

40th International Congress on Electrocardiology

University of Glasgow
Scotland

7–10 August 2013

Scientific Programme



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Welcome

It is difficult to believe that the 5th International Congress on Electrocardiology was held in Glasgow almost 35 years ago to the month. In the welcome message at that time, it was stated that Glasgow was regarded as being one of the friendliest cities in the United Kingdom. By coincidence, in early July this year, the City of Glasgow adopted its new branding which states "People Make Glasgow", as can be seen on the opposite page.

The Local Organising Committee welcomes you warmly to the city and the University of Glasgow in particular and hopes that you will experience the genuine friendliness of those local people with whom you come into contact in Glasgow. Of course, this should apply to Scotland as a whole but Glaswegians pride themselves in being a little more friendly than their compatriots elsewhere in the country!

This year, the conference has been organised in mid summer due to the multiplicity of other meetings in June and September, but it does allow all delegates to participate in an excellent social programme that even allows attendees to visit Glasgow's friendly local rivals in Edinburgh!

From a scientific point of view, the Local Organising Committee believes that this year's program is top class with many internationally known researchers participating.

The Local Organising Committee would like to take this opportunity to thank all those who have helped in the organising of the meeting and in particular the staff of the University of Glasgow's Conference and Visitor Services Office who have guided the Committee from the outset.

We do sincerely hope that you will enjoy your visit to Scotland and benefit from the scientific participation in the Congress while also finding time to sample the scenery and pageantry that Scotland has to offer.

Local Organising Committee

Foundation Professor P. Rijlant

ISE Council & Local Organising Committee

ISE Council

President (2011-2013):	Masaysu Hiraoka, Japan
Past President (2009-2011):	Adriaan van Oosterom, The Netherlands
President-elect:	Carlos Pastore, Brazil
Secretary:	Ljuba Bacharova, Slovakia
Treasurer:	Peter Macfarlane, United Kingdom

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T. Ikeda (Japan)
G. Kozmann (Hungary)
J. Liebman (USA)
P. W. Macfarlane (UK)
R. S. MacLeod (USA)
C. Pastore (Brazil)
P. Platonov (Sweden)
M. Potse (The Netherlands)
A. Ribeiro (Brazil)
M. Roshchevsky (Russia)
M. Sobieszczanska (Poland)
M. Tysler (Slovakia)
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Local Organising Committee

Colin Berry
Derek Connelly
Peter W. Macfarlane
Rachel Myles
Andrew Rankin
Godfrey Smith
Tony Workman

General Information

Registration

The registration fee for the Congress includes participation in the Scientific Programme and the Social Programme. Accompanying persons who have registered are also entitled to participate in all the social events. Furthermore, there will be additional events for the accompanying persons who have registered.

Registration Desk

The registration desk which will be located in the Atrium of the Wolfson Medical School will be open at the following times:

Wednesday 7th August:	6.00pm - 7.00pm
Thursday 8th August:	8.30am - 5.30pm
Friday 9th August:	8.30am - 1.30pm
Saturday 10th August:	8.30am - 5.00pm

Representatives from the University Conference and Visitor Services Office will be available to help with any enquiries.

Scientific Sessions

The Scientific Sessions of the Congress will be held in the Wolfson Medical School Building in 3 adjacent lecture rooms. These are the Yudowitz Seminar Room 1, the Hugh Fraser Seminar Room 2 and the Gannochy Seminar Room 3. These are a matter of yards apart and can be accessed without any difficulty from the atrium of the award winning Wolfson Medical School Building.

The plenary lectures will be held in Lecture Theatre 2 of the Boyd Orr Building, which is located across the main road from the Medical School. Please take care when crossing over the main road. The FIAI Session will be held in room 709 of the Boyd Orr Building.

Speakers are requested to hand their presentation to the audio visual assistant in each room 15 minutes before the start of a session.

Speaker Ready Area

There will be an area for speakers to check slides on a laptop if they wish. This will be in the atrium of the medical school building.

Poster Sessions

The poster sessions will be held in the atrium of the Wolfson Medical School Building. Poster presenters should mount their posters early in the day of their session and be available at their poster during the 1 hour poster session. Posters should be taken down at the end of the day.

Commercial Exhibition

A small number of exhibitors will be presenting their material in the atrium of the Wolfson Medical School. Please support them by taking time to speak to the respective representatives. In addition, there will be one commercial presentation on Thursday at 13.00.

Social Programme

Full details of the Social Programme are to be found elsewhere in this brochure. Please note that the visit to the Edinburgh Military Tattoo on Thursday evening and the Friday afternoon excursion will depart from outside the Wolfson Medical School Building. For the Edinburgh Military Tattoo, it is recommended that delegates take some warm clothing and carry an umbrella since seating is in the open air on Edinburgh Castle Esplanade.

Meals

Tea and coffee will be served at every break and lunch will be provided for registered delegates, Thursday to Saturday and for accompanying persons on Friday. There will be full dinners provided on Friday and Saturday evening but delegates are asked to find their own meals on Wednesday and Thursday evening. There are many suitable restaurants with a wide range of prices in nearby Byres Road just 100 yards from the Medical School. The Grosvenor Hotel and the Pond Hotel also have restaurants.

Banking Facilities

There is a Bank of Scotland at 178 Byres Road, which is 200 yards from the Conference Centre. It should be possible to change foreign currency into Sterling on the spot but the reverse is not possible.

Wi-Fi

Wi-Fi facilities are available and each delegate should have received a unique user ID and password sent by the University IT services. The hotels also have WiFi.

Summary Programme

Wednesday 7th August 2013

09:00 Early Repolarisation Workshop - Boyd Orr Building, Lecture Room C, Level 5
18:00 Registration - Wolfson Medical School Building
19:00 Civic Reception University of Glasgow, Wolfson Medical School Building, University Avenue, Glasgow G12 8QQ

Thursday 8th August 2013

08:30 Registration - Wolfson Medical School Building
09:15 Opening Ceremony
09:30 Rijlant Lecture: Prof Hein Wellens
10:30 Coffee Break
11:00 QT interval ¹ Atrial fibrillation (Modelling) ² Arrhythmias/ARVD ³
FIAI Meeting (Spanish) - Boyd Orr Building, Room 709, Level 7. Meeting outside of programme
12:30 LUNCH
13:00 Heartsine: Short Presentation
13:30 Plenary Talk: Prof Michel Haissaguerre
14:15 Early Repolarisation Workshop summary
14:30 Moderated poster session 1
15:00 Tea at posters
15:30 ECG Vendors ⁴ Modelling ⁵ Mechanisms for arrhythmic triggers ⁶
17:00 Finish Council Meeting - Medical School, Conference Room, Level 3
19:00 Buses leave the Medical School for Edinburgh Military Tattoo.

 Fraser Room	 Boyd Orr Building
 Yudowitz Room	 Poster Session
 Gannochy Room	 Social Programme

1 See details under session 1, etc

Friday 9th August 2013

09:00 Keynote Lecture: Prof Yoram Rudy
10:00 Break
10:15 Conduction Problems ⁷ Mapping ⁸ Task Force: Optimum ECG recording and interpretation ⁹
11:15 Coffee Break
11:30 Young Investigator's Competition ¹⁰ Computational ECG/MCG ¹¹ ECG and the atria ¹²
13:00 LUNCH
13:30 Buses leave the Medical School for Auchentoshan / Glengoyne distilleries, Stirling Castle and dinner at Macdonald Inchyra Hotel.

