



Barts and The London  
School of Medicine and Dentistry



Queen Mary  
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**Blizard Institute**

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**SAGES Patient forum, 2018**  
***Causes of IBD: why me, why now....***

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# Disclosures

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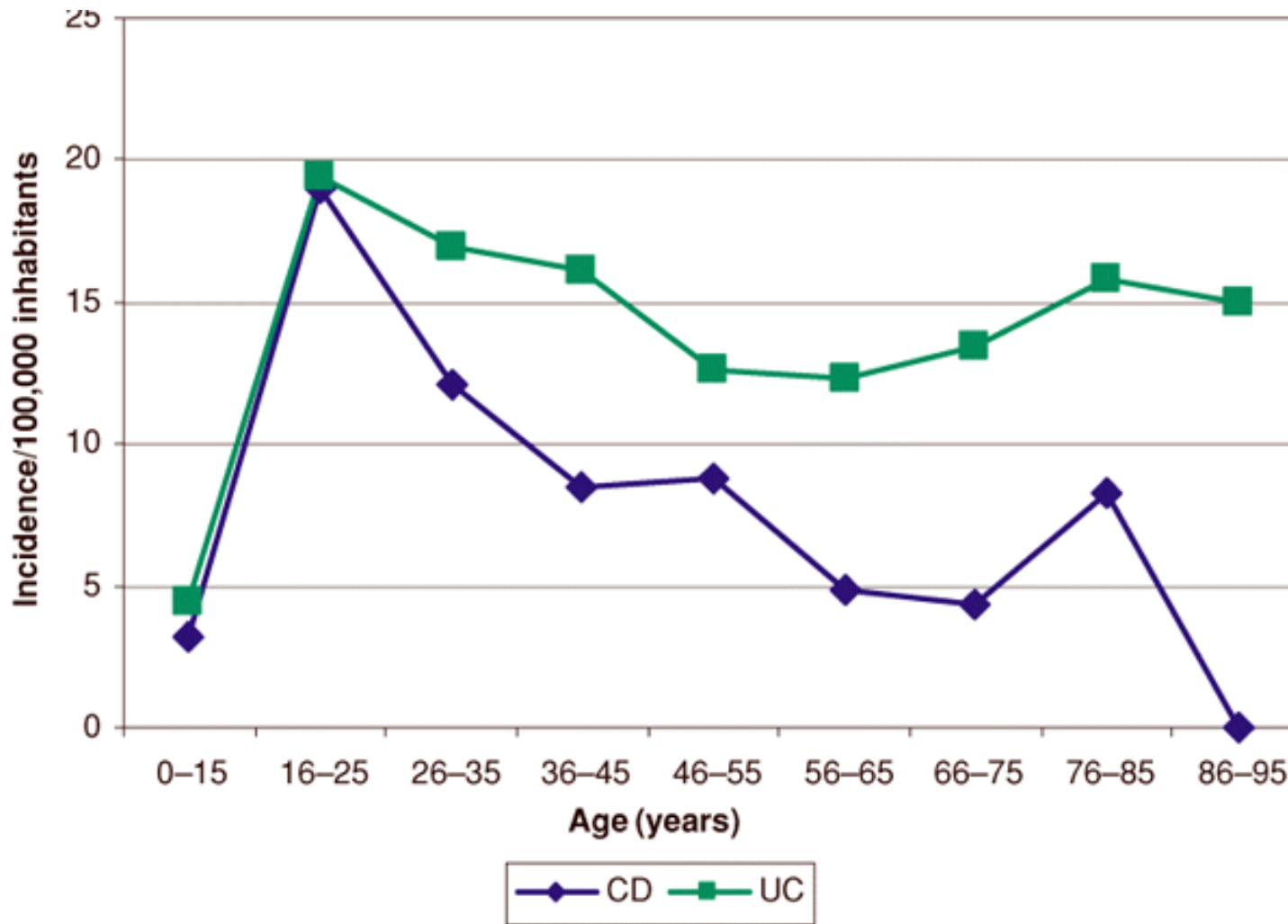
- Prof. Lindsay has:
  - Served as consultant and an advisory board participant for AbbVie, Actavis (Warner Chilcott), Atlantic Healthcare, Celtrion, Ferring, GSK, Janssen, MSD, Napp, Pfizer, Shire, Takeda and Vifor Pharma
  - Received speaker fees and sponsorship to attend academic meetings from AbbVie, Actavis (Warner Chilcott), Ferring, Janssen, MSD, Shire and Takeda and Tillotts
  - Received investigator led research grants from Hospira, Shire and Takeda

# *Why are these questions important?*

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- **Dealing with a new diagnosis**
  - Why is this happening to me?
- **Deeper understanding of the disease**
  - I've got IBD, I want to understand IBD
- **Unravelling the science of IBD**
  - Treatment
  - Prevention

