American College of Neuropsychopharmacology

IN MEMORIAM

IN MEMORIAM: Nolan R. Williams, MD

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Nolan R. Williams, MD, died tragically from suicide on October 8, 2025, at the age of 42. Nolan was elected to ACNP membership in 2024. He was a brilliant neuropsychiatrist, board certified in both neurology and psychiatry, who pioneered novel interventions for depression, suicide prevention, and post-traumatic stress disorder. A native Charlestonian, he received his undergraduate degree from the College of Charleston and his MD degree (2008) from the Medical University of South Carolina (MUSC), where he also completed the joint neurology and psychiatry residencies in 2014. Nolan then joined the faculty at Stanford University School of Medicine, where he rose to the rank of Professor of Psychiatry and Behavioral Sciences and was Director of the Stanford Brain Stimulation Lab.

Nolan was bold and visionary in his science. He conducted paradigm-shifting experiments that impacted multiple fields. His key contributions were in the areas of opioid mediation of the antidepressant effects of ketamine, the therapeutic properties of ibogaine, transcranial magnetic stimulation (TMS) modulation of hypnotic susceptibility, and the acceleration of TMS in treatment-resistant depression.

In a placebo-controlled trial, Nolan demonstrated that naltrexone blocked the antidepressant effects of intravenous ketamine infusion, challenging the conventional wisdom that attributed ketamine's efficacy to modulation of glutamatergic transmission, and raising concern about its potential addictive properties [1]. In other neuropsychopharmacology work, Nolan was interested in ibogaine, which is a naturally occurring psychedelic. For decades ibogaine was reputed to have powerful therapeutic and anti-addictive effects, but without formal investigation. Nolan and colleagues pioneered systematic research on this substance in veterans with a history of traumatic brain injury (TBI), with promising findings regarding its impact on PTSD, depression, anxiety, and suicidality [2]. Reflecting Nolan's keen interest in novel applications of TMS, he and his colleagues demonstrated that one can transiently increase hypnotic susceptibility with continuous theta-burst TMS delivered over a personalized neuroimaging-derived target [3]. This demonstration contradicted decades of evidence that hypnotic susceptibility is a highly stable, and perhaps immutable, dimension of individual differences, including Jack Hilgard's seminal work at Stanford. This discovery ushers in the possibility that TMS-enhanced hypnosis may be of value in the management of pain syndromes.

Nolan's work on accelerated TMS will likely remain the most impactful and enduring of his scientific contributions [4, 5]. Building on earlier studies suggesting accelerated protocols might speed the antidepressant effects of TMS, Nolan devised a highly effective rapidly acting intervention by marshaling neuroscience evidence about the conditions that maximize neuroplasticity and the clinical evidence about the TMS parameters likely to maximize efficacy. He labeled both this approach, and the system that he used to carry it out, Stanford Accelerated Intelligent Neuromodulation Therapy (SAINT). This was a dramatic acceleration of the studies that came before it in the number of sessions per day, the number of intermittent Theta Burst (iTBS) pulses within a session, the interval between sessions in a day, and the use of spatial targeting based on functional connectivity measures of the anticorrelation between areas in the dorsolateral prefrontal cortex and anterior cingulate cortex. Nolan's approach combined multiple potential acceleration tactics to transform a treatment paradigm that traditionally achieved therapeutic effects using single daily sessions over a 7–10-week period. The results were groundbreaking in both the effects and the speed of response. Within a 5-day treatment period, Nolan and colleagues achieved high rates of remission in patients with severe and treatment-resistant major depressive disorder and demonstrated that this intervention was markedly superior to a sham control. Nolan's development of SAINT was transformative for neuromodulation, opening new avenues of clinical and mechanistic research deconstructing the essentials of its therapeutic action and testing its application in multiple neuropsychiatric disorders.

Nolan also had senior-level leadership in shaping curricula and postgraduate fellowship accreditation for a new branch of

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medicine devoted to neuromodulation interventions (brain medicine). He championed consensus development across brain stimulation specialists in neurosurgery, neurology, and psychiatry, emphasizing commonalities in training and accreditation requirements. Academic medicine is rife with boundaries and Nolan's success in fostering interdisciplinary education is testament to the impact he had on this field beyond his scientific/clinical contributions

Nolan was a compassionate clinician and an irreverent and spirited friend and colleague. He was a Taekwondo black belt and world champion in high school. He was equally passionate about kite surfing as he was about science. He kite-surfed all over the globe and never missed a chance to spend a day kiting before or after scientific meetings, if the water and wind allowed. He transcended childhood difficulties, and his contributions undoubtedly will improve the lives of many. His passing is a great loss for our field, his friends and family, and especially his wife, Kristin Raj, MD, and their two children, Autumn and Hendrix.

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REFERENCES

1. Williams NR, Heifets BD, Blasey C, Sudheimer K, Pannu J, Pankow H, et al. Attenuation of Antidepressant Effects of Ketamine by Opioid Receptor Antagonism. Am J Psychiatry. 2018;175:1205–15.
2. Cherian KN, Keynan JN, Anker L, Faerman A, Brown RE, Shamma A, et al. Magnesium–ibogaine therapy in veterans with traumatic brain injuries. Nature Med. 2024;30:373–81.
3. Faerman A, Bishop JH, Stimpson KH, Phillips A, Gülser M, Amin H, et al. Stanford Hypnosis Integrated with Functional Connectivity-targeted Transcranial Stimulation (SHIFT): a preregistered randomized controlled trial. Nature Ment Health. 2024;2:96–103.
4. Cole EJ, Phillips AL, Bentzley BS, Stimpson KH, Nejad R, Barmak F, et al. Stanford Neuromodulation Therapy (SNT): A Double-Blind Randomized Controlled Trial. Am J Psychiatry. 2022;179:132–41.
5. Williams NR, Sudheimer KD, Bentzley BS, Pannu J, Stimpson KH, Duvio D, et al. High-dose spaced theta-burst TMS as a rapid-acting antidepressant in highly refractory depression. Brain. 2018:e18

COMPETING INTERESTS

The authors declare no competing interests.