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## Hemostatic system activation and reperfusion injury in liver machine preservation and transplantation of extended criteria donor livers

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DOI:  
[10.33612/diss.161905515](https://doi.org/10.33612/diss.161905515)

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*Document Version*  
Publisher's PDF, also known as Version of record

*Publication date:*  
2021

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

*Citation for published version (APA):*

Karangwa, S. (2021). *Hemostatic system activation and reperfusion injury in liver machine preservation and transplantation of extended criteria donor livers*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen. <https://doi.org/10.33612/diss.161905515>

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Propositions associated with the dissertation

## **Hemostatic system activation and reperfusion injury in liver machine preservation and transplantation of extended criteria donor livers**

*Shanice A. Karangwa*

1. The type of liver graft utilized (i.e. donation after circulatory death (DCD) vs. after brain death (DBD)) is not a determining risk factor for severe intraoperative blood loss during liver transplantation.
2. The increased incidence of non-anastomotic biliary strictures in DCD liver grafts is not due to increased activation of coagulation. Therefore, fibrinolytic therapy during circulatory arrest is unnecessary.
3. In the next few decades, we will look back at static cold storage of donor organs for transplantation as a preservation modality of the past.
4. Measurement of hemostatic protein production should be added as a standard component in the assessment of graft viability during ex-situ normothermic machine perfusion (NMP) of donor livers.
5. During normothermic machine perfusion of donor livers, the use of plasma-free solutions is more favorable than plasma-based solutions.
6. The implementation of cytokine-filtration during machine preservation of extended-criteria donor organs is a promising solution to minimize reperfusion injury and reduce the incidence of post-transplant complications.
7. Performing an ex-situ liver perfusion procedure is a team sport; just like other team sports, dedication, hard work and a strong team-spirit are key.
8. Success is to be measured not so much by the position one has reached in life as by the obstacles which one has overcome while trying to succeed – *Booker T. Washington*
9. You travel to search, but you come back home to find yourself there – *Chimamanda Ngozi Adichie*

Stellingen behorende bij het proefschrift

## **Hemostatic system activation and reperfusion injury in liver machine preservation and transplantation of extended criteria donor livers**

*Shanice A. Karangwa*

1. Het gebruikte type donorlever (d.w.z. donatie na circulatoire dood (DCD) vs. na hersendood (DBD)) is geen risicofactor voor ernstig bloedverlies tijdens levertransplantatie.
2. De verhoogde incidentie van niet-anastomotische galwegstricturen bij DCD-levertransplantaties is niet te wijten aan een verhoogde activatie van de bloedstolling. Daarom is fibrinolytische therapie tijdens circulatiestilstand niet geïndiceerd.
3. In de komende decennia kijken we terug op het bewaren van donor organen voor transplantatie op ijs als een preservatiemodaliteit van het verleden.
4. Bepalen van de productie van hemostatische eiwitten dient als standaardcomponent te worden toegevoegd bij de beoordeling van de functionaliteit van de lever tijdens ex-situ normotherme machinale perfusie (NMP) van donorlevers.
5. Gedurende normotherme machinale perfusie van donorlevers is het gebruik van plasmavrije perfusievloeistoffen gunstiger dan het gebruik op plasma gebaseerde perfusievloeistoffen.
6. De implementatie van cytokinefiltratie tijdens machinale preservatie van suboptimale donororganen is een veelbelovende oplossing om reperfusieschade te minimaliseren en de incidentie van complicaties na transplantatie te verminderen.
7. Het uitvoeren van een ex-situ leverperfusieprocedure is een teamsport; net als bij andere teamsporten staan toewijding, hard werken en een sterke teamgeest centraal.
8. Success is to be measured not so much by the position one has reached in life as by the obstacles which one has overcome while trying to succeed – *Booker T. Washington*
9. You travel to search, but you come back home to find yourself there – *Chimamanda Ngozi Adichie*