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## Structure-function relationship between homogalacturonan pectins and intestinal immunity

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## Stellingen behorende bij het proefschrift

### **Structure-function relationship between homogalacturonan pectins and intestinal immunity: microbiota-(in)dependent effects on the gastrointestinal immune barrier**

1. Het immuun modulerend effect van pectines is één van de functionele eigenschappen van pectines die invloed uitoefenen op de gezondheid (*Dit proefschrift*)
2. De structurele complexiteit van pectines draagt bij aan diverse functionele eigenschappen van pectines, maar het vergt intensieve studies om structuur-functie relaties te bepalen (*Dit proefschrift*)
3. De inhiberende effecten van pectines op Toll-like receptor 2-1 activatie is afhankelijk van de graad en distributie van methyl-esters van pectines (*Dit proefschrift*)
4. De inhibitie van Toll-like receptor 2-1 activatie door pectine structuren *in vitro* kan worden geëxtrapoleerd naar anti-inflammatoire effecten van deze pectine structuren op Toll-like receptor 2 gemedieerde ontsteking in de dunne darm *in vivo* (*Dit proefschrift*)
5. Pectines kunnen de compositie van intestinale microbiota beïnvloeden en daarmee het immuunsysteem van de darm (*Dit proefschrift*)
6. Pectines kunnen de pathogene lading van *Citrobacter rodentium* in de dikke darm verminderen en *C. rodentium*-geïnduceerde ontsteking voorkomen (*Dit proefschrift*)
7. A Western meal can use some citrus peel
8. If we assume we've arrived, we stop searching and developing (*Jocelyn Bell*)
9. Life is like riding a bicycle: to keep your balance you must keep moving (*Albert Einstein*)