Saturday 10th August 2013

09:00 Miscellaneous ECG ¹³ Modelling (repolarization) ¹⁴ Inherited arrhythmia syndromes ¹⁵
10:30 Moderated poster session 2
11:00 Coffee at posters
11:30 ECG Morphology ¹⁶ Miscellaneous Modelling ¹⁷ Sudden Cardiac Death ¹⁸
13:00 LUNCH - Posters still mounted
13:30 ISE AGM - Yudowitz Room
14:00 Comprehensive Electrocardiology ¹⁹ Atrial cellular modelling ²⁰ Atrial Fibrillation ²¹
15:30 Coffee Break
16:00 ECG as a predictor ²² Comparative ECG ²³ Automated ECG ²⁴
17:00 Closing session - Yudowitz Room
19:30 Gala Dinner Oran Mor

Social Programme

Wednesday 7th August, 2013

19:00 Civic Reception.
Wolfson Medical School Building, University of Glasgow.

Thursday 8th August, 2013

19:00 Visit to Edinburgh Military Tattoo.
Buses will leave from the Medical School **promptly** at 19:00.

Friday 9th August, 2013

13.30 Tour to a Distillery and Stirling Castle followed by dinner.
Buses will leave from outside the Medical School at staggered intervals from 13:30.

Saturday 10th August, 2013

19:30 Gala Dinner
The Gala Dinner will take place in Oran Mor at the junction of Byres Road and Great Western Road, i.e. opposite the Grosvenor Hilton Hotel. Delegates will be expected to make their own way to the dinner.

Accompanying Persons Programme

In addition to all of the events listed in the Social Programme, accompanying persons only are invited to participate in the following events at no extra cost.

Thursday 8th August, 2013

10:00 Bus tour to Loch Lomond with a sail on the Loch. This trip will include a visit to a local village. The bus will return at approximately 4.30pm.

Friday 9th August, 2013

9:30 An open top bus tour of the city finishing at 12.30pm at the University where a snack lunch will be provided.

Saturday 10th August, 2013

10:00 A brief tour of the University followed by a very short walk to the Kelvingrove Art Gallery.

For the remainder of the time, accompanying persons are free to explore the shops in the city centre! Note that there is an underground station in Byres Road near the University.



Early Repolarisation Workshop Programme

Wednesday 7th August 2013

Boyd Orr Building, Lecture Room C, Level 5

9:00 Registration

9:15 Part 1 Introduction

- Aims and Outline of Workshop
P. Macfarlane

9:30 Part 2 The ECG pattern of Early Repolarization Co-chairs: *M. Janse, R. Rosso*

- The cellular electrophysiologist's view
To include Type 1, 2, 3 definitions
C. Antzelevitch
- The clinician's view
To include updates on recent studies, prognosis
M. Haissaguerre, H. Huikuri
- Discussion

10:45 Coffee break

11:15 Part 3 Nomenclature, Definitions and Measurements Co-chairs: *C. Antzelevitch, H. Huikuri*

- Is early repolarization (ER) a suitable term?
Should we separate Inferior ER and lateral ER?
G-X Yan
- Early repolarisation from a modelling perspective – neither early nor repolarization
M. Potse
- Definitions, prevalence and what should be measured
What is the J point? What is QRS end? What is ST slope? QRS dispersion! Latest QRS end. What is an end QRS notch? ST elevation – gender dependence.
P. Macfarlane
- Discussion - Can there be a recommended electrocardiographic definition of early repolarization pattern as yet?

13:00 Lunch

14:00 Part 4 Clinical aspects of the early repolarization pattern/syndrome Co-chairs: *M. Haissaguerre, H. Wellens*

- What do we know about the malignant form of early repolarisation?
R. Rosso
- The Heart Rhythm Society Consensus Statement – ER section
H. Huikuri
- Discussion

14:45 Part 5 Recommendations Co-chairs: *F. Marcus, G-X Yan*

- Discussion
- Clinical recommendations
Can we add to HRS recommendations using the ECG?
- What can be recommended for automated ECG reporting?

15:30 Coffee break

16:00 Part 6 Where do we go from here? Co-chairs: *P. Macfarlane, M. Potse*

- Discussion
- Collaborative studies? Automated ECGs and/or paper copies?
- Consensus publication?

17:00 Finish

19:00 Civic Reception University of Glasgow, Wolfson Medical School Building, University Avenue, Glasgow G12 8QQ



Thursday 8th August

9:30 Professor Hein Wellens - Rijlant Lecture

The ECG, very much alive, more than a century after Einthoven

Chair: **Professor Masayasu Hiraoka**

Thursday 8th August

13:30 Professor Michel Haissaguerre

Mapping of the fibrillating heart

Chair: **Dr. Derek Connelly**

Friday 9th August

9:00 Professor Yoram Rudy

Noninvasive ECG Imaging of cardiac electrophysiology and arrhythmias

Chair: **Professor Peter Macfarlane**

Commercial Presentation

Yudowitz Room



Thursday 8th August

13:00 - 13:20 Short presentation by HeartSine

Thursday 8th August 2013
Fraser Room

1

11:00 QT Interval

Chairs: **W. Zareba, C. Pastore**

CONSIDERING GENDER DIFFERENCES FOR CARDIAC SAFETY.

[Green, C.L.](#); Garnette, C.E.; Parekh, A.; Kligfield, P.
Duke University Medical Center, USA.

RELEVANCE OF INDIVIDUALIZED QT INTERVAL CORRECTION IN SUBJECTS WITH LARGE HEART RATE FLUCTUATIONS.

Jacquemet, V.; Cassani Gonzalez, R.; Dubé, B.; Vinet, A.; LeBlanc, A.R.; Sturmer, M.; Becker, G.; Kus, T.; [Nadeau, R.](#)

Université de Montréal, Canada.

DIFFERENCES IN DRUG-INDUCED QT PROLONGATION IN MEN AND WOMEN WHEN QT INTERVAL IS MEASURED IN EACH OF THE 12 LEADS OF THE ECG IN A THOROUGH QT STUDY.
Panicker, G.K.; [Salvi, V.S.](#); Karnad, D.R.; Chakraborty, S.S.; Manohar, D.; Lokhandwala, Y.Y.; Kothari, S.N.
Quintiles Cardiac Safety Services, India.

QT/RR DYNAMIC COUPLING IN LQT SYNDROME PATIENTS.

[Pavel Leinveber, P.L.](#); Josef Halamek, J.H.; Jean-Phillipe Couderc, J.P.C.; Pavel Jurak, P.J.; Vlastimil Vondra, V.V.

St. Anne's University Hospital, ICRC, Czech Republic.

READER VARIABILITY IN QT INTERVAL MEASUREMENT DUE TO MEASUREMENT ERROR AND VARIABILITY IN LEADS SELECTION: A SIMULATION STUDY COMPARING 2-WAY VS. 3-WAY INTERACTION ANOVA MODEL.

[Salvi, V.S.](#); Natekar, M.; Karnad, D.R.; Ramasamy, A.; Kerkar, V.; Panicker, G.K.; Kothari, S.
Quintiles Cardiac Safety Services, India.

THE QT INTERVAL, ARTERIAL STIFFNESS, ENDOTHELIAL FUNCTION AND VASCULAR AGE.

[Mozos, I.](#); Filimon, L.
"Victor Babes" University of Medicine and Pharmacy, Timisoara, Romania.

Thursday 8th August 2013
Yudowitz Room

2

11:00 Atrial Fibrillation (Modelling)

Chairs: **S. Pandit, H. Zhang.**

IONIC BASES OF ATRIAL FIBRILLATION.

[Pandit, S.](#)
University of Michigan, Ann Arbor, USA.

MULTI-PHYSICS MODEL OF 3D HUMAN ATRIA FOR THE STUDY OF ATRIAL FIBRILLATION.

[Zhang, H.](#)
University of Manchester, UK.

KCNQ1 MUTATION AND ARRHYTHMIA IN FAMILIAL ATRIAL FIBRILLATION.

