Weinsaft, Jonathan	P100, P36
Weiss, Clifford	P63
Weiss, Robert	O52, P73, P74
Weissman, Gaby	P22, P25
Wen, Han	P261
Wentland, Andrew	W13
Wenzelburger, Ina	P183
Westenberg, Jos	P131, P132, P139, P199, P280
Westwood, Mark	M5, O19, P10, P207, P32
Whelan, Carol	O87
White, James	P169, P217, P241, W49
White, Richard	P194
White, Steven	O111, O23, O95, P174, P221, P222, P262, P93
Whyte, Gregory	P186
Wickline, Samuel	M8, O11, O31, O41, O42, P136
Widya, Ralph	P71
Wieben, Oliver	P106, P85, W11, W13, W26, W33, W4, W64
Wiesinger, Florian	P56
Wiethoff, Andrea	P138, P255, P263
Wilber, David	P214
Wildberger, Joachim	O36
Wilhelmsen, Skadi	P301
Willems, Stephan	P203
Williams, Kathleen	P143
Williams, Ronald	O101, O17, O43, O79, P147, P151, P210, P88, T10, T3
Williams, Rupert	P226, P230
Williams, Todd	M8, O11, O41, P136
Willis, Harry	P90
Wilson, Brent	O39, P187
Wilson, Mark	M14
Wilson, Sean	P100, P36
Wince, Benjamin	O113
Winter, Michiel	P111
Wintersperger, Bernd	O68, O96, P141
Wisniewski, Nicholas	P66
Wissmann, Lukas	W38
Witschey, Walter	P227, W57
Wolf, Petra	P103
Wolff, Steven	P149, P99
Wong, Joyce	M2
Wong, Timothy	O34, P294, P9
Wonneberger, Uta	P301
Wood, John	P20
Woodard, Pamela	P11
Wright, Graham	O105, P19, P20, P29, T6

Wright, Katherine	P279
Wu, Colin	P296
Wu, Edwin	O28
Wu, Holden	P237
Wu, Ming-Ting	P170
Wu, Yi-jen	P220
Xu, Chun	W54
Xu, Dongxiang	P133
Xu, Jiaqiong	O102, P213
Xue, Hui	P249, P251, P253, P254, W19
Yahia, Atef	P102
Yamada, Kiyofumi	P133
Yamamoto, Takashi	P129
Yamrozik, June	O101, O43, O79, P147, P151, P210, P88, T10, T3
Yang, Guang-Zhong	T9
Yang, Jun	P303, T5
Yang, Phillip	P50, P62, P67
Yang, Yuesong	O105, T6
Yau, Jen	P121
Ye, Fan	P59
Ye, Qing	P220
Yee, Raymond	P217
Yeh, Fang-Cheng	P220
Yeung, Alan	P62
Yilmaz, Ali	P183
Yodwut, Chattanong	O78, P7, P70
Yoganathan, Ajit	P114
Yokoyama, Kenichi	P268, P269
Yoneyama, Kihei	O46
Yoo, Shi-Joon	O1, P118, P236, T13, W35
Yoshida, Takashi	P129
Young, Alistair	P228, P270
Younger, John	O94
Yu, Janelle	P285
Yu, Jing	P137
Yu, Sunkyung	P108
Yuan, Chun	P133, P273
Zachow, Dirk	P94
Zakeri, Simon	P284
Zaman, Arshad	O93, P306
Zaman, Saman	O5, O70, O72, P98
Zaman, Sameer	O5, O70, O72, P98
Zapf, Antonia	P158
Zarinabad, Niloufar	P16, P61
Zeidan, Tawfiq	O105
Zemrak, Filip	O85, P192
Zeus, Tobias	P97
Zhang, Huiying	O11
Zhang, Ziheng	W23, W65
Zhao, Wenguo	P248, P30
Zheng, Jie	P158
Zhong, Xiaodong	W16
Zhou, Cheng	P133
Zhou, Jing	P104
Zhou, Wei	P66
Zhu, Yuemin	P261
Zia, Mohammad	P149, P29, P99
Zidan, Mamdouh	M2
Zimmerman, Stefan	P158
Zoghbi, William	O102, P204, P213
Zsido, Gerald	P227, W57
Zuccarelli, Angelo	M1
Zuehlsdorff, Sven	O44, P177, P249, P251, P253
Zwanenburg, Jaco	W42

Disclosures of the 15th Annual Scientific Sessions of the Society for Cardiovascular Magnetic Resonance

It is the policy of the University of Minnesota Office of Continuing Medical Education (CME), in accordance with the Accreditation Council for Continued Medical Education (ACCME), to ensure balance, independence, objectivity, and scientific rigor in all CME activities. Anyone engaged in content development, planning, or presentation was asked to complete a disclosure form.

PHYSICIANS PRE-CONFERENCE WORKSHOP:

