



Corinna Zygourakis, MD

Assistant Professor of Neurosurgery

 Curriculum Vitae available Online

CLINICAL OFFICE (PRIMARY)

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ACADEMIC CONTACT INFORMATION

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Bio

BIO

Dr. Corinna Zygourakis is an Assistant Professor in the Department of Neurosurgery at Stanford University School of Medicine and a board-certified neurological surgeon who specializes in comprehensive surgical care of the adult spine, focusing on the treatment of complex spinal disorders, including spinal deformity, revision surgery, and spinal tumors. Dr. Zygourakis employs the latest minimally invasive, motion-sparing, and robotic surgical techniques to achieve the best outcomes for her patients. Her philosophy is to take care of patients with respect and compassion, as she would want her own family treated.

Dr. Zygourakis trained at the Johns Hopkins Hospital for her combined neurosurgery and orthopedic surgery complex spine fellowship, where she performed the first surgery internationally with the Globus Excelsius spinal robot. She completed her residency at the top-ranked neurosurgical program at the University of California, San Francisco, and obtained her M.D. degree cum laude from Harvard Medical School. She received her B.S. degree with honors from the California Institute of Technology, where she received a full merit scholarship and the Mabel Beckman Commencement Prize to the Top Graduating Woman in her class. She has received numerous awards including “Top 20 Under 40 Spine Surgeons” (SpineLine, North American Spine Society) and the Paul and Daisy National Fellowship for New Americans.

Committed to serving and advocating for spine patients through her clinical, education, and research efforts, Dr. Zygourakis has published more than eighty scientific articles and book chapters on healthcare costs, quality of neurosurgical care, and spine surgery. Her current research efforts include developing and leading the first randomized clinical trial using the Apple Watch to objectively track patient movement and function before and after spine surgery, as well as multiple studies investigating the impact of race, gender, and socioeconomic status on spinal surgery access and outcomes.

CLINICAL FOCUS

- Neurosurgery
- Spinal Deformity Surgery
- Spine Tumor Surgery
- Minimally Invasive Spine Surgery

- Robotic Spine Surgery
- Spinal Cord Injury

ACADEMIC APPOINTMENTS

- Assistant Professor - University Medical Line, Neurosurgery

HONORS AND AWARDS

- Byers Center for Biodesign Faculty Fellowship, Stanford University (2019-2020)
- Top 20 Under 40 Spine Surgeons, SpineLine, North American Spine Society (2019)
- High Impact Manuscript Award, Neurosurgery (2017)
- Best Senior Resident Clinical Research Presentation, Resident Research Day, University of California, San Francisco (2016)
- Excellence and Innovation Award in Graduate Medical Education, University of California, San Francisco (2016)
- Sustainability Award from UCSF Chancellor for Project on OR Waste, University of California, San Francisco (2016)
- UCSF Health "Great Save Award" from CEO for OR Surgical Cost Reduction Project, University of California, San Francisco (2016)
- CTSI Catalyst Award, Development of Doctor Mobile App that Decreases Costs, University of California, San Francisco (2015)
- Naffziger Award for Outstanding Neurosurgical Resident, University of California, San Francisco (2015)
- UCSF Center for Healthcare Value Research Fellowship, University of California, San Francisco (2015)
- Caring Wisely Grant, OR SCORE (OR Surgical Cost Reduction Project), University of California, San Francisco (2014)
- Cum Laude, Harvard Medical School (2011)
- Seidman Prize for Outstanding Senior HST Medical Student Thesis, Harvard Medical School (2011)
- Howard Hughes Medical Institute Research Fellowship for Medical Students, Howard Hughes Medical Institute (2008-2009)
- Paul and Daisy Soros National Fellowship for New Americans, Paul and Daisy Soros Foundation (2006-2008)
- Mabel Beckman Award, Caltech Commencement Prize to Top Graduating Woman, California Institute of Technology (2006)
- Jack E. Froehlich Award, Caltech Academic Prize to Top Junior, California Institute of Technology (2005)
- Axline and Lingle Awards, Caltech Full-Tuition Merit Scholarships, California Institute of Technology (2002-2006)
- Neuroscience Research Prize, American Academy of Neurology & Child Neurology Society (2002)
- USA Today All-USA High School Academic First Team, USA Today (2002)
- United States Presidential Scholar, U.S. Presidential Scholars Program (2002)