[Hancox, J.](#)
University of Bristol, UK.

HETEROGENEOUS AND ANISOTROPIC CANINE ATRIAL MODEL FOR THE STUDY OF ARRHYTHMOGENIC SUBSTRATE FOR ATRIAL FIBRILLATION.

[Aslanidi, O.](#)
King's College, London, UK.

Thursday 8th August 2013
Gannochy Room

3

11:00 Arrhythmia/ARVD

Chairs: **A. Rankin, H. Wellens**

THE ROLE OF REMNANTS OF THE CARDIAC CONDUCTION SYSTEM IN ATRIAL AND VENTRICULAR ARRHYTHMIAS.

[Boyett, M.](#)
University of Manchester, UK.

NORMAL HEART VENTRICULAR TACHYCARDIA: OTT OR NOT OTT?

[Ng, A.](#)
University of Leicester, UK.

THE ROLE OF THE ECG AND CARDIAC IMAGING IN THE DIAGNOSIS OF ARVC.

[Marcus, F.](#)
University of Arizona, USA.

Thursday 8th August 2013
Fraser Room

4

15:30 ECG Vendors
Chairs: J. Madias, T. Ribeiro

AUTOMATIC DETECTION OF END QRS NOTCHING OR SLURRING.

[Clark, E.N.](#); Macfarlane, P.W.
University of Glasgow, UK.

CLINICAL DECISION SUPPORT IN FUTURE PATIENT MONITORING.

[Y. Chen.](#)
Draeger.

ADVANCES IN REAL-TIME ISCHEMIA MONITORING - A REVIEW.

[J. Wang.](#)
Philips.

A NEW LOOK AT ATRIAL FIBRILLATION VIA THE ECG.

[J.J. Schmid.](#)
Schiller.

Thursday 8th August 2013
Yudowitz Room

5

15:30 Modelling
Chairs: R. MacLeod, Y. Rudy

THE ROLE OF FIBROSIS AND MORPHOLOGY IN PATIENT BASED SIMULATION OF ATRIAL FIBRILLATION.

[MacLeod, R.](#)
Scientific Computing and Imagine Institute, Salt Lake City, USA.

COMBINING COMPUTATIONAL MODELLING AND HIGH-RESOLUTION IMAGING TO UNDERSTAND BASIC MECHANISMS OF VENTRICULAR ARRHYTHMIAS: PROGRESS TOWARDS THE CLINIC.

[Bishop, M.](#)
King's College, London, UK.

NON-INVASIVE MYOCARDIAL IMAGING OF PVCs AND PACEMAKERS USING THE 12 LEAD ECG.

[van Dam, P.M.](#); Laks, M.; Shivkumar, K.
University of Nijmegen, The Netherlands.

INVERSE RECONSTRUCTION OF CARDIAC SURFACE POTENTIALS THROUGH COMBINED BODY SURFACE AND CAVITARY MEASUREMENTS.

[Stovicek, P.](#)
Naviconix Ltd, UK.

Thursday 8th August 2013
Gannochy Room

6

15:30 Mechanisms for Arrhythmic Triggers
Chairs: T. Ikeda, R. Myles

FROM CALCIUM LEAKS TO VENTRICULAR FIBRILLATION.

[Eisner, D.](#)
University of Manchester, UK.

CHRONIC MYOCARDIAL INFARCTION PROMOTES ATRIAL ACTION POTENTIAL ALTERNANS AFTERDE-POLARISATIONS AND FIBRILLATION.

[Kettlewell, S.](#); [Burton, F.L.](#); [Smith, G.L.](#); [Workman, A.J.](#)
University of Glasgow, UK.

LOCALISED BETA-ADRENERGIC STIMULATION AS A MECHANISM OF FOCAL ARRHYTHMIAS.

[Myles, R.](#)
University of Glasgow, UK.

TRANSVERSE (T) TUBULE REMODELLING IN THE HEART; ELECTRICAL AND CALCIUM EFFECTS.

[Trafford, A.](#)
University of Manchester, UK.

Friday 9th August 2013
Fraser Room

7

10:15 Conduction Problems
Chairs: A. Baranchuk, L. Bacharova

ASSOCIATION BETWEEN ENDOMYOCARDIAL TISSUE BIOPSIES AND RIGHT VENTRICULAR CONDUCTION DELAYS.

[Pickham, D.](#); [Hickey, K.](#); [Doering, L.](#); [Chen, B.](#); [Castillo, C.](#); [Drew, B.](#)
University of California, San Francisco, USA.

NOVEL ECG CRITERIA FOR THE DIAGNOSIS OF ARRHYTHMOGENIC RIGHT VENTRICULAR CARDIOMYOPATHY.

[Batchvarov, V.N.](#); [Bastiaenen, R.](#); [Macfarlane, P.](#); [Clark, E.](#); [Behr, E.R.](#)
St. George's University of London

VECTORCARDIOGRAPHIC PATTERNS FOR DIFFERENTIAL DIAGNOSIS IN RIGHT END-CONDUCTION DELAY, EARLY REPOLARISATION AND BRUGADA SYNDROME.

[Pastore, C.A.](#); [Samesima, N.](#); [Kaiser, E.](#)
Universidade de São Paulo, Brazil.

FREQUENT ELECTROCARDIOGRAPHIC ABNORMALITIES AND ASSOCIATED CONDITIONS IN CHAGAS DISEASE PATIENTS.

[Marcolino, M.S.](#); [Assis, T.G.P.](#); [Santos, E.V.](#); [Ferreira, L.R.](#); [Palhares, D.M.F.](#); [Alkmim, M.B.M.](#); [Ribeiro, A.L.](#)
Medical School, Universidade Federal de Minas Gerais, Brazil.

Friday 9th August 2013
Yudowitz Room

8

10:15 Mapping
Chairs: M. Sobieszczanska, R. Nadeau

NONINVASIVE RECONSTRUCTION OF POTENTIALS ON ENDOCARDIAL SURFACE FROM BODY SURFACE POTENTIALS AND CT IMAGING OF PARTIAL TORSO.

[Erem, B.](#); [Coll Font, J.](#); [Martinez Orellana, R.](#); [Stovicek, P.](#); [Brooks, D.H.](#); [MacLeod, R.S.](#)
Northeastern University, Boston, USA.

PREDICTING THE ACCURACY OF CARDIAC PACE MAPPING FROM LEAD FIELD MATRIX CHARACTERISTICS

[Schulze, W.H.W.](#); [Potyagaylo, D.](#); [Dössel, O.](#)
Institute of Biomedical Engineering, Karlsruhe Institute of Technology (KIT), Germany.

AUTOCORRELATION MAPS OF ATRIAL ACTIVATION IN YOUNG ADULTS - A PRELIMINARY STUDY.

[Kozlikova, K.](#)
Comenius University, Bratislava, Slovakia.

CT ANGIOGRAPHY IDENTIFIES CORONARY VENOUS ANOMALY RESULTING IN SUCCESSFUL ABLATION OF AN EPICARDIAL PATHWAY

[Dorostkar, P.C.](#); [Roukoz, H.R.](#); [Shepard, C.W.S.](#)
University of Minnesota, USA.

Friday 9th August 2013
Gannochy Room

9

10:15 Task Force: Optimum ECG recording and interpretation
Chairs: F. Marcus, B. Drew, P. Kligfield

This session is open to all with an interest in improving the standards of ECG recording and interpretation.

Friday 9th August 2013
Fraser Room

10

11:30 Young Investigator's Competition
Chairs: M. Hiraoka, P. Dorostkar

SENSITIVITY OF EPICARDIAL ELECTRICAL MARKERS TO ISCHEMIA. DETECTION
Aras, K.; Burton, B.; Swenson, D.J.; MacLeod, R.S.
University of Utah, Salt Lake City, USA.

