

Position: Assistant Professor, Department of Neurological Surgery

Address: Stanford University Medical Center
Department of Neurosurgery
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Updated on Mar 22, 2022

EDUCATION AND TRAINING:

8/2017-12/2018	Johns Hopkins Hospital Baltimore, MD	Fellow	Complex Spine: Neurosurgery & Orthopedic Surgery
6/2011-6/2017	University of California, San Francisco, CA	Resident	Neurological Surgery
8/2006-5/2011	Harvard Medical School, Massachusetts Institute of Technology, Health Sci & Technology, Boston, MA	M.D.*	Neuroscience Honors Thesis <i>*Cum Laude</i>
1/2005-3/2005	Cambridge University, Cambridge, UK		Physiology, Study Abroad
9/2002-6/2006	California Institute of Technology, Pasadena, CA	B.S.*	Biology, Literature <i>*With Honors</i>

PROFESSIONAL APPOINTMENTS:

1/2019-present	Stanford University School of Medicine, Department of Neurosurgery	Assistant Professor
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BOARD CERTIFICATION:

2021	American Board of Neurological Surgery (ABNS) Oral Examination: Pass
2016	American Board of Neurological Surgery Primary Written Examination: Score 657 (Pass; 88 th %ile)

LICENSURES:

2012-present	Physician and Surgeon License, The Medical Board of California
2017-2020	Physician and Surgeon License, Maryland Board of Physicians

SELECTED HONORS AND AWARDS:

2021	Board Certification, American Board of Neurological Surgeons (ABNS)
2021-2022	Stanford Leadership Development Course
2019	Top 20 Spine Surgeons Under 40, SpineLine, North American Spine Society

2019-2020	Stanford Biodesign Faculty Fellowship
2017-2018	AO Spine Fellowship, Johns Hopkins Hospital
2017	High Impact Manuscript Award, <i>Neurosurgery</i>
2016	UCSF Excellence and Innovation Award in Graduate Medical Education
2016	UCSF Sustainability Award from Chancellor for Project on OR Waste
2016	UCSF Health "Great Save Award", Award from CEO for OR Surgical Cost Reduction Project
2016	Best Senior Clinical Research Presentation, UCSF Resident Research Day
2015	UCSF Center for Healthcare Value Fellowship
2015	Naffziger Award for Outstanding Clinical Resident, UCSF Neurosurgery Department
2015	UCSF CTSI Catalyst Award, Development of Doctor Mobile App that Decreases Costs
2014	UCSF Caring Wisely Award, OR SCORE (OR Surgical Cost Reduction Project)
2011	<i>Cum laude</i> , Harvard Medical School
2011	Seidman Prize for Outstanding Senior Medical Student Thesis, Harvard Medical School
2008-2009	Howard Hughes Medical Institute Research Fellowship for Medical Students
2006-2008	Paul and Daisy Soros National Fellowship for New Americans
2006	Mabel Beckman Award, Caltech Commencement Prize to Top Graduating Woman
2005	Jack E. Froehlich Award, Caltech Academic Prize to Top Junior
2002-2006	Axline and Lingle Awards, Caltech Full-Tuition Merit Scholarships
2002	Neuroscience Research Prize, American Academy of Neurology & Child Neurology Society
2002	<i>USA Today</i> All-USA High School Academic First Team
2002	United States Presidential Scholar

PEER-REVIEWED ORIGINAL RESEARCH:

