

Neuroinflammation in fibromyalgia and CRPS: top-down or bottom-up?

Geoffrey Littlejohn

In his letter (Neuroinflammation in fibromyalgia and CRPS is multifactorial. *Nat. Rev. Rheumatol.* <http://dx.doi.org/10.1038/nrrheum.2016.25>)¹, Dr Alex Vasquez has nicely summarized data from several studies that associate small intestine bacterial overgrowth, vitamin D deficiency and mitochondrial dysfunction with both fibromyalgia and complex regional pain syndrome (CRPS). Dr Vasquez suggests that neuroinflammation

in such patients has many potential contributors and that treatment of specific peripheral components may be beneficial to the patient.

In my Review (Neurogenic neuroinflammation in fibromyalgia and complex regional pain syndrome. *Nat. Rev. Rheumatol.* **11**, 639–648; 2015)² I concentrated on neurogenic neuroinflammation, which I believe is the most potent contributor to the clinical features in these disorders. Further research into

the various observations surrounding neuroinflammation in fibromyalgia and CRPS is clearly needed. This should include establishment of the directionality of the different proposed mechanisms (top-down or bottom-up, or both), as well as more sophisticated clinical trials of proposed management strategies.

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1. Vasquez, A. Neuroinflammation in fibromyalgia and CRPS is multifactorial. *Nat. Rev. Rheumatol.* <http://dx.doi.org/10.1038/nrrheum.2016.25> (2016).
2. Littlejohn, G. Neurogenic neuroinflammation in fibromyalgia and complex regional pain syndrome. *Nat. Rev. Rheumatol.* **11**, 639–648 (2015).

Competing interests statement

The author declares no competing interests.