

Scientific Spring Meeting
Friday April 12, 2019

Dutch Society for Clinical Pharmacology and Biopharmacy
Nederlandse Vereniging voor Klinische Farmacologie en Biofarmacie

Dutch Pharmacological Society
Nederlandse Vereniging voor Farmacologie



PROGRAMME of the SCIENTIFIC MEETING
Friday April 12, 2019
Rotterdam

**SCIENTIFIC MEETING OF THE DUTCH SOCIETY FOR CLINICAL PHARMACOLOGY AND BIOPHARMACY (NVKFB) together with
the DUTCH PHARMACOLOGICAL SOCIETY (NVF)**

Program at a glance

09.00 h	Registration (coffee & tea available)
09.30 h	Plenary session (Dreamliner)
10.30 h	Coffee break
11.00 h	Parallel session 1 (Circle of life: from prenatal to end of life (Dreamliner) and Cardiovascular disease & metabolism (Arrow))
12.30 h	Algemene ledenvergadering (NVKFB Dreamliner; NVF Arrow) (PhD) students/trainees: Pharmaquiz (Sports bar)
13.15 h	Grab your lunch and take it to the poster session
13.30 h	Moderated poster session
14.30 h	Parallel session 2 (Immunology & Oncology (Dreamliner) and Infectious Diseases (Arrow))
16.00 h	Prize ceremony with pitches by winners (Dreamliner):
16.30 h	Drinks and networking; Certificates Clinical Pharmacologists (Sports bar)

Program in detail

- 09.00 h **Registration (coffee & tea available)**
- 09.30 h **Plenary session (Dreamliner)**
- Moderators: Roos Masereeuw & Kees Kramers**
- 09.30 h *Jeffrey Beekman* (Utrecht): Organoids for research in cystic fibrosis
- 10.00 h *Erwin Kompanje* (Rotterdam): Ethics of organoids and precision medicine in general
- 10.30 h **Coffee break**
- 11.00 h **Two parallel sessions**
- 1. Circle of life: from prenatal to end of life (Dreamliner)**
- Moderators: Bram Valkenburg & Anton Roks**
- 11.00 h *P. Mian, K. Allegaert, S. Conings, P. Annaert, D. Tibboel, M. Pfister, K. van Calsteren, J.N. van den Anker, A. Dallmann* (Rotterdam): Characterization of acetaminophen pharmacokinetics in the fetus through integration of placental transfer in a physiologically based pharmacokinetic model
- 11.15 h *Gaby Eliesen* (Nijmegen) Assessing placental exposure to TNF inhibitors in vivo and via ex vivo placenta perfusions
- 11.30 h *Aline Engberts* (Leiden): Dose optimization for preterm neonates: What we learned from the DINO study
- 11.45 h *T. de Kluis, S.C. Goulooze, M. van Dijk, E.H.J. Krekels, I. Ceelie, S.N. de Wildt, D. Tibboel, C.A.J. Knibbe* (Leiden): Item response theory modelling to define the concentration-effect relationship of morphine in preverbal children after major noncardiac surgery
- 12.00 h *G.A. Kalkman, C. Kramers, R.T.M. van Dongen, W. van den Brink, A.F.A. Schellekens* (Nijmegen): Trends in use and misuse of opioids in the Netherlands

12.15 h *B.T.G.M. Sallevelt, C.J.A. Huibers, I. Wilting, W. Knol, E.P. van Puijenbroek, A.C.G. Egberts* (Utrecht): Evaluation of clarity of the stopp/start criteria for clinical applicability in patient care for older people

2. Cardiovascular disease & metabolism (Arrow)

Moderators: Sanne Kloosterboer & Ben Janssen

11.00 h *Jorie Versmissen* (Rotterdam): TDM for adherence of antihypertensive drugs

11.15 h *L.C. Hendriksen, B. Koch, B.H. Stricker, L.E Visser* (Rotterdam): Women experience a greater reduction in heart rate while using metoprolol than men

11.30 h *Estrellita Uijl* (Rotterdam): SiRNA against angiotensinogen as an antihypertensive treatment

11.45 h *J.V Koomen, J. Stevens, H.J.L. Heerspink* (Groningen): Exposure and response analysis of aleglitazar on cardiovascular risk markers and safety outcomes: an analysis of the AleCardio trial