PATIENT-SPECIFIC MRI-BASED MODELS OF INFARCTED HEARTS CAN PREDICT RISK OF SUDDEN CARDIAC DEATH.
Arevalo, H.J.; Vadakkumpadan, F.; Jebb, A.; Wu, K.; Trayanavo, N.A.
John Hopkins University, Baltimore, USA.

AN INDIVIDUALISED TORSO MODEL FURTHER IMPROVES THE ACCURACY OF EPICARDIAL POTENTIALS DERIVED FROM THE BODY SURFACE POTENTIAL MAP USING INVERSE ELECTROCARDIOGRAPHY IN THE DIAGNOSIS OF ACUTE MYOCARDIAL INFARCTION: A PROSPECTIVE STUDY.
Daly, M.J.; Finlay, D.D.; Guldenring, D.; Scott, P.J.; Adgey, A.A.J.; Harbinson, M.T.
The Heart Centre, Royal Victoria Hospital, Belfast, Northern Ireland.

INTRAMURAL LV AFTERDEPOLARISATIONS AND ARRHYTHMIAS DURING CALCIUM OVERLOAD IN THE INTACT RABBIT HEART.
Kelly, A.; Smith, G.L.
Norwegian University of Science and Technology, Trondheim, Norway

EXERCISE TRAINING REDUCES LIFE-THREATENING ARRHYTHMIAS IN HEART FAILURE RATS: THE IMPORTANCE EXERCISE TRAINING INTENSITY.
Stølen, T.S.; Høydal, M.A.H.; Johnsen, A.B.J.; Gaustad, S.E.G.; Skogvoll, E.S.; Smith, G.L.S.; Wisløff, U.W.
Norwegian University of Science and Technology, Trondheim, Norway.

DUAL EXCITATION WAVELENGTH OPTICAL IMAGING OF TRANSMURAL ELECTROPHYSIOLOGICAL HETEROGENEITY IN PIG VENTRICLES.
Walton, R.D.; Bernus, O.
Universite Bordeaux Segalen, France.

Friday 9th August 2013
Yudowitz Room

11

11:30 Computational ECG/MCG
Chairs: A. Bayes de Luna, V. Kumar

NORMAL LIMITS OF THE ECG IN INDIANS.
Kumar, V.; Singh, D.; Hamde, S.; Macfarlane, P.
Indian Institute of Technology, Roorkee, India.

ON COMPLEMENTARY SENSITIVITY DISTRIBUTIONS AND RESOLUTION OF MCG AND ECG.
Mäntynen, V.; Konttila, T.; Stenroos, M.
Aalto University, Finland.

T WAVE ALTERNANS, DETECTION, QUANTIFICATION AND PATTERN DEFINITION.
Deogire, A.; Hamde, S.
MET's Institute of Engineering, India.

TOPICAL DIAGNOSIS OF POLYMORPHIC VENTRICULAR ARRHYTHMIAS BY NONINVASIVE ELECTROCARDIOGRAPHIC IMAGING.
Chmelevsky, M.P.; Zubarev, S.V.; Treshkur, T.V.; Lebedev, D.S.
Almazov Federal Heart, Blood and Endocrinology Centre, Russian Federation.

A SYSTEM FOR ANALYSING THERMAL INDUCED EFFECTS OF PROPAGATION DIRECTION DEPENDENT FEATURES IN FIELD POTENTIALS OF CARDIOMYOCYTE MONOLAYERS USING MULTI-ELECTRODE ARRAYS.
Kienast, R.; Fischer, G.; Stöger, M.; Handler, M.; Hanser, F.; Baumgartner, C.
UMIT / Institute of Electrical and Biomedical Engineering, Austria.

Friday 9th August 2013
Gannochy Room

12

11:30 ECG and the Atria
Chairs: C. Berry, F. Marcus

IKR BLOCKER DOFETILIDE PROMOTES ASHMAN PHENOMENON IN PATIENTS WITH ATRIAL FIBRILLATION.
Sardar, M.R.; Khaji, A.; Ju, R.; Patel, C.; Bradley, J.; Yan, G-X.
Lankenau Institute for Medical Research, Philadelphia, USA.

DYNAMICS OF AV SYNCHRONIZATION IN PATIENTS WITH PAROXYSMAL AF: ROLE OF ATRIAL RATE.
Masè, M.; Del Greco, M.; Marini, M.; Ravelli, F.
Department of Physics, University of Trento, Italy.

INTER-CATHETER IMPEDANCE VARIATION DURING INTERNAL ATRIAL DEFIBRILLATION.
Walsh, P.R.; Escalona, O.J.; Brody, D.; Anderson, J.M.C.
University of Ulster, Engineering Research Institute, UK.

A NOVEL APPROACH TO DETERMINE ATRIAL REPOLARIZATION IN ELECTROCARDIOGRAMS.
Sivaraman, J.; Uma, G.; Venakatesan, S.; Umopathy, M.; Dhandapani, V.E.
National Institute of Technology, Trichy, India.

MEASURED AND SIMULATED P WAVES IN NORMAL SUBJECTS REFLECT COMPLEX ATRIAL ANATOMY.
Potse, M.; Lankveld, T.A.R.; Zeemering, S.; Kuijpers, N.H.L.; Schotten, U.
University of Lugano, Switzerland.

ELECTROCARDIOGRAPHIC ABNORMALITIES IN ELDERLY CHAGAS DISEASE PATIENTS: A POPULATION-BASED STUDY (THE BAMBUÍ STUDY).
Ribeiro, A.L.; Marcolino, M.S.; Lima-Costa, M.F.
Universidade Federal de Minas Gerais, Brazil.

Saturday 10th August 2013
Fraser Room

13

09:00 Miscellaneous ECG
Chairs: L. Bacharova, I. Katibi

FRAGMENTED QRS AS A PREDICTOR OF ARRHYTHMIC EVENTS IN PATIENTS WITH HYPERTROPHIC OBSTRUCTIVE CARDIOMYOPATHY.

[Anselm, D.D.](#); Arce, M.; Van Grieken, J.; Trucco, E.; Mont, L.; Abello, M.; Merino, J.L.; Rivero-Ayerza, M.; Bulent, G.; Rodriguez, C.; Hopman, W.M.; Femenía, F.; Baranchuk, A.
Queen's University, Kingston General Hospital, Canada.

T-WAVE AXIS DEVIATION AND LEFT VENTRICULAR HYPERTROPHY INTERACTION IN DIABETES AND HYPERTENSION (MOLI SANI PROJECT).

[Assanelli, A.D.](#); Rago, R.L.; Di Castelnuovo, D.C.A.; Badilini, B.F.; Vaglio, V.M.; Gianfagna, G.F.; Salvetti, S.M.; Zito, Z.F.; Donati, D.M.B.; De Gaetano, D.G.G.; Iacoviello, I.L.
University of Brescia, Italy.

NOVEL BODY SURFACE ELECTRICAL RESTITUTION BASED MARKER IS PREDICTIVE OF SUDDEN CARDIAC DEATH RISK INDEPENDENT OF EXISTING RISK MARKERS.

[Nicolson, W.B.](#); Smith, M.I.; Chu, G.; Sandilands, A.J.; Stafford, P.J.; Schlindwein, F.S.; Samani, N.J.; McCann, G.P.; Ng, G.A.
Leicester Cardiovascular Biomedical Research Unit, UK.

SPECIES SPECIFIC VENOM MANIFESTATIONS IN ECG

[Maheshwari, R.](#); Kumar, V.; Verma, H.K.
Rajasthan Technical University, Kota, India.

