Evidence of Inflammasome Activation in Peripheral Inflammation Associated with Parkinson’s Disease

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**Inflammation in PD**
- α-synuclein aggregates in PD brain drive neurodegeneration
- Brain macrophages (microglia) are activated in PD patients
- Inflammation is also evident systemically (i.e. blood, CSF, microbiome)

**The Inflammasome**
- A multimeric protein involved in innate immunity
- Mis-regulation appears to underlie neuroinflammation
- Therapeutic target for PD

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**Gene Expression in PBMCs from PD and Healthy Control Volunteers**

**Inflammasome components are up-regulated in PBMCs of PD patients**

**Correlation of Gene Expression is altered in PD Patients**

**CONCLUSIONS**
- Increasing evidence that inflammasomes drive both neuro- and systemic inflammation in PD
- Inflammasome gene signatures may have clinical utility to inform biomarker and therapeutic development in PD

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