12.00 h *Mariska van den Berg* (Groningen): Arginase inhibition in allergic asthma

12.15 h *J. Woudstra, M. de Boer, L. Hempenius, E.N. van Roon* (Leeuwarden): Effectiveness and tolerability of urea as second-line treatment for hyponatremia due to the syndrome of inappropriate antidiuretic hormone secretion

12.30 h **General Meetings, NVKFB (Dreamliner), NVF (Arrow)**

12.30h **Pharmaquiz PhD students/trainees: intense knowledge quiz on pharma and more (Sports bar)**

13:15h **Grab your lunch and take it to the poster session!**

13.30 h **Moderated poster session**

POSTER PRESENTATIONS (NVKFB and NVF)

Circle of life: from prenatal to end of life

Hedwig van Hove, Gaby Eliesen, Petra van den Broek, Frans Russel, Joris van Drongelen, Rick Greupink (Nijmegen): A human placental villous explant model to study the toxicity of drugs

S. de Hoogd, S.C. Goulooze, A.J. Valkenburg, E.H.J. Krekels, M. van Dijk, D. Tibboel, C.A.J. Knibbe (Nieuwegein): Efficacy of morphine maintenance and rescue analgesia for postoperative pain after cardiac surgery in children: an analysis using repeated time-to-event analysis

S.C. Goulooze, E.H.J. Krekels, M. van Dijk, T. Hankemeier, D. Tibboel, E. Ista, C.A.J. Knibbe (Leiden): Mechanism-based modelling of iatrogenic withdrawal from analgesics and sedatives in critically ill children

C.Y. Ng, S.C. Goulooze, E.H.J. Krekels, M.Y.M. Peeters, D. Tibboel, A.J. Valkenburg, C.A.J. Knibbe (Leiden): Predicting oversedation in children in the intensive care using a logistic PK/PD model for midazolam and morphine

N.J.L. Smeets, B.D. van Groen, J. Pertijs, M.J. Wilmer, B. Smeets, R. Verdijk, S.N. de Wildt (Nijmegen): Ontogeny of human kidney OCT2 expression across the paediatric age range

B.D. van Groen, M.G. Mooij, E. van Duijn, C.A. Knibbe, K. Allegaert, A.D. Windhorst, J. van Rosmalen, N.H. Hendrikse, D. Tibboel, W.H.J. Vaes, S.N. de Wildt (Rotterdam): Pharmacokinetics and metabolism of an oral [¹⁴C]midazolam microdose in 46 critically ill children

C.J.A. Huibers, B.T.G.M. Sallevelt, D.A. de Groot, M.J. Boer, J.P.C.M. van Campen, C.J. Davids, J.G. Hugtenburg, A.M.A. Vermeulen Windsant-Van den Tweel, H.P.J. van Hout, R.J. van Marum, M.C. Meulendijk (Utrecht): Conversion of STOPP/START version 2 into coded algorithms for software implementation: a multidisciplinary consensus procedure

P.J. Upadhyay, N.J. Vet, S.C. Goulooze, E.H.J. Krekels, S.N. de Wildt, C.A.J. Knibbe (Leiden): Preliminary results on the study to identify the relation between midazolam concentrations and level of sedation in critically mechanically ventilated children

M. Kiss, J. Nicolai, J.J.M.W. van den Heuvel, F.G.M. Russel, A.-L. Ungell, S.N. de Wildt (Nijmegen): Drug uptake from the small intestine in early childhood – new insights with the Ussing chamber

F.E. El-Khouly, S.E.M. Veldhuijzen van Zanten, M.H.A. Jansen, G.J.L. Kaspers, D.G. van Vuurden (Utrecht): Preliminary results of a phase I/II study of bevacizumab, irinotecan, and erlotinib in children with progressive diffuse intrinsic pontine glioma

Cardiovascular Disease & Metabolism

L.E.J. Peeters, L. Feyz, E. Hameli, T. Zwart, S. Bahmany, B. van der Nagel, J. Daemen, T. van Gelder, J. Versmissen, B.C.P. Koch (Rotterdam): A clinical validation study of a dried blood spot assay for eight antihypertensive drugs

N. van Rein, U. Heide-Jørgensen, W.M. Lijfering, S.C. Cannegieter, H. Toft Sørensen (Aarhus): Major bleeding rates are similar in patients who use DOACs with interacting antiarrhythmics as compared with DOAC monotherapy

N. Vazirpanah, A. Ottria, M. van der Linden, C. Wichers, M. Schuiveling, E. van Lochem, A. Phipps-Green, T. R. Merriman, M. Zimmermann, M. Janssen, T.R.D.J. Radstake, J.C.A. Broen (Utrecht): mTOR inhibition by metformin impacts monosodium urate crystal induced inflammation and cell death in gout: a prelude to a new add-on therapy?