- Iyer S, Bovonratwet P, Samartziz D, Schoenfeld AJ, An HS, Awwad W, Blumenthal SL, Cheung JPY, Derman PB, El-Sharkawi M, Freedman BA, Hartl R, Kang JD, Kim HJ, Louie PK, Ludwig SC, Neva MH, Pham MH, Phillips FM, Qureshi SA, Radcliff KE, Riew KD, Sandhu HS, Sciubba DM, Sethi RK, Valacco M, Saidi HA, **Zygorakis CC**, Makhni MC. Appropriate Telemedicine Utilization in Spine Surgery: Results from a Delphi Study. *Spine* Feb (2022); online ahead of print. **Participated in Delphi study, reviewed final version of manuscript.*
- Fatemi P, Zhang Y, Han SS, Purington N, **Zygorakis CC**, Veeravagu A, Desai A, Park J, Shuer LM, Ratliff JK. External validation of a predictive model of adverse events following spine surgery. *Spine J* Jan;22 (1):104-112 (2022). **Reviewed final version of manuscript.*
- Sklar M, Fatemi P, Wadhwa H, Leung C, **Zygorakis CC**. First case report using optical topographic-guided navigation in revision spinal fusion for calcified thoracic disk. *J Clin Neurosci* Sep 91:80-83 (2021).
- Leung C, Wadhwa H, Sklar M, Sheth K, Loo S, Ratliff J, **Zygorakis CC**. Telehealth Adoption Across Neurosurgical Subspecialties at a Single Academic Institution During the COVID-19 Pandemic. *World Neurosurgery* Jun; 150:e539-549 (2021).
- Khalafallah AM, Jimenez AE, Schlobin NA, Larkin CJ, Mukherjee D, **Zygorakis CC**, Lo SF, Sciubba DM, Witham TF, Dahdaleh NS, Theodore N. Predictors of an academic career among fellowship-trained spinal neurosurgeons. *J Neurosurg Spine* June 11:1-8 (2021). **Revised final version of manuscript.*
- Wadhwa H, Malacon K, Medress ZA, Leung c, Sklar M, **Zygorakis CC**. 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*, May 3 [Published online: <https://doi.org/10.3171/CASE2125>] (2021).
- Theodore N, Cottrill E, Kalb S, **Zygorakis C**, Jiang B, Pennington Z, Lubelski D, Westbroek EM, Ahmed AK, Ehresman J, Sciubba DM, Witham TF, Turner JD, Groves M, Kakarla UK. Posterior Vertebral Column Subtraction Osteotomy for Recurrent Tethered Cord Syndrome: A Multicenter, Retrospective Analysis. *Neurosurgery* Feb 16;88(3) (2021). **Participated in surgeries, reviewed final manuscript.*
- Yerneni K, Wadhwa H, Fatemi P, and **Zygorakis CC**. Functional neurological disorders in patients undergoing spinal surgery: illustrative case. *Journal of Neurosurgery: Case Lessons*, Jan 11 [Published online: <https://doi.org/10.3171/CASE2068>] (2021).

9. Azad TD, Varshneya K, Herrick DB, Pendharkar A, Ho A, Steinen M, **Zygourakis CC**, Bagshaw H, Veeravagu A, Ratliff JK, Desai A. Timing of adjuvant radiation therapy and risk of wound-related complications among patients with spinal metastatic disease. **Global Spine Journal** Jan 11(1):44-49 (2021). *Assisted with manuscript review.
10. Young R, Cottrill E, Pennington Z, Ehresman J, Ahmed AK, Kim T, Jiang B, Lubelski D, Zhu AM, Wright KS, Gavin D, Russo A, Hanna MN, Bydon A, Witham TF, **Zygourakis C**, Theodore N. Experience with an Enhanced Recovery After Spine Surgery protocol at an academic community hospital. **J Neurosurg Spine** Dec 25:1-8 (2020). *Designed study, developed and implemented ERAS protocol, assisted with data analysis, reviewed final manuscript.
11. Puing AG, Couture-Cossette A, Wang AX, **Zygourakis CC**, Cheng X, Stevens BA, Banaei N, Novoa RA, Ho DY, Subramanian AK. Simultaneous coccidiomycosis and phaeohyphomycosis in a kidney transplant recipient: A case report and literature review. **Transpl Infect Disease** Dec, 22(6):e13365 (2020). *Performed the surgery, co-managed patient with infectious disease team, critically revised manuscript.
12. Mahajan U, Wadhwa H, Fatemi P, Zu S, Shan J, Benzil D, **Zygourakis CC**. Does Double-Blind Peer Review Impact Gender Authorship Trends? An Evaluation of Two Leading Neurosurgical Journals from 2010 to 2019. **Journal of Neurosurgery** Nov 13:1-9 (2020).
13. Liu C, Ahmed K, Chen C, Dudley RA, Gonzales R, Orrico K, Yerneni K, Steinen MN, Veeravagu A, Desai A, Park J, Ratliff JK, **Zygourakis CC**. Association between Physician Industry Payments and Cost of Anterior Cervical Discectomy and Fusion in Medicare Beneficiaries. **World Neurosurgery** Nov;143:e574-580 (2020).
14. Chang D, **Zygourakis CC**, Wadhwa H, Kahn JG. Systematic review of cost-effectiveness analyses in US spine surgery. **World Neurosurgery** Oct; 142:e32-57 (2020). *Developed project concept, assisted with data review, extensive manuscript review.
15. Yerneni K, Fatemi P, Vogel H, Li G, **Zygourakis CC**. Leptomeningeal spread with spinal involvement of pineal glioblastoma at initial presentation: A case report. **Interdisciplinary Neurosurgery** Sep 21; 100658 (2020).
16. Singh R, Stienen MN, Ganjoo K, Kolahi KS, Cayrol R, Charville GW, Born DE, **Zygourakis CC**. Tenosynovial giant cell tumor of the suboccipital region: A rare, benign neoplasm in this location. **J Clin Neurosci** Aug;78:413-415 (2020).
17. Doerr SA, De Silva T, Vijayan R, Han R, Uneri A, Ketcha MD, Zhang X, Khanna N, Westbroek E, Jiang B, **Zygourakis CC**, Aygun N, Theodore N, Siewerdsen JH. Automatic analysis of global spinal alignment from simple annotation of vertebral bodies. **J Med Imaging** May: 7(3):035001 (2020). *Assisted with performing surgeries, data collection.
18. Jiang B, Pennington Z, Azad T, Liu A, Ahmed AK, **Zygourakis CC**, Westbroek EM, Zhu Z, Cottrill E, Theodore N. Robot-assisted versus freehand instrumentation in short-segment lumbar fusion: Experience with real-time, image-guided spinal robot. **World Neurosurgery** Apr; 136:e635-645 (2020). *Assisted with performing robotic surgeries, reviewed manuscript.
19. A Perdomo-Pantoja, A Chara, S Kalb, J Casaos, AK Ahmed, Z Pennington, E Cottrill, S Shah, B Jiang, A Manbachi, **C Zygourakis**, TF Witham, N Theodore. The Effect of Renin-angiotensin System Blockers on Spinal Cord Dysfunction and Imaging Features of Spinal Cord Compression in Patients with Symptomatic Cervical Spondylosis. **Spine** Apr; 20(4):519-529 (2020) *Assisted with data interpretation, review of final manuscript.
20. Steinen MN, Rezaii PG, Ho A, Veeravagu A, **Zygourakis CC**, Tomkins-Lane C, Park J, Ratliff JK, Desai AM. Objective activity tracking in spine surgery: a prospective feasibility study with a low-cost consumer grade wearable accelerometer. **Scientific Reports** Mar 10(1):4939 (2020). *Final manuscript review.
21. J Ehresman, AK Ahmed, D Lubelski, Z Pennington, B Jiang, **C Zygourakis**, E Cottrill, N Theodore. Assessment of a triage protocol for emergent neurosurgical cases at a single institution. **World Neurosurg** Mar;135:e386-392 (2020) *Assisted with project concept, data review, and review of final manuscript.
22. B Jiang, TZ Asad, E Cottrill, **CC Zygourakis**, AM Zhu, N Crawford, N Theodore. New spinal robotic technologies. **Front Med** Dec 13(6):723-729 (2019). *Assisted with performing robotic surgeries, reviewing final manuscript.
23. AK Ahmed, **CC Zygourakis**, S Kalb, AM Zhu, CA Molina, B Jiang, AM Blitz, A Bydon, NR Crawford, N Theodore. First spine surgery utilizing real-time image-guided robotic assistance. **Computer Assisted Surgery** Dec;24(1):13-17 (2019). *Performed the first robotic surgery with senior author; critically revised the manuscript.