PROFESSIONAL EDUCATION

- Board Certification: Neurosurgery, American Board of Neurological Surgery (2021)
- Fellowship: Johns Hopkins Neurosurgery Spine Fellowship (2018) MD
- Residency: UCSF Neurological Surgery Residency (2017) CA
- Medical Education: Harvard Medical School (2011) MA
- Fellowship, Johns Hopkins Hospital , Complex Spine Fellowship, Depts of Neurosurgery & Orthopedic Surgery (2018)
- Residency, University of California, San Francisco , Neurological Surgery (2017)
- M.D., Harvard Medical School, Massachusetts Institute of Technology, Health Sciences and Technology Joint Program , Neuroscience Honors Thesis *Cum laude (2011)
- Study Abroad, Cambridge University , Physiology (2005)
- B.S., California Institute of Technology , Biology, English Literature *with honors (2006)

LINKS

- Medical Record Review: <https://stanfordhealthcare.org/second-opinion/medical-record-review.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My goal is to translate research into real-world action and decision-making so that my work can impact patients and the institutions in which they receive care. With a research focus on healthcare cost and quality of care, I approach neurosurgery in a unique way—one that applies business operations, economics, and healthcare delivery principles to our field. I have pursued formal LEAN business training, and believe in the importance of working together with other departments and administrators, as well as physicians and surgeons on the hospital and national level, to effect change. During my residency, I developed and led a multi-departmental prospective study at UCSF called OR SCORE (OR Surgical Cost Reduction Project) that brought together surgeons from the neurosurgery, orthopedics and ENT departments with nurses and administrators. OR SCORE successfully reduced surgical supply costs by nearly one million dollars in its first year by providing >60 surgeons with price transparency scorecards. This work led to a first-author publication in JAMA Surgery, but more importantly, set the foundation for further quality improvement and cost reduction efforts across the UCSF hospital system.

A volunteer neurosurgical mission trip to Guadalajara, Mexico, where limited resources create an OR environment that is strikingly more frugal than the U.S., inspired me to lead another project aimed at quantifying and reducing operating room waste at UCSF. I have also conducted research looking at the safety and outcomes of overlapping surgery, as well as several projects to define the factors underlying variation in cost for neurosurgical care using UCSF's hospital data and national databases like the National Inpatient Sample, Vizient (formerly known as University Health Consortium), and Medicare.

As a clinical fellow at Johns Hopkins, I continued and expanded these research efforts. I designed and implemented an Enhanced Recovery after Surgery (ERAS) protocol at the Johns Hopkins Bayview hospital. This protocol standardized care for our spine patients, emphasizing pre-operative rehabilitation, psychiatric and nutritional assessments, and smoking cessation, as well as intra- and post-operative multi-modal pain therapy, early mobilization, and standardized antibiotic and bowel regimens. I also collaborated with engineers in the Johns Hopkins Carnegie Center for Surgical Innovation to develop better algorithms for intra-operative CT imaging, and provided assistance with operations to a basic science study looking at the role of cerebrospinal fluid drainage and duraplasty in a porcine model of spinal cord injury.

At Stanford, I am building a research group focused on: (1) perfecting paradigms for delivery of high-end technology in spinal care, including robotics and navigation, (2) implementing cost and quality strategies in large healthcare systems, and (3) computational analysis of big-data to effect real-time risk stratification and decision making in spine surgery. I'm excited to collaborate with my peers across surgical and medical departments, as well as business and engineering colleagues.

CLINICAL TRIALS

- Improving Spine Surgical Care With Real-Time Objective Patient Tracking Using the Apple Watch, Not Recruiting

