



NVTH/BSHT Joint Symposium - June 23-25th 2010

Wednesday 23 June

12.00-12.55 Arrival and registration

12.55-13.00 Welcome by Frits Rosendaal, chairman of NVTH and Trevor Baglin, president of BSHT

13.00-13.45 Keynote Lecture I:
Dr James Huntington, Cambridge Institute for Medical Research
Thrombin Life-Cycle: There and Back Again
moderator: Prof. dr F.R. Rosendaal

13.45-14.15 Tea break

14.15-15.45 Session I : Novel aspects of thrombosis and coagulation mechanisms
moderators: dr H.Versteeg and dr N. Mutch

PREDICTION OF VENOUS THROMBOSIS IN CANCER PATIENTS USING A MICROPARTICLE BASED CLOTTING TEST

A. Kleinjan (1), F.F. van Doormaal (1), R.J. Berckmans (2), M. Di Nisio (3), A. Sturk (2), P.W. Kamphuisen (1), R. Nieuwland (2), H.R. Buller (1)

1. Department of Vascular Medicine, Academic Medical Center Amsterdam, the Netherlands

2. Department of Clinical Chemistry, Academic Medical Center Amsterdam, the Netherlands

3. Department of Internal Medicine, Hospital D'Annunziata, Chieti, Italy

INDUCTION OF ANTI- β 2-GPI ANTIBODIES BY STREPTOCOCCUS PYOGENES SURFACE PROTEIN H

Gwen van Os^{1,3}, Heiko Herwald², Ron Derksen¹, Joost Meijers³ and Philip de Groot¹

1. UMC, Utrecht, The Netherlands; 2. Lund University, Lund, Sweden; 3. AMC, Amsterdam, The Netherlands

FINDING THE ORIGIN OF PULMONARY EMBOLISM WITH A TOTAL-BODY MR DIRECT THROMBUS IMAGING TECHNIQUE

K. van Langevelde¹, S. C. Cannegieter¹, A. Šrámek², F.R. Rosendaal^{1,3}

¹Clinical Epidemiology, ²Department of Radiology, ³Department of Thrombosis and Haemostasis; Leiden University Medical Center, Leiden, the Netherlands



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THE ENDOTHELIAL PROTEIN C RECEPTOR (EPCR) HAMPERS ANTIBACTERIAL DEFENSE IN MURINE PNEUMOCOCCAL PNEUMONIA AND SEPSIS.

Schouten M.^{1,2,3}, Van 't Veer C.^{1,2}, Esmon C.T.⁴, Levi M.³, Van der Poll T.^{1,2,3}

¹Center for Experimental and Molecular Medicine (CEMM), ²Center for Infection and Immunity Amsterdam (CINIMA), ³Department of Internal Medicine, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands ⁴Cardiovascular Biology Research Program, Oklahoma Medical Research Foundation, Oklahoma City, Oklahoma, United States of America.

REGULATION OF FACTOR XII ACTIVITY BY POLYPHOSPHATE

Ruchira Engel and Nicola J Mutch.

Faculty of Biological Sciences, University of Leeds, Leeds, UK

COAGULATION FACTOR XII INFLUENCES FIBRIN CLOT STRUCTURE

J Konings¹, JWP Govers-Riemsag¹, H Philippou², NJ Mutch³, G Tans⁴, RAS Ariëns², H ten Cate¹

¹: Laboratory for Clinical Thrombosis and Haemostasis, Department of Biochemistry, Cardiovascular; Research Institute Maastricht, Maastricht University, Maastricht, the Netherlands

²: Division of Cardiovascular and Diabetes Research, Faculty of Medicine and Health, University of Leeds, Leeds, United Kingdom; ³: Faculty of Biological Sciences, University of Leeds, Leeds, United Kingdom; ⁴: Department of Biochemistry, Cardiovascular Research Institute Maastricht, Maastricht University, Maastricht, the Netherlands

16.00-18.00 Football /alternative program: Lecture on sports psychology by Rico Schuijjer: *Scoring under pressure*

18.00-19.30 Dinner

19.30-21.00 Session II: Prothrombotic state and venous thrombosis

Moderators: dr W. Lijfering and dr T. Nokes

CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND THE RISK OF VENOUS THROMBOSIS

L.E. Flinterman¹, A van Hylckama Vlieg¹, S.C. Cannegieter¹, F.R. Rosendaal^{1,2}

¹ Department of Clinical Epidemiology; ² Department of Thrombosis and Haemostasis, Leiden University Medical Center, Leiden, the Netherlands

TFPI INHIBITION OF FACTOR X_a AND ITS ENHANCEMENT BY PROTEIN S

Verity Hockey¹, Helena Andersson¹, Thomas AJ McKinnon¹, Tsutomu Hamuro², David A Lane¹ and James TB Crawley¹.