24. MN Steinen, OP Gautschi, VE Staartjes, N Madaner, M Sosnova, AL Ho, A Veeravagu, A Deai, **CC Zygourakis**, J Park, L Reglio, JK Ratliff. Reliability of the 6-minute walking test smartphone application. **J Neurosurg Spine** Sep 13:1-8 (2019). **Critically revised manuscript.*
25. X Zhang, A Uneri, J Webster Stayman, **CC Zygourakis**, SL Lo, N Theodore, JH Siewerdsen. Known-component 3D image reconstruction for improved intraoperative imaging in spine surgery: A clinical pilot study. **Med Phys** Aug;46(8):3483-3495 (2019). **Assisted with patient identification and recruitment, performed surgeries.*
26. A Perdomo-Pantoja, W Ishida, **CC Zygourakis**, C Holmes, RR Iyer, E Cottrill, N Theodore, TF Witham, SL Lo. 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** Jun;126:664-678 (2019). **Assisted with study design, critically revised the manuscript.*
27. MM Safaee, CL Dalle Ore, **CC Zygourakis**, V Deviren, CP Ames. Estimating a price point for cost-benefit of bone morphogenetic protein in pseudarthrosis prevention for adult spinal deformity surgery. **Journal of Neurosurgery: Spine** Mar 8:1-8 (2019). **Obtained cost data, assisted with study design and interpretation of data analysis.*
28. KA Ahmed, **CC Zygourakis**, S Kalb, Z Pennington, C Molina, T Emerson, N Theodore. Protocol for Urgent and Emergent Cases at a Large Academic Level 1 Trauma Center. **Cureus** Jan 11(1):e3973 (2019). **Conceived and designed study, assisted with data interpretation; critically revised the final manuscript.*
29. S Yoon, **CC Zygourakis**, J Seaman, M Zhu, AK Ahmed, T Kliot, S Antrum, AN Goldberg. The Implementation and Impact of a Hospital-Wide Instrument Set Review at a Tertiary Care Facility. **American Journal of Medical Quality** Jan/Feb 34(1):67-73 (2019). **Conceived and designed study; worked closely with administrators, nurses, sterile processing, and surgeons to perform quality improvement intervention. Served as neurosurgery champion for project. Critically revised manuscript.*
30. S Yeramaneni, CP Ames, S Bess, D Burton, JS Smith, S Glassman, JL Gum, L Carreon, A Jain, **C Zygourakis**, I Avramis, R Hostin, International Spine Study Group. Center Variation in Episode-of-Care Costs for Adult Spinal Deformity Surgery: Results from a Prospective, Multicenter Database. **The Spine Journal**, Oct 18(10):1829-1836 (2018). **Obtained cost data for this multicenter collaborative study.*
31. B Jiang, KA Ahmed, **CC Zygourakis** S Kalb, AM Zhu, J Godzik, CA Molina, A Blitz, A Bydon, N Crawford, N Theodore. Pedicle screw accuracy assessment in ExcelsiusGPS robotic spine surgery: evaluation of deviation from pre-planned trajectory. **Chin Neurosurg J** Sep 3;4:23 (2018). **Performed surgeries, reviewed analysis and final manuscript.*
32. **CC Zygourakis**, AM DiGiorgio, CL Crutcher, MM Safaee, FH Nicholls, C Dalle Ore, AK Ahmed, V Deviren, CP Ames. The Safety and Efficacy of CT-Guided, Fluoroscopy-Free Vertebroplasty in Adult Spinal Deformity Surgery. **World Neurosurgery** Aug 116:944-950 (2018).
33. **CC Zygourakis**, AK Ahmed, S Kalb, AM Zhu, A Bydon, N Crawford, N Theodore. Technique: Open Lumbar Decompression and Fusion with the ExcelsiusGPS Robot. **Neurosurgery Focus** Jul 45(Video Supp 1):V6 (2018).
34. Z Pennington, **CC Zygourakis**, AK Ahmed, S Kalb, AM Zhu, N Theodore. Immediate Improvement of Intraoperative Monitoring Signals Following CSF Release for Cervical Spine Stenosis: Case Report. **Journal Clinical Neuroscience**, Jul 53:235-237 (2018). **Performed surgery with the senior author. Critically revised the manuscript.*
35. MM Safaee, C Dalle Ore, **CC Zygourakis**, V Deviren, CP Ames. The unreimbursed costs of preventing revision surgery in adult spinal deformity: analysis of cost effectiveness of proximal junctional failure prevention with ligament augmentation. **Neurosurgery Focus**, May 44(5):E13 (2018). **Conceived and designed the study; obtained cost data. Assisted with data analysis and interpretation; critically revised the final manuscript.*
36. **CC Zygourakis***, C Liu*, M Keefe, C Moriates, J Ratliff, RA Dudley, R Gonzales, P Mummaneni, C Ames. Analysis of National Rates, Cost, and Sources of Variation in Cost for Adult Spinal Deformity Surgery. (*Co first-authors) **Neurosurgery**, Mar 1;82(3):378-387 (2018).
37. **CC Zygourakis***, C Liu*, S Yoon, C Moriates, RA Dudley, MT Lawton, P Theodosopoulos, MS Berger, R Gonzales. Analysis of Cost Variation in Craniotomy for Tumor using Two National Databases. (*Co first-authors) **Neurosurgery**, Dec 1;81(2):331-340 (2017).

