

Content

General information _____	3
Maps _____	5
Scientific program _____	6
Thursday program _____	6
Friday talks _____	6
Saturday talks _____	7
Posters _____	9
Participants _____	16
Sponsors _____	22

Dear colleagues and friends,

This year, Cologne welcomes you to the 33rd meeting of the „European Working Group of Cardiac Cellular Electrophysiology“. The local organizers are committed to the strong tradition of this meeting in maintaining an organizational policy fostering informal exchange of ongoing research. Also, the 2009 program schedule is reminiscent of previous years: one and a half days of scientific meeting, with three invited keynote speakers, oral sessions and plenty of time and space for posters and discussions. There will be no parallel sessions, and posters will be on display during the entire meeting. Young scientists will be attracted by the traditional low registration fees, short deadlines, and travel grants (applications must include an abstract and CV). For the first time, we will also offer poster awards.

As a tribute to the increasing role of developmental biology in the understanding and treatment of heart disease, the topic of „**Ion channels in cardiac development, remodelling and ageing**“ was chosen as this year’s thematic focus. Invited speakers and their lectures were chosen accordingly, and some of the oral sessions will be devoted to this subject.

We wish to foster a vivid dialogue between electrophysiologists, stem cell researchers, developmental biologists, and molecular cardiologists. Also, you should be prepared to enjoy the cultural flavour of our wonderful 2000-year old city.

The local organizers

GENERAL INFORMATION

Welcome Reception (17th September, 7:00 p.m.)

You are invited to join us for a warm welcome in the “Brauhaus Früh”, Am Hof 12, 50667 Cologne. The Brauhaus is within short walking distance from the main train station and the Cologne Cathedral.

Conference Venue

The scientific program will start on Friday 18th of September at the Department of Physiology. We will provide a PC pool and W-LAN internet access. Car parking in the street is difficult in the area. Participants arriving by car should approach the car park (“Parkhaus”) at the hospital buildings (“Bettenhaus” or “Herzzentrum”) on Kerpener Strasse (buildings 8a and 40 on map). The conference venue is in walking distance of public transportation (bus 146, stop “Geibelstrasse”, tram 9 stop, “Lindenburg”). Coffee and lunch will be offered here during the scientific sessions.

Registration / Information Desk

You may collect your meeting documentation (congress kit, final program, badge, payment receipt) at the welcome reception at “Brauhaus Früh” (see above), on 17th September 7:00 p.m., or at the registration desk on 18th September in the Department of Physiology (first floor, registration desk). The registration desk is located at the congress venue and will be staffed during the following hours:

- Friday: 18th September: 8:00 a.m. – 6:00 p.m.
- Saturday: 19th September: 8:00 a.m. – 3:00 p.m.

Badges

Our staff is readily recognized by wearing a yellow badge. Don’t hesitate to ask them for any kind of assistance. Exhibitors will receive blue badges. Participants are kindly asked to wear their (white) badge at all times during the meeting.

Oral Presentations

The oral sessions will be held in the auditorium (access through second floor) of the Department of Physiology. Presentations should be in Microsoft Power Point (Office versions up to 2007 will be supported), using the computer provided in the auditorium. The files should be provided to the registration desk at least half an hour before the start of the session, stored on CD or on USB flash drive.

- If you use special fonts or characters please save the presentation with the option “save with embedded fonts”.
- If you use special effects or animations, use the “pack&go” format (and test your presentation on a computer different from the one on which you have made the presentation to make sure everything is available).

Poster Presentations

Poster sessions will be held in three rooms, all located within the Department of Physiology. Look out for signs indicating the poster sessions.

- The dimensions of the poster board are suitable for : DIN A0 (1189 mm in height, 841 mm in width). Please don’t exceed this format when preparing your posters. Also take into account the usual recommendations for posters (do not overload with text, use sufficiently large character & symbol size, etc.) Posters will be mounted portrait.

- Posters should be mounted on Friday immediately after your arrival and will remain exhibited throughout the whole meeting. Mounting material will be provided by the staff at the registration desk. Authors are responsible for setting up and removing their posters by themselves. Mount your poster on the board according to the number in the program.
- Authors are expected to be available at their posters during the respective poster session (Sessions I to IV: Friday 11:30 a.m. to 1:00 p.m., sessions V to VII, Friday 4:25 p.m. to 6:00 p.m.). A poster discussion will be moderated by two chairpersons during these times. The selection of poster awards will be based on this discussion.
- Posters should be removed by presenting authors until Saturday 19th September, 2:00 p.m.

