NVTH Symposium – March 28-29, 2018
Golden Tulip Hotel Westduin – Koudekerke, Zeeland

Wednesday, March 28th 2018

11.30 – 12.30 Registration and Lunch

12.30 – 13.00 Keynote Lecture I
Karin Fijnvandraat (UMCU) ‘Huge impact of tiny differences’
Moderator: Roger Schutgens (UMCU)

13.00 – 14.00 Session I. Clinical bleeding: disorders and complications
Moderators: Mandy Lauw (AMC) & Deeksha Khialani (LUMC)

EFFECT OF POLYPHARMACY ON BLEEDING OF RIVAROXABAN VERSUS VITAMIN K ANTAGONIST FOR TREATMENT OF VENOUS THROMBOEMBOLISM
Ingrid M. Bistervels1, M. Gebel1, A.W.A. Lensing2, S. Middeldorp1, M. Coppens1. 1Dept. of Vascular Medicine, Academic Medical Center, University of Amsterdam, 2Bayer HealthCare, Wuppertal, Germany.

COMORBIDITIES ASSOCIATED WITH HIGHER VON WILLEBRAND FACTOR (VWF) LEVELS MAY EXPLAIN THE AGE-RELATED INCREASE OF VWF IN VON WILLEBRAND DISEASE
Ferdows Atiq1, Karina Meijer2, Jeroen Ekenboom2,3, Karin Fijnvandraat2, Eveline P. Mauser-Bunschoten4, Karin P.M. van Galen6, Marten R. Nijziel7,8, Paula F. Ypma9, Joke de Meris10, Britta A.P. Laros-van Gorkom9, Johanna G van der Bom11,12, Moniek P. de Maat1, Marjon H. Cnossen13, Frank W G Leebeek1. 1Dept. of Hematology, Erasmus University Medical Center, 2Dept. of Hematology, University Medical Center Groningen, 3Div. of Thrombosis and Hemostasis, Leiden University Medical Center, 4Eindhoven Laboratory for Vascular and Regenerative Medicine, Leiden University Medical Center, 5Pediatric Hematology, Emma Children’s Hospital, Academic Medical Center, 6Van Creveldkliniek, University Medical Center University Utrecht, 7Dept. of Hematology, Radboud University Medical Center, 8Dept. of Hematology, Catharina Hospital, Eindhoven, 9Dept. of Hematology, Haga Hospital, The Hague, 10Netherlands Hemophilia Society, Leiden, 11Dept. of Clinical Epidemiology, Leiden University Medical Center, 12Jon J van Rood Center for Clinical Transfusion Medicine, Sanquin Research, Leiden, 13Dept. of Pediatric Hematology, Erasmus University Medical Center-Sophia Children’s Hospital.

MANAGEMENT AND OUTCOME OF BLEEDING COMPLICATIONS IN PATIENTS TREATED WITH DIRECT ORAL ANTICOAGULANTS: A PROSPECTIVE COHORT STUDY
Roisin Bavalia1, Rahat A. Abdoellah2, Eva N. Hamulyak3, Barbara A. Hutten1, Marjolein P.A. Brekelmans1, Karina Meijer4, Hugo ten Cate1, Menno V. Huisman3, Marieke J.H.A. Kruip1, Saskia Middeldorp1, Michiel Coppens1. 1Dept. of Vascular Medicine, Academic Medical Center, Amsterdam, 2Dept. of Haematology, University Medical Center Groningen, 3Div. of Clinical Epidemiology, Academic Medical Center, 4Dept. of Internal Medicine, Cardiovascular Research Institute Maastricht, 5Div. of Thrombosis and Hemostasis, Leiden University Medical Center, 6Dept. of Hematology, Erasmus University Medical Center.

PERFORMANCE OF THE ISTH BLEEDING ASSESSMENT TOOL IN PREDICTING THE PRESENCE OF INHERITED PLATELET FUNCTION DISORDERs
Maike Bliuwegers1,2, Ivar van Asten3, Suzanne Korporaal1, Albert Huisman3, Erik Beckers4, Marieke Kruip5, Michiel Coppens6, Jeroen Ekenboom7, Rienk Tamminga1, Rolf Urbanus3, Roger Schutgens1. 1Van Creveldkliniek, University Medical Center Utrecht, 2Van Creveld Laboratory, University Medical Center Utrecht, 3Dept. of Clinical Chemistry and Haematology, University Medical Center Utrecht, 4Maastricht University Medical Center, 5Erasmus University Medical Center, 6Academic Medical Center, 7Leiden University Medical Center, 8University Medical Center Groningen.

