


Stanford

Emma Elizabeth Biggs

Postdoctoral Research Fellow, Anesthesiology, Perioperative and Pain Medicine

 Curriculum Vitae available Online

Bio

BIO

I am currently a postdoctoral researcher at the Biobehavioral Pediatric Pain (BPP) Lab, Department of Anesthesiology, Perioperative, and Pain Medicine since July 2021. Under the supervision of Laura Simons I am researching the neuropsychological mechanisms underlying chronic pain in pediatric populations. Previously, I have conducted research at the Center for the Psychology of Learning and Experimental Psychopathology (CLEP) at KU Leuven, Belgium (2018-2021). Funded by the ERC project of Tom Beckers (WipeOutFear) we investigated neural and physiological markers related to the attenuation of fear memories. My PhD research was conducted at the Research Group on Health Psychology (OGP) at KU Leuven and the Department of Cognitive Neuroscience of Maastricht University (The Netherlands) under the joint supervision of Johan Vlaeyen, Rainer Goebel, Ann Meulders, and Amanda Kaas (2013-2018). During this time we investigated fear learning processes and neural networks related to painful touch.

STANFORD ADVISORS

- Laura Simons, Postdoctoral Faculty Sponsor

LINKS

- BPP lab: <https://bpp.stanford.edu/people/>
- LinkedIn: <https://www.linkedin.com/in/emma-biggs-32b05341/>
- ResearchGate: <https://www.researchgate.net/profile/Emma-Biggs>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My main research interests are in the field of chronic pain and learning. I am interested in understanding how processes related to learning can contribute to the development, spreading, and treatment of chronic pain. I am especially interested in understanding how fear and pain interact across complex brain networks.

Publications

PUBLICATIONS

- **The acquisition and generalization of fear of touch** *SCANDINAVIAN JOURNAL OF PAIN*
Biggs, E., Meulders, A., Kaas, A., Goebel, R., Vlaeyen, J.
2020; 20 (4): 809-819
- **THE NEURAL CORRELATES OF PAIN-RELATED FEAR: A META-ANALYSIS COMPARING FEAR CONDITIONING STUDIES USING PAINFUL AND NON-PAINFUL STIMULI.** *Neuroscience and biobehavioral reviews*
Biggs, E. E., Timmers, I. n., Meulders, A. n., Vlaeyen, J. W., Goebel, R. n., Kaas, A. L.
2020
- **Fear of pain and cortisol reactivity predict the strength of stress-induced hypoalgesia** *EUROPEAN JOURNAL OF PAIN*
Timmers, I., Kaas, A. L., Quaedflieg, C. M., Biggs, E. E., Smeets, T., de Jong, J. R.

2018; 22 (7): 1291–1303

- **The Acquisition and Extinction of Fear of Painful Touch: A Novel Tactile Fear Conditioning Paradigm** *JOURNAL OF PAIN*

Biggs, E. E., Meulders, A., Kaas, A. L., Goebel, R., Vlaeyen, J. S.

2017; 18 (12): 1505-1516

- **The Neuroscience of Pain and Fear** *Neuroscience of Pain, Stress, and Emotion:*

Biggs, E. E., Meulders, A., Vlaeyen, J. W.

Academic Press.2016