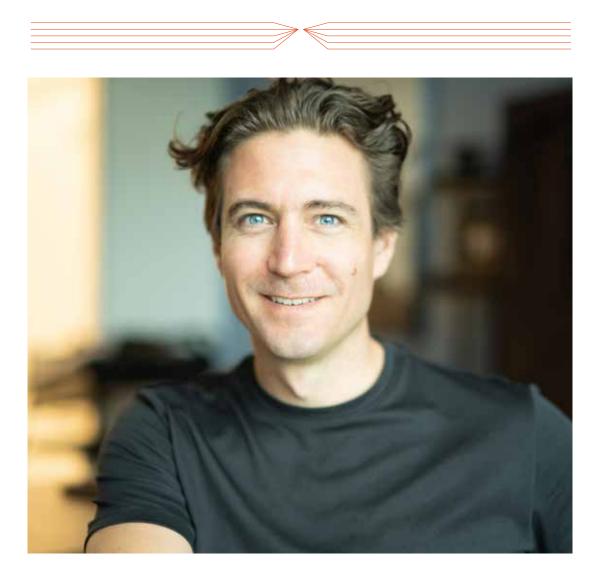
## Lunch Seminars



## ON THE THERAPEUTIC POTENTIAL OF PSYCHEDELICS IN SPINAL CORD INJURY: SETTING THE STAGE FOR FUTURE APPLICATIONS

David McMillan, Ph.D

Next page, Abstract  $\longrightarrow$ 

Date: Saturday, 7th May 2022 Time: 12.20-12.50 Room: O2, Quality Hotel<sup>™</sup> Friends

## ON THE THERAPEUTIC POTENTIAL OF PSYCHEDELICS IN SPINAL CORD INJURY: SETTING THE STAGE FOR FUTURE APPLICATIONS

## ABSTRACT

Paralysis from spinal cord injury (SCI) results in profound changes to virtually every bodily system, both somatic and autonomic. Changes in biological infrastructure alter the way a person can organize their patterns of behavior, and thus resetting social affordances. Successful SCI therapeutics act at all three levels: optimizing—or even repairing—biological function, augmenting behavior to enable sovereignty, and recontextualizing a life well lived. "Classic"/entheogenic psychedelics such as certain tryptamines (psilocybin, DMT), ergolines (LSD), and phenethylamines (mescaline) are single substances that, either alone or when combined with an ecology of practices, have the potential to benefit health in each of the aforementioned domains. However, the therapeutic application of psychedelics in the context of SCI has yet to be realized. First, we discuss the neuromodulatory potential of "classic" psychedelics substances as they relate to the monoaminergic excitability of spinal motor neurons.

The results of our ongoing project surveying acute increases in spasticity following self-administration of these substances in people with SCI provides quasi-experimental evidence of neuromodulation at the level of the spine. Then, the potential neuroregenerative potential of these substances is discussed in the context of synaptic and axonal regrowth.

Finally, beyond the physiologic, we speculate on the psychologic potential for these substances to benefit mental and social components of health in SCI via lateral scaling of approaches currently being demonstrated in large scale clinical trials in adjacent contexts such as treatment resistant depression and palliative care. A broad view of SCI and psychedelic medicine shows an overlapping of their landscapes, but the two have curiously yet to converge.

The goal of this presentation is to establish set and setting for the coming integration of psychedelic therapeutics into the quiver of SCI care.