Aletras, Anthony: Financial Disclosure: Nothing to disclose
 Bandettini, Patricia: Financial Disclosure: Nothing to disclose
 Buser, Peter: Financial Disclosure: Nothing to disclose
 Carpenter, John Paul: Financial Disclosure: Honoraria: Novartis and ApoPharma
 Chen, Marcus: Financial Disclosure: Nothing to disclose
 Davies, Ceri: Financial Disclosure: Nothing to disclose
 Dick, Alexander: Financial Disclosure: Nothing to disclose
 Friedrich, Matthias: Financial Disclosure: Consultant: Circle CV Imaging
 Hansen, Michael: Financial Disclosure: Nothing to disclose
 Harden, Stephen: Financial Disclosure: Nothing to disclose
 Herborn, Christoph: Financial Disclosure: Nothing to disclose
 Judd, Robert: Financial Disclosure: Grant/Research Support: Siemens; Stock Shareholder: Heart Imaging Technologies
 Lorenz, Christine: Financial Disclosure: Full-time/part-time Employee: Siemens
 Muthurangu, Vivek: Financial Disclosure: Nothing to disclose
 Paterson, Ian: Financial Disclosure: Other: Received study materials from Servier Canada Inc.
 Petersen, Steffen: Financial Disclosure: Nothing to disclose
 Pitcher, Alex: Financial Disclosure: Nothing to disclose
 Raman, Subha: Financial Disclosure: Grant/Research Support: Siemens; Stock/Shareholder: EXCMR
 Sakuma, Hajime: Financial Disclosure: Grant/Research Support: GE, Philips Healthcare
 Schaeffter, Tobias: Financial Disclosure: Grant/Research Support: Philips Healthcare
 Schelbert, Erik: Financial Disclosure: Nothing to disclose
 Srichai, Monvadi: Financial Disclosure: Nothing to disclose
 Suttie, Joseph: Financial Disclosure: Nothing to disclose
 Westwood, Mark: Financial Disclosure: Nothing to disclose
 Yang, Phillip: Financial Disclosure: Grant/Research Support: Boehringer-Ingelheim

CONGENITAL/PEDIATRIC PRE-CONFERENCE WORKSHOP:

Beerbaum, Philipp: Financial Disclosure: Nothing to disclose
 Beroukhim, Rebecca: Financial Disclosure: Nothing to disclose
 Chung, Taylor: Financial Disclosure: Nothing to disclose
 Dorfman, Adam: Financial Disclosure: Nothing to disclose
 Fratz, Sohrab: Financial Disclosure: Nothing to disclose
 Geva, Tal: Financial Disclosure: Nothing to disclose
 Greil, Gerald: Financial Disclosure: Nothing to disclose
 Hor, Kan: Financial Disclosure: Nothing to disclose
 Krishnamurthy, Rajesh: Financial Disclosure: Grant/Research Support: Eisai Pharmaceuticals, Philips
 Muthurangu, Vivek: Financial Disclosure: Nothing to disclose
 Nielsen, James: Financial Disclosure: Nothing to disclose
 Odegard, Kirsten: Financial Disclosure: Nothing to disclose
 Powell, Andrew: Financial Disclosure: Nothing to disclose
 Razavi, Reza: Financial Disclosure: Nothing to disclose

Rickers, Carsten: Financial Disclosure: Nothing to disclose
 Schaeffter, Tobias: Financial Disclosure: Grant/Research Support: Philips Healthcare
 Sena, Laureen: Financial Disclosure: Nothing to disclose
 Tann, Oliver: Financial Disclosure: Nothing to disclose
 Taylor, Andrew: Financial Disclosure: Grant/Research Support: Siemens

SCIENTIFIC SESSIONS:

Aletras, Anthony: Financial Disclosure: Nothing to disclose
 Arai, Andrew: Financial Disclosure: Nothing to disclose
 Armstrong, Gregory: Financial Disclosure: Nothing to disclose
 Assomull, Ravi: Financial Disclosure: Nothing to disclose
 Batlle, Juan: Financial Disclosure: Nothing to disclose
 Beerbaum, Philipp: Financial Disclosure: Nothing to disclose
 Blankstein, Ron: Financial Disclosure: Nothing to disclose
 Bluemke, David: Financial Disclosure: Nothing to disclose
 Bonow, Robert: Financial Disclosure: Nothing to disclose
 Bremerich, Jens: Financial Disclosure: Nothing to disclose
 Broberg, Craig: Financial Disclosure: Nothing to disclose
 Carlsson, Marcus: Financial Disclosure: Nothing to disclose
 Carpenter, John-Paul: Financial Disclosure: Honoraria: Novartis and ApoPharma
 Carr, James: Financial Disclosure: Grant/Research Support: Astellas, Siemens; Speaker's Bureau: Lantheus
 Caruthers, Shelton: Financial Disclosure: Grant/Research Support: Kereos; Stock Shareholder: Philips
 Chen, Marcus: Financial Disclosure: Nothing to disclose
 Christian, Timothy: Financial Disclosure: Nothing to disclose
 Coulden, Richard: Financial Disclosure: Nothing to disclose
 Cury, Ricardo: Financial Disclosure: Grant/Research Support: GE Healthcare; Astellas Pharma
 Dorfman, Adam: Financial Disclosure: Nothing to disclose
 Dyverfeldt, Petter: Financial Disclosure: Nothing to disclose
 Edelman, Robert: Financial Disclosure: Grant/Research Support: Siemens Healthcare; Honoraria: Siemens, Bayer
 Ennis, Daniel: Financial Disclosure: Grant/Research Support: Siemens Medical Solutions
 Eitel, Ingo: Financial Disclosure: Nothing to disclose
 Farzaneh-Far, Afshin: Financial Disclosure: Nothing to disclose
 Festa, Pierluigi: Financial Disclosure: Nothing to disclose
 Finn, J. Paul: Financial Disclosure: Grant/Research Support: Siemens Medical Solutions, Bracco Diagnostics; Speaker's Bureau: Lantheus
 Frahm, Jens: Financial Disclosure: Nothing to disclose
 Fratz, Sohrab: Financial Disclosure: Nothing to disclose
 French, Brent: Financial Disclosure: Nothing to disclose
 Friedrich, Matthias: Financial Disclosure: Consultant: Circle CV Imaging
 Geva, Tal: Financial Disclosure: Nothing to disclose
 Greil, Gerald: Financial Disclosure: Nothing to disclose
 Grosse-Wortmann, Lars: Financial Disclosure: Nothing to disclose
 Hamilton, James: Financial Disclosure: Stock Shareholder: Vasculis
 Hansen, Michael: Financial Disclosure: Nothing to disclose
 Helbing, Willem: Financial Disclosure: Nothing to disclose
 Hope, Michael: Financial Disclosure: Nothing to disclose
 Hulten, Edward: Financial Disclosure: Nothing to disclose
 Jensen, Christoph: Financial Disclosure: Nothing to disclose
 Jerosch-Herold, Michael: Financial Disclosure: Other: Named as inventor on pending IP protection application pertaining to diffuse fibrosis detection
 Johnson, Tiffanie: Financial Disclosure: Nothing to disclose
 Jucker, Beat: Financial Disclosure: Employee: GlaxoSmithKline
 Kholmovski, Eugene: Financial Disclosure: Nothing to disclose
 Kilner, Philip: Financial Disclosure: Nothing to disclose
 Kim, Raymond: Financial Disclosure: Inventor on a US patent on Delayed-enhancement MRI
 Kozerke, Sebastian: Financial Disclosure: Nothing to disclose