14.00 – 14.30 Coagulation Quiz
Quiz Masters: Henri Spronk (MUMC) & Joost Meijers (Sanquin)

14.30 – 15.00 Coffee/Tea break
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15.00 – 15.30  **Keynote Lecture II**
Coen Maas (UMCU) ‘The contact pathway: factor XII and polyphosphate’
Moderator: Hilde Kelchtermans (Synapse)

15.30 – 16.30  **Session II. Basic research: mechanisms uncovered**
Moderators: Brenda Luken (Sanquin) & Zonne Hofman (UMCU)

**AP-3 DEPENDENT PROTEIN TRAFFICKING: THE ROLE OF SNARE PROTEINS IN CARGO SORTING IN ENDOTHELIAL CELLS**
Ellie Karampini¹, M. Hofman¹, F.P.J. van Alphen¹, T.W. Kuijpers²,³, A.B. Meijer¹,², J. Voorberg¹, R. Blerings¹. ¹Dept. of Plasma Proteins, Sanquin Research and Landsteiner Laboratory, Academic Medical Center, University of Amsterdam, Amsterdam, ²Dept. of Blood Cell Research, Sanquin Research, UMCU, Amsterdam, ³Dept. of Pediatric Hematology, Immunology and Infectious Diseases, Emma Children’s Hospital, Academic Medical Center, University of Amsterdam, ⁴Pharmaceutical Sciences, Utrecht Institute for Pharmaceutical Sciences, Utrecht University.

**SLC44A2 DEFICIENT MICE EXHIBIT LESS SEVERITY OF THROMBOSIS IN A STENOSIS MODEL OF DVT**
Julia Tilburg¹, C.X. Maracle¹, G. Zirka², L. van den Heijkant¹, P.E. Morange²,³, G.M. Thomas², B.J.M. van Vlijmen¹. ¹Eindhoven Laboratory for Experimental Vascular Medicine, Div. of Thrombosis and Hemostasis, Dept. of Internal Medicine, Leiden University Medical Center, ²Aix-Marseille Univ, INSERM, INRA, C2VN, Marseille, France, ³APHM, CHU de la Timone, Laboratoire d’hématologie, Marseille, France.

**UNRAVELING THE CATALYTIC ENHANCEMENT OF ACTIVATED FACTOR IX VIA FOOTPRINTING MASS SPECTROMETRY**
Nadia Freato¹, E.H.T.M. Ebberink¹, F.P.J. van Alphen¹, C. van der Zwaan C¹, M. Boon-Spijker¹, A.B. Meijer¹,², M. van den Biggelaar¹, K. Mertens¹,². ¹Dept. of Plasma Proteins, Sanquin Research, Amsterdam, ²Utrecht Institute for Pharmaceutical Sciences, Utrecht University.

**FACTOR V HAS ANTICOAGULANT ACTIVITY IN PLASMA IN THE PRESENCE OF TFPIα: DIFFERENCE BETWEEN FV1 AND FV2**
Peter van Doorn¹, Jan Rosing¹, Connie Duckers¹, Tilman M. Hackeng¹, Paolo Simioni², Elisabetta Castoldi¹. ¹Dept. of Biochemistry, Cardiovascular Research Institute Maastricht, Maastricht University, ²Thrombotic and Hemorrhagic Diseases Unit, Department of Medicine, University of Padua Medical School, Padua, Italy.

16.30 – 17.00  **Coffee/Tea break**

17.00 – 18.00  **Van Creveld Lecture**
Pieter Reitsma (LUMC) ‘Coagulation is our second Nature’
Moderator: Saskia Middeldorp (AMC)

18.00 – 18.15  **Presentation NVTH Awards**
Moderators: Saskia Middeldorp (AMC) & Mettine Bos (LUMC)

18.30  Dinner and party at Kontiki (beach)
Thursday, March 29 2018

07.30 – 09.00  Breakfast

09.00 – 09.30  Keynote Lecture III
Henri Spronk (MUMC) ‘Thromboinflammation’
Moderator: Suzanne Korporaal (UMCU)

09.30 – 10.30  Session III. Basic research: platelets and the vessel wall
Moderators: Araci Rondon (LUMC) & Chantal Clark (UMCU)

MURINE GRAY PLATELET SYNDROME AFFECTS BOTH LEUKOCYTE AND PLATELET FUNCTION
Dorith A.M. Claushuis1, Sacha F. de Stoppelaar1, Alex F. de Vos1, Anita E. Grootemaat2, Nicole N. van der Wel2, Jerry Ware2, Cornelis van ’t Veen1, Tom van der Poll14. 1Center for Experimental and Molecular Medicine, Academic Medical Center, University of Amsterdam, 2Electron Microscopy Center Amsterdam, Medical Biology, Academic Medical Center, 3University of Arkansas for Medical Sciences, Little Rock, USA, 4Division of Infectious Diseases, Academic Medical Center, University of Amsterdam.