L.C. Hendriksen, K.M.C. Verhamme, B.H. Stricker, L.E Visser (Rotterdam): Women are started on a lower daily dose of metoprolol than men irrespective of dose recommendations

J.V Koomen, J. Stevens, H.J.L. Heerspink (Groningen): Exposure-Response relationships of dapagliflozin on cardiovascular risk markers and adverse events

M.Y.A.M. Kroonen, J. Stevens, D. de Zeeuw, H.J.L. Heerspink (Groningen): Association between individual cholesterol and albuminuria response and exposure to atorvastatin or rosuvastatin

D. Mitrovic, R. Folkeringa, N. Veeger, E. van Roon (Heerenveen): The reasons for discontinuation of NOAC therapy in atrial fibrillation patients treated in NOAC clinic

N.J.L. Smeets, M. Dalinghaus, S.N. de Wildt (Nijmegen): Metabolomics in children with heart failure using ACE-inhibitors, an exciting opportunity?

Stefan Reinhold (Maastricht): Interplay between Wnt and PPAR γ signaling in vascular calcification

Yuan Sun, Ingrid M. Garrelds, Xifeng Lu, A.H. Jan Danser (Rotterdam): Megalin: a novel endocytic receptor for prorenin and renin?

Infectious diseases

B.G.J. Dekkers, M.S. Bolhuis, L. ter Beek, W.C.M. de Lange, T.S. van der Werf, J.W.C. Alffenaar, O.W. Akkerman (Groningen): Reduced moxifloxacin exposure in patients with tuberculosis and diabetes

E.M. Gieling, D.W. de Lange, E. Wallenburg, R. ter Heine, T. Frenzel, J. ten Oever, R.P. Pickkers, D.M. Burger, E. Kolwijck, J.A. Schouten, R.J.M. Brüggemann (Nijmegen): The impact and extent of renal function on the clearance of ciprofloxacin in ICU patients using different makers for renal function

R.A. Wijma, Th. ten Doesschate, A. Plomp, J.W. Mouton, M.J.M. Bonten (Rotterdam): Unregistered use of fosfomycin-trometamol in the Dutch health care setting

R.S. Nannan Panday, M. Schinkel, N. Alam, P.W.B. Nanayakkara (Amsterdam): The effect of pharmacological antipyresis on mortality in patients with sepsis

A. Sobels, L. Binkhorst, D. van Lammeren-Venema, E. Wilms (den Haag): Therapeutic drug monitoring of posaconazole in patients with haematological malignancies

F.M. Keij, R.F. Kornelisse, N.G. Hartwig, B.C.P. Koch, I.K.M. Reiss, K. Allegaert, G.A. Tramper-Stranders (Rotterdam): A pharmacokinetic evaluation of oral clavulanic acid in term newborns

S. Hartman, Orriëns, N. Dia, M. Schreuder, R. Brüggeman, S.N. de Wildt (Nijmegen). Pharmacokinetics and Target Attainment of Antibiotics in Critically ill Children - A Systematic Review Of Current Literature

T. vd Meer, M. Siderius, M. vd Woude, L. Zara, S. Schroeder, A. K. Singh, D. Brown, R. Leurs (Amsterdam): Screening the MMV 'Pathogen Box' for novel inhibitors of parasitic phosphodiesterases

Immunology & Oncology

K.G.A.M. Hussaarts, D.P. Hurkmans, E. Oomen-de Hoop, L.J. van Harten, S. Berghuis, R.J. van Alphen, L.E.A. Spierings, Q.C. van Rossum-Schornagel, M.B. Vastbinder, R.H.N. van Schaik, T. van Gelder, A. Jager, R.W.F. van Leeuwen, R.H.J. Mathijssen (Rotterdam): Impact of curcumin with or without piperine on the pharmacokinetics of tamoxifen

