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de Vrij, Edwin

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Document Version

Publisher's PDF, also known as Version of record

Publication date:

2019

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

de Vrij, E. (2019). *Reversible Suppression of Hemostasis in Hibernation and Hypothermia*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen.

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Reversible Suppression of Hemostasis in Hibernation and Hypothermia

Edwin L. de Vrij

1. Reduction of circulating blood platelet number during torpor is fully reversed during arousal; both reduction and recovery during hibernation are temperature dependent. *(this thesis)*
2. Hemostasis is suppressed during hibernation through inhibition of both primary and secondary hemostasis while maintaining fibrinolytic potential. *(this thesis)*
3. Reversible temperature dependent thrombocytopenia is conferred by storage and release of platelets in liver sinusoids via margination to the endothelium. *(this thesis)*
4. The omnipresence of reversible temperature dependent reduction of platelet count in both hibernating and non-hibernating species seemingly represents a common evolutionary mechanism to suppress primary hemostasis. *(this thesis)*
5. Platelet storage/release in spleen and megakaryocyte rupture do not contribute importantly in reversal of torpor or cold induced thrombocytopenia. *(this thesis)*
6. It is possible to induce major morphological changes to platelets without platelet activation by altering temperature. *(this thesis)*
7. Light-, fluorescence- and electron-microscopy are good techniques to demonstrate reversible platelet shape and intracellular cytoskeletal changes by temperature in four dimensions. *(this thesis)*
8. When ordering a vodka martini, the James Bond movie character voices the perfect technique to handle a microtiter plate for aggregometry: shaken, not stirred.
9. In science, seeing is believing.
10. Even the smallest can change the course of the future. *(Galadriel to Frodo from J.R.R. Tolkien, The Fellowship of the Ring)*
11. Ik ben niet méér arts dan wetenschapper, ik ben één en dezelfde.
12. Obtaining an MD or a PhD is like life, the journey matters more than its destination.
13. Every child is an artist. The problem is how to remain an artist once we grow up. *(Pablo Picasso)*
14. Don't only practice your art, but force your way into its secrets, for it and knowledge can raise men to the divine. *(Ludwig van Beethoven)*