Kraitchman, Dara: Financial Disclosure: Grant/Research Support: Siemens Medical Solutions, Boston Scientific; Consultant: Surefire Medical, Inc.

Kramer, Christopher: Financial Disclosure: Grant/Research Support: Siemens Healthcare; Consultant: Synarc

Krishnamurthy, Rajesh: Financial Disclosure: Grant/Research Support: Eisai Pharmaceuticals, Philips

Kwong, Raymond: Financial Disclosure: Nothing to disclose

Lamb, Hildo: Financial Disclosure: Nothing to disclose

Lanza, Gregory: Financial Disclosure: Nothing to disclose

Lederman, Robert: Financial Disclosure: Nothing to disclose

Li, Debiao: Financial Disclosure: Nothing to disclose

Lima, Joao: Financial Disclosure: Nothing to disclose

Malloy, Craig: Financial Disclosure: Nothing to disclose

Manning, Warren: Financial Disclosure: Grant/Research Support: Philips Medical Systems

Maron, Martin: Financial Disclosure: Nothing to disclose

Marrouche, Nassir: Financial Disclosure: Grant/Research Support: Biosense Webster, Sanofi-Aventis MRI Interventions, Biotronik, e-cardio; Honoraria: Boehringer Ingelheim, Biotronik Medtronic; Consultant: Sanofi-Aventis, MRI Interventions, e-Cardio

Martin, Edward: Financial Disclosure: Grant/Research Support: Siemens; Consultant: Siemens; Speaker's Bureau: Lantheus; Honoraria: Lantheus

Mather, Adam: Financial Disclosure: Nothing to disclose

Mohiddin, Saidi: Financial Disclosure: Nothing to disclose

Mordini, Federico: Financial Disclosure: Nothing to disclose

Motwani, Manish: Financial Disclosure: Nothing to disclose

Nayak, Krishna: Financial Disclosure: Nothing to disclose

Nazarian, Saman: Financial Disclosure: Nothing to disclose

Neubauer, Stefan: Financial Disclosure: Nothing to disclose

Niendorf, Thoralf: Financial Disclosure: Other: MRI.TOOLS GmbH, Berlin, Germany (founder)

Pennell, Dudley: Financial Disclosure: Grant/Research Support: Siemens; Consultant: Siemens, Apotex, Novartis; Honoraria: Siemens, Honoraria: Apotex, Novartis

Petersen, Steffen: Financial Disclosure: Nothing to disclose

Plein, Sven: Financial Disclosure: Grant/Research Support: Philips Healthcare

Pohost, Gerald: Financial Disclosure: Nothing to disclose

Quick, Harald: Financial Disclosure: Nothing to disclose

Raman, Subha: Financial Disclosure: Grant/Research Support: Siemens; Stock/Shareholder: EXCMR

Raval, Amish: Financial Disclosure: Nothing to disclose

Razavi, Reza: Financial Disclosure: Nothing to disclose

Rhode, Kawal: Financial Disclosure: Grant/Research Support: Philips Healthcare

Rochitte, Carlos: Financial Disclosure: Nothing to disclose

Ruberg, Frederick: Financial Disclosure: Nothing to disclose

Sakuma, Hajime: Financial Disclosure: Grant/Research Support: GE, Philips Healthcare

Schroeder, Marie: Financial Disclosure: Nothing to disclose

Schulz-Menger, Jeanette: Financial Disclosure: Nothing to disclose

Selvanayagam, Joseph: Financial Disclosure: Nothing to disclose

Sena, Lauren: Financial Disclosure: Nothing to disclose

Shah, Dipan: Financial Disclosure: Grant/Research Support: Siemens Medical Solutions, Astellas Pharmaceuticals

Shanbhag, Sunata: Financial Disclosure: Nothing to disclose

Shaw, Leslee: Financial Disclosure: Nothing to disclose

Sigfridsson, Andreas: Financial Disclosure: Nothing to disclose

Smith, Nic: Financial Disclosure: Nothing to disclose

Stuber, Matthias: Financial Disclosure: Nothing to disclose

Suttie, Joseph: Financial Disclosure: Nothing to disclose

Tann, Oliver: Financial Disclosure: Nothing to disclose

Taylor, Michael: Financial Disclosure: Nothing to disclose

Thiele, Holger: Financial Disclosure: Nothing to disclose

Valeti, Uma: Financial Disclosure: Nothing to disclose

Vasanawala, Shreyas: Financial Disclosure: Grant/Research Support: GE Healthcare

Wagner, Moritz: Financial Disclosure: Nothing to disclose

Weerackody, Roshan: Financial Disclosure: Nothing to disclose

Weiss, Steffen: Financial Disclosure: Full-time/part-time Employee: Philips Technologie GmbH

