



The link between depression and inflammation

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Disclosures

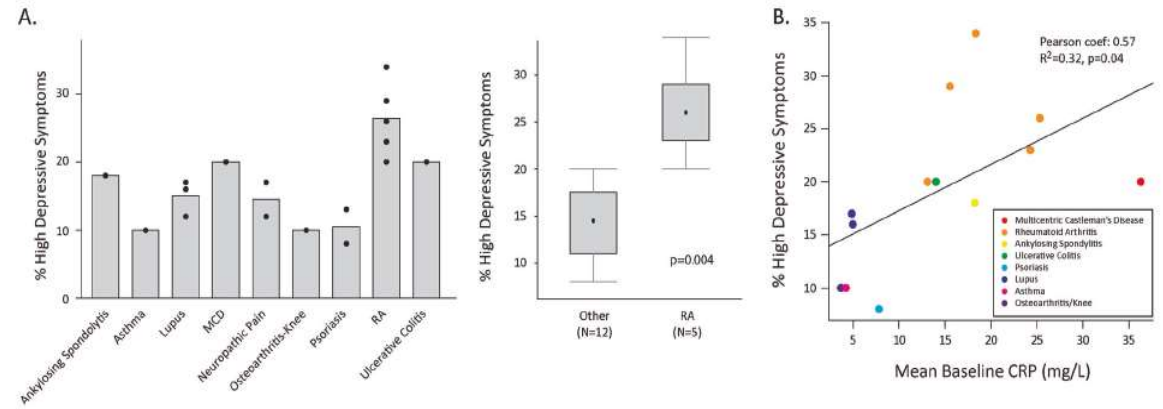
Employment

- **Paid Employment**
University of Cambridge
- **Editorial Roles**
Biological Psychiatry – Deputy Editor
Network Neuroscience – Senior Editor
- **National Health Service (HCP) Role**
Hon Consultant Psychiatrist, Director of R&D and
Non-Executive Director, Cambridgeshire & Peterborough
NHS Foundation Trust
- **Honorary Roles**
Treasurer, Academy of Medical Sciences
- **Royalties**
Short Books, London and other publishers of
The Inflamed Mind
- **Consultancies, advisory roles**
Boehringer Ingelheim, Sosei Heptares, GSK, Monument
Therapeutics, SR One

Sources of Research Support

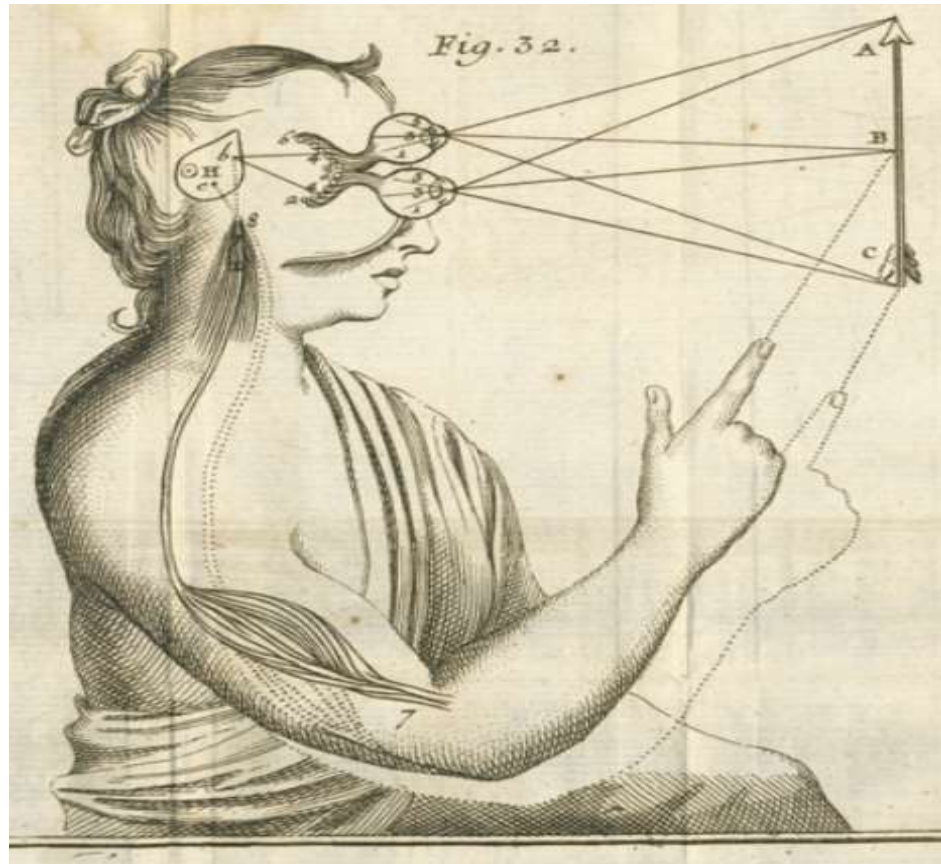
- Medical Research Council
- Wellcome Trust
- National Institute for Health Research
- National Institutes of Health,
Graduate Partnership Program
- GSK, Janssen, Lundbeck, Pfizer