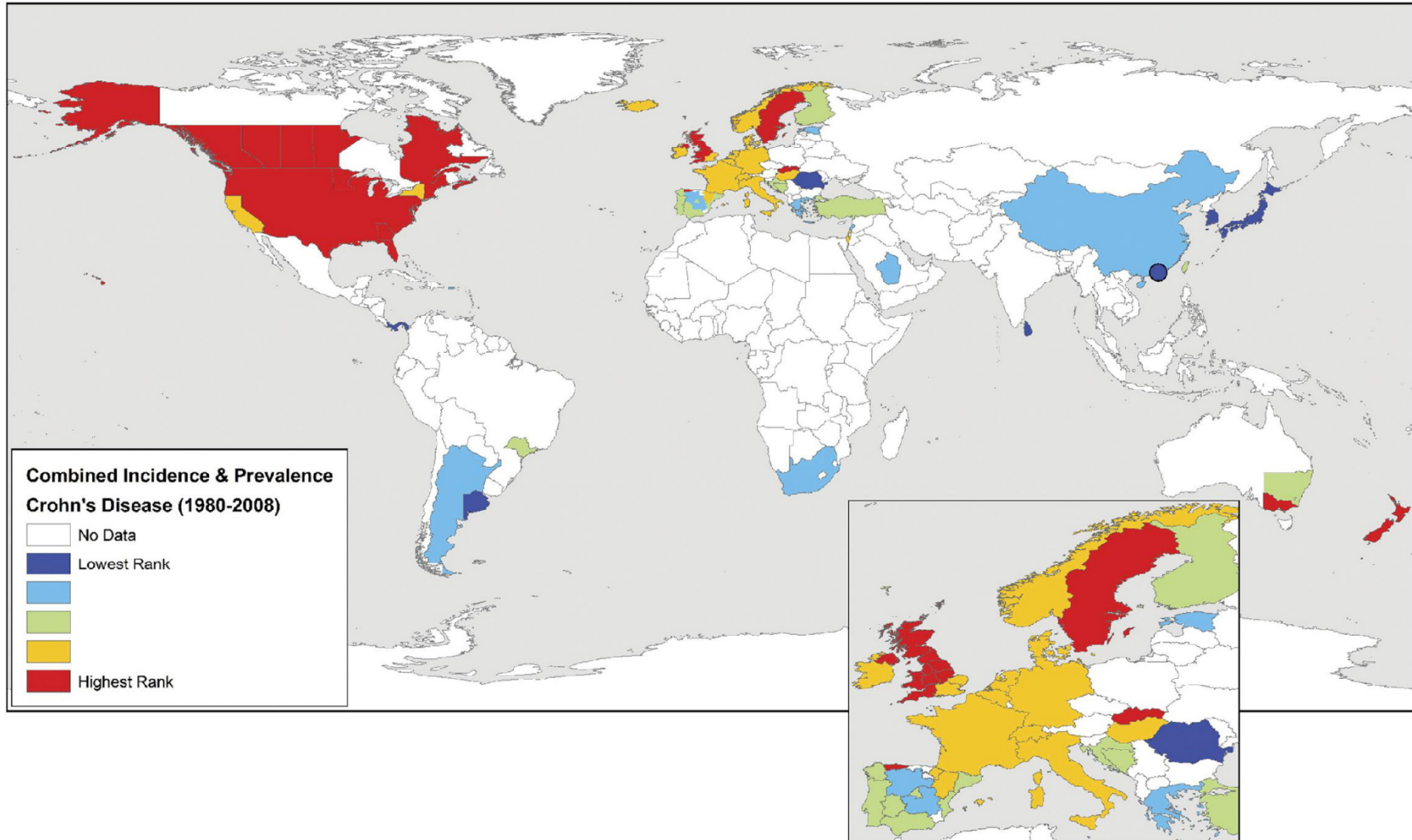
# *Is it because of my age?*



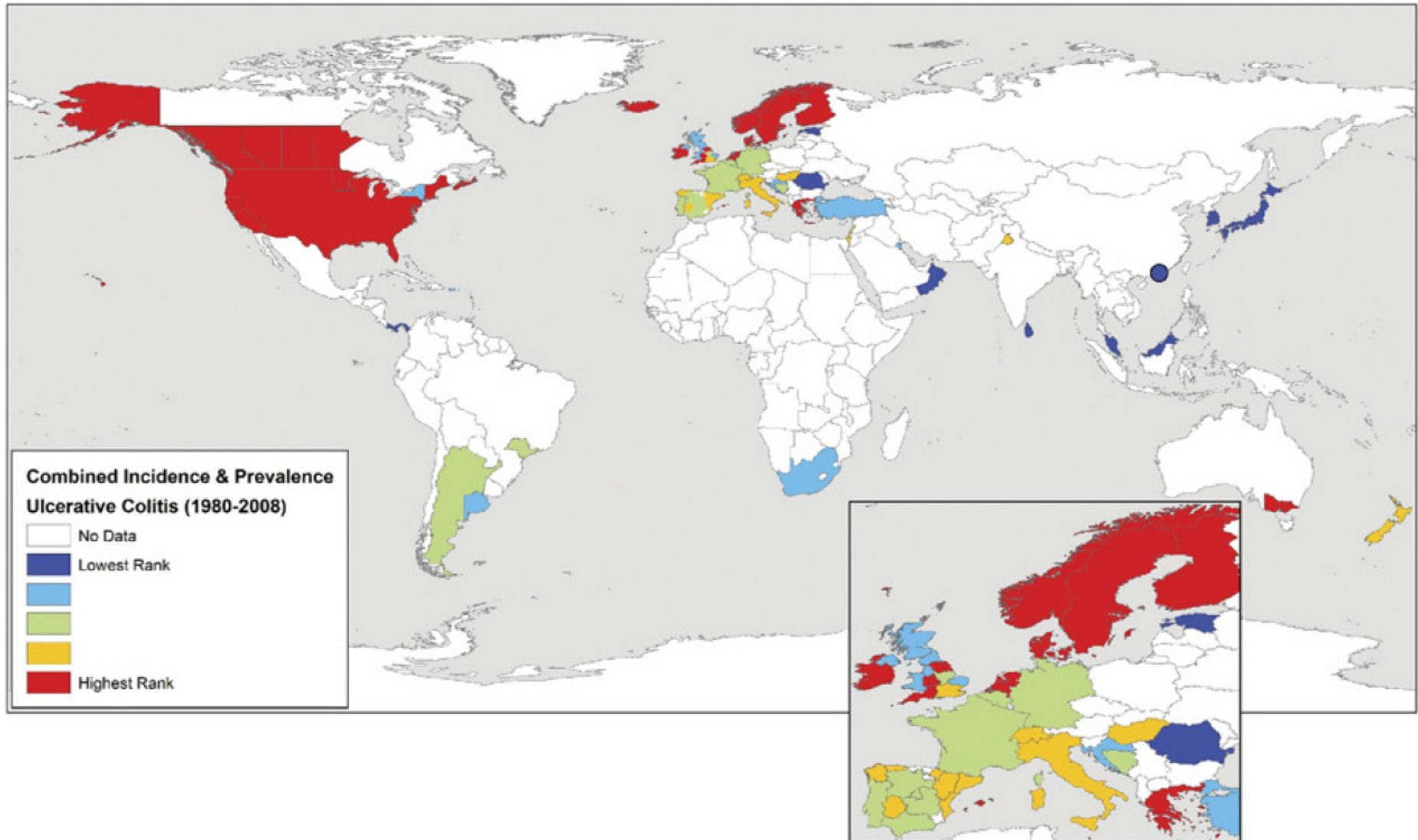
# *Is it because of where I was born?