Westwood, Mark: Financial Disclosure: Nothing to disclose

Wong, Timothy: Financial Disclosure: Nothing to disclose

Wright, Graham: Financial Disclosure: Grant/Research Support: GE Healthcare; Other: Licensing/Royalties - Circle Cardiovascular

Yilmaz, Ali: Financial Disclosure: Nothing to disclose

Yoganathan, Ajit: Financial Disclosure: Nothing to disclose

ORAL ABSTRACT PRESENTERS:

Abeykoon, Sumeda: Financial Disclosure: Nothing to disclose

Akcakeya, Mehmet: Financial Disclosure: Nothing to disclose

Altbach, Maria: Financial Disclosure: Nothing to disclose

Babolian, Azarakhsh: Financial Disclosure: Nothing to disclose

Baher, Alex: Financial Disclosure: Nothing to disclose

Bogabathina, Hari: Financial Disclosure: Nothing to disclose

Campbell, Michael: Financial Disclosure: Nothing to disclose

Chan, Raymond: Financial Disclosure: Nothing to disclose

Cheng, Ya-Jian: Financial Disclosure: Nothing to disclose

Chiribiri, Amedeo: Financial Disclosure: Nothing to disclose

Chugh, Atul: Financial Disclosure: Nothing to disclose

Coelho-Filho, Otavio: Financial Disclosure: Nothing to disclose

de Waha, Suzanne: Financial Disclosure: Nothing to disclose

Deva, Djeven: Financial Disclosure: Nothing to disclose

Dungu, Jason: Financial Disclosure: Nothing to disclose

Fairbairn, Timothy: Financial Disclosure: Nothing to disclose

Fakhri, Asghar: Financial Disclosure: Nothing to disclose

Fan, Zhaoyang: Financial Disclosure: Nothing to disclose

Flamm, Scott: Financial Disclosure: Nothing to disclose

Francis, Sanjeev: Financial Disclosure: Nothing to disclose

Fuernau, Georg: Financial Disclosure: Nothing to disclose

Ganesan, Anand: Financial Disclosure: Nothing to disclose

Gharib, Ahmed: Financial Disclosure: Nothing to disclose

Grosse-Wortmann, Lars: Financial Disclosure: Nothing to disclose

Grover, Suchi: Financial Disclosure: Nothing to disclose

Gulati, Ankur: Financial Disclosure: Nothing to disclose

Hadamitzky, Martin: Financial Disclosure: Nothing to disclose

Harrison, Alexis: Financial Disclosure: Nothing to disclose

He, Taigang: Financial Disclosure: Grant/Research Support: UK NIHR Cardiovascular Biomedical Research Unit of Royal Brompton Hospital and Imperial College, British Heart Foundation (BHF) Intermediate Basic Science Fellowship (FS/08/26225), Wellcome Trust Value In People (VIP) award; Consultant: Novartis; Honoraria: Apotex