Registration Fees

On-site registration fee: 180,- €. Payment is possible in cash only. The registration fee includes: Access to all scientific sessions, congress material, Welcome Reception, Congress Dinner, refreshments and lunch during the meeting.

Congress Dinner

Will be held at "Wolkenburg", Mauritiussteinweg 59, 50676 Köln: A special culinary experience in an extraordinary setting awaits you behind the romantic walls of this baroque monastery, one of Cologne's most attractive event locations.

Shuttle Bus Services

17th September

We offer complimentary bus transfers for your return from "Brauhaus Früh" to all hotels recommended on our homepage and the youth hostel, respectively. For the return on September 17th 3 free coach transfers will be available.

- Departure: Brauhaus Früh, 10:00 p.m.
- Departure: Brauhaus Früh, 10:30 p.m.
- Departure: Brauhaus Früh, 11:00 p.m.

18th September

You have the possibility to get to the dinner at the "Wolkenburg" by complimentary bus transfer.

- Departure: Department of Physiology (turn to Robert Koch Strasse), 7:00 p.m.

For the return after the dinner we offer 3 bus transfers.

- Departure: Wolkenburg, 10:30 p.m.
- Departure: Wolkenburg, 11:15 p.m.
- Departure: Wolkenburg, 00:00 p.m.

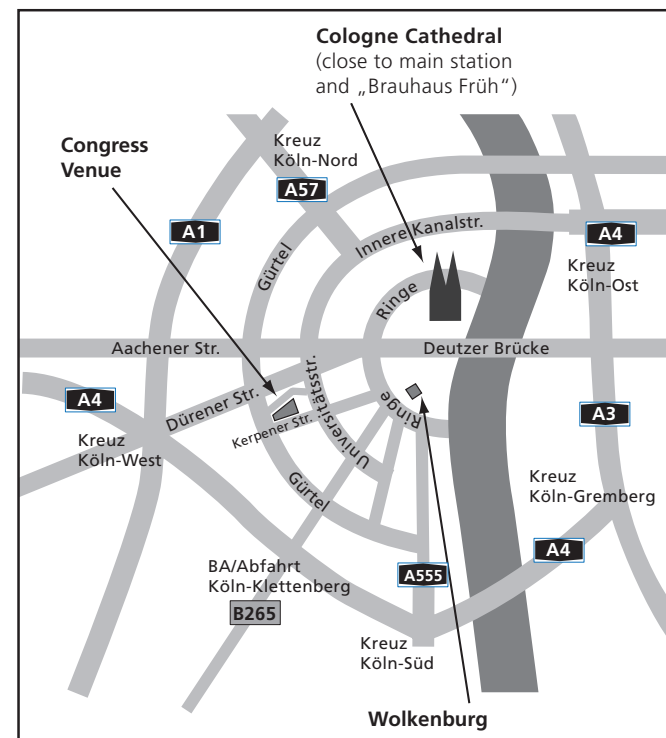
Insurance

The registration fee does not include any type of insurance. The organisers do not accept liability for personal accidents, losses or damages.

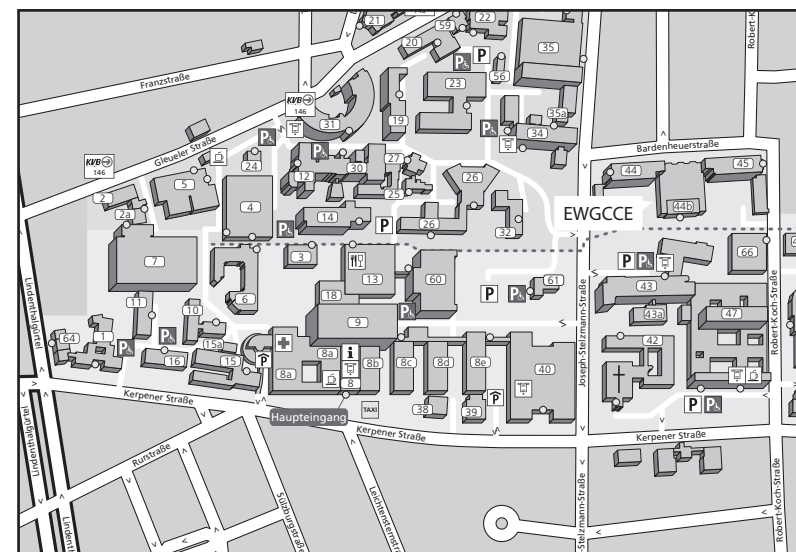
Cancellation policy

Registration fees can be reimbursed if cancellation is received by ESC or our congress secretary by August 31st, 2009. We regret that no reimbursement can be guaranteed afterwards.