CHARACTERIZATION OF (ANTICOAGULATION PATHWAYS IN THROMBUS AND FIBRIN FORMATION UNDER FLOW TO PHENOTYPE HEMOSTATIC DISORDERS
Ankie J.P. van Geffen1, Sanne L.N. Brouns1, Frauke Swieringa12, Richard W. Farndale3, Kenneth J. Clemetson4, Elisabetta Castoldi1, Paola E. van der Meijden1, Marijke J. E. Kuijpers1, Rachel Cavill5, Johan W. M. Heemskerk1. 1Dept. of Biochemistry, Cardiovascular Research Institute Maastricht, Maastricht University, 2Dept. of Protein Dynamics, Leibniz Institute for Analytical Sciences, Dortmund, Germany, 3Dept. of Biochemistry, University of Cambridge, UK, 4Dept. of Haematology, Inselspital, University of Bern, Bern, Switzerland, 5Dept. of Data Science and Knowledge Engineering, Maastricht University, Maastricht.

GNE-RELATED THROMBOCYTOPENIA, A CONGENITAL THROMBOCYTOPENIA DUE TO PLATELET HYPOSIALYATION
Ivar van Asten1, R.G. Schutgens2, A.J. Lakerveld1, T. Noordermeer1, C.A. Koekman1, G. Pasterkamp1, A. Huisman1, D.J. van den Heuvel3, H.C. Gerritsen1, S.J.A. Korporaal1, M. Bierings1, J.J. van der Smagt2, R.T. Urbanus1. 1Center for circulatory health, Dept. of Clinical Chemistry and Haematology, University Medical Center Utrecht, Utrecht University, 2Van Crevelkliniek, University Medical Center Utrecht, 3Dept. of Molecular Biophysics, Utrecht University, 4Dept. of Haematology and Stem Cell Transplantation, Children’s Hospital, Utrecht University, 5Dept. of Clinical Genetics, University Medical Center Utrecht, Utrecht University.

THE ROLE OF COAGULATION PROTEASES AND PLATELETS ON MICROVASCULAR LOSS IN ATRIAL FIBRILLATION
Sophie C. Dölleman1, H.C. de Boer1, A.J. van Zonneveld1. 1Div. of Nephrology, Einthoven Laboratory for Vascular and Regenerative Medicine, Leiden University Medical Center.

10.30 – 11.00  Coffee/Tea break

11.00 – 11.30  Keynote Lecture IV
Maartje van den Biggelaar (Sanquin) ‘Phosphoproteomics of endothelial cell signaling’
Moderator: Mettine Bos (LUMC)
11.30 – 12.30  
**Session IV: Basic research: from bench to bedside**  
Moderators: Ingrid Dijkgraaf (MUMC) & Johana Hrdinova (Sanquin)

**BLOCKING TISSUE FACTOR SIGNALING IN BREAST CANCER INHIBITS TUMOR METASTASIS**
Betül Ünlü¹, Begüm Kocatürk¹, Wolfram Ruf²,³, Henri H. Versteeg¹. ¹Div. of Thrombosis and Hemostasis, Einthoven Laboratory for Experimental Vascular Medicine, Leiden University Medical Center, ²Dept. of Immunology and Microbiology, The Scripps Research Institute, La Jolla, California, USA, ³Center for Thrombosis and Hemostasis, Johannes Gutenberg University Medical Center, Mainz, Germany.

**TARGETED THROMBOLYSES FOR THROMBOTIC THROMBOCYTOPENIC PURPURA**
Steven de Maat¹, M. Waning¹, C. Clark¹, A. Barendrecht¹, P. Lenting², C. Maas¹. ¹University Medical Center Utrecht, Dept. of Clinical Chemistry and Haematology, ²INSERM, Unité Mixte de Recherche 5176, Université Paris-Sud, Université Paris-Saclay, France.

**REDESIGNED α1-ANTITRYPSIN AS THERAPY FOR BRADYKININ-DRIVEN DISEASE**
Wariya Sanrattana¹, N. Parr¹, C. Maas¹, S. de Maat¹. ¹Laboratory of Clinical Chemistry and Haematology, University Medical Center Utrecht.