COMPARISON OF THE SPATIAL QRS-T ANGLE DERIVED FROM THE CONVENTIONAL 12-LEAD ECG USING STANDARD ELECTRODE POSITIONS WITH THAT DERIVED FROM THE HOLTER ECG USING MASON LIKAR ELECTRODE POSITIONS.

[Salvi, V.](#); Clark, E.; Karnad, D.R.; Macfarlane, P.; Panicker, G.K.; Hingorani, P.; Kothari, S.; Lokhandwala, Y.Y.
Quintiles Cardiac Safety Services, Mumbai, India.

DOES THE INVERSE ACTIVATION TIME / ACTION POTENTIAL DURATION RELATIONSHIP APPLY TO THE IN VIVO HUMAN HEART?

[Orini, M.](#); Hanson, B.M.; Bufacchi, R.; Hayward, M.; Jie, X.; Taggart, P.; Lambiase, P.D.
University College London, UK.

Saturday 10th August 2013
Yudowitz Room

14

09:00 Modelling (repolarization)
Chairs: A. van Oosterom, M. Tysler

COMPUTER MODELLING OF BEAT-TO-BEAT REPOLARIZATION LABILITY DUE TO THE DIMINISHED ELECTRICAL COUPLING.

[Kozmann, G.](#); Tuboly, G.; Szathmáry, V.; Cvehlíková, J.; Tysler, M.
University of Pannonia, Hungary.

IMPACT OF TORSO MODEL FIDELITY ON THE INVERSE LOCALIZATION OF ISCHEMIA

Lenkova, J.; Svehlikova, J.; [Tysler, M.](#)
Institute of Measurement Science SAS, Bratislava, Slovakia.

IN SILICO INVESTIGATION OF THE ELECTROMECHANICAL CONSEQUENCES OF THE SHORT QT SYNDROME.

[Adeniran, I.](#); Hancox, J.C.H.; Zhang, H.
University of Manchester, UK.

THE POSITIVE T-WAVE: INSIGHTS FROM A 3D ANATOMICAL AND ELECTROPHYSIOLOGICAL MODEL OF THE RABBIT VENTRICLES.

[Castro, S.J.](#); Higham, J.; Sleiman, R.; Holden, A.V.; Boyett, M.R.; Zhang, H.
University of Manchester, UK.

ELECTROCARDIOGRAPHIC SOURCE ESTIMATION IN PATIENTS WITH ACUTE MYOCARDIAL ISCHEMIA.

[Konttila, T.](#); Mäntynen, V.; Stenroos, M.
Aalto University, Finland.

DETERMINATION OF LOCAL ACTIVATION TIME IN BIPOLAR ENDOCARDIAL ELECTROGRAMS: A COMPARISON OF CLINICAL CRITERIA AND A NEW METHOD BASED ON THE NON-LINEAR ENERGY OPERATOR.

[Oesterlein, T.G.](#); Keller, M.W.; Schuler, S.; Luik, A.; Krüger, M.; Seemann, G.; Seemann, G.; Schmitt, C.; Dössel, O.
Karlsruhe Institute of Technology (KIT), Germany.

Saturday 10th August 2013
Gannochy Room

15

09:00 Inherited Arrhythmia Syndromes
Chairs: G-X Yan, P. Platonov

CLINICAL CHARACTERISTICS OF PATIENTS WITH IDIOPATHIC VENTRICULAR FIBRILLATION - EXCLUDING BRUGADA SYNDROME.

[Hiroaka, M.](#); Sekiguchi, Y.; Takagi, M.; Yokoyama, Y.; Aihara, N.; Zonuma, K.; and Japan Idiopathic ventricular fibrillation Study Investigators.
Tokyo Medical and Dental University, Tokyo, Japan.

J WAVES AND ASSOCIATED RHYTHMS EXCLUDING IDIOPATHIC VENTRICULAR FIBRILLATION.

[Rosso, R.](#)
Sackler School of Medicine, Tel Aviv University, Israel.

MECHANISM UNDERLYING BRUGADA SYNDROME: THE CASE FOR REPOLARIZATION ABNORMALITIES.

[Antzelevitch, C.](#)
Masonic Medical Research Laboratory, Utica, NY, USA.

THE BRUGADA SYNDROME AND J WAVE ELEVATION. REPOLARIZATION OR CONDUCTION ANOMALIES?

[Janse, M.](#)
University of Amsterdam, The Netherlands.

BRUGADA PHENOCOPY EMERGING AS A NEW CONCEPT.

[Baranchuk, A.](#)
Kingston University, Ontario, Canada.

Saturday 10th August 2013
Fraser Room

16

11:30 ECG Morphology
Chairs: A. Baranchuk, T. Ribeiro

CORRELATION BETWEEN ECG AND CORONARY ANGIOGRAPHY IN PATIENTS WITH A SUDDEN OBSTRUCTION OF THE RIGHT CORONARY ARTERY (RCA)-PHYSIOLOGICAL AND PATHOLOGICAL MYOCARDIAL REMODELING.
[Sclarovsky, S.](#); Nikus, K.; Zhan, Z.Q.; Femia, F.J.
Maccabi Health Center, Tel Aviv, Israel.

DO PATIENTS WITH ELECTROCARDIOGRAPHIC BRUGADA TYPE 1 PATTERN HAVE ASSOCIATED TRUNCULAR RIGHT BUNDLE BRANCH BLOCK.

[Perez-Riera, A.R.](#)
ABC Faculty of Medicine, São Paulo, Brazil.

DIFFERENTIAL DIAGNOSIS OF R' IN V1 IN NORMAL AND PATHOLOGIC CASES.

[Bayes de Luna, A.](#)
Institut Catala Ciencies Cardiovasculars, Barcelona, Spain.

ATRIAL FIBRILLATION: PREVALENCE IN PRIMARY CARE PATIENTS IN BRAZIL.

Marcolino, M.S.; Palhares, D.M.F.; Alkmim, M.B.M.; [Ribeiro, A.L.](#)
Universidade Federal de Minas Gerais, Brazil.

Saturday 10th August 2013
Yudowitz Room

17

11:30 Miscellaneous Modelling Session
Chairs: G. Kozmann, M. Potse

ELECTRO-MECHANICAL MODELLING OF IN-VIVO HUMAN LEFT VENTRICLE

[Gao, H.](#); Griffith, B.E.; Carrick, D.; McComb, C.; Berry, C.; Luo, X.Y.
University of Glasgow, UK.

THE EFFECT OF LOCALIZED ALTERATION OF DEPOLARIZATION SEQUENCE ON THE QRS COMPLEX AND ST SEGMENT PATTERNS: A MODEL STUDY

[Bacharova, L.](#); Mateasik, A.; Szathmary, V.
International Laser Centre, Bratislava, Slovakia.

ACCURACY OF ELECTROCARDIOLOGICAL INVERSE SOLUTIONS: A MODEL STUDY
[Kozmann, G.](#); [Tuboly, G.](#); Maros, I.; Wei, D.; Zhu, X.
University of Pannonia, Hungary.

TOWARDS COMPUTATIONAL MODELLING OF THE HUMAN FOETAL ELECTROCARDIOGRAM: NORMAL SINUS RHYTHM: AV CONDUCTION BLOCK AND RE-ENTRANT TACHYCARDIA
Benson, A.P.; Hayes-Gill, B.; [Holden, A.V.](#); Pervolaraki, E.
University of Leeds, UK.

Saturday 10th August 2013
Gannochy Room

18

11:30 Sudden Cardiac Death
Chairs: C. Antzelevitch, R. Rosso

RISK STRATIFICATION OF CARDIAC ARRHYTHMIAS AND MORTALITY IN ICD AND CRT-D PATIENTS.

Zareba, W.

University of Rochester, USA.

PREDICTIVE VALUE OF T-WAVE ALTERNANS AS A RISK STRATIFICATION MARKER FOR SUDDEN CARDIAC DEATH

Ikeda, T.

