

Psychedelic Medicine: Past, Present, and Future

Directors: William Prueitt, M.D. (william.prueitt@yale.edu) and Jordan Sloshower, M.D., M.Sc.

Dates: 8 sessions held weekly from October – December 2020

Time: Wednesdays from 5:30 – 7:00pm

Location: Zoom video conference

Maximum Number: 12

Recommended Years: Open to all healthcare professionals, trainees, and students

Course Description:

The fields of psychedelic science and medicine are rapidly expanding with increasing numbers of pre-clinical and clinical investigations being initiated each year. Research studies conducted to date have shown that psychedelics hold promise as therapeutics for a range of mental health conditions and also have the ability to alter brain circuitry, induce positive changes in attitudes and values, facilitate personality changes, and affect political views and mindfulness, among other constructs. Accordingly, increasing numbers of researchers, clinicians, and mental health professional trainees are becoming interested in the field and seeking training and education in this area. This elective seminar serves both as an introduction to core topics in this field and as an opportunity to critically explore the scientific, political, and ethical issues that permeate its past, present, and future.

This elective is primarily a reading seminar focused on *participatory* group discussions of 2-3 assigned readings per class. Short introductions to the week's topic will generally be provided and materials may also include short videos. The course will begin with a discussion of indigenous uses of psychedelic plants and early Western research with psychedelic substances. We will then explore modern therapeutic applications and proposed mechanisms of action and change. Finally, we will examine issues important to the future of the field, including medicalization, equity and access for diverse populations, and potential models for clinical treatment.

Learning Objectives:

1. Synthesize scholarship from across the biological, psychological, and social sciences into an interdisciplinary understanding of psychedelic substances and their potential therapeutic applications.
2. Describe the historical context for current psychedelic research, including early research and indigenous uses.
3. Identify neurobiological, psychological, and spiritual mechanisms by which psychedelics may function as therapeutics for mental health disorders.
4. Analyze the complex set of political, commercial, and ethical issues facing the field of psychedelic medicine as it moves towards medicalization.

Weekly Syllabus

Past	
Week 1	<p><u>Indigenous uses of psychedelic plants</u></p> <p>Required readings:</p> <ul style="list-style-type: none">● Barrett, F. S., & Griffiths, R. R. (2017). Classic hallucinogens and mystical experiences: phenomenology and neural correlates. In <i>Behavioral neurobiology of psychedelic drugs</i> (pp. 393-430). Springer, Berlin, Heidelberg. (Section 3, 399-400). https://dx.doi.org/10.1007/7854_2017_474● Anderson, B. T., Labate, B. C., & De Leon, C. M. (2014). Healing with Yagé: An Interview with Taita Juan Bautista Agreda Chindoy. In <i>The Therapeutic Use of Ayahuasca</i> (pp. 197-215). Springer, Berlin, Heidelberg. https://dx.doi.org/10.1007/978-3-642-40426-9● Bayer, S. (2009). <i>Singing to the Plants</i>. University of New Mexico Press. 60-65.
Week 2	<p><u>Early Western research and experimentation</u></p> <p>Required readings:</p> <ul style="list-style-type: none">● Rucker, J. J., Iliff, J., & Nutt, D. J. (2018). Psychiatry & the psychedelic drugs. Past, present & future. <i>Neuropharmacology</i>, 142, 200-218. (Sections 1-3, 200 - 205). https://dx.doi.org/10.1016/j.neuropharm.2017.12.040● Hartogsohn, I. (2017). Constructing drug effects: A history of set and setting. <i>Drug Science, Policy and Law</i>, 3, 2050324516683325. https://dx.doi.org/10.1177/2050324516683325● <u>Video (Watch from 0:00 – 8:00 min): LSD’s Long Strange Trip.</u> Retro Report, The New York Times. 2016. https://www.youtube.com/watch?v=WouOr579mfY&has_verified=1
Present	
Week 3	<p><u>How do psychedelics work? Part 1: Behavioral and clinical neurobiology</u></p> <p>Required readings:</p>