OVERVIEW MAP



CONGRESS VENUE MAP



SCIENTIFIC PROGRAM

THURSDAY SEPTEMBER 17th

- 19.00** Opening of registration desk and welcome reception at the traditional "Brauhaus Früh"

FRIDAY SEPTEMBER 18th

- Invited Lecture**
- 9.00 Cardiac Calcium Channels**
Franz Hofmann (TU Munich, Germany)
- Oral Communications I: Ion channels in the developing and ageing heart**
Chairpersons: Franz Hofmann, Jürgen Hescheler
- 9.40 Spermatogonial-derived pluripotent stem cells differentiate into functional pacemaker myocytes**
A. Barbuti, A. Scavone, N. Mazzocchi, A. Delgiudice and D. DiFrancesco (University of Milano, Italy)
- 9.55 Biopacemaker engineering from cardiomyocyte progenitor cells**
G.J.J. Boink, J.P. Sluijter, A.O. Verkerk, D. Bakker, S. van Amersfoort, T.P. de Boer, M.A.G. van der Heyden, T.A.B. van Veen, M.-J. Goumans, J. Seppen, J.M.T. de Bakker and H.L. Tan (University of Amsterdam, The Netherlands)
- 10.10 Heart Rate, rhythm, cardiac function and morphology from fetal development rate to age in mice with a gain-of-function sodium channel mutation**
L. Fabritz, I. Piccini, E. Aleynikhenko, L. Fortmüller, S. Laakmann, S. Kaese, A. Blana, R. Kreutzer, K. Theis, D. Damke, U. Schotten, J. Eckstein, G. Breithardt, E. Carmeliet, P. Carmeliet, S. Verheule and P. Kirchhof (UKM Münster, Germany)
- 10.25 Coffee break**
- Oral communications II: Various topics**
Chairpersons: David A. Eisner, Jean-Paul Benitah
- 10.45 Molecular determinants of Kv subfamily specific block: a second cavity to determine specificity**
N. Decher, S. Marzian, K. Wemhöner, S.P. Sansom and P.J. Stansfeld (Universität Marburg, Germany)
- 11.00 HCN4 current during human SA node action potentials**
M. Hoekstra, A.C.G. van Ginneken, R. Wilders and A.O. Verkerk (University of Amsterdam, The Netherlands)

- 11.15 Thr 498 on the CaV1.2 β subunit protein is a critical site for CaMKII-mediated arrhythmias during excessive action potential prolongation**
O. Koval, Y. Wu, X. Guan, T. Hund, P.J. Mohler and M.E. Anderson (University of Iowa, United States)
- 11.30 Posters (Sessions I to IV) with Coffee and Refreshments**
- 13.00 Lunch**
- Invited Lecture**
- 14.30 Development of the cardiac ECG**
Antoon Moorman (AMC, University of Amsterdam, Netherlands)
- Oral Communications III: Ion channels and cardiac gene transcription**
Chairpersons: Antoon Moorman, Lutz Pott
- 15.10 Isoform-specific regulation of the Ca-sensitive transcription factor NFAT in the cardiovascular system**
A. Rinne, K. Banach, D.M. Bers and L.A. Blatter (Rush University Chicago, United States)
- 15.25 Regulation of TREK potassium leak channels by alternative mRNA translation initiation**
D. Thomas, K. Schlömer, J. Kisselbach, I. Baldea, J. Gierten, C. Karle and H. A. Katus (University Hospital Heidelberg, Germany)
- 15.40 Are microRNAs involved in Scn5a \pm mouse phenotype heterogeneity?**
A. Bourgé, P. Naud, S. Demolombe, J. Mérot and F. Charpentier (University of Nantes, France)
- 15.55 The cardiac sodium channel and heart development**
S.S. Chopra, D.M. Stroud, H. Watanabe, T.P. Zhong and D.M. Roden (Vanderbilt University, Nashville)
- 16.10 Molecular basis of differential expression of potassium channels in mammalian myocardium**
V. Szuts, D. Menesi, Z. Varga-Orvos, N. Houshmand, Z. Bodi, L. Csincsik, N. Jost, L. Virag, D. Cotella, E. Wettwer, U. Ravens, A. Zvara, L.G. Puskas, J.G. Papp and A. Varro (University of Szeged, Hungary)
- 16.25 Posters (Sessions V to VII) with Coffee and Refreshments**
- 20.00 Dinner at the „Wolkenburg“**

