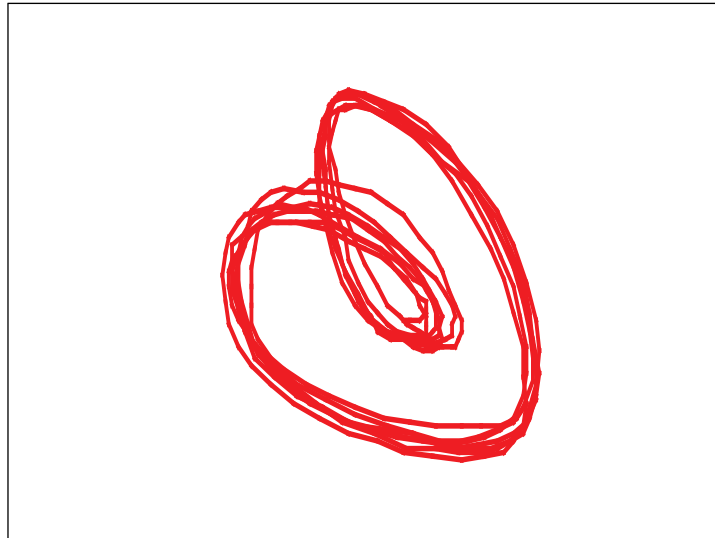


EUROPEAN STUDY GROUP OF CARDIOVASCULAR OSCILLATIONS



30th March – 1st April 2000

Miskin Manor, Cardiff, Wales.



**Supported by
Federation of European Physiological Societies
Bristol-Myers-Squibb College
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PROGRAMME

Thursday 30th March

19.30 Welcome reception

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Friday 31st March

Session 1

Chairpersons: A Porta / P Mansier

9.00 TM Griffith

Welcome

9.10 P Mansier (Paris)

Overview – Perspective and aims of group

9.30 A Malliani (Milan)

Physiological background of cardiovascular oscillators

10.00 S Cerutti (Milan)

Nonlinear dynamics in cardiovascular variability signal

10.30 coffee

11.00 D Hoyer (Jena)

Systems-analytical approaches to dynamic-nonlinear and complex coordinations in the cardiovascular-respiratory system

11.30 U Zwiener (Jena)

Pathophysiology of regulation and nonlinear methods.

12.00 G Baselli (Milan)

Models for the interactions in cardiovascular control mechanisms

concluding remarks

13.00 lunch

Session 2

Chairpersons: N-H Holstein-Rathlou / TM Griffith

14.00 H Schmidt-Schonbein (Aachen)

High resolution visualization of vasomotion and blood flow: causes and consequences of non-equilibrium phase transitions explained by variable flow distribution

14.30 A Colantuoni (Pisa)

In vivo studies of vasomotion

15.00 tea

15.30 TM Griffith (Cardiff)

Cellular mechanisms and nonlinear analysis of vasomotion

16.00 A Schuster (Lausanne)

Intracellular Ca²⁺ dynamics and myoendothelial communication in intact vessels: application to vasomotion.

concluding remarks

17.00-18.30 Poster viewing and discussion

19.30 dinner

Saturday 1st April

Session 3

Chairpersons: S Akselrod / A Malliani

9.00 H Stauss (Berlin)

Sympathetic modulation of vascular tone - Investigations in humans, animals, and cell cultures

9.30 N-H Holstein-Rathlou (Copenhagen)

Nonlinearity and renal blood flow

10.00 J Kanters (Helsingor)

Nonlinear analysis of cardiovascular oscillations

10.30 coffee

11.00 N Montano (Milan)

Analysis of the sympathetic neural discharge in human and animals

11.30 S Akselrod (Tel-Aviv)

Time dependent analysis of cardiovascular fluctuations in mental stress, awakesness and sleep

12.00 A Porta (Milan)

Quantifying regularity, synchronisation and coordination in cardiovascular variability signals.

concluding remarks

13.00 lunch

Session 4

Chairpersons: H Stauss/ J Kanters

14.00 A Trzebski (Warsaw)

Non-linear haemodynamics of young subjects exposed to repetitive intermittent apneas

14.30 A Aubert (Leuven)

Nonlinear cardiac dynamics in young athletes

15.00 R Mrowka (Berlin)

Non-linear analysis in cardiovascular risk stratification

15.30 H Bettermann (Herdecke)

Musical rhythms in heart period dynamics.

concluding remarks

16.00 tea

16.30 Discussion of Future plans

17.00 –18.30 *Poster viewing and discussion*

19.30 dinner
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Sunday 2nd April

departure

POSTER TITLES

Beckers F, Ramaekers A, Aubert A. Evaluation of nonlinear analysis in HRV.

Bogaerts F, Beckers F, Ramaekers A, Aubert A. Correlation dimension analysis of HRV in a normal population and in heart transplant patients.

Cysarz D, Bettermann H. Entropies of short binary sequences derived from heart period dynamics.

D'Addio G, Pinna GD, Acanfora D, Maestri R, Ranaudo E, Vitale D, Furgi G, Rengo F. Changes induced by controlled respiration and tilting on Poincare plots with reference to classical spectral HRV indexes in CAD patients.

Faes L, Nollo G, Pellegrini B, Antolini R, Porta A. Conditional entropy measurements for evaluating non linearity in cardiovascular oscillations in post-MI patients.

Griffith T, Edwards D. Differential roles of Ca^{2+} sequestration and release in the genesis of chaotic vasomotion.

Guzzetti S, Porta A, Borroni E, Magatelli R, Mezzetti S, Malliani A. Synchronization between heartbeat and ventilation in humans.

Monti A, Medigue, Escourrou. Cardiovascular autonomic control during sleep in normal subjects.

Parthimos D, Edwards D, Griffith T. Mathematical modelling of arterial chaos generated with coupled intracellular and membrane Ca^{2+} oscillators

Parthimos D, Stamatis N, Griffith T. Artificial Neural Network Approaches to the Forecasting of Chaotic Cardiovascular Time Series

Pellegrini B, Nollo G, Faes L, Antolini R, Porta A. Investigation of non linear causal relationships between cardiac cycle length and systolic arterial pressure by means of synchronisation index.

Putzeys J, Beckers F, Ramaekers A, Aubert A. Detrended fluctuation analysis of HRV.

Schmid-Schoenbein H. Self organized rhythm in psychosomatic relaxation.

Schuster A, Oishi H, Beny J-L, Stergiopoulos N, Meister J-J. Intracellular calcium dynamics and myoendothelial communication in an intact vessel; application to vasomotion.

Seps B, Beckers F, Ramaekers A, Aubert A. Influence of training on HRV in an elderly population.

Smietanowski M, Trzebski A. Multisignal symbolic analysis of cardiovascular dynamics in man.

Smietanowski M. Nonlinear parameters estimation from sequential short time data series.

Speijer G, Beckers F, Ramaekers A, Aubert A. Time evolution of HRV in heart transplant patients.

Verlinde D, Beckers F, Ramaekers A, Aubert A. Wavelet analysis of HRV.

PARTICIPANTS

Name		Country	
Akselrod	Solange	Israel	Tel-Aviv
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Monti	Alessandro	France	Le Chesnay
Mrowka	Ralf	Germany	Berlin
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