Teaching

STANFORD ADVISEES

Med Scholar Project Advisor

Maria Suarez-Nieto

Publications

PUBLICATIONS

- **Provider's exposure to diversity contributes to socioeconomic disparities in lumbar and cervical fusion outcomes.** *World neurosurgery: X*
Touponse, G., Malacon, K., Li, G., Yoseph, E., Han, S., Zygourakis, C.
2024; 23: 100382
- **Socioeconomic disparities in lumbar fusion rates were exacerbated during the COVID-19 pandemic.** *North American Spine Society journal*
Wu, J. Y., Tang, M., Touponse, G., Theologitis, M., Williamson, T., Zygourakis, C. C.
2024; 18: 100321
- **Standardizing Continuous Physical Activity Monitoring in Patients with Cervical Spondylosis.** *Spine*
Maldaner, N., Gonzalez-Suarez, A. D., Tang, M., Fatemi, P., Leung, C., Desai, A., Tomkins-Lane, C., Zygourakis, C.
2024
- **Demographic and Socioeconomic Trends in Cervical Fusion Utilization from 2004 through 2021 and the COVID-19 Pandemic.** *World neurosurgery*
Wu, J. Y., Touponse, G. C., Theologitis, M., Ahmad, H. S., Zygourakis, C. C.
2023
- **Standardizing Physical Activity Monitoring in Patients With Degenerative Lumbar Disorders.** *Neurosurgery*
Maldaner, N., Tang, M., Fatemi, P., Leung, C., Desai, A., Tomkins-Lane, C., Zygourakis, C.
2023
- **First spine surgery utilizing real-time image-guided robotic assistance.** *Computer assisted surgery (Abingdon, England)*
Ahmed, A. K., Zygourakis, C. C., Kalb, S., Zhu, A. M., Molina, C. A., Jiang, B., Blitz, A. M., Bydon, A., Crawford, N. R., Theodore, N.
2019: 1–5
- **Technique: open lumbar decompression and fusion with the Excelsius GPS robot.** *Neurosurgical focus*
Zygourakis, C. C., Ahmed, A. K., Kalb, S. n., Zhu, A. M., Bydon, A. n., Crawford, N. R., Theodore, N. n.
2018; 45 (VideoSuppl1): V6
- **Association Between Surgeon Scorecard Use and Operating Room Costs.** *JAMA surgery*
Zygourakis, C. C., Valencia, V. n., Moriates, C. n., Boscardin, C. K., Catschegn, S. n., Rajkomar, A. n., Bozic, K. J., Soo Hoo, K. n., Goldberg, A. N., Pitts, L. n., Lawton, M. T., Dudley, R. A., Gonzales, et al
2017; 152 (3): 284–91
- **In Reply: Women Neurosurgeons Worldwide: Characterizing the Global Female Neurosurgical Workforce.** *Neurosurgery*
Vaca, S. D., Theologitis, M., Zygourakis, C. C.
2024
- **Acute back pain: The role of medication, physical medicine and rehabilitation: WFNS spine committee recommendations.** *World neurosurgery: X*
Sharif, S., Jazaib Ali, M. Y., Kirazl#, Y., Vlok, I., Zygourakis, C., Zileli, M.
2024; 23: 100273
- **Analyzing Large Language Models' Responses to Common Lumbar Spine Fusion Surgery Questions: A Comparison Between ChatGPT and Bard.** *Neurospine*
Lang, S. P., Yoseph, E. T., Gonzalez-Suarez, A. D., Kim, R., Fatemi, P., Wagner, K., Maldaner, N., Stienen, M. N., Zygourakis, C. C.
2024; 21 (2): 633-641
- **Acute back pain - Role of injection techniques and surgery: WFNS spine committee recommendations.** *World neurosurgery: X*
Peev, N., Zygourakis, C., Sippl, C., Grasso, G., Oertel, J., Sharif, S.
2024; 22: 100315
- **Lumbar disc herniation: Epidemiology, clinical and radiologic diagnosis WFNS spine committee recommendations.** *World neurosurgery: X*
Pojskic, M., Bisson, E., Oertel, J., Takami, T., Zygourakis, C., Costa, F.
2024; 22: 100279
- **Lumbar disc herniation: Prevention and treatment of recurrence: WFNS spine committee recommendations.** *World neurosurgery: X*
Zileli, M., Oertel, J., Sharif, S., Zygourakis, C.

