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# **5<sup>TH</sup> INTERNATIONAL ASCONA WORKSHOP ON CARDIOMYOCYTE CELL BIOLOGY**

## **DIFFERENTIATION, STABILITY OF THE PHENOTYPE AND THERAPEUTIC POTENTIAL OF HEART MUSCLE CELLS**

Monte Verità, Ascona, Switzerland,

April, 2<sup>nd</sup>– April, 6<sup>th</sup> 2006

### **Organizing Committee:**

*Jean-Claude Perriard, Ph.D., Marijke Brink, Ph.D., André Kléber, M.D. (executive committee);  
H.M. Eppenberger, Ph.D., T. Eschenhagen, M.D., R. Fischmeister, Ph.D., B. Fleischmann, M.D.,  
O.M. Hess, M.D., T. Pedrazzini, Ph.D., M.C. Schaub, M.D., Ph.D.*

### **Supported by (alphabetic order):**

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## **PROGRAM**

(The number in brackets next to authors indicate numbers of the corresponding abstract)

<b>Sunday,</b>	<b>April, 2<sup>nd</sup> 2006</b>	
17:00	Registration	
17:30	Welcome drinks	
19:00	<b>Keynote Talk</b>	M.C. Schaub: Calcium is the major player in cardiac signaling
20:00	<b>Dinner</b>	

<b>Monday,</b>	<b>April, 3<sup>rd</sup> 2006</b>	
07:00	Breakfast	
08:15 – 08:30	J.-C. Perriard	<b>Opening Address</b>
<b>Session Chair:</b>	M.C. Schaub Z. Yang	<b>1. Signaling &amp; Contraction</b>
08:30 – 09:00	Z. Yang (80)	Endothelial dysfunction and facilitated vascular tissue factor expression in circadian rhythm <i>Per2</i> gene mutant mice
09:00 – 09:30	E. Hirsch (55)	Kinase-dependent and independent function of PI3K distinctly controls cardiac hypertrophy and contractility
09:30 – 10:00	R. Fischmeister	Cyclic nucleotide signaling and cardiac function: <i>act locally think globally</i>
<b>10:00 – 11:00</b>	Chair: J.-C. Perriard	<b>Posters 1 (8 posters) &amp; Coffee</b>
11:00 – 11:30	M. Brink	Hypertrophy: A disturbed balance between protein synthesis and degradation pathways?
11:30 – 12:00	X. Wang (83)	The ubiquitin-proteasome system in cardiomyocyte remodeling
12:00 – 12:30	T. Dieterle (18)	Cellular and systemic effects of the corticotrophin-releasing factor-related peptides urocortin I, II, and III in the cardiovascular system
13:00	<b>Lunch</b>	
<b>Session Chair:</b>	M. Brink O. Hess	<b>2. Cardiomyocyte Remodeling</b>
15:00 – 15:30	G. Tarone (11)	Melusin: A stretch sensor molecule controlling adaptive left ventricle remodeling to pressure overload
15:30 – 16:00	P. Ruiz (68)	Plakoglobin-deficient mice: A model for ventricular dysfunction in ARVC
16:00 – 16:30	P. Mericskay (54)	Temporally controlled onset of dilated cardiomyopathy through disruption of the SRF gene in adult heart
<b>16:30 – 18:00</b>	Chair: M. Brink	<b>Posters 2 (11 posters) &amp; Coffee</b>
18:00 – 18:30	M. Wartenberg (72)	Embryonic stem cells utilize reactive oxygen species as transduced of mechanical strain-induced cardiovascular differentiation.
18:30 – 19:00	N. Isidoro-Tavares (36)	Expression and function of KATP subunits during remodeling of cardiac myocytes
19:00 – 19:30	T. Braun (12)	How do hearts cope with aging and stress? The role of the sirtuin longevity molecules and oxydative stress
20:00	<b>Dinner</b>	
21:30	<b>Entertainment</b>	Sala Balint