Toho University, Japan.

RISK STRATIFICATION OF SERIOUS CARDIAC EVENTS USING HEART RATE TURBULENCE IN PATIENTS WITH MYOCARDIAL INFARCTION

Miwa, Y.

Kyorin University, Japan.

NOVEL BODY SURFACE ELECTRICAL RESTITUTION BASED MARKER IS PREDICTIVE OF SUDDEN CARDIAC DEATH RISK INDEPENDENT OF EXISTING RISK MARKERS

Nicolson, W.B.; Smith, M.I.; Chu, G.; Sandilands, A.J.; Stafford, P.J.; Schlindwein, F.S.; Samani, N.J.; McCann, G.P.; Ng, G.A.

Leicester Cardiovascular Biomedical Research Unit, Leicester, UK.

Saturday 10th August 2013
Fraser Room

19

14:00 Comprehensive Electrocardiology
Chairs: P. Macfarlane, P. Dorostkar

ELECTROCARDIOGRAPHY OF TAKOTSUBO SYNDROME.

Madias, J.

Mount Sinai School of Medicine of the New York University, USA.

THE CASE OF THE QRS-T ANGLE VERSUS THE QRS-T INTEGRAL MAP.

Van Oosterom, A.

Radboud University, Nijmegen, The Netherlands.

THE GENESIS OF THE T WAVE. TRANSMURAL OR APICO-BASAL DIFFERENCES IN REPOLARIZATION.

Janse, M.J.

University of Amsterdam, The Netherlands.

ELECTRODE PLACEMENT AND THE FUTURE OF ELECTROCARDIOGRAPHY.

Kligfield, P.

Weill Cornell Medical College, New York, USA.

Saturday 10th August 2013
Yudowitz Room

20

14:00 Atrial Cellular Modelling
Chairs: M. Hiraoka, A. Workman

THE EFFECT OF AF-INDUCED ELECTRICAL REMODELLING ON REGIONAL ELECTRICAL HETEROGENEITY AND TISSUE VULNERABILITY TO ATRIAL FIBRILLATION-INSIGHTS FROM MODELLING.

Colman, M.A.; Aslanidi, O.V.; Kharche, S.R.; Boyett, M.R.; Zhang, H.

University of Manchester, UK.

SIMULATION STUDY OF VENTRICULAR RATE CONTROL THERAPY DURING ATRIAL FIBRILLATION USING ONE-DIMENSIONAL CABLE MODEL WITH TWO CONDUCTION PATHWAYS.

Inada, S.; Ono, T.; Shibata, N.; Iwata, M.; Haraguchi, R.; Ashihara, T.; Abe, A.; Ikeda, T.; Mitsui, K.; Boyett, M.R.⁶; Dobrzynski, H.⁶; Nakazawa, K.

National Cerebral Palsy and Cardiovascular Research Institute, Osaka, Japan.

MULTI-SCALE INTEGRATIVE MODEL OF THE HUMAN ATRIA AND TORSO: A PLATFORM FOR THE INVESTIGATION OF ATRIAL ARRHYTHMIAS.

Perez Alday, E.A.; Colman, M.A.; Butters, T.D.; Giacomelli, D.; Langley, P.; Holden, A.V.; Zhang, H.
University of Manchester, UK.

REALISTIC HETEROGENEOUS AND ANISOTROPIC CANINE ATRIAL MODEL FOR THE STUDY OF ATRIAL ARRHYTHMIAS.

Varela, M.; Colman, M.A.; Zhang, H.; Aslanidi, O.V.

King's College London, UK.

EFFECTS OF HUMAN ATRIAL IONIC REMODELLING BY BETA BLOCKER THERAPY ON MECHANISMS OF ATRIAL FIBRILLATION: A COMPUTER SIMULATION.

Kharche, S.R.; Stary, T.; Biktasheva, I.V.; Workman, A.J.; Rankin, A.C.; Holden, A.V.; Zhang, H.

University of Exeter, UK.

Saturday 10th August 2013
Fraser Room

21

14:00 Atrial Fibrillation
Chairs: L. De Ambroggi, M. Janse

ADVANCED INTERATRIAL BLOCK IS ASSOCIATED WITH ATRIAL FIBRILLATION RECURRENCE AFTER SUCCESSFUL PULMONARY VEIN ISOLATION FOR PAROXYSMAL ATRIAL FIBRILLATION.

Caldwell, J.C.; Koppikar, S.; Barake, W.; Redfearn, D.P.; Michael, K.; Simpson, C.; Hopman, W.; Baranchuk, A.

Kingston General Hospital, Canada.

FUNCTIONAL PROPERTIES OF COMPLEX FRACTIONATED ATRIAL ELECTROGRAMS DURING ATRIAL FIBRILLATION CAN BE EXPLAINED BY STRUCTURAL REMODELING: A SIMULATION STUDY.

Ashihara, T.; Haraguchi, R.; Inada, K.; Nakazawa, S.; Ikeda, T.; Ozawa, T.; Ito, M.; Trayanova, N.; Horie, M.
Shiga University of Medical Science, Japan.

MORPHOLOGY-BASED CHARACTERIZATION OF RAPID ELECTROGRAM ACTIVITY IN ATRIAL FIBRILLATION PATIENTS.

Ravelli, F.; Masè, M.; Cristoforetti, A.; Del Greco, M.; Centonze, M.; Disertori, M.

Department of Physics, University of Toronto.

HEART RATE VARIABILITY AS PREDICTOR OF ATRIAL FIBRILLATION IN MIDDLE-AGED POPULATION.

Perkiömäki, J.S.; Ukkola, O.; Kiviniemi, A.; Tulppo, M.; Ylitalo, A.; Kesäniemi, Y.A.; Huikuri, H.V.

University of Oulu, Finland.

LINEAR - NONLINEAR HEART RATE VARIABILITY ANALYSIS AND SVM BASED CLASSIFICATION OF NORMAL & HYPERTENSIVE SUBJECTS.

Poddar, M.G.; Kumar, V.; Sharma, Y.P.

Indian Institute of Technology, Roorkee, India.

BETA-BLOCKADE AND A1-ADENOSINE RECEPTOR BLOCKADE EFFECTS ON ATRIOVENTRICULAR CONDUCTION IN PATIENTS WITH ATRIAL FIBRILLATION.

Corino, V.D.A.; Holmqvist, F.; Platonov, P.G.
Politecnico di Milano, Italy.

Saturday 10th August 2013
Fraser Room

22

16:00 ECG as a Predictor
Chairs: B. Drew, C. Pastore

BODY SURFACE RESTITUTION GRADIENT PREDICTS SUDDEN CARDIAC DEATH RISK IN A CLINICAL STUDY.

Nicolson, W.B.; Smith, M.I.; Chu, G.; Brown, P.B.; Sandilands, A.J.; Stafford, P.J.; Schlindwein, F.S.; Samani, N.J.; McCann, G.P.; Ng, G.A.

Leicester Cardiovascular Biomedical Research Unit, UK.

VENTRICULAR REPOLARIZATION INDICES AS PREDICTORS OF FATAL ARRHYTHMIAS IN ISCHEMIA/REPERFUSION MODEL.

Bernikova, O.G.; Azarov, J.E.; Sedova, K.A.; Kharin, S.N.; Shmakov, D.N.

Komi Science Center, Russian Academy of Sciences.

ECG PREDICTORS OF MORTALITY AMONG IMPLANTABLE CARDIOVERTER-DEFIBRILLATOR CANDIDATES FOR THE PRIMARY PREVENTION OF SUDDEN CARDIAC DEATH.

Al-Zaiti, S.; Fallavollita, J.A.; Canty, J.M.; Carey, M.G.
University of Rochester Medical Center, USA.