Helms, Adam: Financial Disclosure: Nothing to disclose

Heydari, Bobby: Financial Disclosure: Nothing to disclose

Holtzman, Dvorah: Financial Disclosure: Nothing to disclose

Hussain, Shazia: Financial Disclosure: Nothing to disclose

Ibrahim, El-Sayed: Financial Disclosure: Nothing to disclose

Ishida, Masaki: Financial Disclosure: Nothing to disclose

Ismail, Tevfik: Financial Disclosure: Nothing to disclose

Jaarsma, Caroline: Financial Disclosure: Nothing to disclose

Jabbour, Andrew: Financial Disclosure: Nothing to disclose

Jensen, Christoph: Financial Disclosure: Nothing to disclose

Jimenez Juan, Laura: Financial Disclosure: Nothing to disclose

Jogiya, Roy: Financial Disclosure: Nothing to disclose

Kali, Avinash: Financial Disclosure: Nothing to disclose

Karamitsos, Theodoros: Financial Disclosure: Nothing to disclose

Katz, Daniel: Financial Disclosure: Nothing to disclose

Kawel, Nadine: Financial Disclosure: Nothing to disclose

Kelle, Sebastian: Financial Disclosure: Nothing to disclose

Kidambi, Ananth: Financial Disclosure: Nothing to disclose

Kim, Han: Financial Disclosure: Nothing to disclose
 Kodali, Sobhan: Financial Disclosure: Nothing to disclose
 Kutty, Shelby: Financial Disclosure: Nothing to disclose
 Kwon, Deborah: Financial Disclosure: Nothing to disclose
 Lee, Daniel: Financial Disclosure: Nothing to disclose
 Lehrke, Stephanie: Financial Disclosure: Nothing to disclose
 Leonardi, Benedetta: Financial Disclosure: Nothing to disclose
 Leung, Steve: Financial Disclosure: Nothing to disclose
 McAlindon, Elisa: Financial Disclosure: Nothing to disclose
 Mehta, Bhairav: Financial Disclosure: Nothing to disclose
 Mekkaoui, Choukri: Financial Disclosure: Nothing to disclose
 Moghari, Mehdi: Financial Disclosure: Nothing to disclose
 Motwani, Manish: Financial Disclosure: Nothing to disclose
 Myerson, Jacob: Financial Disclosure: Nothing to disclose
 Neilan, Tomas: Financial Disclosure: Nothing to disclose
 Pagano, Joseph: Financial Disclosure: Nothing to disclose
 Pan, Dipanjan: Financial Disclosure: Nothing to disclose
 Patel, Amit: Financial Disclosure: Grant/Research Support: Astellas
 Power, John: Financial Disclosure: Nothing to disclose
 Puntmann, Valentina: Financial Disclosure: Nothing to disclose
 Quaife, Robert: Financial Disclosure: Grant/Research Support: Astellas
 Rangamani, Sheela: Financial Disclosure: Nothing to disclose
 Rehwald, Wolfgang: Financial Disclosure: Full-time/part-time Employee: Siemens Healthcare
 Romeih, Soha: Financial Disclosure: Nothing to disclose
 Sado, Daniel: Financial Disclosure: Nothing to disclose
 Schelbert, Erik: Financial Disclosure: Nothing to disclose
 Schuster, Andreas: Financial Disclosure: Nothing to disclose
 Seitz, Sebastian: Financial Disclosure: Nothing to disclose
 Shah, Moneal: Financial Disclosure: Nothing to disclose
 Shah, Ravi: Financial Disclosure: Nothing to disclose
 Shiozaki, Afonso: Financial Disclosure: Nothing to disclose
 Silva, Nackle: Financial Disclosure: Nothing to disclose
 Shanbhag, Sunata: Financial Disclosure: Nothing to disclose
 Sjogren, Jane: Financial Disclosure: Full-time/part-time Employee: Medviso AB, Lund, Sweden
 Soleimanifard, Sahar: Financial Disclosure: Nothing to disclose
 Srichai, Monvadi: Financial Disclosure: Nothing to disclose
 Steeden, Jennifer: Financial Disclosure: Nothing to disclose
 Suttie, Joseph: Financial Disclosure: Nothing to disclose
 Taylor, Andrew: Financial Disclosure: Grant/Research Support: Siemens
 Thavendiranathan, Paaladinesh: Financial Disclosure: Nothing to disclose
 Treibel, Thomas: Financial Disclosure: Nothing to disclose
 Troalen, Thomas: Financial Disclosure: Full-time/part-time Employee: Siemens
 Ubachs, Joey: Financial Disclosure: Nothing to disclose
 Ugander, Martin: Financial Disclosure: Nothing to disclose
 Van Assche, Lowie: Financial Disclosure: Nothing to disclose
 Van Heeswijk, Ruud B.: Financial Disclosure: Nothing to disclose
 Vijayakumar, Sathya: Financial Disclosure: Nothing to disclose
 Voges, Inga: Financial Disclosure: Nothing to disclose
 Wang, Kezheng: Financial Disclosure: Nothing to disclose
 Wassmuth, Ralf: Financial Disclosure: Nothing to disclose
 Watanabe, Eri: Financial Disclosure: Nothing to disclose
 White, Steven: Financial Disclosure: Nothing to disclose
 Weerackody, Roshan: Financial Disclosure: Nothing to disclose
 Wince, Benjamin: Financial Disclosure: Nothing to disclose
 Yang, Yuesong: Financial Disclosure: Nothing to disclose
 Zemrak, Filip: Financial Disclosure: Nothing to disclose

TECHNOLOGIST WORKSHOP :

Annese, David: Financial Disclosure: Nothing to disclose
 Carpenter, John-Paul: Financial Disclosure: Honoraria: Novartis, ApoPharma
 Coulden, Richard: Financial Disclosure: Nothing to disclose
 Darty, Stephen: Financial Disclosure: Nothing to disclose
 Evers, Robert: Financial Disclosure: Nothing to disclose
 Ferreira, Vanessa: Financial Disclosure: Nothing to disclose
 Fletcher, Alison: Financial Disclosure: Nothing to disclose
 Finn, J. Paul: Financial Disclosure: Grant/Research Support: Siemens Medical Solutions, Bracco Diagnostics; Speaker's Bureau: Lantheus
 Francis, Jane: Financial Disclosure: Nothing to disclose
 Gentry, Ralph: Financial Disclosure: Nothing to disclose
 Goddu, Elizabeth: Financial Disclosure: Nothing to disclose
 Han, Yuchi: Financial Disclosure: Nothing to disclose
 Harden, Stephen: Financial Disclosure: Nothing to disclose
 Kissinger, Kraig: Financial Disclosure: Nothing to disclose
 Krishnamurthy, Rajesh: Financial Disclosure: Grant/Research Support: Eisai Pharmaceuticals, Philips
 Li, Debiao: Financial Disclosure: Nothing to disclose
 Niendorf, Thoralf: Financial Disclosure: Other: MRI Tools (founder)
 Pereyra, Mercedes: Financial Disclosure: Employee: Circle Cardiovascular Imaging
 Robson, Matthew: Financial Disclosure: Other: Patent: shMOLLI method
 Roy, Jack: Financial Disclosure: Nothing to disclose
 Sherlock, Frank: Financial Disclosure: Financial Disclosure: Boston Scientific, Bracco, Cook Medical, GE, In Vivo, Johnson & Johnson, Magmedix, Medtronic, Metrasens, St. Jude Medical
 Smith, Gillian: Financial Disclosure: Consultant: Novartis; Honoraria: Apo Pharma
 Sonnex, Emer: Financial Disclosure: Nothing to disclose
 Suever, Jonathan: Financial Disclosure: Nothing to disclose
 Watkins, Mary: Financial Disclosure: Nothing to disclose
 Westwood, Mark: Financial Disclosure: Nothing to disclose
 Wilson, Justine: Financial Disclosure: Nothing to disclose

GE Healthcare

From Qualitative to Quantitative CMR

SCMR 2012 Lunch Symposium

Sponsored by GE Healthcare MRI

Friday, February 3rd, 2012 at 12:30

Sawgrass Room at Marriott World Center Orlando

Lunch will be provided

Take this opportunity to learn about the Visionary Techniques that provide Visible Results. Network and enjoy lunch!

Agenda

12:30 Lunch provided

12:45 Power. Simplicity. Discovery MR750w 3.0T and Optima MR450w 1.5T with GEM Suite for CMR.