*

## *Crohn's Disease*

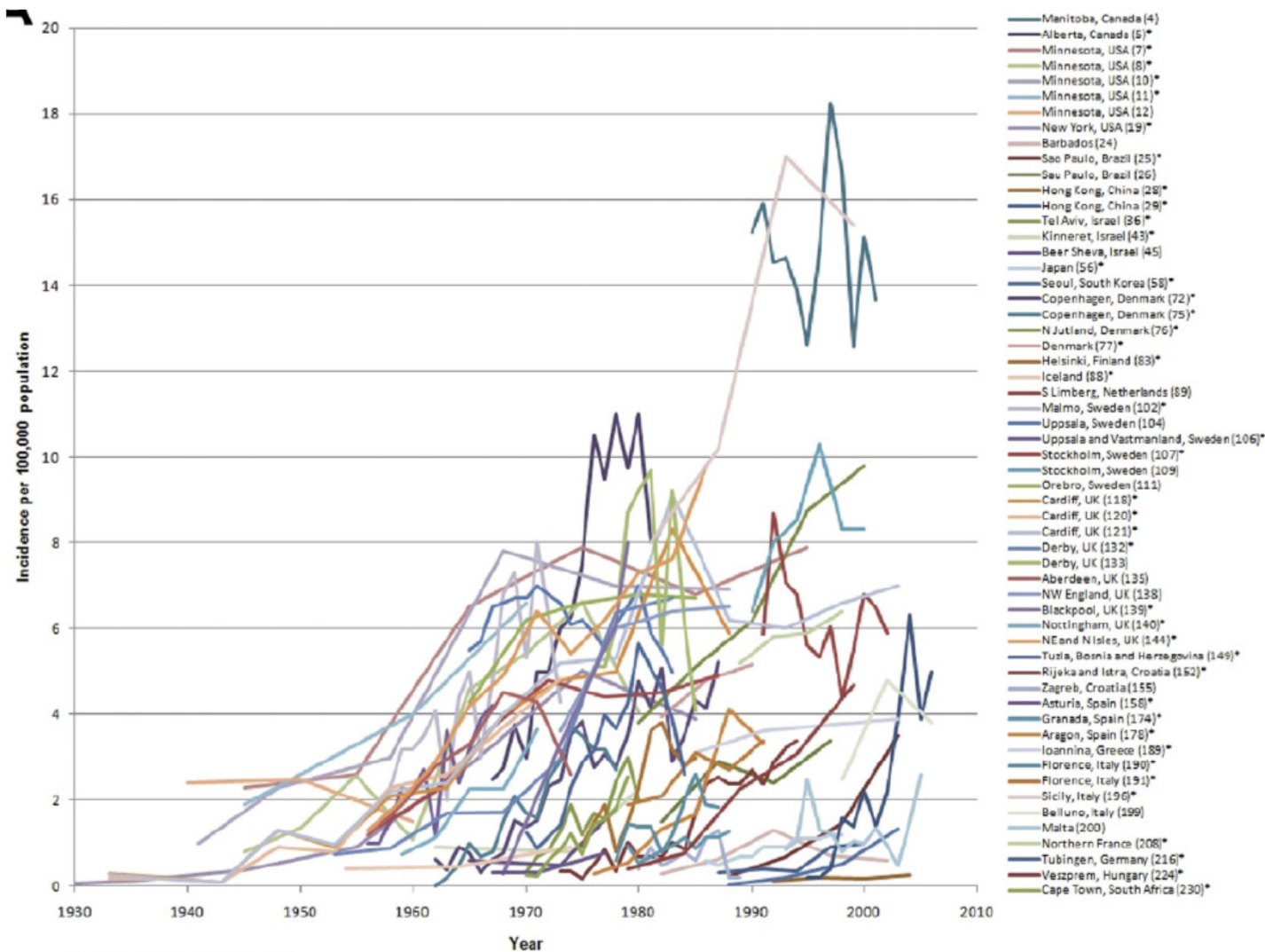
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*Is it because of where I was born?