Biomedical Sciences (BW)	**16 weeks (BSc), 20 or 28 weeks (MSc)***
Medicine (GNK)	**16, 21 or 26 weeks***
Research thema's	□ Academic Pharma □ Neuroscience x Cancer □ **(Auto-)Immunity** □ Cell Tissue & Organ (Tx) □ Cardio-Vascular □ Genetics □ Infection □ **Lifecourse** □ **Prevention & Lifestyle** □ **Other projects**
Department	MDLZ
Project supervisor	Jeroen Maljaars (Gastroenterologist) & Daan Verhoeven (PhD-candidate)
Address	Albinusdreef 2
Telephone number	
Fax number	
E-mail address	
Title of research project	The influence of comorbidities on colonoscopy surveillance advice in the Dutch colorectal cancer screening program
Background of research project	Colorectal cancer (CRC) is one of the most common types of cancer. In the Netherlands, individuals aged 55–75 are invited to participate in the national screening programme using the Fecal Immunochemical Test (FIT). In case of a positive FIT result, a diagnostic colonoscopy is performed. Recommendations for follow-up (surveillance by means of repeat colonoscopies) are currently mainly based on the findings of the index colonoscopy, such as the number, size and histological characteristics of polyps. However, the current guidelines do not sufficiently take the presence of comorbidities and life expectancy into account, while these factors are highly relevant, particularly in older patients. Previous research at the Leiden University Medical Center (LUMC) demonstrated that, in practice, physicians do not differentiate between patients with and without comorbidities when recommending surveillance. Nevertheless, patients with comorbidities were found to have a significantly higher mortality rate, indicating that they may benefit less from (relatively invasive) follow-up procedures. This project builds on these findings and aims to improve efficiency, patient safety and personalised decision-making within the national CRC screening programme.
Research questions	Is the presence of comorbidities taken into account in the surveillance recommendation after an index colonoscopy within the Dutch colorectal cancer screening programme? **Sub-questions:** 1. What is the difference in surveillance recommendations between patients with and without comorbidities (according to the Charlson Comorbidity Index)?

	2. Is there a difference in the actual performance of surveillance between these groups? 3. What are the differences in mortality after the index colonoscopy? 4. Is there a difference in complication rates between patients with and without comorbidities? 5. How do surveillance recommendations relate to the estimated 10-year survival? (Based on the study design and results of the previous project)
Clinical/Non-clinical (only BW)	Clinical
Methods	This study concerns a **retrospective observational follow-up study** based on patient data from Leiden University Medical Center (LUMC). **Study population:** • Patients aged 65–75 years • Invited for an index colonoscopy in 2014 following a positive FIT test • Colonoscopy performed at LUMC **Exclusion criteria:** • No informed consent • Incomplete colonoscopy without follow-up • ASA score of 1 • No (high- or low-risk) adenomas (polyp score 0) • Colorectal cancer detected at index colonoscopy **Data collection:** • Electronic Patient Record (HiX, LUMC) • CASTOR EDC database • Colonoscopy and pathology reports • Mortality data • Comorbidities assessed using the Charlson Comorbidity Index (CCI) **Outcome measures:** *Primary outcome:* • Surveillance recommendation (yes/no) following the index colonoscopy *Secondary outcomes:* • Actual performance of surveillance • Complications • Mortality • Number and type of polyps • Repeated surveillance recommendation **Analysis:** • Descriptive statistics • Chi-square test (for categorical variables) • Student's t-test / Mann–Whitney U test (for continuous variables) • Significance level: $p < 0.05$ • Statistical analysis using SPSS
Project at least available until	June 2026
Similar projects available thereafter	Yes/~~no~~ (please strike through)

Date of submission of this project	24-11-2025

* Please strike through when not applicable

** Please indicate which profile fits best (multiple options possible)