S.L. Groenland, R.A.G. van Eerden, R.B. Verheijen, A.D.R. Huitema, R.H. J. Mathijssen, N. Steeghs (Amsterdam): Boosting pazopanib exposure by splitting intake moments – a prospective pharmacokinetic study in cancer patients

F.M. de Man, K.G.A.M. Husaarts, M. de With, E. Oomen-de Hoop, P. de Bruijn, H.K. van Halteren, N.C.H.P. van der Burg-de Graauw, F.A.L.M. Eskens, T. van Gelder, R.W.F. van Leeuwen, R.H.J. Mathijssen (Rotterdam): Influence of the proton pump inhibitor esomeprazole on the bioavailability of regorafenib: a randomized cross-over pharmacokinetic study

S.C.F.A. Huijberts, L. Wang, H. Rosing, B. Nuijen, J.H. Beijnen, R. Leite de Oliveira, R. Bernards, J.H.M. Schellens (Amsterdam): Proof of concept study with the histone deacetylase inhibitor (HDACi) vorinostat in patients with resistant BRAF^{v600e} mutated advanced melanoma

F.M. de Man, G.D.M. Veerman, E. Oomen-de Hoop, M.J. Deenen, D. Meulendijks, C.M.P.W. Mandigers, M. Soesan, J.H.M. Schellens, E. van Meerten, T. van Gelder, R.H.J. Mathijssen (Rotterdam): Comparison of toxicity and effectiveness between fixed-dosed and body-surface are (BSA)-dosed capecitabine

M.A. Kuijvenhoven, A.J. Wilhelm, E. Meijer, J.J.W.M. Jansen, E.L. Swart (Amsterdam): TRough vs. AUC Monitoring of ciclosporine: A randomized comparison of adverse drug reactions in allogeneic stem cell recipients (TRAM study)

Xiaoyuan Ma (Amsterdam): Identification of the histamine H4 receptor interactome

Tamara A.M. Mocking, Niels. J. Hauwert, Henry F. Vischer, Rob Leurs (Amsterdam): Photoswitchable ligands as tools for dynamic modulation of histamine receptors

R.W. Meijboom, H. Gardarsdottir, M.L. Becker, A.C.G. Egberts, H.G.M. Leufkens, T.J. Giezen (Utrecht): TNF α inhibitor treatment patterns in patients with rheumatic diseases and those with inflammatory bowel disease

Asmaa Oun, Arjan Kortholt, Amalia Dolga (Groningen): LRRK2 Modulates Mitochondrial Bioenergetics and Erastin-induced Ferroptosis in Immune Cells

Toxicology/ drug safety

L.M. Moss, M.H. Algera, M. van Velzen, J. Heuberger, S. Strafford, F. Gray, R. Dobbins, A. Dahan, G. Groeneveld (Leiden): High therapeutic buprenorphine levels reduce IV fentanyl respiratory depression

A. van Rongen, I.T. Vleut, C. Bethlehem, B.C.P. Koch (Rotterdam): Be aware of a barbiturate intoxication

J.K. Bekema, R.F. Mahomedradja, D.J. Brinkman, K.C.E. Sigaloff, M.A. Kuijvenhoven, M.A. van Agtmael (Amsterdam): The pharmacotherapy team: a novel multidisciplinary strategy using participatory action research to reduce in-hospital prescribing errors

M.M.E.A. Plantaz, B.A.J. Veldman, A.C. Esselink, H.W.H.A. Fleuren, C. Kramers (Nijmegen): Co-trimoxazole induced hyperkalemia and potassium monitoring in hospitalized patients

A.T.M. Wasylewicz, R.J.E. Grouls, E.H.M. Korsten, T.C.G. Egberts (Eindhoven): Clinical rule guided pharmacists' intervention in hospitalized patients with hypokalemia: a time series analysis

S. Bakker, N. van Rein, M.J.H.A. Kruip, W.M. Lijfering, F.J.M. van der Meer (Leiden): The association between the use of SSRIs and the occurrence of INR ≥ 5 and major bleedings during treatment with VKAS – what is the underlying mechanism?

