

Cohort	
Name	<b>New Hoorn Study</b>
Description	The Hoorn study studies the course of development and progression of Diabetes. The Hoorn study aims to determine the psychological, social, biological and genetic factors that influence the development and progression of Diabetes.
Location	Hoorn and surroundings
Lead Institute	AUMC
Cohort size	2006: 2807 participants 2013: 1734 participants
Start Cohort	2006
Follow-up	2010 (subgroup) 2013 The whole group is still being followed for mortality and morbidity through registration
Variables and Measurement methods	<p><u>General Demographics</u></p> <ul style="list-style-type: none"> <li>• Age and sex</li> <li>• Education level</li> <li>• Family history diabetes</li> <li>• Smoking</li> <li>• Height, weight, BMI</li> <li>• Waist and hip circumference</li> <li>• Blood pressure</li> <li>• Medication use</li> <li>• Medical history</li> </ul> <p><u>Diabetes-related markers from blood</u></p> <ul style="list-style-type: none"> <li>• Fasting glucose and HbA1c levels</li> <li>• 2h glucose levels after OGTT</li> <li>• Insulin level</li> <li>• Serum Creatinine level</li> </ul> <p><u>Other biomarkers from blood</u></p> <ul style="list-style-type: none"> <li>• Cholesterol and triglycerides levels</li> <li>• Leptin level</li> <li>• Thrombomodulin level</li> <li>• Vitamin D</li> <li>• C Reactive Protein level</li> <li>• TNF-a level</li> <li>• ICAM-1/VCAM-1/ICAM3 levels</li> <li>• IL-1B/IL-6 /IL-8 levels</li> <li>• P-Selectin and E-Selectin level</li> <li>• SAA level -</li> <li>• Alanin-aminotransferase (ALAT) level</li> </ul> <p><u>Physical tests</u></p> <ul style="list-style-type: none"> <li>• Echocardiogram (ECG)</li> <li>• Pulse wave velocity</li> <li>• Intima-media thickness (IMT)</li> <li>• Body fat distribution by DXA</li> </ul>

	<ul style="list-style-type: none"> <li>• Microvascular function</li> </ul> <p><u>Genetics</u></p> <ul style="list-style-type: none"> <li>• DNA isolated</li> </ul> <p><u>Questionnaires</u></p> <ul style="list-style-type: none"> <li>• Physical activity, hours per day</li> <li>• Food Frequency Questionnaire</li> <li>• Cardiovascular disease via Rose Questionnaire</li> <li>• Depressive symptoms via CES-D</li> <li>• Stressful life events</li> <li>• Health survey via SF36</li> <li>• Depression and anxiety via HADS</li> <li>• Coffee use</li> <li>• Alcohol use</li> <li>• Disease specific complaints</li> </ul>
Availability and Type of -omic data	N=500 for GWAS, transcriptomics, proteomics and metabolomics within IMI-DIRECT study; can only be obtained after approval by the IMI-DIRECT consortium
Design paper	<a href="#">van 't Riet et al., 2010</a>
Website	<a href="http://www.hoornstudies.com/">www.hoornstudies.com/</a>