38. **CC Zygourakis***, C Liu*, G Wakam, C Moriates, C Ames, P Mummaneni, J Ratliff, RA Dudley, R Gonzales. Geographic and Hospital Variation in Cost of Lumbar Laminectomy and Lumbar Fusion for Degenerative Conditions. (*Co first-authors) **Neurosurgery**, Aug 1; 81(2):331-340 (2017).
39. C Liu*, **CC Zygourakis***, S Yoon, T Klot, C Moriates, J Ratliff, RA Dudley, R Gonzales, P Mummaneni, C Ames. Trends in Utilization and Cost of Cervical Spine Surgery Using the National Inpatient Sample Database, 2001-2013. (*Co first-authors) **Spine**, Aug 42(15):LE906-913 (2017).
40. **CC Zygourakis**, V Valencia, C Moriates, C Boscardin, S Catschegn, KJ Bozic, K Soo Hoo, A Rajkomar, A Goldberg, L Pitts, MT Lawton, A Dudley, R Gonzales. Association between Surgeon Scorecard Use and Operating Room Costs. **JAMA Surgery**, Mar 152(3):284-91 (2017) (2017).
41. **CC Zygourakis**, M Keefe, J Lee, J Barba, Michael W McDermott, P Mummaneni, MT Lawton. Comparison of Patient Outcomes in 3,725 Overlapping versus 3,633 Non-Overlapping Neurosurgical Procedures Using a Single Institution's Clinical and Administrative Database. **Neurosurgery**, Feb 80(2):257-38 (2017).
42. **CC Zygourakis***, S Yoon*, V Valencia, C Boscardin, C Moriates, R Gonzales, MT Lawton. Operating Room Waste: Disposable Supply Utilization in Neurosurgical Procedures. (*Co first-authors) **Journal of Neurosurgery**, Feb 126(2):620-625 (2017).
43. **CC Zygourakis**, E Winkler, L Pitts, L Hannegan, B Franc, MT Lawton. Clinical Utility and Cost Analysis of Routine Postoperative Head CT in Elective Aneurysm Clippings. **Journal of Neurosurgery**, Feb 126(2):558-563 (2017).
44. **CC Zygourakis**, J Lee, J Barba, E Lobo, MT Lawton. Performing Concurrent Operations in Academic Vascular Neurosurgery Does Not Affect Patient Outcomes. **Journal of Neurosurgery**, Jan 20:1-7 (2017).
45. **CC Zygourakis**, S Sizdahkhani, M Keefe, J Lee, D Chou, P Mummaneni, CP Ames. Comparison of Patient Outcomes and Cost of Overlapping vs Non-overlapping Spine Surgery. **World Neurosurgery**, Apr 100:658-664 (2017).
46. **CC Zygourakis**, B Imber, R Chen, S Han, L Blevins, A Molinaro, JG Kahn, MK Aghi. Cost-Effectiveness Analysis for Surgical versus Medical Treatment of Prolactinomas. **Part B Journal of Neurological Surgery Skull Base**, Apr 78(2):125-131 (2017).
47. M Keefe, **CC Zygourakis**, A Theologis, E Canepa, JD Shaw, LH Goldman, S Burch, S Berven, D Chou, B Tay, P Mummaneni, V Deviren, CP Ames. Sexual Function after Cervical Spine Surgery: Independent Predictors of Functional Impairment. **Journal of Clinical Neuroscience**, Feb 36:94-101 (2017). *Assisted with data collection and statistical analysis, as well as drafting and revising manuscript.
48. **CC Zygourakis**, V Valencia, C Boscardin, RU Nayak, C Moriates, R Gonzales, P Theodosopoulos, MT Lawton. Predictors of Variation in Neurosurgical Supply Costs and Outcomes Across 4,904 Surgeries at a Single Institution. **World Neurosurgery**, Dec 96:177-183 (2016).
49. A Theologis, L Miller, M Callahan, D Lau, **CC Zygourakis**, JK Scheer, S Burch, M Pekmezci, D Chou, B Tay, P Mummaneni, S Berven, V Deviren, CP Ames. The Economic Impact of Revision Surgery for Proximal Junctional Failure after Adult Spinal Deformity Surgery: A Cost Analysis of 57 Operations in a 10-Year Experience at a Major Deformity Center. **Spine**, 41(16): E965-72 (2016). *Obtained cost data for the analysis.
50. S Han, JD Rolston, **CC Zygourakis**, MZ Sun, MW McDermott, CY Lau, MK Aghi. Preventing delays in first-case starts on the neurosurgery service: A resident-led initiative at an academic institution. **Journal of Surgical Education** pii:S1931-7204(15)00248-2 (2016). *Assisted with program implementation and critically revised manuscript.
51. T Klot, **CC Zygourakis**, S Imershein, C Lau, M Klot. The Impact of a Patient Education Bundle on Neurosurgery Patient Satisfaction. **Surg Neurol Int**, 6(Supp 22):S567-72 (2015). *Conceived and designed the study; drafted and critically revised the manuscript.
52. Z Medress, RT Arrigo, M Hayden Gephart, **CC Zygourakis**, M Boakye. Cervical Fracture Stabilization within 72 Hours of Injury is Associated with Decreased Hospitalization Costs with Comparable Perioperative Outcomes in a Propensity Score-Matched Cohort. **Cureus** 7(1):e244 (2015). *Assisted with manuscript preparation.

