

HOT TOPICS IN PARKINSON'S DISEASE



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DISCLOSURES

- none



OBJECTIVES

- COVID-19 and Parkinson's disease
- The gut microbiome and PD (with thanks to Dr. Silke Cresswell)



RISK OF COVID-19 IN PEOPLE WITH PD

- Symptoms of COVID-19 tend to be the same as those in people without PD
 - Some patients may present with worsening PD symptoms
- Parkinson's disease does not seem to be a risk factor for developing severe COVID-19
- Mortality rates may be higher in people with PD
- Patients with PD who contracted and died of COVID-19 were also more likely to have other risk factors



EFFECT OF COVID-19 ON PARKINSON'S DISEASE

- Individuals who develop COVID-19 are likely to have worsening of their symptoms
 - 1/3 required changes to their medication
- The pandemic itself has contributed to worsening symptoms for many people
 - In some studies 1/3 of COVID-negative patients also required changes to their medication
- Many people report an increase in anxiety, depression, insomnia and worsened cognition



WHAT ABOUT VACCINATION?

- There is currently no concern that any of the available vaccinations will affect progression of Parkinson's disease or interact with any of the treatments
- There have not been any safety concerns identified to date for people with PD
- The International Movement Disorder Society recommends vaccination with any vaccine as soon as you are eligible



TAKE HOME POINTS

- Parkinson's disease does not seem to be a risk factor for severe COVID-19
- Vaccinations are safe and effective for people with PD
- Increased stress and social isolation may result in worsening of PD symptoms
 - It is as important as ever to stay active:
 - Physically
 - Mentally
 - Socially

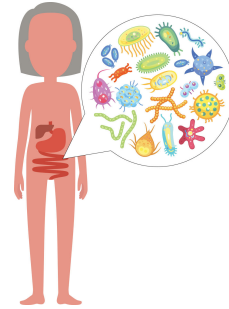




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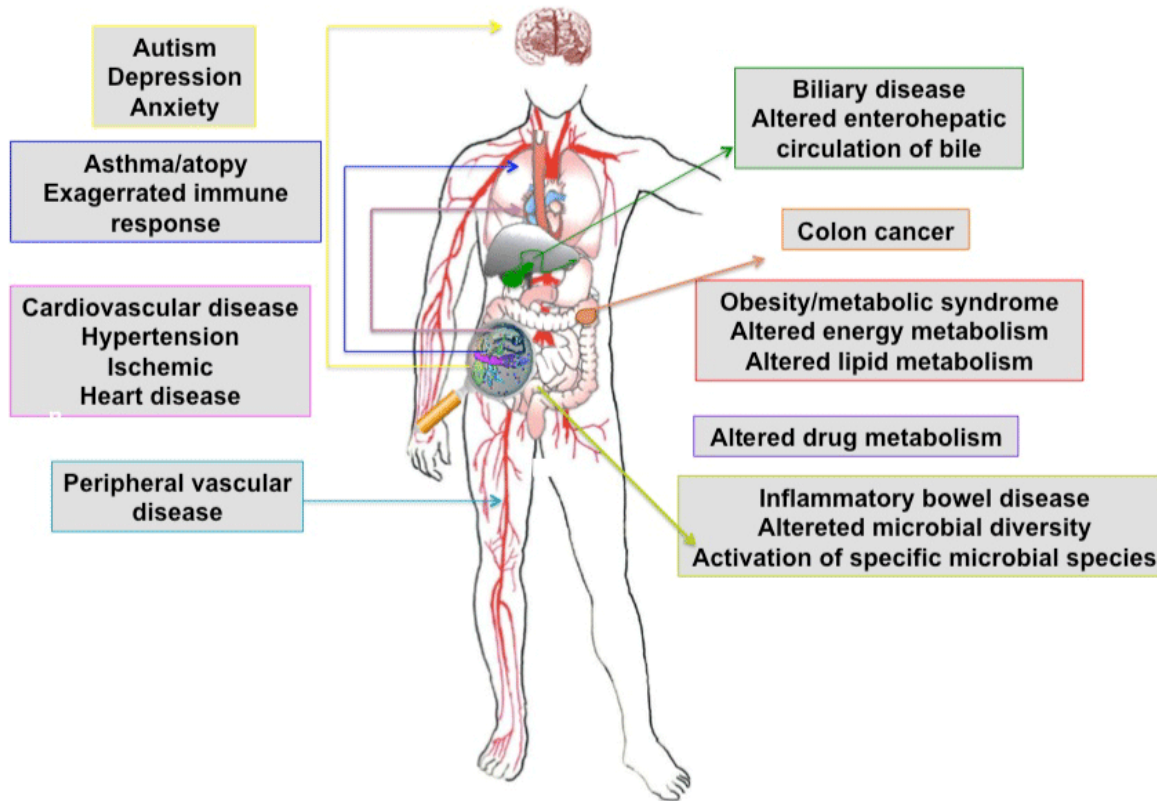