	<ul style="list-style-type: none"> ● Carhart-Harris, R. L. (2019). How do psychedelics work?. <i>Current opinion in psychiatry</i>, 32(1), 16-21. https://dx.doi.org/10.1097/yco.0000000000000467 ● Vollenweider, F. X., & Preller, K. H. (2020). Psychedelic drugs: neurobiology and potential for treatment of psychiatric disorders. <i>Nature Reviews Neuroscience</i>, 1-14. https://dx.doi.org/10.1038/s41583-020-0367-2 <p>Additional resources for further study:</p> <ul style="list-style-type: none"> ● Carhart-Harris, R. L., & Friston, K. J. (2019). REBUS and the anarchic brain: toward a unified model of the brain action of psychedelics. <i>Pharmacological reviews</i>, 71(3), 316-344. https://dx.doi.org/10.1124/pr.118.017160
Week 4	<p><u>How do psychedelics work? Part 2: Healing and mystical-type experiences</u></p> <p>Required readings:</p> <ul style="list-style-type: none"> ● Kirmayer, L. J. (2004). The cultural diversity of healing: meaning, metaphor and mechanism. <i>British medical bulletin</i>, 69(1), 33-48. https://dx.doi.org/10.1093/bmb/ldh006 ● Barrett, F. S., & Griffiths, R. R. (2017). Classic hallucinogens and mystical experiences: phenomenology and neural correlates. In <i>Behavioral neurobiology of psychedelic drugs</i> (pp. 393-430). Springer, Berlin, Heidelberg. https://dx.doi.org/10.1007/7854_2017_474
Week 5	<p><u>How do psychedelics work? Part 3: Drug-assisted psychotherapy</u></p> <p>Required Readings:</p> <ul style="list-style-type: none"> ● <u>Video: Magic Mushrooms and the Healing Trip</u>. The New Yorker. 2015. https://www.youtube.com/watch?v=am12fHnOhXQ ● Slosower, J., Guss, J., Krause, R., Wallace, R. M., Williams, M. T., Reed, S., & Skinta, M. D. (2020). Psilocybin-assisted therapy of major depressive disorder using Acceptance and Commitment Therapy as a therapeutic frame. <i>Journal of Contextual Behavioral Science</i>, 15, 12-19. https://dx.doi.org/10.1016/j.jcbs.2019.11.002 ● Mithoefer, M. (2013). MDMA-Assisted Psychotherapy: How Different is it from Other Psychotherapy? MAPS Bulletin, 10-14. https://maps.org/news-letters/v23n1/v23n1_p10-14.pdf <p>Suggested Overview:</p> <ul style="list-style-type: none"> ● Johnson, M., Griffiths, R. (2017). Potential Therapeutic Effects of Psilocybin. <i>Neurotherapeutics</i> 14(3), 1 - 7. https://dx.doi.org/10.1007/s13311-017-0542-y <p>Additional resources for further study:</p>

	<ul style="list-style-type: none"> ● Video (Start at 5:45min): Pollan, Michael. Psychedelics and How to Change Your Mind. Bioneers. 2018. https://www.youtube.com/watch?v=5DrM90dg5t4 ● Swift, T. C., Belser, A. B., Agin-Liebes, G., Devenot, N., Terrana, S., Friedman, H. L., ... & Ross, S. (2017). Cancer at the dinner table: experiences of psilocybin-assisted psychotherapy for the treatment of cancer-related distress. <i>Journal of Humanistic Psychology, 57</i>(5), 488-519. https://dx.doi.org/10.1177/0022167817715966 ● Bogenschutz, M. P., & Forchimes, A. A. (2017). Development of a psychotherapeutic model for psilocybin-assisted treatment of alcoholism. <i>Journal of Humanistic Psychology, 57</i>(4), 389-414. https://dx.doi.org/10.1177/0022167816673493
Week 6	<p><u>Frontiers and controversial topics in psychedelic research</u></p> <p>Required readings:</p> <ul style="list-style-type: none"> ● Kaelen, M., Giribaldi, B., Raine, J., Evans, L., Timmerman, C., Rodriguez, N., ... & Carhart-Harris, R. (2018). The hidden therapist: evidence for a central role of music in psychedelic therapy. <i>Psychopharmacology, 235</i>(2), 505-519. https://dx.doi.org/10.1007/s00213-017-4820-5 ● Lyons, T., Carhart-Harris, R. (2018). Increased nature relatedness and decreased authoritarian political views after psilocybin for treatment-resistant depression. <i>Journal of Psychopharmacology 32</i>(7), 811-819. https://dx.doi.org/10.1177/0269881117748902 ● Hendricks, P., Crawford, M., Cropsey, K., Copes, H., Sweat, N., Walsh, Z., Pavela, G. (2018). The relationships of classic psychedelic use with criminal behavior in the United States adult population. <i>Journal of psychopharmacology (Oxford, England) 32</i>(1), 37 - 48. https://dx.doi.org/10.1177/0269881117735685
Future	
Week 7	<p><u>Diversity, equity, and inclusion in psychedelic medicine</u></p> <p>Required readings:</p> <ul style="list-style-type: none"> ● <i>Williams, M., Reed, S., Aggarwal, R. (2020). Culturally informed research design issues in a study for MDMA-assisted psychotherapy for posttraumatic stress disorder.</i> <i>Journal of Psychedelic Studies 4</i>(1), 40-50. https://dx.doi.org/10.1556/2054.2019.016