(1) Centre for Haematology, Imperial College London, UK. (2) Chemo-Sero-Therapeutic Research Institute, Kaketsuken, Japan



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LEVELS OF THYROXINE ARE ASSOCIATED WITH RISK OF VENOUS THROMBOSIS: RESULTS OF A LARGE POPULATION BASED CASE-CONTROL STUDY (MEGA-STUDY)

Debeij J1, van Zaane B2,3, Dekkers OMI,4, Smit JWA4, Doggen CJM1, Gerdes VEA2,3, van Zanten AP5, Brandjes DPM2,3, Büller HR3, Rosendaal FRI,6,7, Cannegieter SCI,6.

1 Clinical Epidemiology, Leiden University Medical Center; 2 Internal Medicine, Slotervaart Hospital, Amsterdam; 3 Vascular Medicine, Academic Medical Center, Amsterdam; 4 Endocrinology and Metabolism, Leiden University Medical Center; 5 Clinical Biochemistry, Slotervaart Hospital, Amsterdam; 6 Thrombosis and Haemostasis, Leiden University Medical Center; 7 Einthoven Laboratory for Experimental Vascular Medicine, Leiden University Medical Center, The Netherlands

RISK OF VENOUS THROMBOSIS ASSOCIATED WITH COAGULATION FACTOR VIII AND ITS INTERRELATION WITH OTHER PROCOAGULANT AND ENVIRONMENTAL RISK FACTORS

Willem M. Lijfering, I Carine J.M. Doggen, I,4 Irene D. Bezemer, I Frits R. Rosendaal, I-3 Suzanne C. Cannegieter I

(1) Department of Clinical Epidemiology, Leiden University Medical Center, the Netherlands. (2) Thrombosis and Haemostasis Research Center, Leiden University Medical Center, Leiden, the Netherlands. (3) Einthoven Laboratory for Experimental Vascular Medicine, Leiden University Medical Center Leiden, the Netherlands. (4) Health Technology and Services Research, University of Twente, Enschede, The Netherlands

GLUTAMIC ACID RESIDUE 36 OF PROTEIN S AND ACTIVATED PROTEIN C COFACTOR FUCTION

Josefin Ahnstrom, Helena M Andersson, Kevin Canis, Yao Yu, Maria Panico, Howard R Morris, James TB Crawley and David A Lane.

Centre for Haematology and Division of Molecular Biosciences, Imperial College London, UK

HYPERCOAGULABILITY AS RISK FACTOR FOR VENOUS THROMBOSIS: THROMBIN GENERATION AND D-DIMER ASSAYS

A. van Hylckama Vlieg1, C.A. Baglin3, R. Luddington3, F.R. Rosendaal1,2, T.P. Baglin3

1 Department of Clinical Epidemiology and 2 Thrombosis and Haemostasis, Leiden University Medical Center, Leiden, the Netherlands 3 Department of Haematology, Addenbrookes hospital, Cambridge, United Kingdom

21.00

Bar



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Thursday 24 June

7.30- 9.00 Breakfast

9.00-10.30 Session III: Atherothrombosis

Moderators: dr S. Davidson and dr E. Castoldi

GENETIC VARIABILITY IN THE VON WILLEBRAND FACTOR GENE DETERMINES VWF PLASMA CONCENTRATION AND THE RISK OF CORONARY HEART DISEASE: THE ROTTERDAM STUDY

Janine E. van Loon¹ MD, Janine F. Felix² MD PhD, Jacqueline C. M. Witteman² PhD, Frank W.G. Leebeek MD PhD, Moniek P.M. de Maat¹ PhD

¹Department of Haematology and ²Department of Epidemiology, Erasmus MC, Rotterdam, the Netherlands

THE PROTEIN S ANTICOAGULANT PATHWAYS AND THE RISK OF ACUTE MYOCARDIAL INFARCTION IN YOUNG WOMEN; RESULTS FROM THE RATIO STUDY

K. Winckers¹, B. Siegerink², C. Duckers¹, L. M. Maurissen¹, G. Tans¹, E. Calstoldi¹, H. M. H. Spronk³, H. ten Cate³, A. Algra^{2, 5, 6}, T.M. Hackeng¹, F.R. Rosendaal^{2, 4}