2024; 22: 100275

- **The role of conservative treatment in lumbar disc herniations: WFNS spine committee recommendations.** *World neurosurgery: X*
Yaman, O., Guchkha, A., Vaishya, S., Zileli, M., Zygourakis, C., Oertel, J.
2024; 22: 100277
- **Acute back pain: Clinical and radiologic diagnosis: WFNS spine committee recommendations.** *World neurosurgery: X*
Gushcha, A. O., Sharif, S., Zileli, M., Oertel, J., Zygourakis, C. C., Yusupova, A. R.
2024; 22: 100278
- **Acute low back pain: Epidemiology, etiology, and prevention: WFNS spine committee recommendations.** *World neurosurgery: X*
Oertel, J., Sharif, S., Zygourakis, C., Sippl, C.
2024; 22: 100313
- **Role of surgery in primary lumbar disk herniation: WFNS spine committee recommendations.** *World neurosurgery: X*
Costa, F., Oertel, J., Zileli, M., Restelli, F., Zygourakis, C. C., Sharif, S.
2024; 22: 100276
- **Cauda equina, conus medullaris and syndromes mimicking sciatic pain: WFNS spine committee recommendations.** *World neurosurgery: X*
Vaishya, S., Pojskic, M., Bedi, M. S., Oertel, J., Sippl, C., Robertson, S., Zygourakis, C.
2024; 22: 100274
- **Getting What You Pay For: Impact of Copayments on Physical Therapy and Opioid Initiation, Timing, and Continuation for Newly Diagnosed Low Back Pain.** *The spine journal : official journal of the North American Spine Society*
Jin, M. C., Jensen, M., Barros Guinle, M. I., Ren, A., Zhou, Z., Zygourakis, C. C., Desai, A. M., Veeravagu, A., Ratliff, J. K.
2024
- **Women Neurosurgeons Worldwide: Characterizing the Global Female Neurosurgical Workforce.** *Neurosurgery*
Vaca, S. D., Theologitis, M., Zygourakis, C. C.
2023
- **Costs and Outcomes of Total Joint Arthroplasty in Medicare Beneficiaries Are Not Meaningfully Associated with Industry Payments.** *The Journal of bone and joint surgery. American volume*
Wadhwa, H., Leung, C., Sklar, M., Malacon, K., Rangwalla, T., Williamson, T., Castillo, T. N., Amanatullah, D. F., Zygourakis, C. C.
2023
- **Thoracic and Lumbar Spine Injury: Evidence-Based Diagnosis, Management, and Outcomes.** *The American surgeon*
Gomez, G. I., Li, G. Q., Valido, A. A., Stoner, A. J., Bromley-Dulfano, R. A., Sheira, D., Gonzalez, C. A., Khan, S. I., Choi, J., Zygourakis, C. C., Weiser, T. G.
2023: 31348231216479
- **Anabolic and Antiresorptive Osteoporosis Treatment: Trends, Costs, and Sequence in a Commercially Insured Population, 2003-2021.** *JBMR plus*
Wadhwa, H., Wu, J. Y., Lee, J. S., Zygourakis, C. C.
2023; 7 (10): e10800
- **Socioeconomic Influence on Cervical Fusion Outcomes.** *Clinical spine surgery*
Touponse, G., Theologitis, M., Beach, I., Rangwalla, T., Li, G., Zygourakis, C.
2023
- **Anabolic and Antiresorptive Osteoporosis Treatment: Trends, Costs, and Sequence in a Commercially Insured Population, 2003-2021** *JBMR PLUS*
Wadhwa, H., Wu, J. Y., Lee, J. S., Zygourakis, C. C.
2023
- **Trends in Management of Osteoporosis Following Primary Vertebral Compression Fracture.** *Journal of the Endocrine Society*
Malacon, K., Beach, I., Touponse, G., Rangwalla, T., Lee, J., Zygourakis, C.
2023; 7 (7): bvad085
- **Trends, Payments, and Costs Associated with BMP Use in Medicare Beneficiaries Undergoing Spinal Fusion.** *The spine journal : official journal of the North American Spine Society*
Wadhwa, H., Wu, J. Y., Malacon, K., Ames, C., Ratliff, J., Zygourakis, C.
2023