Inflammation and depression are associated with each other



Bullmore (2018) *The Inflamed Mind*
Wittenberg et al (2019) *Biological Psychiatry*

Cartesian dualism – the 400 year old philosophy that still divides us



Descartes (1637) *Treatise on Human Nature*

MDD and inflammation is a forbidden liaison in DSM-speak

Diagnostic classification for major depressive disorder (MDD)

DSM5 (2013) *American Psychiatric Association*

Inclusion criteria:

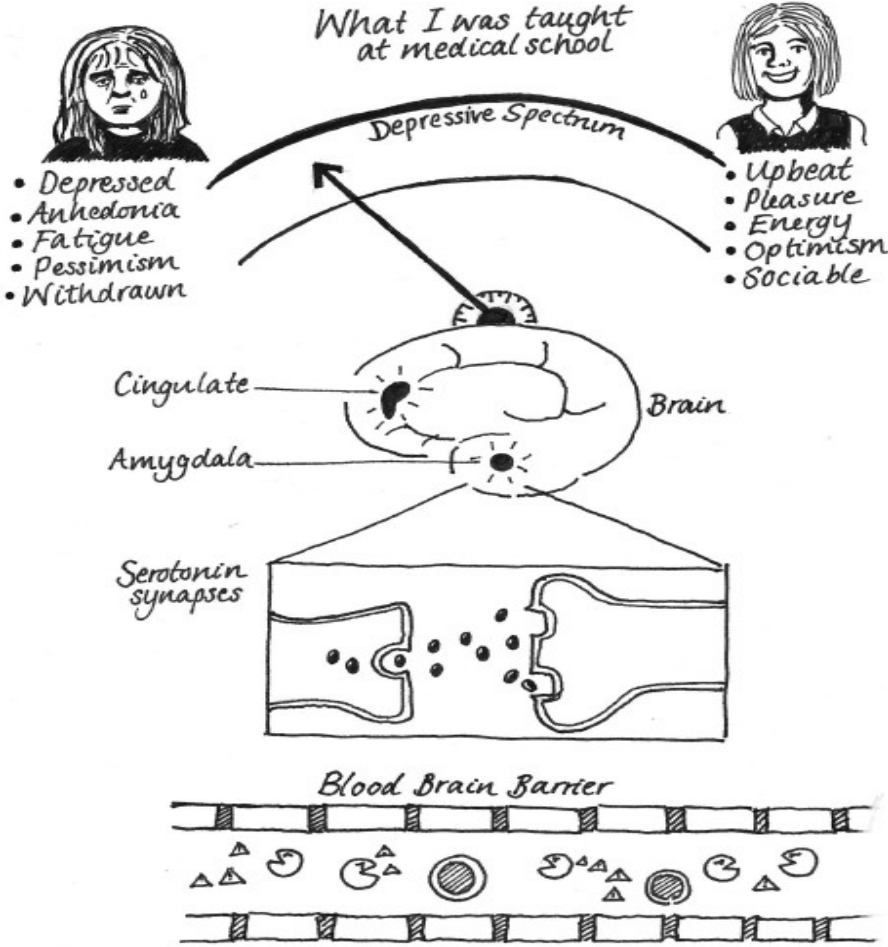
Five or more of nine symptoms, including at least one of two “core” symptoms, representing a change in function, and causing significant distress or impairment, for at least two weeks:

1. ***Depressed mood***
2. ***Loss of pleasure***
3. *Change in weight or appetite (up or down)*
4. *Change in sleep (insomnia or hypersomnia)*
5. *Psychomotor retardation or agitation*
6. *Loss of energy or fatigue*
7. *Worthlessness or guilt*
8. *Impaired concentration or decisiveness*
9. *Suicidal ideation or attempts*