Maggie Fung

MR Cardiovascular Applications Development Manager
GE Healthcare, Milwaukee, WI, USA

12:55 Assessment of Mitral Regurgitation Using a Semi-Automated Algorithm

Steven D. Wolff, MD, PhD

Assistant Professor of Radiology at Columbia University Medical Center

1:10 Quantitative Tissue Characterization - Where Will MR Take Us?

Graham Wright, PhD

Professor, Department of Medical Biophysics, University of Toronto/
Senior Scientist, Sunnybrook Health Sciences Centre

This educational symposium is not part of the SCMR CME Program.

We are looking forward to seeing you!

Visit us in the booth # 34 in the SCMR Exhibit Hall



imagination at work



Cardiom

1876 Firman Drive
Richardson, TX 75081
Tel: 972-437-0430
Fax: 972-437-2098
Web: www.cardiom.com

Cardiom delivers the most accurate clinical answers from CMRI. Our flagship product, Compass™, quantifies disease states and contextualizes patient data with control data. Compass' assessments of ventricular function are aggregated from 1,296 quantitative micro assessments around the ventricle wall.

Our partner, Mentis, creates CMRI imaging tools for pediatric use. Firefly delivers all-in-one MRI post-processing for diagnosing and treating congenital heart defects. Tortoise, our child-sized system of alignment tools and coils, assures sharp, fast pediatric MRI.

Cardiovascular Imaging Solutions Ltd.

Incubator, Bessemer Building
Imperial College
Exhibition Road
London SW7 2AZ
United Kingdom
Tel: +44 (0)7885 906770
Fax: +44 (0)207 5941333
Email: sales@cmrtools.com
Web: www.cmrtools.com

CMRtools is a software package for viewing and analysing cardiovascular magnetic resonance images. In its simplest form, CMRtools can be used as a standalone DICOM image viewer, providing rapid, versatile image browsing and region-of-interest analysis. When used in conjunction with the different plug-in packages of CMRtools, it provides advanced cardiac quantification and modelling capabilities.

CIRCLE Cardiovascular Imaging

12, 3535 Research Rd NW
Calgary, Alberta T2L 2K8
Canada
Tel: 403-338-1870
Fax: 403-338-1895
Email: info@circlecvi.com
Web: www.circlecvi.com

Circle Cardiovascular Imaging Inc. is a Calgary based company that develops analytical software for cardiac imaging.

cmr42 and cvi42 are independent cardiovascular post-processing software comprising state-of-the-art modules for viewing and analyzing of CMR and CT images. report42 completes the product line and facilitates fast and easy transition from quantitative information to a structured report.

Circle is striving to provide innovative products that make a difference in lives.

Booth 1

Diagnasoft, Inc.

2501 Aerial Center Parkway, Suite 202
Morrisville, NC 27560
Tel: 919-677-8100
Fax: 919-883-1815
Web: www.diagnasoft.com

Diagnasoft develops advanced, enterprise-capable cardiac MRI quantification software that delivers unmatched detail and analysis of regional heart function, empowering early detection, accurate diagnosis and more effective treatment of heart disease and abnormality. HARP and SENC both patented technologies have helped transforming the industry by expanding the scope and sensitivity of CMRI quantification and analysis. Diagnasoft PULSE, NEW!, is healthcare first vendor independent CMRI structured reporting software.

GE Healthcare

3000 Grandview Blvd.
Hwy I-94 & HWY T West Lobby
Waukesha, WI 53188
Tel: 414-721-2461
Web: www.gehealthcare.com

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people through innovations focused on reducing costs, increasing access and improving quality around the world.

Heart Imaging Technologies

5003 Southpark Drive, Suite 140
Durham, NC 27713-9414
Tel: 919-323-3001
Fax: 866-457-3694
Web: www.heartit.com

Heart IT® is a global leader in the medical imaging industry. Their flagship product, WebPAX® was the first FDA approved zero-footprint medical imaging workstation. It allows physicians to view, report and search diagnostic-quality CMR images on any browser including mobile devices. WebPAX® has received 5 patents for its unique technology. Used by approximately 5,000 physicians at 250 medical centers, customers include leading academic institutions such as Johns Hopkins, Duke, Cornell and Ohio State.

Booth 28

Booth 34

Booth 8

Intersocietal Accreditation Commission (IAC)

Booth 7

6021 University Blvd., Ste. 500
Ellicott City, MD 21045
Tel: 800-838-2110
Fax: 800-581-7889
Email: accreditation@intersocietal.org
Web: www.intersocietal.org

The IAC provides a voluntary accreditation process for providers of MR, enabling applicant facilities to evaluate and demonstrate the level of patient care they provide.

The Standards, outlining the recommendations and requirements for a quality MR facility, will be displayed along with details of the new Online Accreditation application format.

You may visit www.intersocietal.org or call 800-838-2110 for more information. Stop by the IAC booth to learn more about payment policies linking reimbursement to accreditation.

Journal of Cardiovascular Magnetic Resonance (JCMR) Booth 2

Cardiovascular MR Unit
Royal Brompton Hospital
Sydney Street
London, SW3 6NP
United Kingdom
Tel: +44 207 351 8825
Fax: +44 207 351 8816
Email: jcmr@imperial.ac.uk
Web: www.jcmr-online.com

JCMR, the official journal of the Society for Cardiovascular MR, is an open access, online journal that publishes articles on all aspects of basic and clinical research on the design, development, manufacture, and evaluation of magnetic resonance methods applied to the cardiovascular system. The only journal devoted exclusively to cardiovascular MR, JCMR aims to provide an international forum for communicating the latest findings and reviews on the burgeoning field of cardiovascular MR imaging and spectroscopy.

