

POTION Project Results Receives Prominent Media Coverage: Making Waves In The Both Scientific And Mainstream Media

In a significant milestone for POTION, the project results presented at the 31st European Congress of Psychiatry in Paris have recently garnered extensive recognition in scientific and mainstream media, including BBC International, the Guardian, New York Post, Wired, Neuroscience News and Dagbladet¹. The project's remarkable achievements and ground-breaking innovation in understanding how chemo-signals or body odour in human sweat could one day help treat social anxiety have captivated the attention of prominent news outlets. The media coverage has served as a platform to showcase POTION's achievements, allowing a broader audience to understand the project's goal and transformative impact within the mental health sector.

Social anxiety disorder (SAD), also known as social phobia, is a type of anxiety disorder that involves intense and persistent fear of social situations and scrutiny by others. Individuals with social anxiety disorder experience significant distress and impairment in their daily lives due to their fear of embarrassment, humiliation, or judgment by others. This led them to avoid social situations including holidays and dinner parties. Social anxiety disorder affects millions of people worldwide and can profoundly impact their personal, social, and professional lives.

To understand how chemistry, specifically human chemo-signals, influences social interaction and human behaviour, the POTION methodology first involves collecting sweat from volunteers exhibiting either happy or fearful emotion. This is followed by extracting the chemo-signals from the sweat and exposing patients suffering from social anxiety to these chemo-signals while undergoing mindfulness therapy. The anxiety scores of the patients were assessed. Compared to the controls, patients who undertook one treatment session of mindfulness therapy together with being exposed to human body odours showed about a 39% reduction in anxiety scores), whereas patients receiving only mindfulness (i.e., the control group) a 17% reduction in anxiety scores was observed.

The researchers aim to identify and isolate the molecules which are causing the effects seen in the study, and ultimately collaborate with partners to develop next-generation therapies to help treat SAD. You can read about the EPA's press release at <https://epa-congress.org/wp-content/uploads/2023/03/Vigna-for-EPA.pdf> or at Eurekalert <https://www.eurekalert.org/news-releases/983650>.

¹ <https://www.theguardian.com/society/2023/mar/26/exposure-other-peoples-sweat-help-reduce-social-anxiety-study>

Activity highlights from the POTION Team:

- Karolinska Institute gave a presentation entitled “Affective and physiological responses to human body odors in social anxiety – a pilot study on the possible effects as catalyst for treatment” at the 31th European Congress of Psychiatry in Paris, France.
- UNIPI organised a Science Café in Pisa, Italy, entitled “Fifty Shades of Brain” to discuss how smell acts as a shortcut to the emotional brain and why it is the basic building block of our memories. March 16 2023.
- Inventya exhibited at the Medical Technology UK on 22-23 of March 2023 in Coventry, UK. The exhibition showcased innovative medical device and engineering.

Publication highlights:

- Ripszam, M., Bruderer, T., Biagini, D., Ghimenti, S., Lomonaco, T., & Di Francesco, F. (2023). Biological studies with comprehensive 2D-GC-HRMS screening: Exploring the human sweat volatilome. *Talanta*, 257, 124333. doi.org/10.1016/j.talanta.2023.124333
- Rho, G., Callara, A. L., Bernardi, G., Scilingo, E. P., & Greco, A. (2023). EEG cortical activity and connectivity correlates of early sympathetic response during cold pressor test. *Scientific Reports*, 13(1), 1338. doi.org/10.1038/s41598-023-27480-z
- van Es, V. A., Lopata, R. G., Scilingo, E. P., & Nardelli, M. (2023). Contactless Cardiovascular Assessment by Imaging Photoplethysmography: A Comparison with Wearable Monitoring. *Sensors*, 23(3), 1505. doi.org/10.1038/s41598-023-27480-z

About POTION Project...



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