¹ Department of Biochemistry, Cardiovascular Research Institute Maastricht, Maastricht University Medical Center (Maastricht); ² Department of Clinical Epidemiology, Leiden University Medical Center (Leiden); ³ Laboratory for Clinical Thrombosis and Haemostasis, Department of Internal Medicine, cardiovascular Research Institute Maastricht, Maastricht University Medical Center (Maastricht); ⁴ Department of Thrombosis and Hemostasis, Leiden University Medical Center (Leiden); ⁵ Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht (Utrecht); ⁶ Department of Neurology, University Medical Center Utrecht (Utrecht), the Netherlands

HIGH PLATELET REACTIVITY ACCORDING TO MULTIPLE PLATELET FUNCTION TESTS AND RECURRENT CARDIOVASCULAR EVENTS

J.D. Snoep¹, J.C.J. Eikenboom^{2, 3}, J.J. Zwaginga^{4, 5}, F.R. Rosendaal^{1, 2, 3}, J.G. van der Bom^{1, 5}

¹Dept. Clinical Epidemiology, ²Dept. Thrombosis and Hemostasis, ³Eindhoven Laboratory for Experimental Vascular Medicine, ⁴Dept. Immunohematology and Blood Transfusion, Leiden University Medical Center, Leiden, the Netherlands; ⁵Dept. Research and Training, Sanquin Blood Bank South-West Region, Leiden, the Netherlands

THE ADIPOKINES RESISTIN, LEPTIN, PAI-1 AND RBP4 INDUCE DEGRADATION OF IRS-1 IN MEGAKARYOCYTES AND PRODUCTION OF INSULIN-RESISTANT PLATELETS

Anja J Gerrits¹, Eelo Gitz¹, Arnold C Koekman¹, Frank L Visseren², Timon W van Haften³, Jan-Willem N Akkerman¹

Departments of ¹Clinical Chemistry and Haematology, ²Vascular Medicine and ³Internal Medicine, University Medical Center Utrecht, Utrecht, the Netherlands



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THE HDL RECEPTOR SR-BI MODULATES PLATELET FUNCTION AND SUSCEPTIBILITY TO THROMBOSIS IN VIVO

Suzanne J.A. Korporaal¹, Illiana Meurs¹, Menno Vergeer², Arnaud Hauer¹, Reeni B. Hildebrand¹, Domenico Praticò³, Jan-Willem N. Akkerman⁴, Theo J.C. Van Berkel¹, Johan Kuiper¹, Jan Albert Kuivenhoven² and Miranda Van Eck¹

¹Leiden/Amsterdam Center for Drug Research, Division of Biopharmaceutics, Gorlaeus Laboratories, Leiden, The Netherlands; ²Academic Medical Center, Department of Vascular Medicine, Amsterdam, The Netherlands; ³Temple University, School of Medicine, Department of Pharmacology, Philadelphia, PA, USA; ⁴University Medical Center Utrecht, Department of Clinical Chemistry and Haematology, Utrecht, The Netherlands.

PLATELET REACTIVITY IN PATIENTS WITH CORONARY STENT THROMBOSIS

Heleen J Bouman, PharmD^{1,2,3}, Nicoline J Breet, MD^{1,2}, Jochem W van Werkum, MD, PhD^{1,2}, Bastiaan Zwart, MD^{1,2}, Prof. Hugo ten Cate, MD, PhD³, Christian M Hackeng, PhD^{1,4}, Jurriën M ten Berg, MD, PhD, FACC, FESC^{1,2}

From the ¹St Antonius center for Platelet Function Research, Nieuwegein, the Netherlands; ²Department of Cardiology, St Antonius Hospital, Nieuwegein, the Netherlands; ³Department of Internal Medicine, Cardiovascular Research Institute Maastricht, Maastricht University, Maastricht, the Netherlands; ⁴Department of Clinical Chemistry, St Antonius Hospital, Nieuwegein, the Netherlands

10.30-11.00 Coffee break

11.00-11.45 Keynote Lecture II:

Prof Dr Ph. G de Groot, University Medical Center Utrecht:
Antiphospholipid antibodies: the final answer?
moderator: Prof. dr S. Machin

11.45-13.00 Session IV: New insights in treatment and prophylaxis of arterial and venous thrombosis

moderators: dr S. Pavord and dr K. Meijer

STRESS-INDUCED HYPERGLYCEMIA AND VENOUS THROMBOEMBOLISM FOLLOWING TOTAL HIP OR TOTAL KNEE ARTHROPLASTY: ANALYSIS FROM THE RECORD TRIALS