	<ul style="list-style-type: none"> ● <i>George, J., Michaels, T., Sevelius, J., Williams, M. (2020). The psychedelic renaissance and the limitations of a White-dominant medical framework: A call for indigenous and ethnic minority inclusion. Journal of Psychedelic Studies 4(1), 4-15. https://dx.doi.org/10.1556/2054.2019.015</i> <p>Additional resources for further study:</p> <ul style="list-style-type: none"> ● <i>Michaels, T., Purdon, J., Collins, A., Williams, M. (2018). Inclusion of people of color in psychedelic-assisted psychotherapy: a review of the literature BMC Psychiatry 18(1), 1 - 14. https://dx.doi.org/10.1186/s12888-018-1824-6</i>
<p>Week 8</p>	<p><u>Models of psychedelic science and treatment</u></p> <p>Required readings::</p> <ul style="list-style-type: none"> ● <i>Sloshower, J. (2018). Integrating Psychedelic Medicines and Psychiatry: Theory and Methods of a Model Clinic. In Plant Medicines, Healing and Psychedelic Science (pp. 113-132). Springer, Cham. https://dx.doi.org/10.1007/978-3-319-76720-8</i> ● <i>Fotiou, E. (2019). The role of Indigenous knowledges in psychedelic science. Journal of Psychedelic Studies 4(18), 1 - 8. https://dx.doi.org/10.1556/2054.2019.031</i> ● <i>McGaughey, Dave (2019). We Will Call It PALA. Auryproject.org/pala</i>

Other Recommended Readings:

Topic Overview:

- *Nichols, D.* (2016). **Psychedelics.** *Pharmacological Reviews* 68(2), 264 - 355.
<https://dx.doi.org/10.1124/pr.115.011478>
- *Garcia-Romeu, A., Kersgaard, B., Addy, P.* (2016). **Clinical applications of hallucinogens: A review.** *Experimental and Clinical Psychopharmacology* 24(4), 229 - 268.
<https://dx.doi.org/10.1037/pha0000084>

Safety and Regulatory Considerations:

- *Johnson, M., Richards, W., Griffiths, R.* (2008). **Human hallucinogen research: guidelines for safety.** *Journal of Psychopharmacology* 22(6), 603 - 620.
<https://dx.doi.org/10.1177/0269881108093587>
- *Johnson, M., Griffiths, R., Hendricks, P., Henningfield, J.* (2018). **The abuse potential of medical psilocybin according to the 8 factors of the Controlled Substances Act.** *Neuropharmacology*
<https://dx.doi.org/10.1016/j.neuropharm.2018.05.012>

Therapist Competencies:

- *Phelps, J.* (2017). **Developing guidelines and competencies for the training of psychedelic therapists.** *Journal of Humanistic Psychology* 57(5), 450 - 487.
<https://dx.doi.org/10.1177/0022167817711304>