DOES FRAGMENTED SURFACE ECG PREDICT APPROPRIATE ICD THERAPY IN PATIENTS WITH CHAGAS CARDIOMYOPATHY (THE FECHA STUDY)?

Anselm, D.D.; Femenía, F.; Lopez-Diez, J.C.; Muratore, C.; Valentino, M.; Retyk, E.; Galizio, N.; Di Toro, D.; Alonso, K.; Hopman, W.M.; Miranda, R.; Baranchuk, A.

Queen's University, Kingston General Hospital, Canada.

Saturday 10th August 2013
Yudowitz Room

23

16:00 Comparative ECG
Chairs: *I. Roshchevsky, G. Smith*

PANORAMIC IMAGING OF ISOLATED RABBIT HEARTS USING A SINGLE CAMERA SYSTEM.

[Allan, A.](#); Burton, F.; Smith, G.
University of Glasgow, UK.

VENTRICULAR EPICARDIAL REPOLARIZATION PATTERN IN DIABETIC RABBITS.

[Vaykshnorayte, M.A.](#); Ovechkin, A.O.; Sedova, K.A.; Azarov, J.E.

Komi Science Center, Ural Branch, Russian Academy of Sciences.

THE SEQUENCE OF DEPOLARIZATION AND STRUCTURAL ORGANIZATION OF THE MYOCARDIUM IN RATS WITH HYPERTROPHY OF DIFFERENT GENESIS.

[Roshchevskaya, I.M.](#); Suslonova, O.V.; Roshchevsky, M.P.

Komi Science Centre, Syktyvkar, Russia.

MEASUREMENTS OF VENTRICULAR ACTIVATION AND REPOLARISATION DURING DEEP HYPOTHERMIA AND REWARMING USING PANORAMIC OPTICAL MAPPING OF ISOLATED LANGENDORFF PERFUSED RABBIT HEARTS.

[Dietrichs, E.S.](#); Allan, A.; Burton, F.; Tveita, T.; Smith, G.

University of Glasgow, UK.

Saturday 10th August 2013
Gannochy Room

24

16:00 Automated ECG
Chairs: *T.F. Yang, E. Clark*

NEW ALGORITHMS AND NEW TECHNOLOGIES IN COMPUTERIZED ECG ANALYSIS: A CHALLENGE IN LONG-TERM FOLLOW-UP STUDIES.

[Perz, S.](#); Meisinger, C.; Käab, S.; Sinner, M.F.; Küfner, R.; Englmeier, K.H.

Helmholtz Zentrum München, Germany.

FEATURE EXTRACTION OF ECG SIGNAL USING SUPPORT VECTOR MACHINE.

Saini, I.; [Kumar, V.](#); Khosla, A.

National Institute of Technology, Jalandhar, India.

P WAVE IN NORMAL NIGERIANS USING AUTOMATED ANALYSIS.

[Katibi, I.](#); Macfarlane, P.; Clark, E.; Devine, B.; Lloyd, S.; Latif, S.; Araoye, M.A.; Omotoso, A.B.O.; Kolo, P.M.; Aiyedun, O.S.; Olaofin, W.

University of Ilorin, Nigeria.

IMPROVED AVERAGING OF MULTI-LEAD ECGS AND ELECTROGRAMS.

[Erem, B.](#); Martinez Orellana, R.; Stovicek, P.; Brooks, D.H.; MacLeod, R.S.

Northeastern University, USA.

Poster Sessions

Thursday 8th August 2013
Wolfson Medical School Atrium

14:30 Poster Session 1

ARRHYTHMIA TELEMONITORING IN ASYMPTOMATIC PATIENTS.

[Gegenava, T.](#); Gegenava, M.; Kirtava, Z.
Tbilisi State Medical University, Georgia.

NEW ECG INDEX AS A MARKER OF POOR PROGNOSIS IN ACUTE PULMONARY EMBOLISM: ST SEGMENT ELEVATION IN LEAD AVR WITH ST SEGMENT DEPRESSION IN LATERAL LEADS.

[Kukla P.](#); Baranchuk, A.; Zhan Zhong-qun Z.; Jastrzebski M.; Bryniarski L.; Mirek-Bryniarska E.
Department of Cardiology and Internal Diseases, Gorlice, Poland.

ELECTROCARDIOGRAPHIC CHANGES IN PATIENTS WITH SCHIZOPHRENIA.

[Gegenava, M.](#); Gegenava, T.
Tbilisi State Medical University, Georgia.

USABILITY STUDY TO ASSESS THE ABILITY OF RANDOMLY SELECTED UNTRAINED TARGET USERS TO OPERATE PUBLIC ACCESS DEFIBRILLATORS IN THE UNITED STATES.

[O'Hare, P.](#); McCanny, P.; Torney, H.; Crispino, G.; Crawford, L.; McIntyre, A.; McIntyre, C.; DiMaio, R.
HeartSine Technologies Ltd, Belfast, UK.

CONVENTIONAL ECG MARKERS DO NOT PREDICT VENTRICULAR FIBRILLATION DURING ST-ELEVATION MYOCARDIAL INFARCTION.

[Demidova, M.M.](#); Carlson, J.; Erlinge, D.; Platonov, P.G.

Lund University, Sweden.

CHANGES OF ELECTROCARDIOGRAM IN LOW-RENIN HYPERTENSION.

[Blinova, E.](#); Sakhnova, T.; Chikhladze, N.; Trunov, V.; Aidu, E.; Valieva, Z.; Saidova, M.; Rogoza, A.; Chazova, I.

Cardiology Research Complex, Russian Federation.

RESPIRATORY SINUS ARRHYTHMIA IN CHAGAS DISEASE.

[Neves, V.R.](#); Peltola, M.; Rocha, M.O.C.; Ribeiro, A.L.P.

Universidade Federal de Minas Gerais, Brazil.

THE ROLE OF MULTI-DIURNAL TELEMONITORING ECG IN THE MANAGEMENT OF PREGNANT WOMEN WITH VENTRICULAR ARRHYTHMIA.

[Tsurinova, E.A.](#); Popov, S.V.; Irtyuga, O.B.; Treshkur, T.V.

Almazov Federal Heart, Blood and Endocrinology Centre, Russian Federation.

HEART CHECK-UPS WITH POCKET SIZE EVENT ECG RECORDER IN CITIZEN'S MARATHON RALLY.

[Kasamaki, Y.K.](#); Ohta, M.O.; Watanabe, I.W.; Soma, M.S.; Ozawa, Y.O.; Nagashima, M.N.; Nakai, T.N.; Kunitomo, S.K.

Nihon University School of Medicine, Tokyo, Japan.

ECG MANAGEMENT IN GLASGOW - FROM "PATIENT TO PORTAL".

[Watts, M.P.](#); Gray, M.; Murdoch, D.L.; Cowe, A.
NHS Greater Glasgow and Clyde Health Board, UK.

PREVALENCE OF NORMAL ELECTROCARDIOGRAMS IN PRIMARY CARE PATIENTS: A STUDY BY A TELECARDIOLOGY SERVICE.

Marcolino, M.S.; Palhares, D.M.F.; Alkmim, M.B.M.; [Ribeiro, A.L.](#)

Universidade Federal de Minas Gerais, Brazil.

VISUALLY ESTIMATING THE SPATIAL QRS-T ANGLE FROM THE CONVENTIONAL 12-LEAD ECG.

[Cortez, D.L.C.](#); Devers, C.D.; Devers, E.D.; Schlegel, T.S.

CHOC Children's Hospital, Orange County, California/ Children's Hospital of Colorado, USA.

CARDIAC ARRHYTHMIA INDUCED BY HYPOTHERMIA IN A CARDIAC MODEL IN VITRO.