53. **CC Zygourakis**, V Vasuveda, PMR Lai, AH Kim, HJ Wang, R Du. Transient Pupillary Dilation Following Local Papaverine Application in Intracranial Aneurysm Surgery. *Journal of Clinical Neuroscience*, 22(4):676-679 (2015).
54. **CC Zygourakis**, J Rolston, H Lee, C Partow, S Kunwar, M Aghi. Pituicytomas and Spindle Cell Oncocytomas: Modern Case Series from The University of California, San Francisco. *Pituitary*, 18(1):150-158 (2015).
55. **CC Zygourakis**, J Davis, G Kaur, C Ames, N Gupta, K Auguste, AT Parsa. Management of Central Nervous System Teratomas. *Journal of Clinical Neuroscience*, 22(1):98-104 (2015).
56. **CC Zygourakis**, T Oh, M Sun, I Barani, JG Kahn, AT Parsa. Surgery is Cost-Effective Treatment for Young Patients with Vestibular Schwannomas: Decision Tree Modeling of Surgery, Radiation, and Observation. *Neurosurgery Focus*, 37(5):E8 (2014).
57. A Jahangari, J Wagner, SW Han, **CC Zygourakis**, S Han, MT Tran, LM Miller, MW Tom, S Kunwar, L Blevins, MK Aghi. Morbidity of Repeat Transsphenoidal Surgery Assessed in Over 1000 Operations. *Journal of Neurosurgery*, 121(1):67-74 (2014). *Obtained cost data and performed cost analysis.
58. **CC Zygourakis**, ME Sughrue, AT Parsa, MS Berger, MW McDermott. Management of Planum/Olfactory Meningiomas: Predicting Symptoms and Post-operative Complications. *World Neurosurgery*, 82(6):1216-1223 (2014).
59. **CC Zygourakis**, G Kaur, S Kunwar, MW McDermott, M Madden, T Oh, AT Parsa. Modern Treatment of 84 Newly Diagnosed Craniopharyngiomas. *Journal of Clinical Neuroscience*, 21(9):1558-1566 (2014).
60. MG Hayden Gephart, **CC Zygourakis**, RT Arrigo, PS Kalanithi, SP Lad, M Boakye. Venous Thromboembolism after Thoracic/Thoracolumbar Spinal Fusion. *World Neurosurgery*, 78(5):545-552 (2012). *Assisted with manuscript preparation.
61. M Boakye, RT Arrigo, MG Hayden Gephart, **CC Zygourakis**, SP Lad. Retrospective, Propensity Score-Matched Cohort Study Examining Timing of Fracture Fixation for Traumatic Thoracolumbar Fractures. *Journal of Neurotrauma*, 29(12):2220-2225 (2012). *Assisted with manuscript preparation.
62. MG Hayden Gephart, R Lober, RT Arrigo, **CC Zygourakis**, R Guzman, M Boakye, PG Fisher. Trends in the Diagnosis and Treatment of Pediatric Primary Spinal Cord Tumors. *Journal of Neurosurgery: Pediatrics*, 10(6):555-559 (2012) *Assisted with manuscript preparation.
63. **CC Zygourakis**, KS Cahill, and MR Proctor. Delayed Development of Os Odontoideum after Traumatic Cervical Injury: A Case Report Supporting a Delayed Vascular Etiology of Os Odontoideum after Trauma. *Journal of Neurosurgery: Pediatrics*, 7(2): 201-204 (2011).
64. KS Bohl-Masters, EA Lipke, EH Rice, MS Liehl, HA Myler, **C Zygourakis**, DA Tulis, and J West. Nitric Oxide-Generating Hydrogels Inhibit Neointima Formation. *Journal of Biomaterials Science*, 16(5):659-672 (2005). *Assisted with lab experiments.
65. **CC Zygourakis** and GD Rosen. Quantitative Trait Loci for Murine Cerebroventricular Size. *Journal of Comparative Neurology*, 461:362-369 (2003).