Charlotte A. Hoogstraten, Jan A.M. Smeitink, Frans G.M. Russel and Tom J.J. Schirris (Nijmegen): A multiplexed high-throughput strategy to investigate mitochondrial dysfunction in drug-induced AKI

L.E.J. Peeters, C.A. den Uil, MD, L. Feyz, P.M.L.A. van den Bemt, J. Daemen, J. Versmissen (Rotterdam): Calcium channel blocker withdrawal-induced cardiac arrest in a patient with vasospastic angina

G.H.M. Ponjee, H.W.P.C. van de Meerendonk, M.J.A. Janssen, F. Karapinar-Çarkit (Amsterdam): Implementation of a geriatric stewardship reduced post-discharge patient-reported adverse drug events by half

Zazuli Z, Vijverberg SJH, Masereeuw R, Liu G, Carleton BC, Maitland-van der Zee AH (Utrecht): Association between 5-HT₃ antagonists and cisplatin nephrotoxicity in testicular cancer patients

Neurology & Psychiatry

T.Q. Ruijs, J.A.A.C. Heuberger, A.A. de Goede, M.J.A.M. van Putten, G.J. Groeneveld (Leiden): TMS-EMG and TMS-EEG as a biomarker for pharmacological effects on cortical excitability

M.A.A. Saleh, J. Ellassais-Schaap, E.C.M. de Lange (Leiden): A comprehensive CNS PBPK model: extension with PH effect and brain binding

R. Pandit, D. Cianci, A.D.R. Huitema, J.J. Luykx (Utrecht): Unemployment is associated with amisulpride-induced weight gain

M.E. Cloesmeijer, R.A.A. Mathôt, M.E.L. Arbouw, M. Zeeman, H.L.A. van den Oever (Amsterdam): Optimizing dosing regimens of clonidine in intensive care unit patients with population pharmacokinetics

L.M.A. Favié, F. Groenendaal, M.P.H. van den Broek, C.M.A. Rademaker, T.C.G. Egberts, A.D.R. Huitema (Utrecht): Pharmacokinetics of lidocaine as anti-epileptic drug in term and preterm neonates

S.M. Kloosterboer, B.C.M. de Winter, M.H.J. Hillegers, G.C. Dieleman, K.M. Egberts, M. Gerlach, T. van Gelder, B. Dierckx, B.C.P. Koch (Rotterdam): Pharmacokinetics and clinical effect of pipamperone in children and adolescents

C.L. Berends, L.M. Moss, E.M.J. van Brummelen, I.M.C. Kamerling, V. Ville, V. Juarez-Perez, A.C. Benichou, G.J. Groeneveld (Leiden): A FIH clinical trial to assess safety, tolerability, PK and PD of STR-324, a dual enkelphalinase inhibitor and therapeutic candidate for pain management

A.J. Valkenburg, M.Y. Peeters, S.C. Goulooze, C.V. Breatnach, R.A. Mathot, D. Tibboel, M. van Dijk, C.A.J. Knibbe (Rotterdam): Need for additional sedation after cardiac surgery in children with and without Down syndrome: a pharmacodynamic and pharmacokinetic analysis of midazolam

Education, Pharmacogenetics and Miscellaneous

E. Donker, D. Brinkman, M. Hessel, J.V. Smeden, A. Maassen Van Den Brink, B. Janssen, W. Knol, R. Goorden, L.E.J. Peeters, I. de Waard-Siebringa, G. Dumont, P. Jorens, A. Dupont, T. Christiaens, M. Richir, M. Van Agtmael, C. Kramers, J. Tichelaar (Amsterdam): Development of prescribing knowledge and skills of junior doctors in the first year after graduation

M.J. Bakkum, J. Tichelaar, K.C.E. Sigaloff, M.C. Richir, M.A. van Agtmael (Amsterdam): The efficacy of a mobile clinical decision support application compared to usual care: A proof of concept study among prescribers in different stages of training

F. van Rosse, L. Peeters, T. van Gelder, A. Maassen van den Brink (Rotterdam): Implementation of the national medication safety test at Erasmus MC. is a 'licence to prescribe' easily obtained or not?