<b>Tuesday,</b>	<b>April, 4<sup>th</sup> 2006</b>	
07:00	Breakfast	
<b>Session Chair:</b>	J.C. Perriard T. Pedrazzini	<b>3. Development &amp; Differentiation</b>
08:30 – 09:00	R. Bodmer (7)	Drosophila as a model of congenital heart disease
09:00 – 09:30	A. Moorman	Sequential regional cardiomyocyte growth and proliferation characterizes the formation of the cardiac tube and early chamber formation
09:30 – 10:00	J. Krishnan (39)	Cardiac development is driven by hypoxia inducible factor 1 $\alpha$ (HIF-1 $\alpha$ )
<b>10:00 – 11:00</b>	Chair T. Pedrazzini	<b>Posters 3 (9 posters) &amp; Coffee</b>
11:00 – 11:30	A. Kléber (38)	Genetic modulation of cell-to-cell coupling in the heart
11:30 – 12:00	B. Fleischmann (24)	Initiation and modulation of the electrical activity of embryonic heart cells
12:00 – 12:30	N. Rosenthal (66)	Mouse models of muscle regeneration
13:00	<b>Lunch</b>	
<b>Session Chair:</b>	M. Rosen A. Kléber	<b>4. Stem Cells &amp; Cell-Cell Communication</b>
15:00 – 15:30	C. Mummery (48)	Cardiomyocytes from human embryonic stem cells
15:30 – 16:00	M. Rosen (64)	Adult human mesenchymal stem cells as a platform for biological pacemakers
16:00 – 16:30	T. Pedrazzini	Mobilization of resident cardiac stem cells in the adult heart
16:30 – 18:00	Chair: B. Fleischmann	<b>Posters 4 (10 posters) &amp; Coffee</b>
18:00 – 18:30	M. Pucéat (47)	Xenograft of cardiac-committed embryonic stem cells improves left ventricular function in infarcted sheep myocardium
18:30 – 19:00	K. Chien (14)	Heart like blood: Cardiopoiesis and the Islet-1 cardiovascular progenitor story
19:00 – 20:00	Apéro	<b>Music Entertainment</b>
20:00		<b>Dinner</b>
21.30	<b>Bar</b>	<b>Music Entertainment</b>

<b>Wednesday,</b>	<b>April, 5<sup>th</sup> 2006</b>	
07:00	Breakfast	
<b>Session Chair:</b>	M. Gautel H. Eppenberger	<b>5. Cardiomyocyte Cytoarchitecture</b>
08:30 – 09:00	L. Carrier (71)	Instability of cardiac myosin-binding protein C mutant in mouse models of familial hypertrophic cardiomyopathy: involvement of the ubiquitin-proteasome system?
09:00 – 09:30	I. Agarkova (2)	Alterations of the sarcomere cytoskeleton during cardiomyopathy: lessons from the M-band
09:30 – 10:00	C. Gregorio (30)	Nebulin regulates the assembly and length of the thin filaments in striated muscle: evidence for its role as a molecular ruler
<b>10:00 – 11:00</b>	Chair M. Gautel	<b>Posters 5 (9 posters) &amp; Coffee</b>
11:00 – 11:30	W. Linke (40)	Turnover, biosynthesis and molecular properties of titin in heart
11:30 – 12:00	M. Gotthardt (82)	Impaired myofibril maturation in titin M-line deficient mice leads to cardiac dysfunction and embryonic lethality
12:00 – 12:30	M. Gautel (28)	Mechanically modulated signalling by titin kinase: implications for muscle pathology
12:45	<b>Lunch</b>	
<b>Session Chair:</b>	T. Eschenhagen M. Jaconi	<b>6. Tissue Engineering</b>
14:30 – 15:00	T. Eschenhagen (22)	Engineered heart tissue from primary heart cells and stem cells
15:00 – 15:30	J. Kelm (37)	Design of myocardial microtissues: an alternative concept to classical tissue engineering for myocardial regeneration
<b>15:30 – 16:30</b>	Chair T. Eschenhagen	<b>Posters 6 (7 posters) &amp; Coffee</b>
16:30 – 17:00	K. Parker (53)	Structure-function relationships in a Cartesian cardiac myocyte.
17:00 – 17:30	J. Metzger (16)	Genetic engineering and therapy for inherited and acquired cardiomyopathies
17:30 – 18:00	S. Izumo	Novel strategies for the treatment of heart failure
18:15	Bus from Monte Verità	Departure for Conference Dinner
20:30	<b>Dinner</b>	<b>Cimetta di Cardada</b>

<b>Thursday,</b>	<b>April, 6<sup>th</sup> 2006</b>	
08:00 – 09:00	Breakfast	
	<b>Departure</b>	<b>Good-bye! See you soon!</b>
		<b>After-meeting sessions can be organized today.</b>