PEER-REVIEWED OTHER PUBLICATIONS:

66. Theodore N, Chambless L, Hartl R, **Zygourakis C**, Jiang B, Protopsaltis T. Introduction: The Neurosurgeon as Roboticist. *Neurosurg Focus* Jan 52;1 (2022). *Invited Commentary for special edition of journal in which I served as topic editor.
67. Jensen M, **Zygourakis C**. Commentary: Transdural spinal cord herniation: An exceptional complication of thoracoscopic discectomy. *Operative Neurosurgery* Jun 15; 21(1) (2021).
68. Zhang M, Hayden Gephart M, **Zygourakis CC**. Commentary: Predicting Postoperative Outcomes in Brain Tumor Patients With a 5-Factor Modified Frailty Index. *Neurosurgery* Dec 15;88(1):E36-38 (2020)

69. Maldaner N, Tomkin-Lane C, Desai A, **Zygourakis CC**, Weyerbrock A, Gautschi OP, Stenen MN. Digital transformation in spine research and outcome assessment. *Spine J* Feb 20(2):310-311 (2020). *Assisted with concept, manuscript review.
70. **CC Zygourakis**, N Theodore. *Primum non nocere*: robots and spinal surgery. *J Spine Surg*, Dec 4(4);810-811(2018).
71. H Birk, **CC Zygourakis**, M Kliot. Developing an Algorithm for Cost-Effective, Clinically Judicious Management of Peripheral Nerve Sheath Tumors. *Surg Neurol Int*, Aug 26;7:80 (2016) *Conceived and designed study; obtain cost data and helped perform cost analysis. Helped draft and critically revise article.
72. **CC Zygourakis**, JG Kahn. Cost-Effectiveness in Neurosurgery: A Review. *Neurosurgery Clinics North America*, 26(2):189-96 (2015).
73. J Rolston, **CC Zygourakis**, SJ Han, C Lau, MS Berger, AT Parsa. Medical Errors in Neurosurgery: A Systematic Review. *Surg Neurol Int*, Oct 13 (5):S435-440 (2014). *Critically revised article.
74. **CC Zygourakis**, J Rolston, J Treadway, M Kliot. What Do The Hotel and Hospital Stay Experiences Have in Common? How the Hotel Industry Can Teach Us to Take Better Care of Patients. *Surg Neurol Int*, Mar 29 (5):S49-53 (2014).
75. SJ Han, **CC Zygourakis**, M Lim, AT Parsa. Immunotherapy for glioma: promises and challenges. *Neurosurgery Clinics North America*, 23(3):357-370 (2012). *Drafted and critically revised this review article.