*  
*Ulcerative colitis*



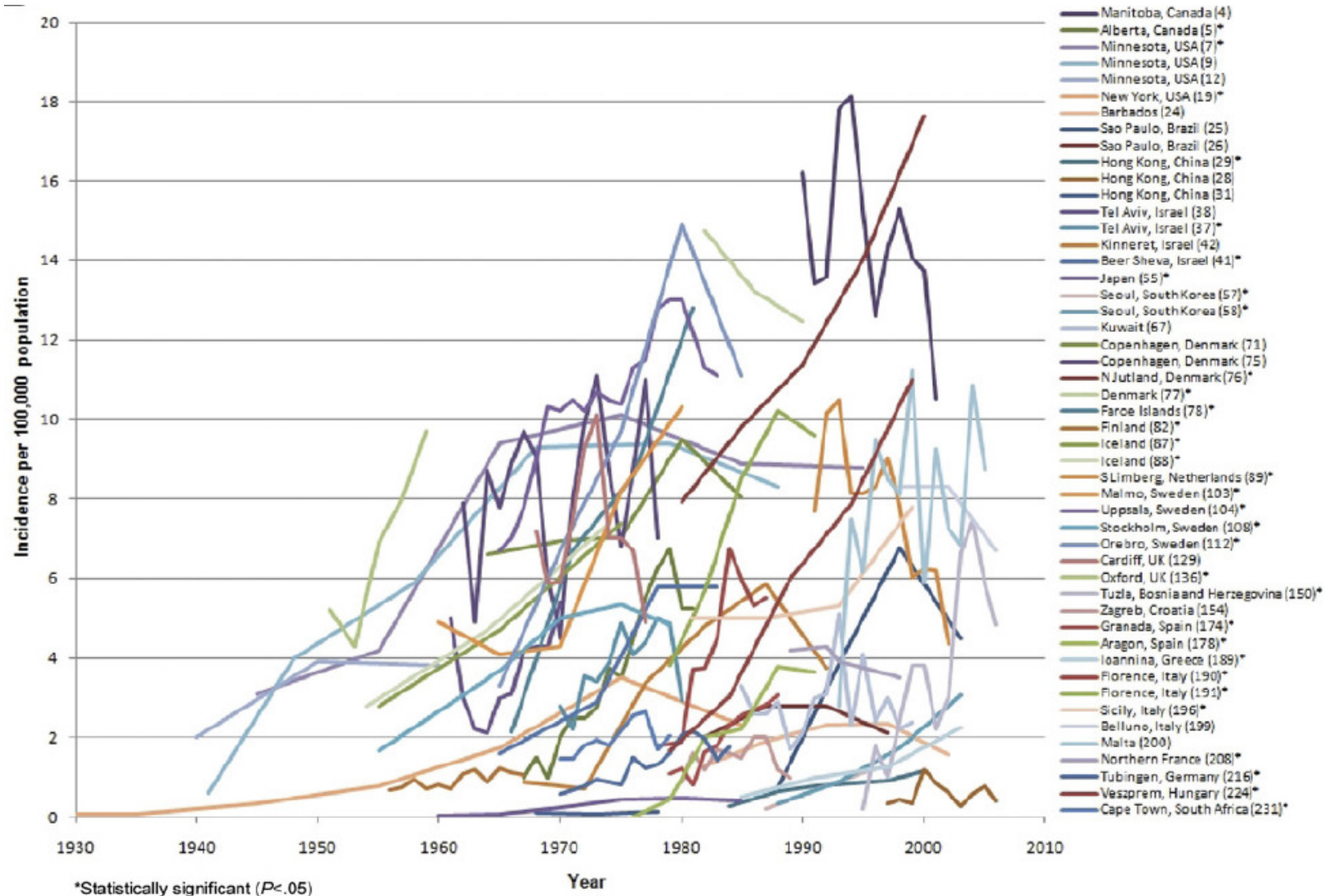
# Is it because of when I was born? Crohn's Disease



