

Report to the ScandiaTransplant Research Grant

Summary of scientific progress

During the first year of the PhD project *Early detection of de novo cancer in liver transplant recipients (DETECT study)*, we established an overview and agreement of the workflow with collaborators of the project. Please see timeline below. With the support of the ScandiaTransplant Research Grant we were able to fund data collection at each of the collaborative transplantation centers. Follow up data, including type of de novo cancer, date of de novo cancer, immunosuppressive medication (including trough levels), were attained by august 2024 on all liver transplant recipients included in the DETECT study.

Simultaneously, we initiated substudy II. From the DSA biobank, we located and analyzed all available one-year plasma samples for Torque Teno Virus (TTV) load. By February 2024 all samples were analyzed.

While attaining follow up data for our multicenter studies, we conducted a local study on liver transplant recipients attending outpatient care at Rigshospitalet, Copenhagen, Denmark. The study evaluated skin cancer incidence and risk factors in liver transplant recipients enrolled in a skin cancer screening program. The study entitled "Early results of a screening program for skin cancer in liver transplant recipients: a cohort study" was published in the special issue "Liver Transplantation for Cancer: The Future of Transplant Oncology" in the journal *Cancers*. <https://doi.org/10.3390/cancers16061224>.

Plans for the remaining study period

Currently we are finishing the second manuscript of the PhD project. The study investigates the association of TTV and de novo cancer in liver transplant recipients and includes all liver transplant recipients from the DSA study with an available one-year blood sample. The manuscript is expected to be published during the fall of 2024. Next, we will investigate the association of TTV and chronic rejection / fibrosis in the same population. For substudy III, we will send plasma samples to be analyzed for circulating tumor DNA at MoM by winter of 2024.

Timeline of first year of DETECT study

| 2022 Apr-Sep | 2022-2023 Sep. - Sep. | 2023 Sep. - Dec. | 2024 Jan.-Mar. |
|--|--------------------------|---|---|
| - Data collection - Skin cancer study | Maternity leave | - Analyzes of plasma samples for TTV - Skin cancer study | - Analyzes of plasma samples for TTV - Skin cancer study |

Financial balance

Funding received

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|---|--|--------------------|
| ScandiaTransplant Research Grant | | 200.000 DKK |
| Sahlgrenska Hospital | | -40.000 DKK |
| Karolinska Hospital | | -40.000 DKK |
| Rigshospitalet | | -40.000 DKK |
| Balance | | 80.000 DKK |

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|---------------------------------------|-------------|----------------------|
| ScandiaTransplant Travel Grant | | 24.000 DKK |
| Gøteborg, train (29/8/2024) | | -1.361,00 DKK |
| Hotel (17-20/9/2024) | 5286,00 SEK | ~ -3.536,15 DKK |
| Gøteborg, train (17-20/9/2024) | | -1.592,45 DKK |
| Balance | | 17.510,40 DKK |