Lippincott Williams Wilkins

Booth 4

3013 E. South Fork Drive
Phoenix, AZ 85048
Tel: 480-704-1995
Fax: 480-704-1995
Email: craig.roberts@wolterskluwer.com

Lippincott Williams & Wilkins has some of the best books in cardiovascular imaging.

Medis Medical Imaging Systems

Booth 38

9360 Falls of Neuse Road, Suite 103
Raleigh, NC 27615
Tel: 919-278-7890
Fax: 919-847-8817
Web: www.medis.nl

Medis is a leading provider of software solutions for accurate quantification of cardiovascular MR images. At SCMR 2012, Medis will demonstrate its latest version of its flagship product QMass® Enterprise Solution, which includes a versatile cardiac MR viewer, an integrated connectivity platform and proven best in-class quantitative analysis. Its fast analysis and total workflow solution save valuable time in clinical practice. Visit Medis at Booth 38 for more information.

MedVoxel Systems, Inc.

Booth 35

7363-515 West Hastings St
Vancouver, BC V6B 5K3
Canada
Tel: 778-782-7759
Fax: 778-782-7977
Web: www.medvoxel.com

MedVoxel Systems Inc. (MedVoxel) is software-as-a-service ("SaaS") company that develops and markets innovative imaging post-analysis solutions for cardiologists and radiologists.

MedVoxel's HeartPro Software Application (HeartPro) is a suite of cardiac MRI post-analysis tools. It is faster and more adaptable with its strong understanding of customers needs and its scientific research and the implementation capabilities.

HeartPro is a pioneering product that has been tested and proved in international and U.S. clinical environment. It is FDA 510(K) cleared.

Philips Healthcare

Booth 26

PO Box 10,000
5680 DA BEST
The Netherlands
Tel: +31 40 2765608
Web: www.philips.com

Royal Philips Electronics of the Netherlands is a diversified Health and Well-being company, focused on improving people's lives through timely innovations. As a world leader in healthcare, Philips integrates technologies and design into people-centric clinical solutions, based on fundamental customer insights and "sense and simplicity". A recent example is the Ingenia, world's first broadband digital MR scanner with patient-adapted multi-channel RF technology for crystal clear imaging, remarkable speed and robust cardiac MR results on 3.0T.

Pie Medical Imaging

Booth 31

Becanusstraat 13d
Maastricht 6216BX
The Netherlands
Tel: +31 43 328 13 28
Fax: +31 43 328 13 29
Email: pmi-exhibitor@pie.nl
Web: www.piemedicalimaging.com

Pie Medical Imaging offers quantitative cardiovascular analysis software for cardiac MR. The CAAS MRV software allows for a Functional analysis of the ventricles, a Viability (DE) and First Pass Perfusion analysis and also is available for small animal research.

The CAAS MR Flow software is designed to quantify flow and velocities in PCA MR images.

Precision Image Analysis International

Booth 33

815-18th Avenue
West Kirkland, WA 98033
Tel: 425-822-8199
Web: www.precisionanalysis.org

Precision Image Analysis (PIA) provides a service to analyze diagnostic images that is rapid, accurate and cost-effective. Currently, medical personnel can spend more than an hour post-processing imaging studies. PIA completes the quantification with a comprehensive summary report of measurement data at a turn-around time of less than 6 hours and is HIPAA compliant. All work is performed by highly trained technicians using commercially available software and supervised by a board-certified cardiologist.

Shelley Medical Imaging Technologies

Booth 12

157 Ashley Crescent
London, Ontario N6E 3P9
Canada
Tel: 519-690-0874
Email: bob.gravett@simutec.com
Web: www.simutec.com

A leader in MRI compatible and programmable heart motion phantoms, computer-controlled physiological blood flow pump simulators and anatomically correct vascular models for quantitative flow, angiographic (MRA, DSA, CTA, as well as iMRI, PIV & ultrasound), and endovascular device testing, validation and training.

We welcome your input regarding the development of the following technologies/products; an MRI compatible x,y,z motion stage, an MRI compatible rats heart motion phantom and MRI compatible perfusion, diffusion & DCE phantoms.

Siemens Healthcare

Booth 40

55 Valley Stream Parkway
Malvern, PA 19355
Tel: 610-219-5257
Fax: 610-448-1534
Email: usa.healthcare@siemens.com
Web: www.usa.siemens.com/healthcare

The Siemens Healthcare Sector is one of the world's largest suppliers to the healthcare industry and a trendsetter in medical imaging, laboratory diagnostics, medical information technology and hearing aids. Siemens offers its customers products and solutions for the entire range of patient care from a single source – from prevention and early detection to diagnosis, and on to treatment and aftercare. By optimizing clinical workflows for the most common diseases, Siemens also makes healthcare faster, better and more cost-effective. Siemens Healthcare employs some 51,000 employees worldwide and operates around the world.

Society for Cardiovascular Magnetic Resonance (SCMR)

Booth 3

19 Mantua Road
Mt. Royal, NJ 08061
Tel: 856-423-8955
Fax: 856-423-3420
Email: scmrhq@talley.com
Web: www.scmr.org

The Society for Cardiovascular Magnetic Resonance (SCMR) is a professional association whose vision is to be the leading international representative and advocate for all physicians, scientists, and technologists working in CMR to improve patient outcomes through excellence in education, training, standards, research and development. It endeavors to be the principal international, independent organization committed to the further development of cardiovascular magnetic resonance through education, quality control, research, and training.

TomTec Imaging Systems GmbH

Booth 37

Edisonstrasse 6
Unterschleissheim 85716
Germany
Tel: 0049 89032175518
Fax: 0049 89032175750
Web: www.tomtec.de

TomTec Imaging Systems is the worldwide leader for 2D-, 3D- and 4D-solutions in the area of medical ultrasound and medical information management (Healthcare IT).