\*Statistically significant ( $P < .05$ )

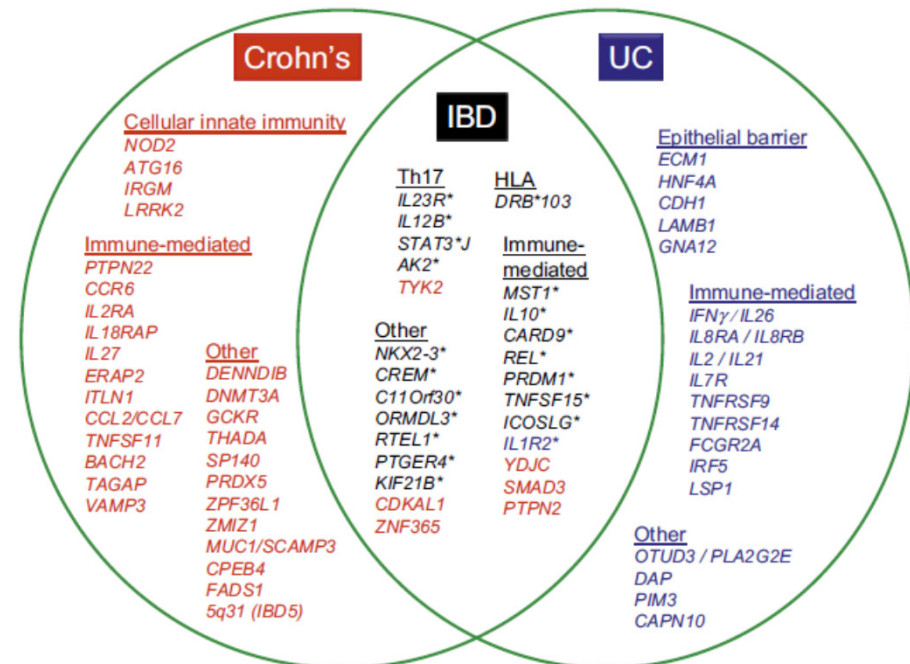


# Is it because of when I was born? Ulcerative colitis



# Is it down to who my parents are?

- Genes are important
- IBD runs in families
  - ~20% of people with IBD have a family history of IBD
- Genetic research has revealed >100 genes that describe the risk of IBD
- More to discover?



# *How useful is genetic research in IBD*

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- **On an individual level**
  - Poor predictive value for risk of disease onset
  - New trial to assess value of predicting prognosis
  - Unable to predict response to therapies
  - Can be used to detect risk of anti-bodies to anti TNF agents
  
- **At a scientific level**
  - Novel treatments (IL23 pathway)
  - Side effects of treatments