THE GUT MICROBIOME



- A collection of micro-organisms that live in our gut
- These organisms play a number of important roles for our health:
 - Digestion
 - Production of hormones, vitamins, and other compounds
 - Immune system regulation
- Chemicals produced by the gut microbiome can influence brain function





THE GUT MICROBIOME AND PD




- Lots of circumstantial evidence points to a role of the gut in PD
- The composition of the gut microbiome is different in people with Parkinson's disease and secretes more pro-inflammatory chemicals that may contribute to the disease process



RESEARCH ARTICLE

Microbiota Composition and Metabolism Are Associated With Gut Function in Parkinson's Disease



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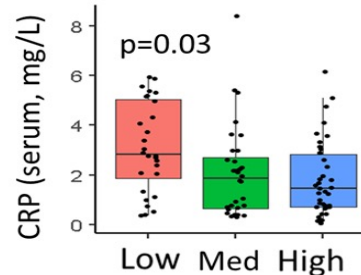
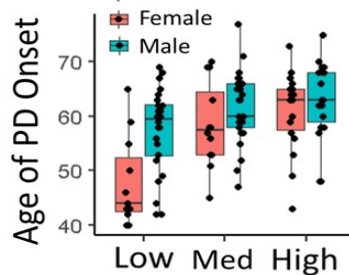
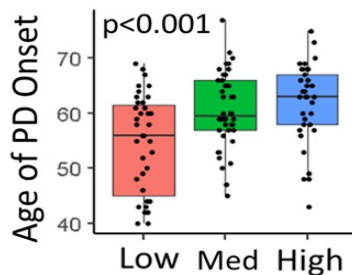
DETERMINANTS OF THE MICROBIOME

- Diet is one of the factors that can influence the composition of the microbiota
- Some evidence suggests that Mediterranean-type diets (e.g. MIND diet) increase bacteria that may promote brain health
 - More plant-based food, fatty fish, olive oil, nuts, berries
 - Less red meat, saturated fat and processed food

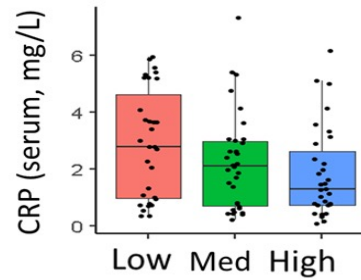
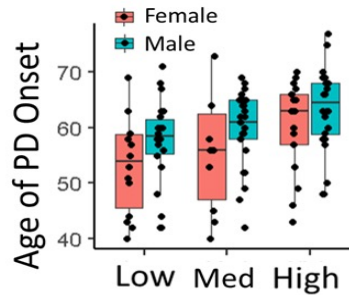
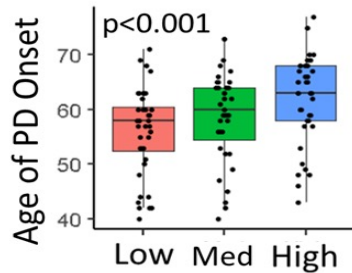




A) MIND Diet



B) GMeDi



Metcalf-Roach et al., Jan 2021, Movement Disorders



- It is still not entirely clear if all of the changes to the gut microbiota are cause or consequence of PD
- This is a potential target for treatment of the symptoms and possibly cause of PD
- Lots of research is ongoing!





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