- **Socioeconomic Effects on Lumbar Fusion Outcomes.** *Neurosurgery*
Touponse, G., Li, G., Rangwalla, T., Beach, I., Zygourakis, C.
2023
- **First reported use of machine vision image guided system for unstable thoracolumbar fusion: Technical case report** *INTERDISCIPLINARY NEUROSURGERY-ADVANCED TECHNIQUES AND CASE MANAGEMENT*
Malacon, K., Fatemi, P., Zygourakis, C. C.
2022; 30
- **Utilization Trends, Cost, and Payments for Adult Spinal Deformity Surgery in Commercial and Medicare-Insured Populations.** *Neurosurgery*
Wadhwa, H., Leung, C., Sklar, M., Ames, C. P., Veeravagu, A., Desai, A., Ratliff, J., Zygourakis, C. C.
2022
- **Operative Versus Nonoperative Management of Unstable Spine Fractures in the Elderly: Outcomes and Mortality.** *Spine*
Malacon, K., Rangwalla, T., Wadhwa, H., Zygourakis, C.
2022
- **Health Care Resource Utilization in Management of Opioid-Naive Patients With Newly Diagnosed Neck Pain.** *JAMA network open*
Jin, M. C., Jensen, M., Zhou, Z., Rodrigues, A., Ren, A., Barros Guinle, M. I., Veeravagu, A., Zygourakis, C. C., Desai, A. M., Ratliff, J. K.
2022; 5 (7): e2222062
- **Modifiers of and Disparities in Palliative and Supportive Care Timing and Utilization among Neurosurgical Patients with Malignant Central Nervous System Tumors.** *Cancers*
Jin, M. C., Hsin, G., Ratliff, J., Thomas, R., Zygourakis, C. C., Li, G., Wu, A.
2022; 14 (10)
- **Trends in Intraoperative Assessment of Spinal Alignment: A Survey of Spine Surgeons in the United States.** *Global spine journal*
Gullotti, D. M., Soltanianzadeh, A. H., Fujita, S., Inserni, M., Ruppel, E. 3., Franconi, N. G., Zygourakis, C., Protopsaltis, T., Lo, S. L., Sciubba, D. M., Theodore, N.
2022; 12 (2_suppl): 82S-86S
- **Appropriate Telemedicine Utilization in Spine Surgery: Results From a Delphi Study.** *Spine*
Iyer, S., Bovonratwet, P., Samartzis, D., Schoenfeld, A. J., An, H. S., Awwad, W., Blumenthal, S. L., Cheung, J. P., Derman, P. B., El-Sharkawi, M., Freedman, B. A., Hartl, R., Kang, et al
2022
- **Introduction. The neurosurgeon as roboticist.** *Neurosurgical focus*
Theodore, N., Chambless, L. B., Hartl, R., Zygourakis, C. C., Jiang, B., Protopsaltis, T. S.
1800; 52 (1): E1
- **First case report using optical topographic-guided navigation in revision spinal fusion for calcified thoracic disk.** *Journal of clinical neuroscience : official journal of the Neurosurgical Society of Australasia*
Sklar, M., Fatemi, P., Wadhwa, H., Leung, C., Zygourakis, C.
2021; 91: 80-83
- **Predictors of an academic career among fellowship-trained spinal neurosurgeons.** *Journal of neurosurgery. Spine*
Khalafallah, A. M., Jimenez, A. E., Shlobin, N. A., Larkin, C. J., Mukherjee, D., Zygourakis, C. C., Lo, S., Sciubba, D. M., Bydon, A., Witham, T. F., Dahdaleh, N. S., Theodore, N.
2021: 1-8
- **External validation of a predictive model of adverse events following spine surgery.** *The spine journal : official journal of the North American Spine Society*
Fatemi, P., Zhang, Y., Han, S. S., Purington, N., Zygourakis, C. C., Veeravagu, A., Desai, A., Park, J., Shuer, L. M., Ratliff, J. K.
2021
- **First reported use of real-time intraoperative computed tomography angiography image registration using the Machine-vision Image Guided Surgery system: illustrative case.** *Journal of neurosurgery. Case lessons*
Wadhwa, H., Malacon, K., Medress, Z. A., Leung, C., Sklar, M., Zygourakis, C. C.
2021; 1 (18): CASE2125
- **Commentary: Transdural Spinal Cord Herniation: An Exceptional Complication of Thoracoscopic Discectomy.** *Operative neurosurgery (Hagerstown, Md.)*
Jensen, M., Zygourakis, C.