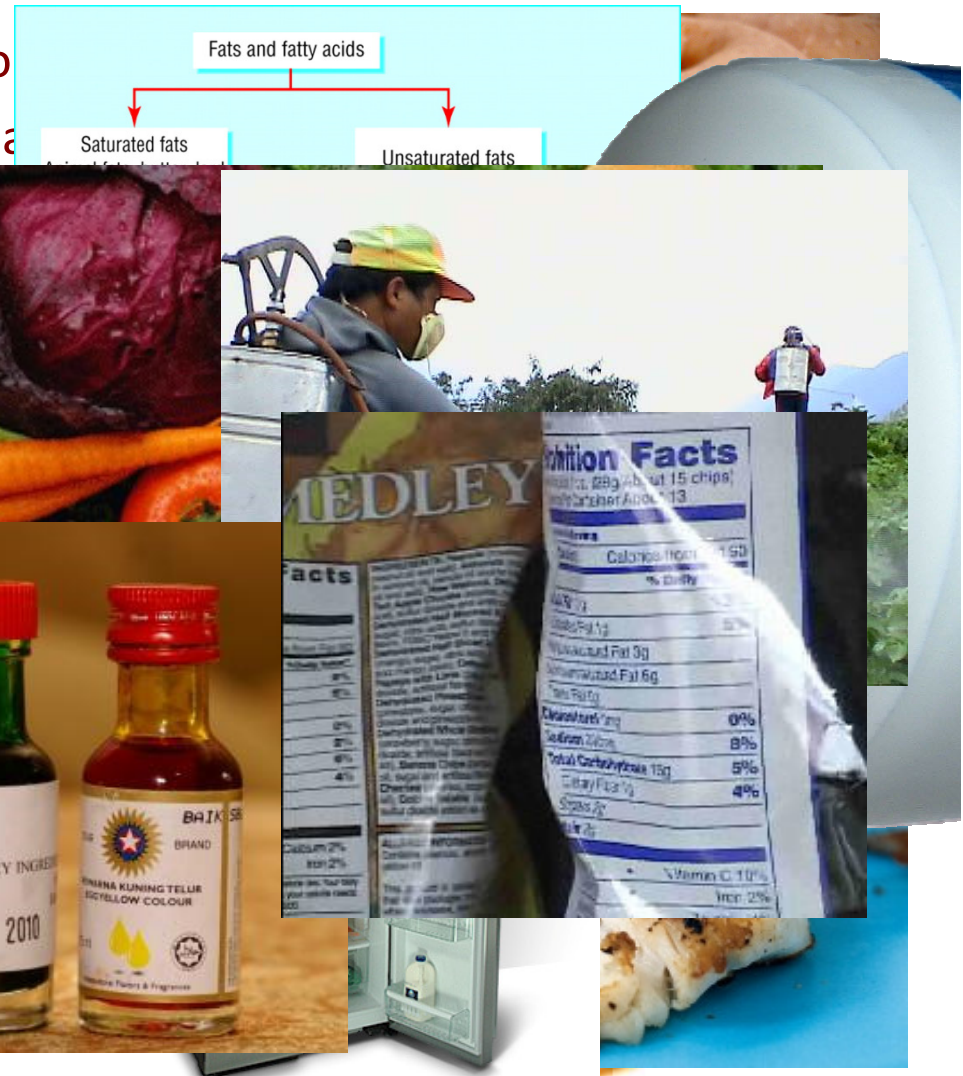
## *Was it something I did?*

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- Breastfeeding (at least 6 months)
- Exposure to infections
  - Sanitation
  - Vegetable garden
  - Urban > rural
- Previous appendicectomy
  - Protective against UC (as long as it was inflamed!)

# Was it something I ate?

- 183 patients with UC studied as a cohort
- 68% believed diet was important in a flare
- 49% avoided certain foods
- 22% ate more of certain foods
- 39% believed certain foods caused a flare



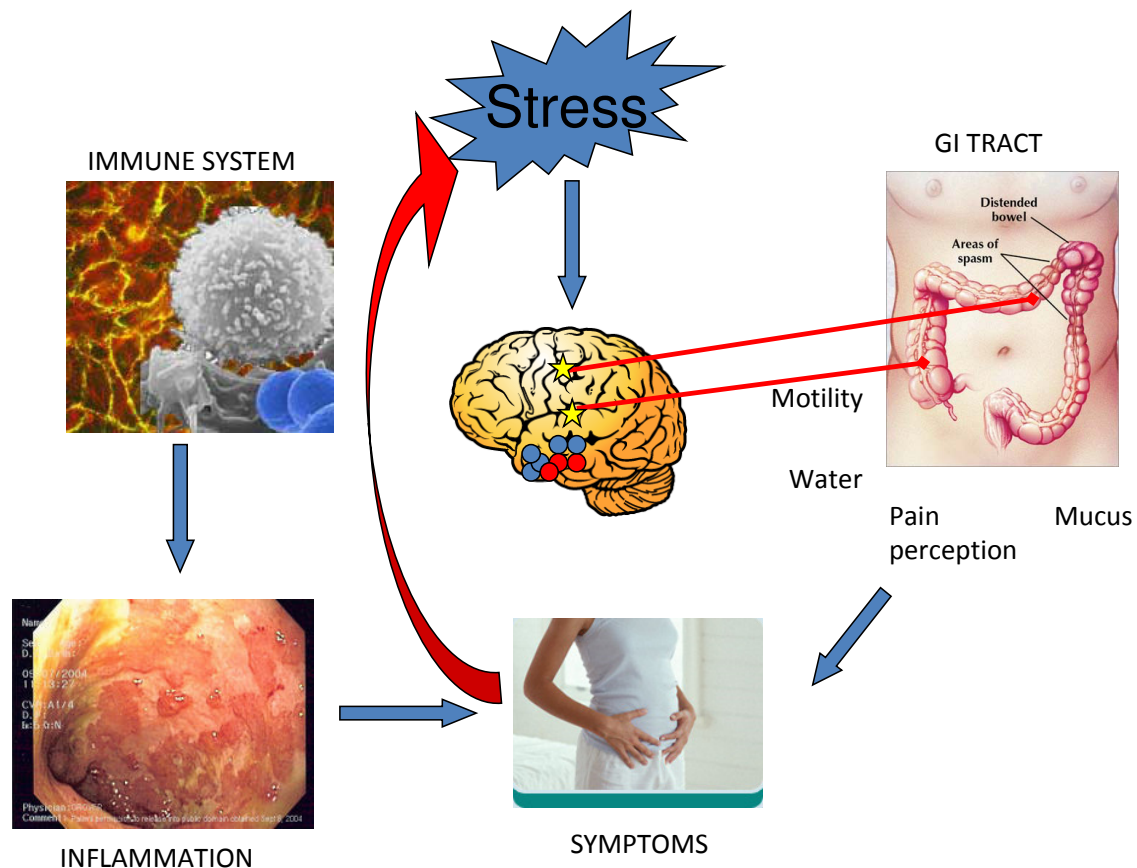
# Did I pick up an infection?