Danny M. Cohn^{*}, Jeroen Hermanides[†], J. Hans DeVries[†], Pieter W. Kamphuisen^{*}, Silvia Kuhls[‡], Martin Homering[‡], Joost B.L. Hoekstra[†], Anthonie W.A. Lensing^{*‡}, and Harry R. Büller^{*}

^{*}Department of Vascular Medicine, Academic Medical Center, Amsterdam, the Netherlands;

[†]Department of Internal Medicine, Academic Medical Center, Amsterdam, the Netherlands; [‡]

BayerHealthCare AG, Wuppertal, Germany



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OPTIMISING PREVENTION OF HOSPITAL-ACQUIRED THROMBOSIS BY INTEGRATED PROCESS-OUTCOME ANALYSIS

Baglin C, Baglin T.

Addenbrooke's Hospital. Cambridge.

RATIONAL DESIGN OF FVIII INHIBITORS: A POTENTIAL NEW CLASS OF ANTICOAGULANTS

Mahesh Kulharia¹, Olivier Sperandio², Simone Wielders¹, Aleksandra Wroblewska³, Jan Voorberg³, Bruno O. Villoutreix² and Gerry A.F. Nicolaes¹

¹Department of Biochemistry, Cardiovascular Research Institute Maastricht (CARIM), Maastricht University, the Netherlands. ²Inserm-Paris 7 Unit U973, Paris, France. ³Department of Plasma Proteins, Sanquin Research, Amsterdam, the Netherlands.

SUPPLEMENTATION OF VITAMIN K1 TO IMPROVE STABILITY OF ANTICOAGULATION THERAPY: VIKS-2A

E.P.A. Gebuis¹, F. J. M. van der Meer¹, M.F.Goddijn², F. R. Rosendaal^{1,2}

¹Department of Thrombosis and Haemostasis, ²Department of Clinical Epidemiology, Leiden University Medical Center, Leiden, Netherlands

THE IMPACT OF HIP/KNEE REPLACEMENT SURGERY, RIVAROXABAN AND FRAGMIN ON THROMBIN GENERATION

Laura Green¹, Andrew S. Lawrie¹, A. Chitolie¹, Wen J. Chen¹, Ian J. Mackie¹, F.S. Haddad², Samuel J. Machin¹

¹Haemostasis Research Unit, University College London, London, United Kingdom

²Department of Orthopaedics, University College London Hospitals, London, United Kingdom

13.00-14.30 Poster session / Lunch (14.00-14.30 annual meeting NVTH)

14.30-15.30 Session V: Platelets

Moderators: dr M. Roest and dr K. Gomez

A NOVEL FLOW CYTOMETRIC TEST TO DETECT DEFECTS IN PLATELET AGGREGATION: GLANZMANN DISEASE AND LAD-1/VARIANT SYNDROME IFFER IN THE COLLAGEN-INDUCED PLATELET RESPONSE

IM De Cuyper^{1,*}; E van de Vijver^{1,*}; D de Korte¹; TK van den Berg¹; TW Kuijpers^{1,2}; AJ Verhoeven^{1,3}

¹Department of Blood Cell Research, Sanquin Research, Amsterdam, the Netherlands; ²Emma's Children's Hospital, Academic Medical Centre, University of Amsterdam, Amsterdam, The Netherlands; ³present address: Department of Medical Biochemistry, Academic Medical Centre, University of Amsterdam, Amsterdam, The Netherlands. *These authors have contributed equally to this study



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DETECTION OF PLATELET GLYCOPROTEIN Ib α CLUSTERS BY FLUORESCENCE LIFE-TIME IMAGING

Eelo Gitzl, Dianne van der Wall, Dave van den Heuvel², Arjen Bader² and Jan-Willem Akkerman¹

¹Thrombosis and Haemostasis Laboratory, Department of Clinical Chemistry and Haematology, University Medical Center Utrecht, The Netherlands ²Molecular Biophysics, Utrecht University, The Netherlands

PLATELET APOPTOSIS IS INDUCED BY GLYCOPROTEIN IB α CLUSTERING

Dianne E. van der Wal, Vivian X. Du, Sandra Verhoef and Jan Willem N. Akkerman
Department of Clinical Chemistry and Haematology, University Medical Center Utrecht, Utrecht, the Netherlands.