2021

- **Telehealth Adoption Across Neurosurgical Subspecialties at a Single Academic Institution During the COVID-19 Pandemic.** *World neurosurgery*
Leung, C., Wadhwa, H., Sklar, M., Sheth, K., Loo, S., Ratliff, J., Zygourakis, C. C.
2021
- **Functional neurological disorders in patients undergoing spinal surgery: illustrative case.** *Journal of neurosurgery. Case lessons*
Yerneni, K., Wadhwa, H., Fatemi, P., Zygourakis, C. C.
2021; 1 (2): CASE2068
- **Functional neurological disorders in patients undergoing spinal surgery: illustrative case** *Journal of Neurosurgery: Case Lessons*
Yerneni, K., Wadhwa, H., Fatemi, P., Zygourakis, C. C.
2021; 1 (2)
- **First reported use of real-time intraoperative computed tomography angiography image registration using the Machine-vision Image Guided Surgery system: illustrative case** *Journal of Neurosurgery: Case Lessons*
Wadhwa, H., Malacon, K., Medress, Z. A., Leung, C., Sklar, M., Zygourakis, C. C.
2021
- **Posterior Vertebral Column Subtraction Osteotomy for Recurrent Tethered Cord Syndrome: A Multicenter, Retrospective Analysis.** *Neurosurgery*
Theodore, N., Cottrill, E., Kalb, S., Zygourakis, C., Jiang, B., Pennington, Z., Lubelski, D., Westbroek, E. M., Ahmed, A. K., Ehresman, J., Sciubba, D. M., Witham, T. F., Turner, et al
2020
- **Experience with an Enhanced Recovery After Spine Surgery protocol at an academic community hospital.** *Journal of neurosurgery. Spine*
Young, R., Cottrill, E., Pennington, Z., Ehresman, J., Ahmed, A. K., Kim, T., Jiang, B., Lubelski, D., Zhu, A. M., Wright, K. S., Gavin, D., Russo, A., Hanna, et al
2020: 1–8
- **Commentary: Predicting Postoperative Outcomes in Brain Tumor Patients With a 5-Factor Modified Frailty Index.** *Neurosurgery*
Zhang, M., Hayden Gephart, M., Zygourakis, C. C.
2020
- **Leptomeningeal spread with spinal involvement of pineal glioblastoma at initial presentation: A case report** *INTERDISCIPLINARY NEUROSURGERY-ADVANCED TECHNIQUES AND CASE MANAGEMENT*
Yerneni, K., Fatemi, P., Vogel, H., Li, G., Zygourakis, C. C.
2020; 21
- **Objective activity tracking in spine surgery: a prospective feasibility study with a low-cost consumer grade wearable accelerometer.** *Scientific reports*
Stienen, M. N., Rezaii, P. G., Ho, A. L., Veeravagu, A., Zygourakis, C. C., Tomkins-Lane, C., Park, J., Ratliff, J. K., Desai, A. M.
2020; 10 (1): 4939
- **Robot-Assisted versus Freehand Instrumentation in Short-Segment Lumbar Fusion: Experience with Real-Time, Image-Guided Spinal Robot.** *World neurosurgery*
Jiang, B. n., Pennington, Z. n., Azad, T. n., Liu, A. n., Ahmed, A. K., Zygourakis, C. C., Westbroek, E. M., Zhu, A. n., Cottrill, E. n., Theodore, N. n.
2020
- **Simultaneous Coccidioidomycosis and Phaeohyphomycosis in a Kidney Transplant Recipient: A Case Report and Literature Review.** *Transplant infectious disease : an official journal of the Transplantation Society*
Puing, A. G., Couture-Cossette, A. n., Wang, A. X., Zygourakis, C. C., Cheng, X. n., Stevens, B. A., Banaei, N. n., Novoa, R. A., Ho, D. Y., Subramanian, A. n.
2020: e13365
- **Systematic Review of Cost-Effectiveness Analyses in US Spine Surgery.** *World neurosurgery*
Chang, D. n., Zygourakis, C. C., Wadhwa, H. n., Kahn, J. G.
2020
- **Automatic analysis of global spinal alignment from simple annotation of vertebral bodies.** *Journal of medical imaging (Bellingham, Wash.)*
Doerr, S. A., De Silva, T. n., Vijayan, R. n., Han, R. n., Uneri, A. n., Ketcha, M. D., Zhang, X. n., Khanna, N. n., Westbroek, E. n., Jiang, B. n., Zygourakis, C. n., Aygun, N. n., Theodore, et al
2020; 7 (3): 035001
- **Does double-blind peer review impact gender authorship trends? An evaluation of two leading neurosurgical journals from 2010 to 2019.** *Journal of neurosurgery*

