

## Press release

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### Basic information

Name: Andrea Lund                      Email: [andrealund@clin.au.dk](mailto:andrealund@clin.au.dk) Phone: 27213422

Department of: Clinical Medicine

Main supervisor: Professor Frank Viborg Mortensen

Title of dissertation: Morphological and Biomolecular Aspects of Post-hepatectomy Liver Failure and Liver Regeneration

Date for defence: 23 August 2024 at (time of day): 14:00 Place: Aarhus University, Eduard Biermann Auditorium 1252-204, Bartholins Allé 3, 8000 Aarhus C

Press release (Danish)

Morfologiske og molekylærbiologiske forandringer under postoperativt leversvigt og leverregeneration efter udvidet leverresektion

Leverkræft er en af de primære årsager til kræftrelaterede dødsfald. Operation er førstevalgsbehandlingen og muliggøres på grund af leverens unikke evne til at regenerere. Mængden af tilbageværende levervæv og leverens funktionsevne er afgørende for risikoen for at udvikle postoperativt leversvigt. Vores viden om de morfologiske og molekylærbiologiske mekanismer, der påvirker udviklingen af leversvigt i den tidlige postoperative fase, er begrænset. Eksperimentelle studier viser, at postoperativt leversvigt er forbundet med manglende initiering af leverregeneration og utilstrækkelig opretholdelse af kroppens homeostase. Regulering af fedtstofskiftet synes at være essentielt for at igangsætte leverregenerationen. Ovenstående resultater stammer fra et nyt ph.d.-projekt fra Aarhus Universitet, Health. Projektet er gennemført af Andrea Lund, der forsvare det den 23. august 2024.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 23. august 2024 kl. 14.00 i Eduard Biermann auditoriet 1252-204, Aarhus Universitet, Bartholins Alle 3, 8000 Aarhus. Titlen på projektet er "Morphological and Biomolecular Aspects of Post-hepatectomy Liver Failure and Liver Regeneration". Yderligere oplysninger: Ph.d.-studerende Andrea Lund, e-mail: [andrealund@clin.au.dk](mailto:andrealund@clin.au.dk), tlf. 27213422.

Bedømmelsesudvalg:

Formand for bedømmelsesudvalget og moderater for forsvaret:

Niel Kristian Muff Aagard  
Overlæge, lektor, PhD  
Lever-, Mave- og Tarmsygdomme  
Aarhus Universitetshospital, Aarhus, Danmark

Kim Erlend Mortensen  
Overlæge, lektor, PhD  
Gastrokirurgisk Afdeling  
Universitetssykehuset Nord-Norge, Tromsø, Norge

Hans-Christian Pommergaard  
Afdelingslæge, lektor, DMSc, PhD  
Afdeling for Organkirurgi og Transplantation,  
Rigshospitalet, København, Danmark

Press release (English)

## Morphological and Biomolecular Aspects of Post-hepatectomy Liver Failure and Liver Regeneration after major liver resection

Liver malignancy is one of the primary causes of cancer-related deaths. For both primary and secondary liver malignancies, partial hepatectomy is the preferred curative treatment due to the liver's unique ability to regenerate. The extent and functional capacity of the remaining liver tissue are crucial in determining the risk of post-hepatectomy liver failure. However, our understanding of the morphological and biomolecular mechanisms influencing the development of liver failure following extensive partial hepatectomy remains limited. Experimental studies indicate that post-hepatectomy liver failure is linked to an inability to initiate liver regeneration while simultaneously maintaining adequate homeostasis. Regulation of lipid metabolism appears to be essential for priming the liver for regeneration. The project was carried out by Andrea Lund, who is defending her dissertation on 23 August 2024.

The defence is public and takes place on 23 August 2024 at 14:00 in Eduard Biermann Auditorium 1252-2024, Aarhus University, Bartholins Allé 3, 8000 Aarhus. The title of the project is "Morphological and Biomolecular Aspects of Post-hepatectomy Liver Failure And Liver Regeneration". For more information, please contact PhD student Andrea Lund, email: andrealund@clin.au.dk, Phone +45 27213422.

Assessment committee:

Chairman and moderator of the defence:

Niels Kristian Muff Aagaard  
Associate professor, MD, PhD  
Department of Clinical Medicine, Aarhus University,  
Department of Hepatology and Gastroenterology  
Aarhus University Hospital, Aarhus, Denmark

Kim Erlend Mortensen  
Associate Professor, MD, PhD  
Department of Clinical Medicine Arctic University of Norway,  
Department of Gastroenterological Surgery  
University Hospital of North Norway, Tromsø, Norway

Hans-Christian Pommegaard  
Associate Professor, DMSc, PhD  
Department of Clinical Medicine, University of Copenhagen,  
Department of Surgery and Transplantation, Centre for Cancer and Organ Diseases  
Rigshospitalet, Copenhagen, Denmark

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