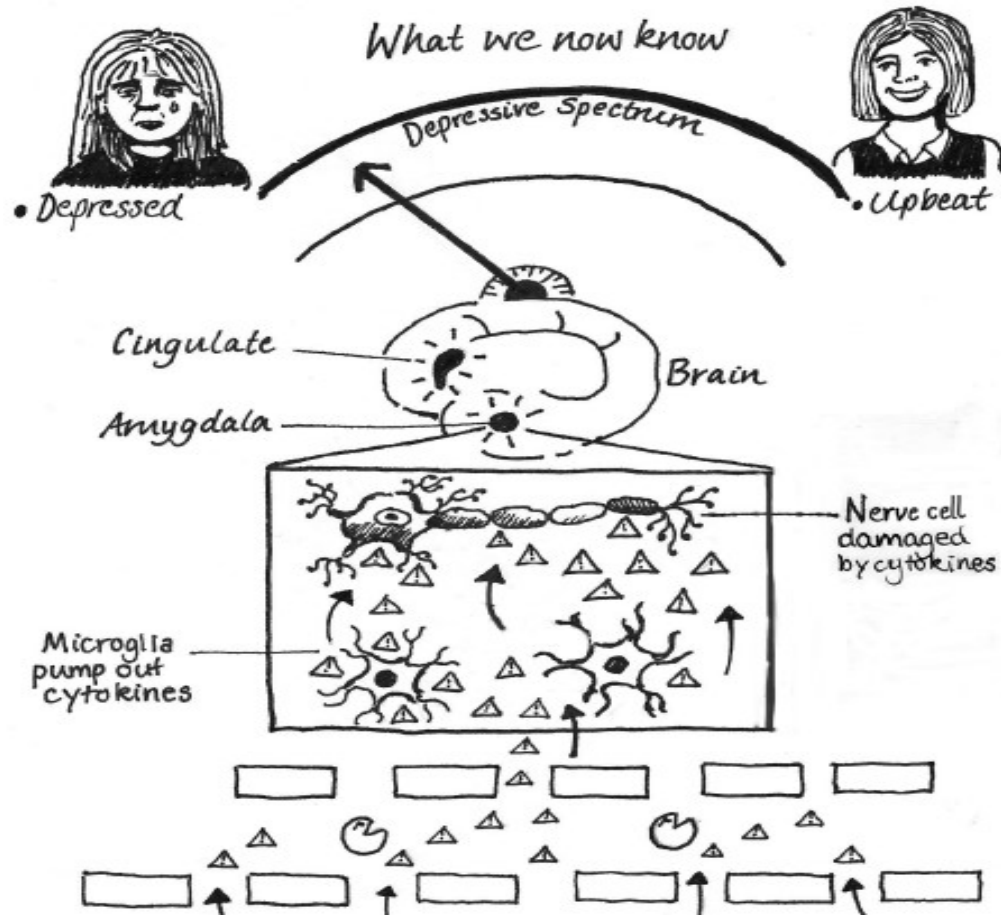
Exclusion criterion:

Symptoms must ***not*** be attributable to a substance or medical condition

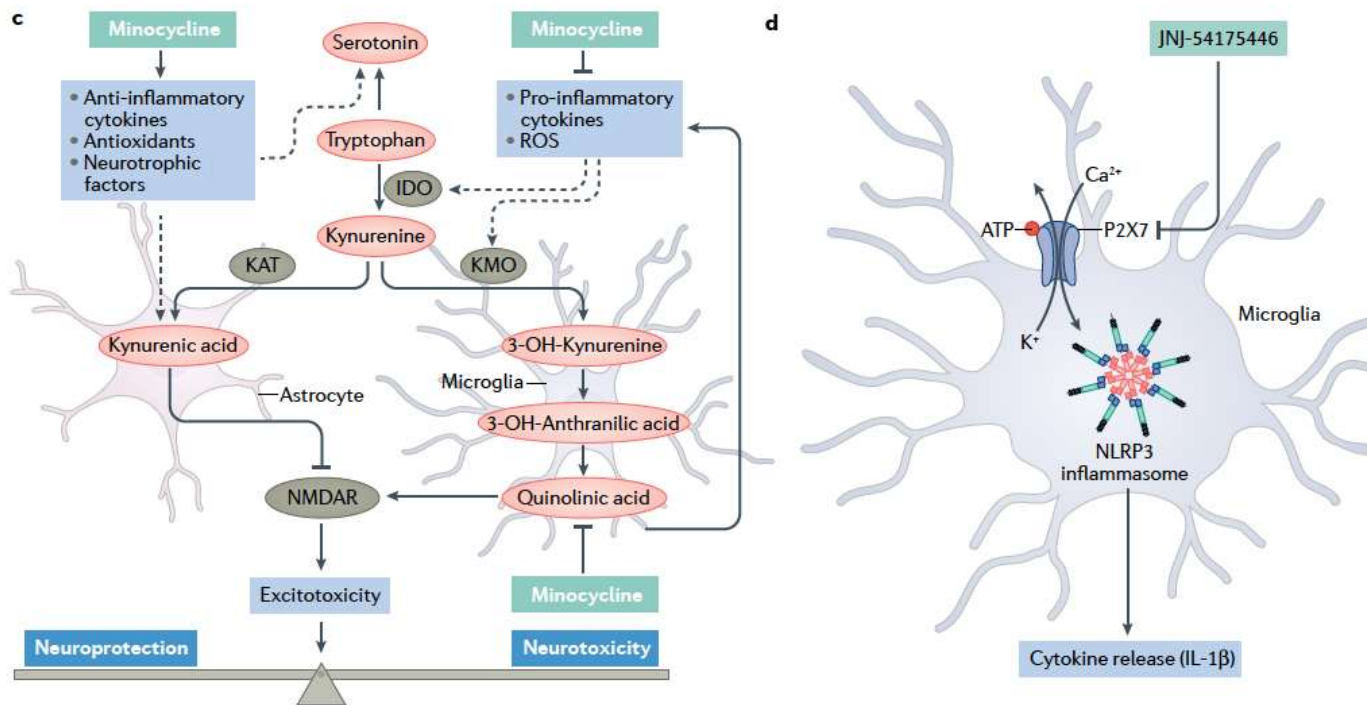
BBB – blood brain barrier – a Berlin wall in the brain



