In response to normal growth as well as a variety of pathophysiological signals, the cardiovascular system undergoes a series of structural and functional adaptations, collectively known as remodeling, that are directed responses to both the initial stimulus and to feed-forward changes that result from the precipitating event. Remodeling is driven by the extracellular matrix (ECM) environment, in terms of altered ECM levels, composition and function. The purpose of this meeting is to bring together researchers, clinicians and pharmaceutical industry representatives to 1) focus on controversies and knowledge gaps that still prevent or limit therapeutic translation; 2) borrow from other fields (particularly cancer and skin wound healing) to gain insight into ECM functions; and 3) to offer direction and stimulate progress in cardiovascular ECM research.

January 23–28, 2011
Granlibakken Resort • Tahoe City, California • USA

Scientific Organizers:
Merry L. Lindsey and Thomas K. Borg

Keynote Speaker:
Georg Ertl, Universitätsglinikum Würzburg, Germany
“The Concept of Cardiac Wound Healing”

Plenary Session Topics:
• What are the Dynamics and Functional Consequences of ECM in Growth and Injury?
• Variety of ECM Components: What Do They All Do? Part 1 and 2
• What are the Roles of Proteases in Growth and Injury of the Myocardium?
  • Is Inflammation a Key Component Here? Part 1 and 2
• New Strategies for Therapeutic Intervention and Emerging Technologies that Will Help Us Sort Out These Issues
• How Do Other Organs Regulate ECM in the Heart?

Abstract & Scholarship Deadline – Sep 23, 2010
Late-Breaking Abstract Deadline – Oct 26, 2010
Early Registration Deadline – Nov 23, 2010

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SUNDAY, JANUARY 23

KEYNOTE ADDRESS

Georg Ertl, Universitätsklinikum Würzburg, Germany
The Concept of Cardiac Wound Healing

MONDAY, JANUARY 24

WHAT ARE THE DYNAMICS AND FUNCTIONAL CONSEQUENCES OF ECM IN GROWTH AND INJURY?
Thomas K. Borg, Medical University of South Carolina, USA
Dynamics of ECM Turnover

George E. Davis, University of Missouri School of Medicine, USA
ECM Remodeling Events Controlling Vascular Morphogenesis

Neil A. Turner, University of Leeds, UK
Cardiac Fibroblast Roles in ECM Turnover

Anne A. Knowlton, University of California, Davis, USA
Estrogen Effects on ECM

WORKSHOP: SMALL GROUP MEETING WITH TRAINEES

VARIETY OF ECM COMPONENTS: WHAT DO THEY ALL DO? PART I
Troy Anthony Baudino, Texas A&M Health Science Center College of Medicine, USA
Who Makes the ECM?

Amy D. Bradshaw, Medical University of South Carolina, USA
Collagen I, Secreted Protein Acidic and Rich in Cysteine (SPARC) and Matrix Metalloproteinase (MMPs): Reciprocal Regulation to Coordinate Cardiac Extracellular Matrix Remodeling

J. Gary Meszaros, Northeastern Ohio Universities Colleges of Medicine and Pharmacy, USA
Type VI Collagen Regulates Post-MI Cardiac Fibroblast Function

TUESDAY, JANUARY 25

VARIETY OF ECM COMPONENTS: WHAT DO THEY ALL DO? PART II
Krishna Singh, East Tennessee State University, USA
Osteopontin: Role in Extracellular Matrix Deposition and Myocardial Remodeling

Kevin J. McCarthy, Louisiana State University Health Science Center, USA
Basement Membrane Integrity: A Molecular Genetic Approach to Probing Structure and Function

Jeffrey Holmes, University of Virginia, USA
Contribution of ECM to Mechanical Properties of the Heart

Pamela A. Lucchesi, Research Institute at Nationwide Children’s Hospital, USA
Chamber-Specific Remodeling

Short Talk(s) to be Chosen from Abstracts

WHAT ARE THE ROLES OF PROTEASES IN GROWTH AND INJURY OF THE MYOCARDIUM?
Ren-Ke Li, Toronto General Hospital, Canada
TIMP Regulation of ECM Turnover after Myocardial Infarction

Daisuke Yamamoto, Osaka Medical College, Japan
ACE Inhibitors Block MMP-9 Activity: New Tricks for Old Dogs

Rolf K. Reed, University of Bergen, Norway
Edema and Fluid Dynamics in Connective Tissue Remodeling

Short Talk to be Chosen from Abstracts

WEDNESDAY, JANUARY 26

IS INFLAMMATION A KEY COMPONENT HERE? PART I
Sandra B. Haudek, Baylor College of Medicine, USA
Cardiac Fibroblast Precursor Cell Differentiation

Dirk Westermann, Charité-Universitätsmedizin Berlin, Germany
Immunomodulation and Matrix Metalloproteinases in Viral Myocarditis

Suresh C. Tyagi, University of Louisville School of Medicine, USA
Endothelial Myocyte Matrix in Cardiac Remodeling

Yan Ni, Merck & Co., Inc., USA
Looking through Industry Eyes

Short Talk(s) to be Chosen from Abstracts

WORKSHOP: SMALL GROUP MEETING WITH TRAINEES

IS INFLAMMATION A KEY COMPONENT HERE? PART II
Ferdinando Mannello, Università di Urbino “Carlo Bo,” Italy
Cross-Talk between Matrix Metalloproteinases and Glycosaminoglycans in Vascular Remodeling: Who Rules Who?

Marielle Scherrer-Crosbie, Massachusetts General Hospital, USA
Ventricular Remodeling and Function: Insights Using Murine Echocardiography

Yufang Jin, University of Texas at San Antonio, USA
Mathematical Modeling of the Post-Myocardial Infarction Inflammatory Process

Short Talk to be Chosen from Abstracts

THURSDAY, JANUARY 27

NEW STRATEGIES FOR THERAPEUTIC INTERVENTION AND EMERGING TECHNOLOGIES THAT WILL HELP US SORT OUT THESE ISSUES

Kenneth Gould, Covance, USA
Looking through Industry Eyes

Robert G. Gourdie, Medical University of South Carolina, USA
Translating Lessons from Scarless Healing of Skin Wounds to Regenerative Repair of the Heart

Merry L. Lindsey, University of Texas Health Science Center, USA
Using ECM-Specific Microarrays and Proteomics to Gain Insight into Cardiac Remodeling Post-Myocardial Infarction

Jennifer Van Eyk, Johns Hopkins University, USA
Where Are We in Developing Proteomic Techniques to Interrogate the ECM?

HOW DO OTHER ORGANS REGULATE ECM IN THE HEART?

Stephanie Lehoux, McGill University – Jewish General Hospital, Canada
Extracellular Matrix Alterations in Vascular Remodeling

Harry C. Dietz, Johns Hopkins University School of Medicine, USA
Dissection of a Modifier Network Informs the Pathogenesis and Treatment of Marfan Syndrome

Kenneth Baker, Texas A&M Health Science Center College of Medicine, USA
Intracellular Renin-Angiotensin System: Implications on ECM in Diabetic Models

Program current as of September 10, 2010. Program subject to change. For the most up-to-date information, visit www.keystonesymposia.org/11B2