SATURDAY SEPTEMBER 19th

- Invited lecture**
- 9.00 Ca²⁺ channels at the nexus of Ca²⁺ signalling – how the calmodulin/channel complex orchestrates multiscale Ca²⁺ feedback**
David T. Yue (Johns Hopkins University, Baltimore)

Oral Communications IV: Ion channels and cardiac pathophysiology

Chairpersons: David T. Yue, Uta C. Hoppe

- 9.40 Altered cardiac EC coupling and β -adrenergic responsiveness in an ovine model of heart failure**
S.J. Briston, K.M. Dibb, M.A. Richards, J.D. Clarke, M.A. Horn, M.A. Hall, H.K. Graham, D.A. Eisner and A.W. Trafford (University of Manchester, United Kingdom)
- 9.55 Atrial remodelling and susceptibility to atrial tachyarrhythmia in hearts from rats with elevated afterload**
S.J. Kim, S.C.M. Choisy, L. Arberry, S.A. Jones, J.C. Hancox and A.F. James (University of Bristol, United Kingdom)
- 10.10 Imaging the mitochondrial membrane potential in the intact heart during ischemia-reperfusion injury**
R.D. Nass, M.-J. Yang, C.C. Feibusch and F.G. Akar (Mount Sinai School of Medicine, NY, United States)
- 10.25 Coffee break**
- Oral Communications V: Channel pharmacology**
Chairpersons: Ursula Ravens, Juan Tamargo
- 11.00 Reciprocal relation between ligand binding and gating in HCN2 channels**
J. Kusch, C. Biskup, S. Thon, E. Schulz, V. Nache, T. Zimmer, F. Schwede and K. Benndorf (Universitätsklinikum Jena, Germany)
- 11.15 Elucidating the functional role of cardiac hERG1 channel isoforms**
A.P. Larsen and S.P. Olesen (University of Copenhagen, Denmark)
- 11.30 Selected ventricular cardiomyocyte clusters from human embryonic stem cells for safety pharmacology: qualitatively and quantitatively similar results to rabbit purkinje fibers**
M.K.B. Jonsson, G. Duker, C. Tropp, B. Andersson, P. Sartipy, M.A. Vos and T.A.B. van Veen (University Medical Centre Utrecht, The Netherlands)
- 11.45 The effects of tumour necrosis factor alpha on intracellular calcium handling in the rat ventricular myocyte**
D.J. Greensmith, D.A. Eisner and M. Nirmalan (University of Manchester, United Kingdom)
- 12.00 Presentation of poster awards**
- 12.30 Working group business meeting**
- 14.00 Lunch and end of the meeting**

SESSION I – Development and ageing

Chairpersons: Marcel A.G. van der Heyden, Andrea F. Barbuti

- 1 Age-dependent vulnerability for supraventricular and ventricular arrhythmia in popdc2 null mutant mice**
J. Becher, M. Abeßer, S.G. Kaufmann, E. v. Elten, S. Kreissl, T. Brand and S.K.G. Maier (University of Würzburg, Germany)
- 2 Localization of sodium channel isoforms during postnatal maturation in the murine heart**
S.G. Kaufmann, A. Franke, J. Muck, J. Becher, S. Gattenloehner and S.K.G. Maier (University of Würzburg, Germany)
- 3 Time-course of the electrophysiological maturation and integration of transplanted cardiomyocytes**
M. Halbach, B. Krausgrill, K. Pfannkuche, F. Pillekamp, T. Hannes, M. Reppel, J. Hescheler and J. Müller-Ehmsen (University of Cologne, Germany)
- 4 Cardiomyogenic potential of skeletal muscle-derived progenitor cells**
C. Poulet, T. Christ, E. Wettwer and U. Ravens (TU Dresden, Germany)
- 5 Characterization of pluripotent stem cells derived from adult mouse testis**
A. Scavone, A. Barbuti, N. Mazzocchi, S. Coco, A. Del Giudice, M. Baruscotti and D. DiFrancesco (University of Milano, Italy)
- 6 LC-MS-based metabolomic analysis of isoprenaline- and carbachol-effects in stem cell-derived cardiomyocytes**
R. Müller, M. Wiesen, G. Xu, A. Kuzmenkin, D. Gründemann, J. Hescheler and S. Herzig (University of Cologne, Germany)