- Mahajan, U. V., Wadhwa, H. n., Fatemi, P. n., Xu, S. n., Shan, J. n., Benzil, D. L., Zygourakis, C. C.
2020: 1–9
- **Association between Physician Industry Payments and Cost of Anterior Cervical Discectomy and Fusion in Medicare Beneficiaries.** *World neurosurgery*
Liu, C. n., Ahmed, K. n., Chen, C. L., Dudley, R. A., Gonzales, R. n., Orrico, K. n., Yerneni, K. n., Stienen, M. N., Veeravagu, A. n., Desai, A. n., Park, J. n.,
Ratliff, J. K., Zygourakis, et al
2020
 - **Tenosynovial giant cell tumor of the suboccipital region - A rare, benign neoplasm in this location.** *Journal of clinical neuroscience : official journal of the Neurosurgical Society of Australasia*
Singh, R. n., Stienen, M. N., Ganjoo, K. n., Kolahi, K. S., Cayrol, R. n., Charville, G. W., Born, D. E., Zygourakis, C. C.
2020
 - **Digital transformation in spine research and outcome assessment.** *The spine journal : official journal of the North American Spine Society*
Maldaner, N. n., Tomkins-Lane, C. n., Desai, A. n., Zygourakis, C. C., Weyerbrock, A. n., Gautschi, O. P., Stienen, M. N.
2020; 20 (2): 310–11
 - **The Effect of Renin-angiotensin System Blockers on Spinal Cord Dysfunction and Imaging Features of Spinal Cord Compression in Patients with Symptomatic Cervical Spondylosis.** *The spine journal : official journal of the North American Spine Society*
Perdomo-Pantoja, A., Chara, A., Kalb, S., Casaos, J., Ahmed, A., Pennington, Z., Cottrill, E., Shah, S., Jiang, B., Manbachi, A., Zygourakis, C., Witham, T. F.,
Theodore, et al
2019
 - **Assessment of a triage protocol for emergent neurosurgical cases at a single institution.** *World neurosurgery*
Ehresman, J., Ahmed, A. K., Lubelski, D., Pennington, Z., Jiang, B., Zygourakis, C., Cottrill, E., Theodore, N.
2019
 - **Timing of Adjuvant Radiation Therapy and Risk of Wound-Related Complications Among Patients With Spinal Metastatic Disease.** *Global spine journal*
Azad, T. D., Varshneya, K., Herrick, D. B., Pendharkar, A. V., Ho, A. L., Stienen, M., Zygourakis, C., Bagshaw, H. P., Veeravagu, A., Ratliff, J. K., Desai, A.
2019: 2192568219889363
 - **Timing of Adjuvant Radiation Therapy and Risk of Wound-Related Complications Among Patients With Spinal Metastatic Disease** *GLOBAL SPINE JOURNAL*
Azad, T. D., Varshneya, K., Herrick, D. B., Pendharkar, A., Ho, A. L., Stienen, M., Zygourakis, C., Bagshaw, H. P., Veeravagu, A., Ratliff, J. K., Desai, A.
2019
 - **Known-component 3D image reconstruction for improved intraoperative imaging in spine surgery: A clinical pilot study.** *Medical physics*
Zhang, X., Uneri, A., Webster Stayman, J., Zygourakis, C. C., Lo, S. L., Theodore, N., Siewerdsen, J. H.
2019
 - **Accuracy of Current Techniques for Placement of Pedicle Screws in the Spine: A Comprehensive Systematic Review and Meta-Analysis of 51,161 Screws** *WORLD NEUROSURGERY*
Perdomo-Pantoja, A., Ishida, W., Zygourakis, C., Holmes, C., Iyer, R. R., Cottrill, E., Theodore, N., Witham, T. F., Lo, S. L.
2019; 126: 664+
 - **Estimating a price point for cost-benefit of bone morphogenetic protein in pseudarthrosis prevention for adult spinal deformity surgery** *JOURNAL OF NEUROSURGERY-SPINE*
Safaei, M. M., Dalle Ore, C. L., Zygourakis, C. C., Deviren, V., Ames, C. P.
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