

# Diabetes-related factors and atherosclerosis regression

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## Propositions

Accompanying the dissertation

### Diabetes-related factors and atherosclerosis regression

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1. Elevated triglyceride levels are common in cardiovascular disease patients (*Goldstein JL et al., J Clin Invest 1973*) and inversely correlate with HDL-Cholesterol (*Patsch JR et al., PNAS 1983*)
2. Elevated triglyceride levels lower HDL number, but not HDL cholesterol efflux capacity (*This dissertation*)
3. Atherosclerosis regression is driven by LDL reduction and is not affected by hypertriglyceridemia and HDL-C levels in mice (*This dissertation*)
4. HDL-CEC is inversely associated with incident cardiovascular disease (*Rohatgi A et al., N.Engl. J. Med. 2014*). People with diabetes are thought to have reduced HDL-CEC (*Apró J, ATVB 2016*), which represents a possible explanation for their impaired ability to regress atherosclerotic lesions
5. Neither in the general population nor in individuals with (pre)diabetes HDL-CEC was associated with atherosclerosis or CVD/CVE, while other HDL characteristics showed atheroprotective associations (*This dissertation*)
6. The implications of neutrophils in atherosclerosis have been overshadowed by leukocyte subtypes, but the discovery of neutrophils ability to form neutrophil extracellular traps has sparked new interest. NETs formation in plaques accelerates atherosclerosis (*Warnatsch A et al., Science 2015*) and are increased in mice with diabetes (*Barrett TJ et al., Circulation 2019*)
7. Clearance of NETs can overcome impaired atherosclerosis regression in diabetic mice and has therapeutic potential (*This dissertation*)
8. Treating hyperglycemia-associated inflammation is prominent over treating hypertriglyceridemia to lower residual cardiovascular risk in individuals with diabetes
9. To bring scientific knowledge forward, negative results are equally valuable to positive results, and are worth publishing
10. Sometimes, to be a successful scientist you just need to survive – *Goldberg IJ, ATVB 2018* –
11. I got a pocketful of dreams...Concrete jungle where dreams are made of. There's nothing you can't do. Now you're in New York – *Alicia Keys* –

**Tatjana Josefs**

Maastricht, September 3, 2020