SESSION II – Pacemaking

Chairpersons: Elisabetta Cerbai, Anton C.G. van Ginneken

- 1 Identification of ESC-derived pacemaker myocytes by EGFP expression specifically driven by the promoter of the HCN4 gene**
A. Crespi, D. Capiluppo, N. Mazzocchi, B. Tocchetti, M. Baruscotti, A. Barbuti and D. DiFrancesco (University of Milano, Italy)
- 2 Biopacemaking with a chimeric HCN channel: the effect of adenovirus-mediated HCN212 expression on the pacing rate of an in-vitro model of sick sinus syndrome**
G.M. Morris, H. Dobrzynski, R.B. Robinson, M. Lei, P. Kingston and M.R. Boyett (University of Manchester, United Kingdom)
- 3 KCR1 limits KCNE2-mediated effects on the HCN2 channel current**
L.J. Motloch, M.C. Brandt, G. Michels and U.C. Hoppe (University of Cologne, Germany)

- 4 The HCN4 pacemaker channel mutation D553N leads to sinoatrial bradycardia via a C-linker mediated gating defect**
M.F. Netter, K. Wemhöner, M. Zuzarte, M.A. Walecki, N. Klöcker and N. Decher (Marburg University, Germany)
- 5 Electrophysiological evaluation of novel blockers of If current**
L. Sartiani, M. Del Lungo, M. Melchiorre, M. Biel, A. Varró, M.N. Romanelli and E. Cerbai (University of Florence, Italy)
- 6 Voltage and cAMP-dependent activation in HCN2 pacemaker channels**
S. Thon, J. Kusch, C. Biskup and E. Schulz, V. Nache, T. Zimmer, F. Schwede and K. Benndorf (University of Jena, Germany)
- 7 The role of a Leucine Zipper-motif in HCN2 ion channels**
K. Wemhöner, M. Netter and N. Decher (Marburg University, Germany)
- 8 Single channel effects of KCNE2 on cardiac HCN-isoforms (HCN1, HCN2, HCN4): Correlation with whole-cell effects and protein expression**
M.C. Brandt, J. Endres-Becker, N. Zagidullin, L.J. Motloch, F. Er, D. Rottländer, G. Michels, S. Herzig and U.C. Hoppe (University of Cologne, Germany)

SESSION III – Pathophysiological role of ion channels

Chairpersons: Tilmann Volk, Eva Delpón

- 1 Structural remodelling of L-type calcium channels in human atherosclerosis**
A.K. Böhnke, D. Rottländer, M. Odenthal, J.C. Reintjes, K. Witschas, J. Matthes, J. Brunkwall, N.M. Soldatov and S. Herzig (University of Cologne, Germany)
- 2 Genetic study of calcium channel beta-subunits in autistic patients**
A.F.S. Breitenkamp, R.D. Nass, J. Sinzig, P. Nürnberg and S. Herzig (University of Cologne, Germany)
- 3 Comparison of Isus and Ito1 in human right and left atrial myocytes obtained from patients in sinus rhythm and chronic atrial fibrillation**
R. Caballero, R. Gómez, A. Barana, I. Amorós, L. Osuna, J. Tamargo and E. Delpón (Complutense University, Madrid, Spain)
- 4 N-acetylcysteine prevents the increase in the cardiac L-type Ca²⁺ current in rats with ascending aortic stenosis**
W. Foltz, M. Wagner and T. Volk (University of Erlangen-Nürnberg, Germany)
- 5 CaMKII regulates inward Ca²⁺ current during action potential – A direct link to afterdepolarizations and arrhythmias**
T. Banyasz, L.T. Izu and Y. Chen-Izu (University of Debrecen, Hungary)
- 6 Non-identified outward currents in human atrial myocytes. Differences in AF and SR**
C. Jasper, T. Christ, E. Wettwer and U. Ravens (TU Dresden, Germany)
- 7 The human cardiac mitochondrial Ca²⁺-uptake is regulated by two different voltage-gated Ca²⁺-channels**
G. Michels, I.F. Khan, J. Endres-Becker, D. Rottländer, S. Herzig, A. Ruhparwar, T. Wahlers and U.C. Hoppe (University of Cologne, Germany)

