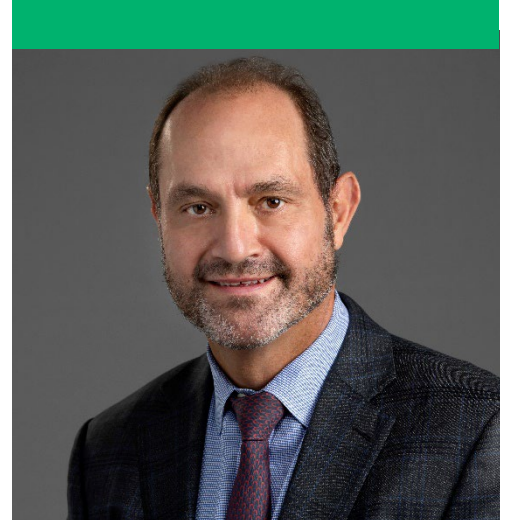


Frank M. Phillips, MD

The Ronald L. DeWald, MD, Professor of
Spinal Deformities



Advancement of Medicine

In 2023, we advanced our work to ensure that Rush remains a national leader in minimally invasive spine surgery, especially in spinal deformity surgery. This approach facilitates less collateral tissue damage, expedites recovery and improves outcomes. The procedures and techniques we have pioneered have become widely adopted in spinal surgery. We have also pioneered the use of augmented reality in spinal surgery to streamline and enhance safety of spinal procedures. These techniques are used for deformity correction surgery as well as degenerative conditions. We remain at the international forefront of cervical disc replacement. We have initiated translational research studies into the gut microbiome and how it might affect low back pain and disc degeneration. I have published and lectured extensively in these areas nationally and internationally.

Research

Funds from the Ronald L. DeWald, MD, endowment have assisted in covering costs of our research efforts and support staff, publications and meeting participation.

Grants

The research performed and manuscripts submitted because of the endowment have allowed us to engage in additional studies on particular devices and procedures, including our involvement in multi-center IDE studies funded by the Federal Drug Administration, or FDA. The basic science research pilot studies supported by your generosity have been productive, leading to federal funding of additional projects.

Selected Presentations

- Spine Week. May 2023; Melbourne, Australia. “Four-year durability of restorative neurostimulation effectiveness in patients with chronic low back pain and impaired neuromuscular control of the lumbar spine;” “5-year outcomes for single-level total disc replacement with a novel viscoelastic artificial cervical disc compared to anterior cervical discectomy and fusion;” “Effect of interbody implant design on early clinical and radiographic results after LLIF surgery.”
- North American Spine Society Annual Meeting. October 2023; Los Angeles, CA. “Risk of Subsequent Fusion After Isolated Decompression for Lumbar Facet Cyst;” “The Effect of Changes in Segmental Lordosis on Global Lumbar and Adjacent Segment Lordosis after L5-S1 ALIF;” “Risk of Subsequent Fusion After Isolated Decompression for Lumbar Facet Cyst.”

Publication Highlights — Abbreviated

- “Augmented reality in minimally invasive spine surgery: early efficiency and complications of percutaneous pedicle screw instrumentation,” *The Spine Journal* (2023)
- “Telemedicine in spine surgery: Global perspectives and practices,” *Global Spine Journal* (2023).
- “Prospective, multicenter clinical trial comparing the M6-C compressible cervical disc with anterior cervical discectomy and fusion for the treatment of single-level degenerative cervical radiculopathy: 5-year results of an FDA investigational device exemption study,” *Spine Journal* (2023).
- “Deep phenotyping the cervical spine: automatic characterization of cervical degenerative phenotypes based on T2-weighted MRI,” *European Spine Journal* (2023).
- “The effect of changes in segmental lordosis on global lumbar and adjacent segment lordosis after L5-S1 anterior lumbar interbody fusion,” *Global Spine Journal* (2023).
- “Does disc distraction after cervical total disc arthroplasty impact range of motion and patient-reported outcomes?” *Journal of Neurosurgery: Spine* (2023).



The Year Ahead: 2024 and Beyond

We will provide support for studies on devices and procedures, including our involvement in multi-center FDA IDE studies.

We have recruited a deformity-focused spinal surgeon who was trained under the renowned spinal surgeon, **Larry Lenke, MD**, of Columbia Orthopedic Surgery. **Nathan Lee, MD**, will be charged with enhancing the spinal deformity clinical and academic program at Rush. He has published over 150 articles, the majority of which are focused on spinal deformity.

With Gratitude

I want to sincerely thank Dr. Ron DeWald for the support provided by the endowed professorship of spinal deformities. This generosity has helped our section continue your proud legacy in advancing the field of spine surgery and providing better outcomes for our patients. Your support allows us to remain one of the most highly regarded spine programs in the nation.