BOOK CHAPTERS:

1. K Yerneni, H Wadhwa, P Fatemi, N Theodore, **CC Zygourakis**. "Robotics in Spine Surgery: Beyond Pedicle Screw placement." Chapter in *Robotic & Navigated Spine Surgery* (Ed. Michael Wang and Anand Veeravagu, Elsevier, chapter accepted, final book in preparation, 2021).
2. **CC Zygourakis**, D Chou. "Posterolateral Thoracotomy." Chapter in *Spinal Tumor Surgery: A Case-Based Approach* (Ed. Daniel Sciubba, Springer, 2019).
3. A Sacino, **CC Zygourakis**, CP Ames. "Physical Examination of Cervical Deformity." Chapter in *Cervical Spine Deformity Surgery* (Ed. Christopher Ames et al, Thieme Connect, 2019). *Assisted with drafting and critically revising chapter.
4. Z Pennington, **CC Zygourakis**, CP Ames. "Risk Adjustment Methodologies." Chapter in *Quality Spine Care; Healthcare Systems, Quality Reporting, and Risk Adjustment* (Ed. John Ratliff et al, SpringerLink, 2019). *Assisted with drafting and revising chapter.
5. **CC Zygourakis**, D Lau, CP Ames. Osteoporosis: Diagnosis, Treatment, and Preoperative Bone Optimization. Chapter in the *Lumbar Spine Online Textbook*, International Society for the Study of Lumbar Spine (ISSLS). <https://www.wheelessonline.com/issls/contents/>.
6. **CC Zygourakis**, CP Ames. "Upper Cervical Spine- Posterior Cage Reconstruction C1-2." Chapter in *Cervical Spine Surgery, Advanced & Standard Techniques*, Cervical Spine Research Society (CSRS)- Europe (Eds Heiko Koller, Yohan Robinson, Springer, 2019).
7. **CC Zygourakis**, CP Ames. "C7 Pedicle Subtraction Osteotomy (PSO)." Chapter in *Cervical Spine Surgery, Advanced & Standard Techniques*, Cervical Spine Research Society (CSRS)- Europe (Eds Heiko Koller, Yohan Robinson, Springer, 2019).
8. PE Tarapore, **CC Zygourakis**, S Cha, MS Berger. "Adult Neoplasia". Chapter in *Oxford Textbook of Neuroimaging* (Ed Massimo Filippi, Oxford University Press, 2015). *Drafted and critically revised chapter.
9. **C Zygourakis**, R Garcia, MW McDermott. "Meningiomas." Chapter in *Neuro-Oncology: The Essentials*. (Eds. M Bernstein, MS Berger, Thieme, 3rd Edition 2014).

GRANTS/RESEARCH FUNDING:

Current

3/2022-present

Research Grant, Stryker Spine

- PI of SpineTrak, first randomized control trial using the Apple Watch to objectively track patients before and after spine surgery (spinetrak.stanford.edu)

9/2021-present

Stanford Donor Research Gift

- Donation towards SpineTrak study

2/2021-present

Patient Donor Research Gift

- Donation from patient on whom I performed spinal fusion for trauma

5/2020-present

Research Grant, Stryker Spine

- PI of SpineTrak, first randomized control trial using the Apple Watch to objectively track patients before and after spine surgery (spinetrak.stanford.edu)

Past

2015-2016

UCSF Center for Healthcare Value Fellowship

- PI of projects to reduce surgical costs at UCSF, identify and characterize operating room waste, and understand the factors underlying cost variation in neurosurgical procedures

2015-2016

UCSF CTSI Catalyst Grant

- PI of project to develop price transparency mobile application to decrease surgical costs

2014-2015

UCSF Caring Wisely Grant

- PI of hospital-wide project to reduce surgical costs in the operating room

2008-2009

Howard Hughes Medical Institute Research Fellowship for Medical Students, Harvard Medical School

- Examined downstream mediators of *Sox6* over cortical interneuron development

2003-2005

Summer Undergraduate Research Fellowships, Caltech

- Investigated the role of frontoinsula cortex in detection of social emotions

2001

High School Summer Research Fellowship, Research Science Institute, MIT

- Mapped quantitative trait loci for size of ventricles in mice brains

CLINICAL TRIALS

10/2020-present

PI of SpineTrak, first randomized control trial using the Apple Watch to objectively track patients before and after spine surgery (ClinicalTrials.gov Identifier: NCT04379921, "Improving Spine Surgical Care with Real-Time Objective Patient Tracking Using the Apple Watch"). I designed, implemented, and lead this study. I have hired a full-time research coordinator. >140 out of target 200 patients enrolled to date.