- 8 Metabolic inhibition increases alternans susceptibility in cardiac myocytes**
L. Miller, D.A. Eisner and S.C. O'Neill (University of Manchester, United Kingdom)
- 9 Remodelling of I_{K1} in a rapid-pacing model of heart failure in sheep**
M.A. Richards, K.M. Dibb, M.A. Horn, J.D. Clarke, H.K. Graham and A.W. Trafford. (University of Manchester, United Kingdom)
- 10 Electrophysiological and molecular remodeling in septal myocytes from fHCM patients**
F. Stillitano, R. Coppini, S. Suffredini, L. Sartiani, J. Olivotto, F. Cecchi, A. Mugelli and E. Cerbai (University of Florence, Italy)
- 11 Chamber specific differences of inward rectifier K⁺ current remodeling in patients with paroxysmal and chronic atrial fibrillation**
N. Voigt, A. Trausch, K. Matschke, U. Ravens and D. Dobrev (TU Dresden, Germany)
- 12 Is the small GTPase rad a master switch in diabetic cardiomyopathies?**
C. Fabisch, P. Kulkarni, C.R. Kahn, J. Matthes and S. Herzig (University of Cologne, Germany)

SESSION IV – Calcium and disease

Chairpersons: Stefan Herzig, Fabien Brette

- 1 Propagation of calcium waves between paired ventricular myocytes**
Y. Li, S.C. O'Neill and D.A. Eisner (University of Manchester, United Kingdom)
- 2 L-type calcium channels require CaMKII to increase automaticity in sinoatrial node cells**
Z. Gao, Y. Wu, X. Guan, M.A. Joiner, J. Yang and M.E. Anderson (University of Iowa, United States)
- 3 Increased [Ca²⁺]_i modulates the repolarization reserve in canine heart by enhancing the I_{K1} current**
N. Nagy, L. Virág, J.G. Papp, A. Varró and A. Tóth (University of Szeged, Hungary)
- 4 EPAC effects on cardiac calcium handling**
G. Ruiz-Hurtado, L. Pereira, J.P. Benitah, F. Lezoualch and A.M. Gomez (University of Sevilla, Spain)
- 5 Atrophic remodeling of the heart secondary to mechanical unloading alters Ca²⁺ handling in left ventricular myocytes of rats**
A.P. Schwoerer, J. Jacubeit, I. Broichhausen, A. El-Armouche, M. Didié, M. Tiburcy, M. Wagner, W.H. Zimmermann, T. Volk, T. Eschenhagen and H. Ehmke (University Medical Center Hamburg Eppendorf, Germany)
- 6 Blockade of Na/K-ATPase alpha2-isoform reduces the rate of Ca extrusion through the Na/Ca-exchanger**
F. Swift, N. Tovsrud, I. Sjaastad, E. Niggli, O. Sejersted and M. Egger (Oslo University Hospital Ullevål, Norway)

- 7 Antagonism of pleckstrin-homology domain modulates contractility operating on sarcoplasmic reticulum calcium leakage and SERCA pump activity**
R. Chisci, M. Rocchetti, G. Saturno, L. Cipolla, M. Venturi and A. Zaza (University of Milano-Bicocca, Italy)
- 8 Specific changes to intracellular Ca homeostasis in heart failure result in an AF-like phenotype in atrial myocytes**
J.D. Clarke, M.A. Richards, S.J. Briston, M.A. Horn, H.K. Graham, D.A. Eisner, A.W. Trafford and K.M. Dibb (University of Manchester, United Kingdom)
- 9 Reduced threshold SR Ca content in heart failure: possible contributor to arrhythmia formation**
L.C. Diffley, J.D. Clarke, K.M. Dibb, H.K. Graham and A.W. Trafford (University of Manchester, United Kingdom)
- 10 SERCA loss and Sodium Accumulation Promote Diastolic Dysfunction in End-Stage Heart Failure**
W.E. Louch, K. Hougen, H.K. Mørk, F. Swift, J. M. Aronsen, I. Sjaastad, K.B. Andersson, G. Christensen and O.M. Sejersted (Oslo University Hospital Ulleval, Norway)

