China Scholarship Council – University Maastricht

PhD Programme Application form

Basic information

- To be filled in by the prospective UM supervisors -

1. Information on prospective UM supervisors and Promotor

1a. First Supervisor/promoter:

- Title(s), initial(s), first name, surname:	Prof. dr. Hugo ten Cate
- Research group:	Thrombosis Expertise Center, MUMC+ and CARIM school for cardiovascular disease
- Address for correspondence:	Universiteitssingel 50, POBox 616, 6200 MD Maastricht
- Telephone:	+31433884262
- E-mail:	h.tencate@maastrichtuniversity.nl

1b. Second Supervisor/copromoter:

- Title(s), initial(s), first name, surname:	Dr. Kristien Winckers
- Research group:	Vascular medicine, MUMC+ and CARIM school for cardiovascular disease
- Address for correspondence:	POBox 5800, 6202 AZ Maastricht
- Telephone:	+31433876543
- E-mail:	kristien.winckers@mumc.nl

1c. Promotor (if applicable): **– see above**

- Title(s), initial(s), first name, surname:	Prof. dr. Yvonne MC Henskens
- Research group:	Dept. of Clinical Chemistry
- Address for correspondence:	POBox 5800, 6202 AZ Maastricht
- Telephone:	+31433874781
- E-mail:	Yvonne.henskens@mumc.nl

2. Information on UM Faculty/ Department/ Institute/ School contact person:

When the application is granted by both the CSC and UM, the contact person is responsible for the practical arrangements (i.e. assistance in obtaining a visa, finding accommodation, etc.) of the visit of the PhD candidate:

- Initial(s), first name, surname: Lidewij Bos
- Research group: dept. of Biochemistry
- Address for correspondence: Universiteitssingel 50, box 8; pobox 616, 6200 MD Maastricht
- Telephone: +31433884262
- E-mail:l.bos@maastrichtuniversity.nl

- To be filled in by the applicant if already known –

1. Information on the applicant

- Initial(s), first name, surname:
- Male/female:
- Current work address:

- Telephone:
- E-mail: WeChat:
- Private address:

2. Details of applicant's home university

Note! A separate letter of recommendation by the supervisor or faculty dean of the home university is required.

- Name of home university:
- Address:
- Telephone:
- E-mail:
- Website (if available):

3. Applicant's home university Master Thesis supervisor:

- Title(s), initial(s), first name, surname:
- Address for correspondence:

- Telephone:
- E-mail: WeChat:

4. Research field(s)

Biological Foundations of Human Health and Diseases

5. Title of research plan for CSC-UM PhD Programme

The relevance and mechanisms of "sticky platelet syndrome".

6. Short summary of research plan (max. 250 words) (A full plan has to be submitted later)

Background: The "sticky platelet syndrome" (SDS) is a platelet function disorder that is associated with an increased risk of venous and arterial thrombosis, or obstetric complications (Stasko et al, Exp Rev Hematol 2022;15:53-63). SDS appears to have distinct features including its occurrence in conjunction with neurological or obstetrical disturbances, the apparent influence of provoking factors including stressful events and an autosomal pattern of inheritance affecting both sexes and multiple generations. SDS is primarily a laboratory diagnosis, established by showing increased platelet aggregability at threshold agonist concentrations that normally would not elicit platelet activation. Although many genetic polymorphisms and modifiers including miRNA's have been reported the actual mechanism is still poorly understood. Besides, SDS remains a controversial diagnosis, hence it does not belong to current thrombophilia testing panels (Favaloro and Lippi, Semin Thromb Hemost 2019;69-72).
Study objective: 1. To explore the prevalence of SDS in patients with venous or arterial thrombotic disorders, or obstetric complications as compared to controls. 2. To study platelets from SDS individuals compared to controls, with state-of-the-art flow chamber technology, flow cytometry and cell signaling pathway exploration; second, to assess the procoagulant impact in thrombin generation assays and fibrin formation and lysis assays (tPA -ROTEM and clot lysis).
Expected Results: We will assess the clinical importance of SDS as risk factor in unselected, consecutive patients at risk of thrombosis and identify the mechanisms that link SDS to thrombosis. This should help to settle SDS, as a clinically important syndrome.
Requirements: background in medicine, biomedical sciences, laboratory medicine or clinical chemistry is preferred.
Group's performance: Web of science lists a h-index of 68 based on 727 publications and 17312 citations for ten Cate (August 17, 2022).

7. Motivation for CSC-UM PhD application (max. 250 words)
Two letters are required, one from the student and one from the promotion team.

Applicant's Curriculum Vitae (if available)
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8. Personal details

Applicant
- Title(s), initial(s), first name, surname:

CSC-UM PhD programme start 1-9-2022

- Surname:
- Nationality: Chinese
- Date of Birth:
- Country and place of birth:

9. Master's degree (if applicable)
Note! Add a copy of your Master's degree to your application

University:
Faculty/discipline:
City and country:
Date:
Grade average:
Title Master's thesis (if applicable):
Thesis grade:

Five most relevant articles on this topic of the past five years

1: Baidildinova G, Nagy M, Jurk K, Wild PS, **Ten Cate H**, van der Meijden PEJ. Soluble Platelet Release Factors as Biomarkers for Cardiovascular Disease. Front Cardiovasc Med. 2021 Jun 21;8:684920. doi: 10.3389/fcvm.2021.684920. PMID: 34235190; PMCID: PMC8255615.

2: Herfs L, Swieringa F, Jooss N, Kozlowski M, Heubel-Moenen FCJ, van Oerle R, Machiels P, **Henskens Y**, Heemskerk JWM. Multiparameter microfluidics assay of thrombus formation reveals increased sensitivity to contraction and antiplatelet agents at physiological temperature. Thromb Res. 2021 Jul;203:46-56. doi: 10.1016/j.thromres.2021.04.014. Epub 2021 Apr 19. PMID: 33934017.

3: van Paridon PCS, Panova-Noeva M, van Oerle R, Schultz A, Hermanns IM, Prochaska JH, Arnold N, Binder H, Schmidtmann I, Beutel ME, Pfeiffer N, Münzel T, Lackner KJ, **Ten Cate H**, Wild PS, Spronk HMH. Thrombin generation in cardiovascular disease and mortality - results from the Gutenberg Health Study. Haematologica. 2020 Sep 1;105(9):2327-2334. doi: 10.3324/haematol.2019.221655. PMID: 33054057; PMCID: PMC7556497.

4: Hulshof AM, Olie RH, Vries MJA, Verhezen PWM, van der Meijden PEJ, **Ten Cate H, Henskens YMC**. Rotational Thromboelastometry in High-Risk Patients on Dual

Antithrombotic Therapy After Percutaneous Coronary Intervention. Front Cardiovasc Med. 2021 Dec 22;8:788137. doi: 10.3389/fcvm.2021.788137. PMID: 35004899; PMCID: PMC8727359.

5: Kremers B, Wübbeke L, Mees B, **Ten Cate H**, Spronk H, Ten Cate-Hoek A. Plasma Biomarkers to Predict Cardiovascular Outcome in Patients With Peripheral Artery Disease: A Systematic Review and Meta-Analysis. Arterioscler Thromb Vasc Biol. 2020 Sep;40(9):2018-2032. doi: 10.1161/ATVBAHA.120.314774. Epub 2020 Jul 9. PMID: 32640905; PMCID: PMC7447177.