M.M.M. Wilhelmus and B. Drukarch (Amsterdam): Success rate of test questions concerning pharmacokinetics is lower compared to pharmacodynamics in clinical pharmacology teaching in a health and life sciences curriculum

M. van der Lee, W.G. Allard, R.H.A.M Vossen, R.F. Baak-Pablo, H.J. Guchelaar, J.J. Swen, S.Y. Anvar (Leiden): Exploring the impact of long-read sequencing combined with a neural network predictive model to improve the prediction of CYP2D6 enzyme activity

X. Wang, J. J. de Waal, E. B. Lenselink, A. P. IJzerman, L. H. Heitman, and G. J. P. van Westen (Leiden). Characterization of cancer-related somatic mutations in the adenosine A1 receptor

T. Qin, D-J. van den Berg, Robin Hartman, Martin van Royen, E. de Lange (Leiden): Critical assessment of yield and variability in isolation and characterization of extracellular vesicles from human plasma using different methodologies

D.M. van Heteren, W.M. Lijfering, P.H. Reitsma, J.J. Swenn, M.H.A. Bos, N. van Rein (Leiden): Major bleeding rates are high in patients with a high INR combined with a G1639A SNP in the VKORC1 gene

Jamalpoor, A. van Eerde, M. R. Lilien, E. A. Zaal, C. R. Berkers, R. Masereeuw, M.J. Janssen (Utrecht): Studying the link between nephropathic cystinosis and renal tubular acidosis

Ming Zhang, Mohamed Moalin, Guido R.M.M. Haenen (Maastricht): The redox modulation activity of quercetin unraveled - a systematic approach

14.30 h **Second parallel session**

1. Infectious diseases (Arrow)

Moderators: Paola Mian & Tom Schirris

14.30 h *Coen van Hasselt (Leiden):* Quantitative translational pharmacology of antibiotics

14.45 h *Birgit Koch (Rotterdam):* TDM of antibiotics in critically ill patients

15.00 h *Laurens Verscheijden (Nijmegen):* PBPK model in meningitis

15.15 h *R. Stemkens, C.H.C. Litjens, S. Dian, A.R. Ganiem, V. Yunivita, R. van Crevel, L.H.M. te Brake, R. Ruslami, R.E. Aarnoutse (Nijmegen):* Pharmacokinetics of pyrazinamide during the initial phase of tuberculous meningitis treatment

15.30 h *Agi Smolinska (Maastricht):* Exhaled breath and gut microbiome as biomarkers for gastrointestinal diseases

15.45 h *L. Verrest, M. Wasunna, F. Alves, T.P.C. Dorlo (Amsterdam):* Population pharmacokinetic modeling of paromomycin in east african visceral leishmaniasis patients

2. Immunology & Oncology (Dreamliner)

Moderators: Anne van Rongen & Hjalmar Bouma

14.30 h *Linda Henricks (Amsterdam):* Why EMA recommends DPYD genotyping

14.45 h *D.R. Geel, S.L. Groenland, J.A. Burgers, J.H. Beijnen, A.D.R. Huitema, N. Steeghs (Amsterdam):* Exposure-response analysis of alk-inhibitor crizotinib in non-small cell lung cancer patients

15.00 h *Tamara Mocking (Amsterdam):* Light on photopharmacology

15.15 h *M. van Nuland, J.A. Burgers, H. Rosing, A.D.R. Huitema, S. Marchetti, J.H. Beijnen (Amsterdam):* Pilot study to predict the pharmacokinetics of a clinically relevant gemcitabine dose from a microdose

- 15.30 h *A.S. Strik, S.E. Berends, D.R. Mould, R.A. Mathôt, C.I. Ponsioen, J. van den Brande, J.M. Jansen, D.R. Hoekman, J.F. Brandse, M. Löwenberg, G.R. D'Haens* (Amsterdam): Dashboard driven versus conventional dosing of infliximab in inflammatory bowel disease: the precision trial
- 15.45 h *Linette Willemsen (Utrecht)*: Oligosaccharides in prevention of allergies
- 16.00 h **Prize ceremony with pitches by winners (Dreamliner):**
- ‘NVKFB’-Thesis Award 2018
- ‘NVF’-Thesis award 2018
- ‘NVKFB’-TOP Publication Award 2018
- ‘NVKFB’-Education Award 2018
- ‘NVF’ best poster prize
- ‘NVKFB’ best poster prize
- 16.30 h **Drinks and networking in the Sports bar; Certificates Clinical Pharmacologists**
- Drinks offered by the Erasmus MC Rotterdam