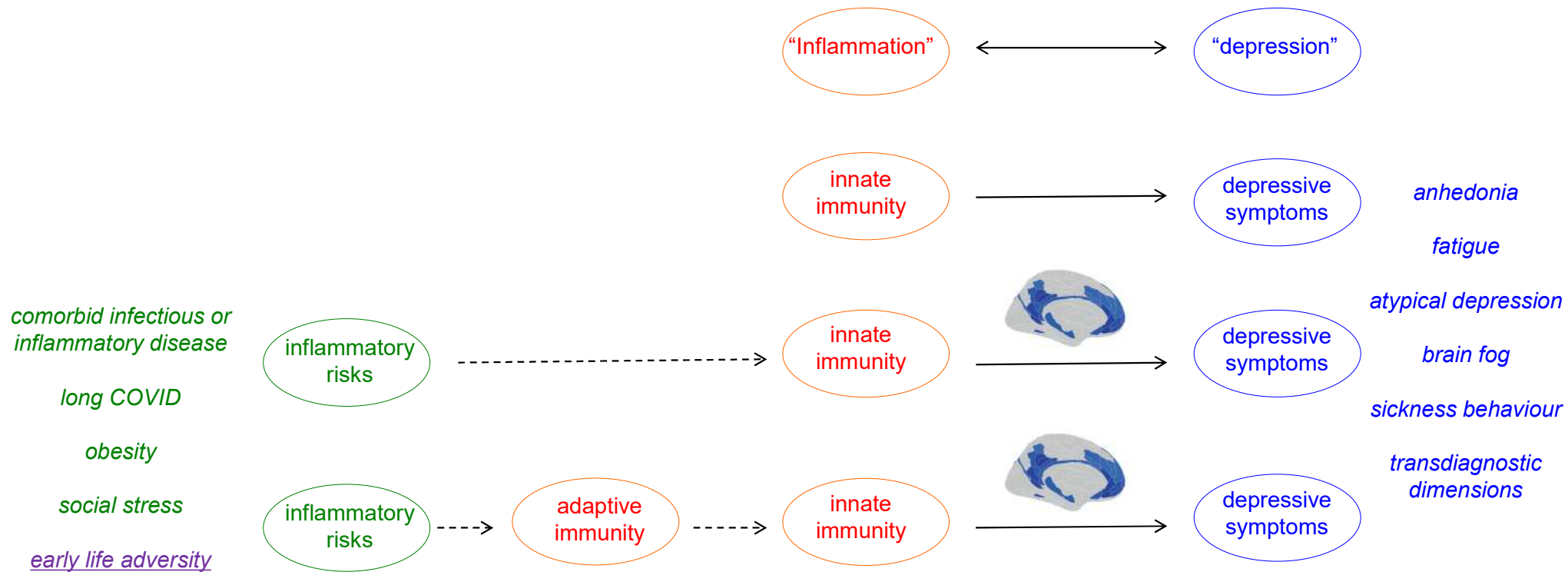
The **BBB** - like the wall in Berlin – is not what it was in the '80s



Multiple immune targets are potentially relevant to development of novel anti-depressants



Questions remain about causality and specificity of the relationship between inflammation and depression



Thanks!

- Aaron Alexander-Bloch
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- Richard Bethlehem
- Lena Dorfschmidt
- Wayne Drevets
- Neil Harrison
- Golam Khandaker
- Manfred Kitzbichler
- Mary-Ellen Lynall
- Husseini Manji
- Jakob Seidlitz
- Petra Vértes
- Simon White
- Gayle Wittenberg