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- **Historic interest in measles and MMR**
  - A good example of the dangers of interpreting research badly and of media power
- **Mycobacterium avium paratuberculosis**
- **Infection as a triggering event**
- **Antibiotics as a triggering event**

# Was it brought on by stress?

- Patients notice links between flares and stress
- More life events in people with a recent flare
- Very difficult studies to do because of recall bias



# Should I have smoked less... or more...?

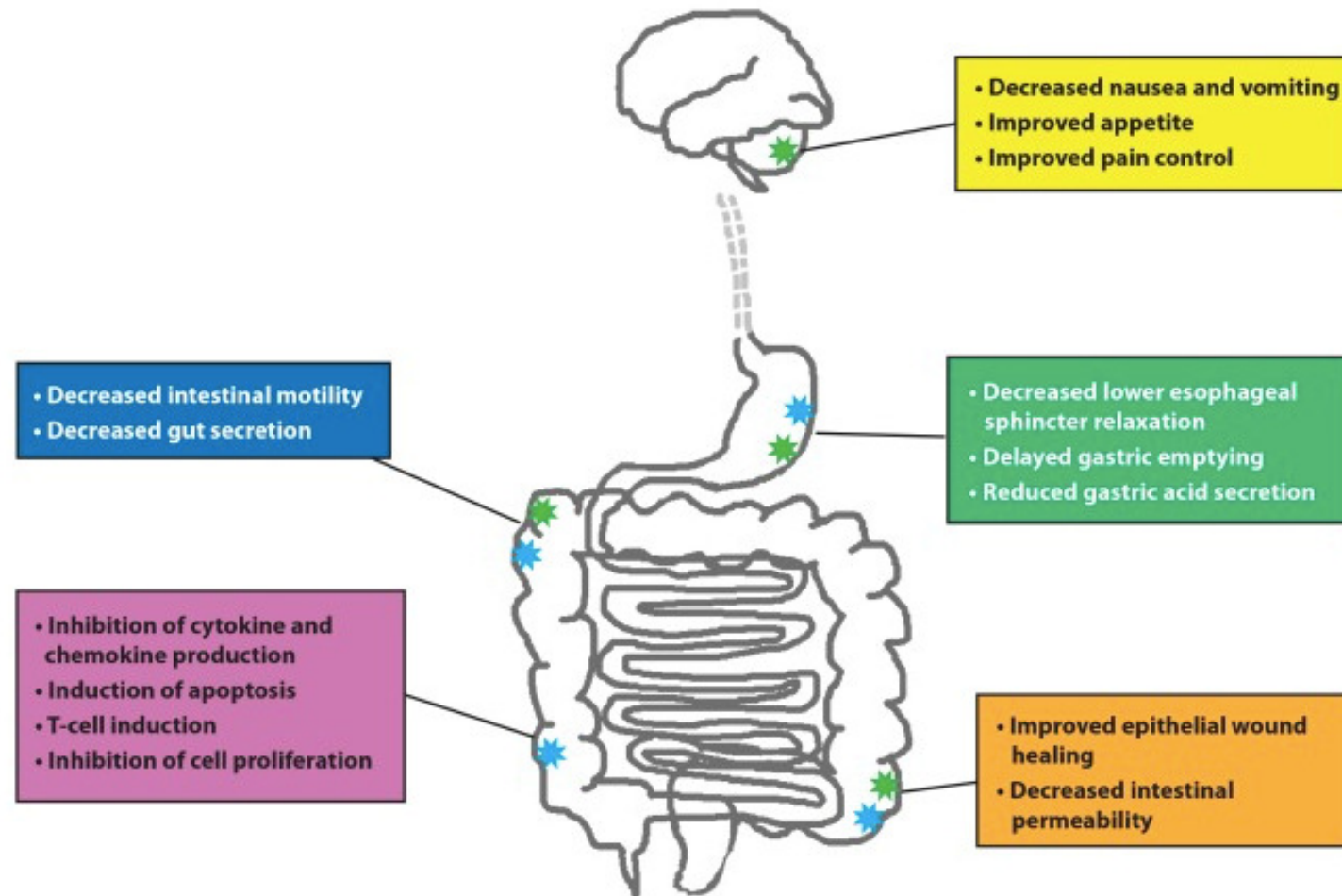
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- **If you have Crohn's disease**
  - Increased risk of disease in smokers
  - Increased risk in passive smokers
  - Increased risk of disease progression / surgery
  - Reduced efficiency of drugs
  - Quitting smoking reduces risk
  