SESSION V – Pharmacology

Chairpersons: Dobromir Dobrev, Carmen Valenzuela

- 1 Different modulation of resting calcium in mouse ventricular myocytes by two positive inotropes**
M. Alemanni, M. Rocchetti, D. Re and A. Zaza (University of Milano-Bicocca, Italy)
- 2 The effect of apelin on single isolated cardiac myocytes**
D. Charo and C. Bollensdorff (University of Oxford, United Kingdom)
- 3 Flecainide increases the K current through human cardiac Kir2.1 channels**
R. Caballero, R. Gómez, A. Barana, I. Amorós, J. Tamargo and E. Delpón (Complutense University, Madrid, Spain)
- 4 Small potentiation of the inotropic effects of catecholamines by PDE inhibitors is accompanied by dramatic increases of arrhythmias in rat right ventricular myocardium**
T. Christ, A. Galindo-Tovar, U. Ravens and A. Kaumann (TU Dresden, Germany)
- 5 Selective COX-2 inhibitor celecoxib inhibits Kv1.5 channels and Kv currents from vascular smooth muscle cells**
A. Macias, C. Moreno, J. Moral-Sanz, A. Cogolludo, M. David, F. Perez-Vizcaino and C. Valenzuela (Biomedical Research Institute „Alberto Sols“, Madrid, Spain)
- 6 Common mechanism of reverse rate dependency in canine cardiac preparations**
G. Harmati, T. Banyasz, B. Horvath, L. Virag, N. Szentandrassy, J. Magyar, S. Marangoni, A. Zaza, A. Varró and P.P. Nanasi (University of Debrecen, Hungary)

- 7 Opposite effects of β -adrenergic stimulation on I_{Kr} and I_{Ks} in canine ventricular myocytes**
B. Horvath, G. Harmati, J. Magyar, T. Banyasz, N. Szentandrassy, L. Barandi, G. Szenasi and P.P. Nanasi (University of Debrecen, Hungary)
- 8 Effect of the selective adenylyl cyclase inhibitor MANT-ITP on L-type calcium currents in murine cardiomyocytes**
M. Huebner, S. Dizayee, J. Matthes, R. Seifert and S. Herzig (University of Regensburg, Germany)
- 9 The dual action of chlorpromazine on Kir2.1 formed ion channels: elevated Kir2.1 protein expression is counteracted by direct I_{K1} channel block**
L. Nalos, M. Houtman, M.B. Rook, T.P. de Boer, M.A. Vos and M.A.G. van der Heyden (University Medical Center Utrecht, The Netherlands)
- 10 Inhibition of $I_{K,ACh}$ current may contribute to clinical efficacy of class I and class III antiarrhythmic drugs in patients with atrial fibrillation**
N. Rozmaritsa, N. Voigt, A. Trausch, T. Zimniak, T. Christ, E. Wettwer, K. Matschke, D. Dobrev and U. Ravens (TU Dresden, Germany)
- 11 Effects of local anesthetics on contractility and calcium handling in mammalian ventricular myocardium**
N. Szentandrassy, G. Harmati, A. Szabo, L. Barandi, J. Almasy, I. Jona, B. Horvath, T. Banyasz, I. Marton, P.P. Nanasi and J. Magyar (University of Debrecen, Hungary)
- 12 The anti-malarial drug primaquine blocks the transient outward K^+ current in rat left ventricular cardiomyocytes**
M. Wagner, K. Riepe, E. Eberhardt and T. Volk (University of Erlangen-Nürnberg, Germany)

SESSION VI – Structure – function of ion channels

Chairpersons: Carmen Delgado, Dirk Snyders

- 1 RGS4 contributes to fast desensitization of GIRK currents**
M. Timpert, M.-C. Kienitz, K. Bender and L. Pott (Ruhr University Bochum, Germany)
- 2 Structure-function analysis of the Kir2.1 ion channel protein by an evolutionary approach**
L. Nalos, M.J.C. Houtman, T.P. de Boer, B. Kok, S. Achoyan, L.-E. Alexander, J. Zelen, S. Sharif, M.A. Vos and M.A.G. van der Heyden (University Medical Center Utrecht, The Netherlands)
- 3 Identification of N-glycosylation sites of DPP10 important for functional modulation of Kv4 channel**
S. Radicke, D. Cotella, U. Ravens, E. Wettwer and C. Santoro (University of Eastern Piedmont, Italy)
- 4 Localisation of K^+ channel subunits in lipid rafts and modulation of K^+ currents by membrane cholesterol content in rat left ventricular myocytes**
E. Rudakova, M. Wagner, M. Frank and T. Volk (University of Erlangen-Nürnberg, Germany)