[Xu, B.](#); Jacquir, S.; Pont, O.; Yahia, H.

Team GeoStat - INRIA Bordeaux Sud-Ouest, France.

GLOBAL CARDIOVASCULAR RISK AND ARRHYTHMIAS ELECTROCARDIOGRAPHIC MARKERS IN HYPERTENSIVE PATIENTS WITHOUT CORONARY ARTERY DISEASE.

[Morales-Salinas, A.](#); León-Aliz, E.; Carmona-Puerta, R.

Cardiocentro "Ernesto Che Guevara", Cuba.

THE CLINICAL AND ELECTROCARDIOGRAPHIC CHARACTERISTICS OF PARASYSTOLIC IDIOVENTRICULAR RHYTHM.

[Chmelevsky, M.P.](#); Tsurinova, E.A.; Treshkur, T.V.

Almazov Federal Heart Blood and Endocrinology Centre, Russian Federation.

DETECTION OF THE ROLE OF ANXIETY IN THE GENESIS OF IDIOPATHIC VENTRICULAR PARASYSTOLE AND THE CHOICE OF PATHOGENETIC THERAPY

[Tulintseva, T.E.](#); Ilina, D.Y.; Tsurinova, E.A.; Treshkur, T.V.

Almazov Federal Heart, Blood and Endocrinology Centre, Russian Federation.

DIAGNOSIS OF INTRAVENTRICULAR CONDUCTION DISTURBANCES WITH BSPM USING BAND PATTERNS.

[Sobieszczanska, M.](#); Polak-Jonkisz, D.; Filipowski, H.; Rusiecki, L.; Janocha, A.; Laszki_Szczachor, K.

Wroclaw Medical University, Poland.

FUSION OF BIVENTRICULAR INCOMPLETE BUNDLE BRANCH BLOCK, IN HEALTHY YOUNG ADULTS AND IN PATIENTS WITH MODERATE PULMONALY HYPERTENSION. FRAGMENTED DEPOLARIZATION A NEW REAL ECG ENTITY.

[Regos, L.](#); Simon, A.; Garai, B.; Berényi, I.;

Antalóczy, Z.

Újpest Health Nonprofit Kft, Hungary.

5-HT_{2B} RECEPTORS EXPRESSION AND ITS ROLE IN AN EMBRYONAL DEVELOPMENT OF A HUMAN MYOCARDIUM.

[Bilalova, D.F.](#)

Kazan State Medical University, Russia.

ST ELEVATION IN HIGH-RESOLUTION BSPM MEASURED AT STRESS TEST TO ASSESS MYOCARDIAL ISCHEMIA.

Kania, M.; Zaczek, R.; Zavala-Fernandez, H.;

Janusek, D.; Opolski, G.; [Maniewski, R.](#)

Polish Academy of Sciences, Poland.

DECARTOGRAPHIC DETECTION OF PRESENCE AND SEVERITY OF RIGHT VENTRICULAR OVERLOAD IN PATIENTS WITH PULMONARY HYPERTENSION.

[Sakhnova, T.](#); Blinova, E.; Trunov, V.; Aidu, E.;

Yurasova, E.; Saidova, M.; Martynyuk, T.; Chazova, I.

Cardiology Research Complex, Moscow, Russian Federation.

ELECTROCARDIOGRAPHIC AND ECHOCARDIOGRAPHIC CORRELATIONS IN PATIENTS WITH PULMONARY ARTERIAL HYPERTENSION

[Blinova, E.](#); Sakhnova, T.; Saidova, M.; Loskutova, A.; Dadacheva, Z.; Archipova, O.; Martynyuk, T.;

Chazova, I.

Cardiology Research Complex, Russian Federation.

ECG QT INTERVAL IN MITRAL VALVE PROLAPSE SYNDROME IN TAIWAN.

Hsu, C.H.; Chen, Y.C.; Tsai, L.W.; Yang, I.F.; Tseng, C.K.;

[Yang, T.F.](#)

National Chiao Tung University, Hsinchu, Taiwan.

GENDER DIFFERENCES OF HEART RATE VARIABILITY BETWEEN TAIWANESE SYMPTOMATIC MITRAL VALVE PROLAPSE SYNDROME AND NORMAL.

Chen, Y.C.; Hsu, C.H.; Tsai, L.W.; Yang, I.F.; Tseng, C.K.;

[Yang, T.F.](#)

National Chiao Tung University, Hsinchu, Taiwan.

Saturday 10th August 2013

Wolfson Medical School Atrium

10:30 Poster Session 2

IMPROVED EASI ECG MODEL AS A RESULT OF USING VARIOUS REGRESSION AND MACHINE LEARNING TECHNIQUES.

[Oleksy, W.](#); Tkacz, E.; Budzianowski, Z.

Silesian University of Technology, Gliwice, Poland.

PATIENT SPECIFIC MODELLING OF ATRIAL FIBROSIS AND CONDUCTION.

[Morgan, R.](#); Rhode, K.; Aslanidi, O.

Kings College London, UK.

BIOPHYSICAL MODELING OF ST-T ALTERATIONS UNDER MYOCARDIAL ISCHEMIA.

Baum, O.V.; Voloshin, V.I.; Popov, L.A.; [Muromtseva, G.A.](#)

National Research Centre for Preventive Medicine, Russian Federation.

COMPUTER SIMULATION OF THE ROLE OF FIBER ORIENTATION IN CARDIOVERSION OF CHRONIC ATRIAL FIBRILLATION.

[Kharche, S.R.](#); Stary, T.; Biktasheva, I.V.; Zhang, H.;

Biktashev, V.N.

University of Exeter, UK.

RELATION OF PREOPERATIVE HEART RATE TURBULENCE PARAMETERS WITH VENTRICULAR ARRHYTHMIAS AFTER CORONARY ARTERY BYPASS GRAFTING.

[Dyuzheva, E.N.](#); Sobolev, A.V.; Vlasova, A.E.;

Ryabykina, G.V.

Russian Cardiology Research and Production Complex, Moscow, Russian Federation.

REFERENCE INTERVALS OF LATE POTENTIALS AND ASSOCIATION WITH AUTONOMIC NERVE SYSTEM IN HEALTHY SUBJECTS USING HOLTER AMBULATORY ELECTROCARDIOGRAM.

[Hashimoto, K.](#); Kasamaki, Y.; Okumura, Y.; Nakai, T.;

Kunimoto, S.; Hiro, T.; Wtanabe, I.; Nagashima, M.;

Nakayama, T.; Hirayama, A.; Soma, M.

Nihon University School of Medicine, Japan.

12-LEAD ECG ANALYSIS BASED ON COMPOSITE LEAD SIGNAL.

Dohare, A.; [Kumar, V.](#); Kumar, R.

Indian Institute of Technology, Roorkee.

CORRELATION OF SPECT EXAMINATION AND HIGH SIGNAL RESOLUTION ELECTROCARDIOGRAPHY.

[Krzyminiewski, R.K.](#); Dobosz, B.D.; Stepien, R.S.

Adam Mickiewicz University, Poland.

INVESTIGATION OF INTERRELATION BETWEEN HEART RATE AND BLOOD PRESSURE USING WAVELET TRANSFORM COHERENCE.

Kaur, R.; [Singh, D.](#)

Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, India.

APPLICATION OF HIGHER ORDER SPECTRA FOR ESTIMATION OF REHABILITATION PROGRESS IN CASE OF PATIENTS SUFFERING FROM ISCHEMIC BRAIN STROKE (IBS).

[Oleksy, W.](#); Tkacz, E.; Provaznik, I.

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FRACTAL DIMENSION OF ELECTROCARDIOGRAM: DISTINGUISHING HEALTHY AND HEART-FAILURE PATIENTS.

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