ROLES OF PLATELET STIMI AND ORAI1 IN GLYCOPROTEIN VI- AND THROMBIN-DEPENDENT PROCOAGULANT ACTIVITY AND THROMBUS FORMATION

Roger van Kruchten \ddagger , Karen Gilio \ddagger , Attila Braun \S , Alejandro Berna-Erro \S , Marion A. H. Feijge \ddagger , David Stegner \S , Paola E. J. van der Meijden \ddagger , Marijke J. E. Kuijpers \ddagger , Margitta Elvers \S , Bernhard Nieswandt \S , Johan W. M. Heemskerk \ddagger

\ddagger Department of Biochemistry, Cardiovascular Research Institute Maastricht (CARIM), Maastricht University, Maastricht, The Netherlands \S Rudolf Virchow Center, University of Würzburg, Würzburg, Germany

15.30-15.45 Tea break

15.45-16.00 Presentation Scientific Awards

16.00-17.00 Van Creveld Lecture:

Prof. Dr J. Emmerich, Université Paris Descartes:

Treatment for peripheral artery disease: can we turn humans into salamanders?

Moderator: Prof. dr T. Hackeng

17.00-17.30 Quiz

Moderators: Marcel Levi, Joost Meijers

18.00 Departure with buses to Space Expo for dinner and party



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Friday 25 June

7.30- 9.00 Breakfast

9.00-10.30 Session VI: Endothelium and vascular biology
Moderators: dr J. Crawley and dr A. Spek

RELEASE OF VON WILLEBRAND FACTOR THROUGH MULTIGRANULAR EXOCYTOSIS OF WEIBEL-PALADE BODIES IN VASCULAR ENDOTHELIAL CELLS

Marjon J. Mourik, Karine M. Valentijn, Linda F. van Driel, Gert-Jan Hendriks, Tom J. Arends, Abraham J. Koster, Jack A. Valentijn
Department of Molecular Cell Biology, Section Electron Microscopy, Leiden University Medical Center, P.O. Box 9600, 2300 RC, Leiden, the Netherlands

IDENTIFICATION OF NOVEL VWF A2 DOMAIN RESIDUES CONTRIBUTING TO ADAMTS13 SUBSTRATE SPECIFICITY

Yaozu Xiang, Rens de Groot, James TB Crawley and David A Lane.
Centre for Haematology, Imperial College London

B2-GLYCOPROTEIN I CAN EXIST IN TWO DIFFERENT CONFORMATIONS: CONSEQUENCES FOR OUR UNDERSTANDING OF THE ANTIPHOSPHOLIPID SYNDROME

Çetin Açar^{1,2}, Gwendolyn M.A. van Os^{1,2}, Matthias Mörgelin³, Richard R. Sprenger¹, J. Arnoud Marquart¹, Rolf T. Urbanus², Ronald H.W.M. Derksen², Philip G. de Groot², Joost C.M. Meijers¹
¹Academic Medical Center, Amsterdam, The Netherlands; ²University Medical Center, Utrecht, the Netherlands; ³Lund University, Lund, Sweden

THE ROLE OF ADAMTS13 METALLOPROTEASE DOMAIN SUBSITES IN CLEAVAGE SITE SPECIFICITY

Rens de Groot¹, David A Lane¹ and James TB Crawley¹
¹Centre for Haematology, Imperial College London.

THE VICINAL DISULPHIDE BOND BETWEEN CYSTEINES, C1669 AND C1670, IS A CRITICAL DETERMINANT OF VON WILLEBRAND FACTOR A2 DOMAIN STRUCTURE AND FUNCTION

Brenda M Luken¹, Luke YN Winn¹, Jonas Emsley², David A Lane¹ and James TB Crawley¹
¹Department of Haematology, Imperial College London. ²Centre for Biomolecular Science, University of Nottingham



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Friday 25 June – continued

CHARACTERISATION OF VON WILLEBRAND FACTOR A1 DOMAIN MUTANTS
I1416N AND I1416T: APPLICATION OF FLOW-BASED PLATELET ADHESION
ASSAYS.

McKinnon Thomas AJ, Nowak Agata A, Goyder Anna, Riddell Anne F, Laffan Mike A, Millar
Carolyn M.

10.30-11.00 Coffee break

11.00-11.45 Keynote Lecture III:

Prof. Dr H.R. Büller, Academic Medical Center Amsterdam

Antithrombotics in cancer: from prevention to cure?

Moderator: dr R. Ariens

11.45-12.00 Closure, Awards, Results quiz