- 5 Molecular determinants of Kv1 subfamily specific block**
S. Marzian, P.J. Stansfeld, K. Wemhöner, S.P. Sansom, N. Decher (Marburg University, Germany)
- 6 Clustering of protein kinase A-dependent chloride channels in the sarcolemma of guinea-pig ventricular myocytes**
A.F. James, R. Sabirov and Y. Okada (University of Bristol, United Kingdom)
- 7 Modulation of voltage- and calcium-dependent gating of Cav1.3 L-type calcium channels by alternative splicing of the C-terminal regulation domain at the single channel level**
J. Petran, W. Jangsangthong, J. Matthes, J. Striessnig, A. Koschak and S. Herzig (University of Cologne, Germany)
- 8 Negative charges in the linker between the A and B box of the T1 domain are involved in Kv2.1 and Kv2.1/Kv6.4 channel assembly**
E. Bocksteins, A.J. Labro, E. Mayeur, T. Bruyins, J.P. Timmermans and D.J. Snyders (University of Antwerp, Belgium)
- 9 Fingerprinting of endogenous and mutant T-type calcium channels by basal gating and nitrous oxide effects**
M. Wiesen, G. Michels, K. Behnke, M. Henry, T. Schneider, E. Perez-Reyes, J. Matthes and S. Herzig (University of Cologne, Germany)

SESSION VII – Various topics

- Chairpersons:** Peter Nanasi, Antonio Zaza
- 1 Investigation of the calcium-dependent modulation of L-type Ca current in trout ventricular myocytes**
C. Cros, L. Sallé, D.E. Warren, H.A. Shiels and F. Brette (University of Manchester, UK)
- 2 Ventricular slices from adult hearts in long-term experiments**
A. Bussek, E. Wettwer, T. Christ, H. Lohmann and U. Ravens (TU Dresden, Germany)
- 3 Human heart slices – a novel approach for studying the physiology and pharmacology of ventricular myocardium: Viability and force measurements**
M. Brandenburger, J. Wenzel, D. Richardt, R. Bogdan, M. Reppel, J. Hescheler, H. Terlau and A. Dendorfer (University Lübeck, Germany)
- 4 Human heart slices - a novel approach for studying the physiology and pharmacology of ventricular myocardium: Electrophysiology**
J. Wenzel, M. Brandenburger, D. Richardt, R. Bogdan, M. Reppel, J. Hescheler, A. Dendorfer and H. Terlau (University Lübeck, Germany)
- 5 Mechanisms underlying the activation of L-type calcium channels by urocortin in rat ventricular myocytes**
T. Smani, E. Caldéron-Sánchez, N. Gómez Hurtado, M. Fernández Velasco, V. Cachofeiro, V. Lahera, A. Ordonez and C. Delgado (Complutense University of Madrid, Spain)

- 6 The role of different ionic currents in APD adaptation to heart rate changes**
Z. Husti, T. Hornyik, E. Pueyo, B. Rodríguez, I. Baczkó and A. Varró (University of Szeged, Hungary)
- 7 Large-conductance cation channels in cardiac myocytes: a new interpretation by overexpression of Pannexin 1**
G. Zoidl, K. Bender, L. Pott and M.-C. Kienitz (Ruhr University Bochum, Germany)
- 8 The comparative study of the rapid delayed rectifier potassium current (IK_r) in undiseased human, dog, rabbit and guinea pig cardiac ventricular preparations**
N. Jost, Z. Kohajda, L. Virág, M. Bitay, G. Bogáts, A. Kristóf, G. Papp and A. Varró (University of Szeged, Hungary)
- 9 Contribution of the transient outward current to ventricular repolarization**
L. Virág, A. Kristóf, R. Papp, P.P. Kovács, Z. Horváth, Z. Nagy, C. Lengyel, N. Jost, J.G. Papp and A. Varró (University of Szeged, Hungary)
- 10 DIY Versatile Cell Culture System**
P. Lee and P. Kohl (University of Oxford, United Kingdom)
- 11 Integrated experimental and computational models for investigation of mechano-electric feedback**
T.A. Quinn, B. Rodriguez and P. Kohl (University of Oxford, United Kingdom)
- 12 siRNA driven knockdown of Kir3.1 in rat atrial myocytes is paralleled by a knockdown of Kir3.4**
S. Stuhldreier, E. Mintert, K. Bender and L. Pott (Ruhr University Bochum, Germany)
- 13 Investigation of K⁺ channel regulation in cardiac myocytes by PIP2 using Ciona voltage-sensor containing phosphatase (Ci-VSP)**
A. Switalski, E. Mintert-Jancke, F. Hertel, K. Bender and L. Pott (Ruhr University Bochum, Germany)

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