We will present at the SCMR its 2D Cardiac Performance Analysis® MR for global and regional assessment of myocardial mechanics.

Diagnostic key features:

- Endo- and Epicard Analysis
- Display of velocity, displacement, strain and strain rate
- Graphs, parametric display and numeric results
- Time of Peak Analysis

Join us at SCMR 2012 Scientific Sessions at Booth #37!

Toshiba

Booth 16

2441 Michelle Drive
Tustin, CA 92780
Tel: 800-421-1968
Fax: 714-505-2076
Web: www.medical.toshiba.com

Innovator's in medical imaging technology, Toshiba America Medical Systems, markets, sells, distributes and services diagnostic imaging systems throughout USA. Toshiba is committed to providing our customers with the patient-focused technology and optimum system performance needed to succeed in today's healthcare marketplace.

"Simplicity is the
ultimate sophistication"
- Da Vinci



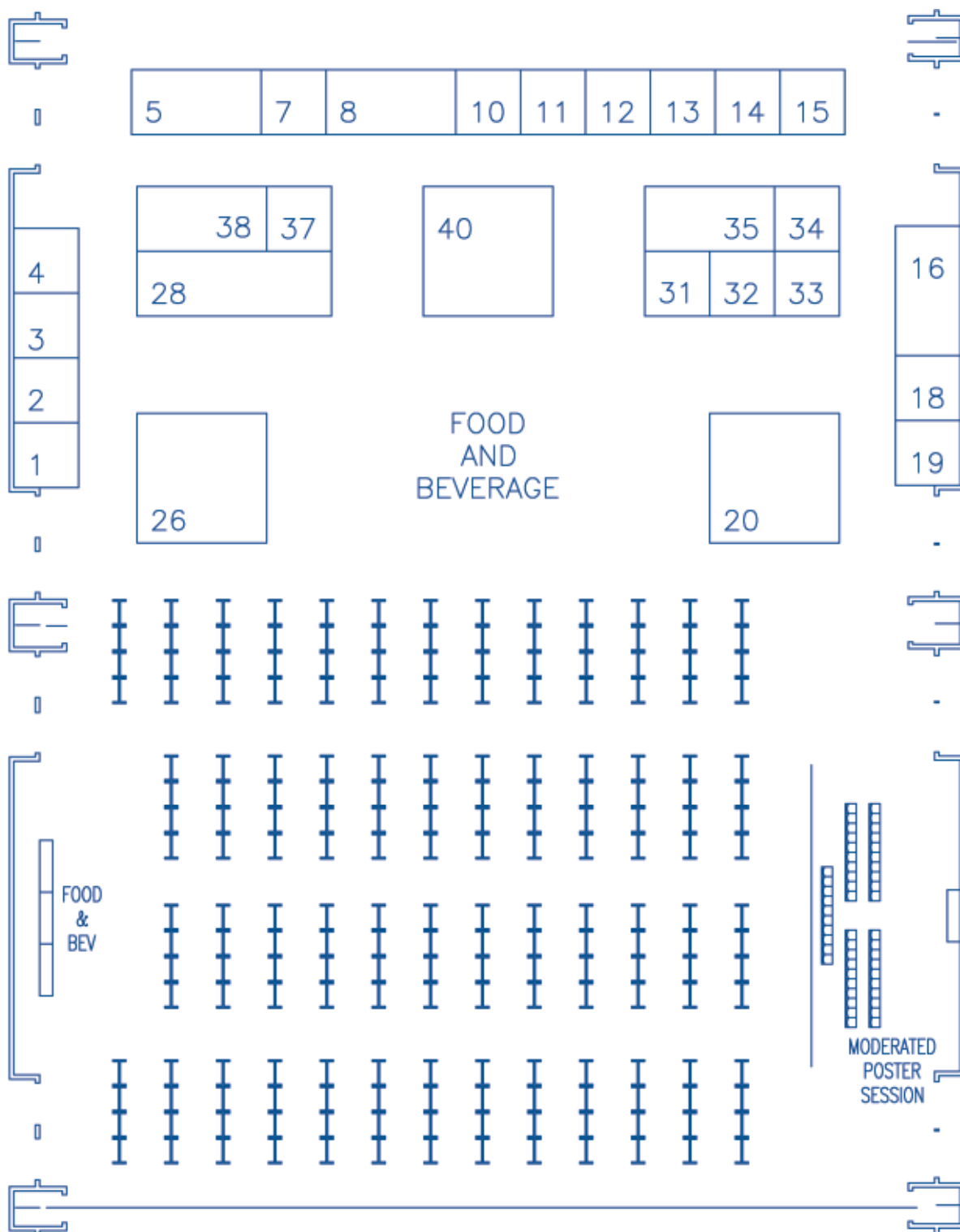
In 2012 Circle Cardiovascular Imaging Inc. will be releasing circi⁴²: a software so powerful that it will change cardiovascular mr and ct imaging forever.....

find out more at www.circlecvi.com

The Society for Cardiovascular Magnetic Resonance

February 2 - 5, 2012

Marriott World Center - Palms Ballroom & Exhibition Hall



NOTES

[illegible]

62

TOSHIBA

Leading Innovation >>>



Partnerships

CALIBRATED FOR A LIFETIME.

When choosing the right imaging products for your needs, advanced technology isn't enough. Toshiba medical equipment combines exceptional image quality, streamlined workflow and countless clinically proven features with unparalleled service and reliability. Because moving efficiently and confidently into the future of healthcare takes more than features. It takes partners. medical.toshiba.com



youtube.com/toshibamedical



[@ToshibaMedical](https://twitter.com/ToshibaMedical)



Save the Date!

16th Annual SCMR Scientific Sessions

January 31 - February 3, 2013



Hilton San Francisco Union Square

San Francisco

