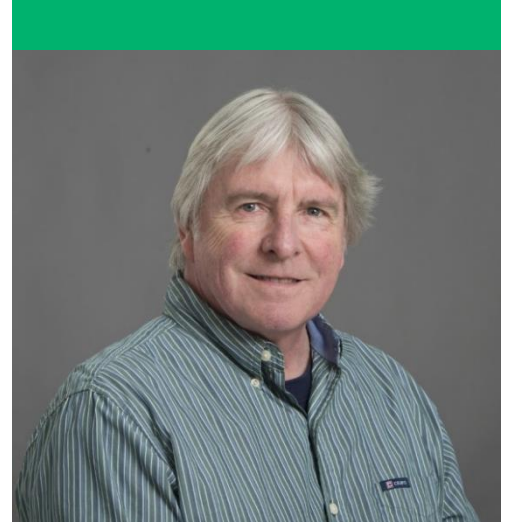


## John W. Burns, PhD

The Cynthia Oudejans Harris, MD, Professor of Psychiatry



### Advancement of Medicine

My research investigates so-called psychosocial processes in chronic pain among humans. My work in recent years has revolved around three issues: 1) understanding the day-to-day interplay of pain, emotions, behavior and medication use in adjustment to chronic pain; 2) examining how psychosocial interventions for chronic pain work and for whom do they work; and 3) evaluating new, especially simpler, psychosocial interventions for chronic pain. My work is supported by the National Institutes of Health, or NIH, and the U.S. Department of Defense. I share reports of my work in top-tier journals devoted to the study of pain.

### Research

I have been the recipient of this endowment for approximately two years. The impact of the endowment on my research activities has been considerable. Funds from the endowment allow me to employ a full-time research coordinator. The research coordinator conducts many administrative tasks I once performed, such as seeking Rush Institutional Review Board approvals and ensuring compliance with funding agency regulations, freeing me to work on grant proposals and research reports for journals. The coordinator was instrumental in helping us design, draft and submit NIH grant applications this year. She will perform this role for all upcoming grant application cycles.

Endowment funds have also allowed us to run two pilot projects. The first examines whether we can improve circadian rhythms to improve sleep quality. The second seeks to determine the effectiveness of single-session psychosocial treatments for people with chronic pain. Funds for these pilot projects are critical for our group to gather the data necessary to support NIH grant applications in the coming months.

## Grants

- 1 UM1 NS112874-01. NIH/NINDS. Transition from Acute to Chronic Pain in Total Knee Arthroplasty Patients: Identifying Resilience and Vulnerability Profiles. Dates: 7/1/19–1/31/25. Project role: Multi-PI.
- R01DA050334-01. NIH/NIDA. Stress and Opioid Misuse Risk: The Role of Endogenous Opioid and Endocannabinoid Mechanisms. Dates: 6/1/21–5/30/25. Project role: Co-I.
- W81XWH2210739; DoD. Preventing the Development of Chronic Pain: Treating PTSD at Acute Pain Onset. Dates: 9/30/22–8/30/26. Project role: PI.
- U01AT011337; NIH/NCCIH. Improving physical function in adults with chronic pain. A multisite feasibility study. Dates: 4/01/2021-3/31/2025. Project role: site-PI.
- R01NR020610-01; NIH/NINR. Comparative Mechanisms (Mediators, Moderators) of Psychosocial Chronic Pain Treatments. Dates: 11/01/22-10/31/27. Project role: multi-PI.

## Publication Highlights – Abbreviated

- Jennings MB, Burns JW, Jackson B, Molina KM, Lumley MA. Self-rated pain and observed pain behavior in Black and White Americans with chronic low back pain. *The Journal of Pain*, in press.
- Burns JW, Lumley MA, Vowles KE, Jensen MP, Day MA, Schubiner H, Jaszczak E, Abro B, Addicks SH, Bordieri MJ, Dow MM, Krohner S, Mendoza Z, Meyer EC, Miro DZ, Tankha H, Tubman DS, Yamin JB, You DS. Comparative main effects, mediators, and moderators of cognitive behavioral therapy, acceptance and commitment therapy, and emotional awareness and expression therapy for chronic spinal pain: Randomized controlled trial rationale and protocol. *Contemporary Clinical Trials Communications*, in press.
- Gerhart J, Burns JW, Thorn B, Jensen M, Carmody J, Keefe F. Treatment mechanism and outcome decoupling effects in cognitive therapy, mindfulness-based stress reduction, and behavior therapy for chronic pain. *Pain*. 2025; 166: 408-419.
- Burns JW, Gerhart J, Smith DA, Porter L, Rye B, Keefe F. Concurrent and lagged associations among pain medication use, pain, and negative affect: a daily diary study of people with chronic low back pain. *Pain*. 2024; 165: 1559-1568.



## **The Year Ahead: 2025 and Beyond**

We will prioritize the following research: 1) examining how psychosocial interventions for chronic pain work and for whom they work; 2) evaluating new, single-session psychosocial interventions for chronic pain; and 3) whether we can effectively improve the quality of life among people suffering from chronic medical conditions with psychosocial (non-medical) interventions particularly focusing on altering poor sleep habits.

## **With Gratitude**

I am grateful to the donors of the Cynthia Oudejans Harris, MD, Professor of Psychiatry endowment, which provides critical support for my research endeavors. I deeply appreciate the faith they place in me to use the associated funds wisely to advance the study of medical science.