**PHE174-MUTATED HUMAN FACTOR X AS BYPASSING AGENT TO THE DIRECT FXA INHIBITORS**
Mark Schreuder¹, Daniel Verhoef¹, Ka Lei Cheung¹, Koen M. Visscher², Daan P. Geerke², Pieter H. Reitsma¹, Mettine H.A. Bos¹. ¹Div. of Thrombosis and Hemostasis, Einthoven Laboratory for Experimental Vascular Medicine, Leiden University Medical Center, ²AIMMS Division of Molecular Toxicology, Department of Chemistry and Pharmaceutical Sciences, VU University.

12.30 – 13.30  
**Lunch**

13.30 – 14.00  
**NVTH Annual meeting**

14.00 – 14.30  
**Keynote Lecture V**
Michiel Coppens (AMC) ‘Future of anticoagulation’  
Moderator: Karina Meijer (UMCG)

14.30 – 15.30  
**Session V. Venous thromboembolism: etiology and therapy**  
Moderators: Nienke van Rein (LUMC) & Bram Kremers (MUMC)

**ROSUVASTATIN USE REDUCES THROMBIN GENERATION IN PATIENTS WITH VENOUS THROMBOEMBOLISM: RESULTS FROM A RANDOMIZED CLINICAL TRIAL**
Fernanda A. Orsi¹,², Josep. S. Biedermann³,⁴, Marieke J.H.A. Kruip³,⁴, Felix J. van der Meer⁵, Frits R. Rosendaal¹,², Mettine H.A. Bos¹,², Frank W.G. Leebek¹, Suzanne C. C. Cannegieter¹,²,⁵,⁶, Willem M. Lijfering¹,². ¹Dept. of Clinical Pathology, School of Medical Sciences, University of Campinas (UNICAMP), Campinas, Brazil, ²Dept. of Clinical Epidemiology, Leiden University Medical Center, ³Star-Medical Anticoagulation Clinic, Rotterdam, ⁴Dept. of Hematology, Erasmus University Medical Center, ⁵Div. of Thrombosis and Hemostasis, Leiden University Medical Center, ⁶Einthoven Laboratory for Vascular and Regenerative Medicine, Leiden University Medical Center.

**RISK OF RECURRENT VENOUS THROMBOEMBOLISM IN PREGNANCY AND POSTPARTUM PERIOD: RESULTS FROM THE MEGA FOLLOW-UP STUDY**
Luuk J.J. Scheres¹,², C.W. van Klaveren¹, B. Nemeth¹, S.C. Cannegieter¹,². ¹Dept. of Clinical Epidemiology, Leiden University Medical Center, ²Dept. of Vascular Medicine, Academic Medical Center, ³Div. of Thrombosis and Hemostasis, Leiden University Medical Center.
Efficacy and Safety of Edoxaban in Clinical Subgroups: Results from the Hokusai-VTE Cancer Randomized Trial

Frits Mulder1, Nick van Es1, Noemi Kraaijpoel1, Marcello Di Nisio2, Marc Carrier3, David Garcia4, Michael Grosso5, Ajay K. Kakkar6, Michele F. Mercuri5, Saskia Middeldorp1, Annelise Segers7, Peter Verhamme8, Tzu-Fei Wang9, Jeffrey I. Weitz10, George Zhang1, Harry R. Büller1, Gary Raskob11.

1Dept. of Vascular Medicine, Academic Medical Center, University of Amsterdam, 2Dept. of Medicine and Ageing Sciences, University G. D’Annunzio, Chieti, Italy, 3Ottawa Hospital Research Institute, Ottawa, Canada, 4Dept. of Medicine, Division of Hematology, University of Washington, Seattle, USA, 5Daiichi Sankyo Pharma Development, Basking Ridge, NJ, USA, 6Thrombosis Research Institute and University College London, London, UK, 7ITREAS, Academic Research Organization, Amsterdam, 8Dept. of Vascular Medicine and Hemostasis, University Hospitals Leuven, Belgium, 9Dept. of Internal Medicine, Division of Hematology, The Ohio State University Wexner Medical Center, Columbus, OH, USA, 10McMaster University and the Thrombosis and Atherosclerosis Research Institute, Hamilton, Canada, 11University of Oklahoma Health Sciences Center, College of Public Health, Oklahoma City, OK, USA.

Lower-Leg Injury Leads to a Procoagulant State

Carolina E. Touw1, Banne Nemeth1, Inger B. Schipper2, Rob G.H.H. Nelissen2, Suzanne C. Cannegieter1,4.

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15.30 – 16.00  Results quiz, presentation Jeanne Stibbe bokaal, and closure
Moderators: Saskia Middeldorp (AMC) & Mettine Bos (LUMC)