- **If you have UC**
  - Increased risk in ex / non-smokers
  - Smoking reduces risk of flare

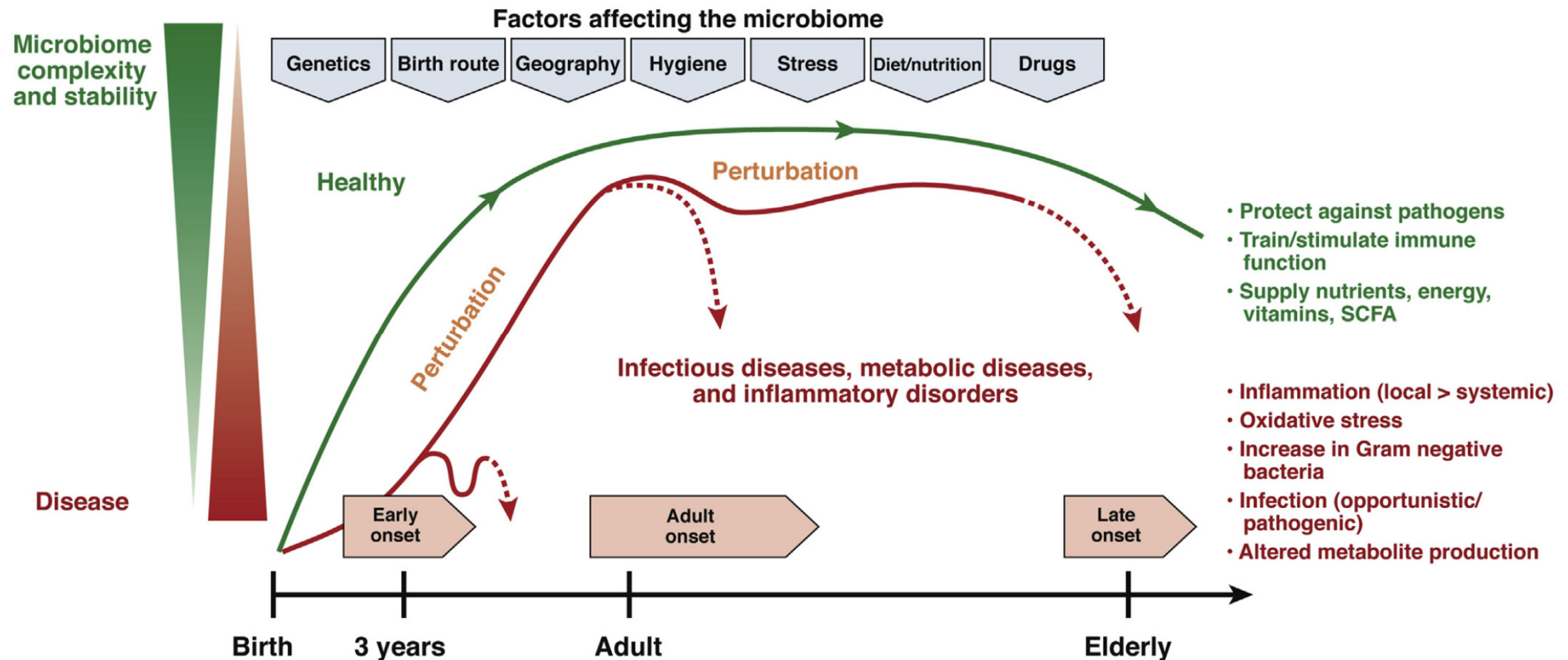


# Should I smoke cannabis?

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# What is the role of the gut bacteria?



What's important here?

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**Is there anything I can do about it?**

# Stress?

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"My doctor told me to avoid any unnecessary stress, so I didn't open his bill."

# *Diet?*

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# *Smoking*

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# Bacteria in my gut?

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# Summary

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- Lots of individual factors influence the development of IBD
- Background factors increase the risk
- Triggering factors initiate disease
  
- We cannot alter some factors
  - Genetics
  
- Sometimes we can alter them but are not sure how.