

TITLE: Chronic Widespread Musculoskeletal Pain is Dependent on Central Pain Facilitation

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RESEARCH PROJECT DESCRIPTION

Chronic widespread musculoskeletal pain (CWP) is highly prevalent in the general population (20%) and represents a major cause for dysfunction and loss of income [2; 3]

. There are few pharmacological and non-pharmacological therapies available, which generally are of small effect size. Central pain processing abnormalities, including abnormal pain modulation, play an important role for the pathogenesis of this disorder but specific details are lacking [1]. We hypothesize that excessive central pain facilitation is a major factor for patients' increased pain and pain sensitivity. This hypothesis will be tested by quantitative sensory testing (QST) and functional MRI (fMRI). The student will interact with chronic pain patients and healthy controls and will consent, obtain questionnaires and perform QST (heat and pressure stimuli) on the subjects. He/she will be trained to perform these tasks reliably and how to avoid bias. The student will observe fMRI and will help prepare the subjects for the procedure. The study is funded by NIH and UF funds.

- [1] Latremoliere A, Woolf CJ. Central sensitization: a generator of pain hypersensitivity by central neural plasticity. *J Pain* 2009;10(9):895-926.
- [2] Papageorgiou AC, Silman AJ, Macfarlane GJ. Chronic widespread pain in the population: a seven year follow up study. *Annals of the Rheumatic Diseases* 2002;61(12):1071-1074.
- [3] Staud R. Peripheral pain mechanisms in chronic widespread pain. *Best Pract Res Clin Rheumatol* 2011;25(2):155-164.