

# Energy balance and colorectal cancer risk

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Propositions belonging to the thesis

**ENERGY BALANCE AND COLORECTAL CANCER RISK:  
A ROLE FOR CANCER CELL METABOLISM?**

Josien Jenniskens

1. Non-pathologists can generate valid and reproducible immunohistochemistry scoring results. (*this thesis*)
2. The Warburg-effect plays a role in the etiological pathway between adiposity and colon cancer risk, but not rectal cancer. (*this thesis*)
3. The role of the Warburg-effect in the etiological pathway between energy balance and colorectal cancer risk differs according to sex. (*this thesis*)
4. The Warburg-subtypes that were used in the current thesis give a better representation of the Warburg-effect than the subgroups based on *KRAS*, *PIK3CA*, and *BRAF* mutation status and MMR status. (*this thesis*)
5. Colorectal cancer should not be considered a single disease.
6. Making compromises is unavoidable in molecular pathological epidemiology research.
7. Close collaboration, while acknowledging strengths and weaknesses of disciplines, is essential for multidisciplinary research, like molecular pathological epidemiology, to succeed.
8. Insights into mechanisms underlying the etiological pathway between energy balance-related factors and colorectal cancer risk will improve preventive strategies.
9. Every expert was once a beginner.
10. If you can't explain it simply, you don't understand it well enough. (*Albert Einstein*)
11. 't Leve is un feest, en op feeste moste danse. (*Beppie Kraft - 't leuke zeuke*)