

Delicate interactions between plasma factors and blood cells affect thrombin generation

Citation for published version (APA):

Wan, J. (2021). *Delicate interactions between plasma factors and blood cells affect thrombin generation*. [Doctoral Thesis, Maastricht University]. Maastricht University. <https://doi.org/10.26481/dis.20210629jw>

Document status and date:

Published: 01/01/2021

DOI:

[10.26481/dis.20210629jw](https://doi.org/10.26481/dis.20210629jw)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.umlib.nl/taverne-license

Take down policy

If you believe that this document breaches copyright please contact us at:

repository@maastrichtuniversity.nl

providing details and we will investigate your claim.

Propositions belonging to the dissertation

Delicate interactions between plasma factors and blood cells affect thrombin generation

Jun Wan

1. A thrombin generation assay that includes circulating blood cells can give a more comprehensive assessment of blood coagulability than conventional plasma tests. (*this thesis*)
2. Coagulation profiling in patients with cirrhosis requires assessment of the pro-coagulant pathways, the anticoagulant pathways, and the involvement of blood cells. (*this thesis*)
3. High erythrocyte count exhibits prothrombotic effect through a direct augmentation of thrombin generation and indirectly via impairment of the protein C pathway anticoagulant function. (*this thesis*)
4. Instead of perturbations in plasmatic coagulability, HIV-induced endothelial activation and inflammation are the most possible prothrombotic driver in people living with HIV. (*this thesis*)
5. Thrombomodulin-modified thrombin generation could serve as an intermediate phenotype to discover genetic variations associated with coagulation disorders. (*this thesis*)
6. Whole blood thrombin generation is a big step towards the development of a point of care thrombin generation test that may push forward personalized medicine and benefit the under-developed communities that suffer the most from the lack of laboratory resources (*this thesis -impact paragraph*)
7. Localization determines the fate of coagulation factors: activated coagulation factors tend to express their activity on or very near the surface on which they are activated and are also protected from protease inhibitors in plasma. (modified from *Hoffman and Monroe, Thrombosis and Haemostasis 2001*)
8. Genetic risk factors for venous thromboembolism are not restricted to the coagulation or anticoagulation pathways (*F2, F5, SERPINC1, PROC, and PROS1* genes), recent large genome wide association studies also added several novel loci involved directly or indirectly in platelet biology, erythrocyte biology or inflammation. (modified from *Zöller et al, Expert Review of Hematology 2020*)
9. Tell me and I forget; Show me and I remember; Involve me and I understand. (Xunzi) 不闻不若闻之，闻之不若见之；见之不若知之，知之不若行之；学至于行而止矣。 - 《荀子》
10. Enlightenment comes when we do not attach to anything. (the Diamond Sutra) 应无所住而生其心 - 《金刚经》)