EDITORIAL SERVICE:

- Regular peer reviewer for *World Neurosurgery*, *Operative Neurosurgery*
- Invited topic editor for Neurosurgical Focus Jan 2022 Issue: "Robotics in Neurosurgery": Reviewed 11 manuscripts for special edition
- Occasional invited peer reviewer for *Neurosurgery*, *PLOS One*, *Scientific Reports*, *The Lancet Neurology*, *NASS Journal*, *BMC Surgery*, *Journal of Clinical Neuroscience*, *Neurospine*, *Interdisciplinary Neurosurgery*
- # reviewed manuscripts (2020): ~34
- # reviewed manuscripts (2021): ~24
- Reviewed 100 abstracts for Spine Section annual meeting in 2020 and again in 2021, part of duties as Scientific Program Committee member

UNIVERSITY ADMINISTRATIVE SERVICE:

- 2019-present Team Leader, Enhanced Recovery After Spine Surgery (ERAS) 2.0
 - Leader of multidisciplinary team to improve the pre-op, intra-op, and post-op care of neurosurgery and orthopedic spine patients at Stanford
- 2020-2021 Team Leader, RITE (Realizing Improvement through Team Empowerment) Project
 - Leader of multidisciplinary team to develop new post-operative order set for neurosurgery and orthopedic spine patients on multimodal analgesia, early mobilization
- 2020-2021 Participant, Pre-operative Patient Education Video Project, Value Based Committee
 - Participant in multidisciplinary team to develop pre-operative educational videos for patients undergoing elective spine surgery at Stanford

PROFESSIONAL MEMBERSHIPS:

AANS/CNS Spine Section, Scientific Program Committee Member and newly elected Executive Committee Member
 Cervical Spine Research Society, Candidate Member
 American Association of Neurological Surgeons, Active Member
 Congress of Neurological Surgeons, Active Member
 North American Spine Society, Active Member
 Aesculapian Club of Harvard Medical School, Active Member

PROFESSIONAL COMMITTEES:

- 2018-present American Association of Neurological Surgeons/Congress of Neurological Surgeons Joint Spine Section
 - Newly Elected Executive Committee Member, Women in Neurosurgery (WINS) and Advanced Practice Provider Recruitment Liaison
 - Member of Scientific Planning Committee
 - Organizer, teacher of new 3-hr course for 2021 annual meeting with very high attendance that is now being repeated annually
- 2021 AOSpine Telemedicine Working Group Committee Member
 - Member of working group to evaluate telemedicine use in spine during COVID pandemic that performed survey and submitted manuscript for publication on international trends
- 2017-2018 Neurosurgery representative, Hopkins Bayview Spine Core team
 - Created and implemented Enhanced Recovery after Spine Surgery (ERAS) pathway together with team of nurses, physicians, and administrators
- 2015-2016 Surgical consultant, UCSF Perioperative Redesign Project
 - Working with team of senior administrators, surgeons, and nurses to review instrument sets and preference cards across all UCSF surgical departments in order to improve OR efficiency
- 2014-2015 Neurosurgery champion, UCSF Caring Wisely Blood Transfusion Reduction Project
 - Created blood transfusion protocol to reduce transfusions among neurospine patients
- 2013-2014 Neurosurgery representative, UCSF Living PRIDE Physician Champion Committee
 - Created pre-operative expectations letters and neurosurgery provider photo brochure that are now provided to all neurosurgery patients at UCSF Parnassus hospital

MENTORSHIP:

- 2021-2022 Mentor, Stanford University BIOE141 (Bioengineering Senior Capstone Design)
 - * Advisor to 4 undergraduate students developing need in realm of spine surgery
- 2021-2022 Preceptor, Early Clinical Engagement Course, Stanford University School of Medicine
 - Several shadowing sessions (clinic, operating room) with 1 first-year med student
- 2021-2022 Preceptor, Stanford Immersion in Medicine Series, Stanford University
 - * Several shadowing sessions (clinic, operating room) with 2 undergraduate students
- 2021 Coach, Stanford Biodesign Center Innovation Fellows Course
 - * Advisor to multidisciplinary team (MD, PhD, MBAs) developing a solution to improve virtual physical exam in spine patients
- 2020-2021 Mentor, Stanford University BIOE141 (Bioengineering Senior Capstone Design)

* Weekly meetings with 3 undergraduate students developing a mobile application to better track real-time function in low back pain patients over the course of three quarters

2019-2020 Preceptor, Early Clinical Engagement Course, Stanford University School of Medicine
 • Several shadowing sessions (clinic, operating room) with 1 medical student

2019-2020 Preceptor, Stanford Immersion in Medicine Series, Stanford University
 * Several shadowing sessions (clinic, operating room) with 2 undergraduate students

2019-present Unofficial mentor, shadowing preceptor for multiple high school, undergraduate, and medical students

2013-present Research mentor/collaborator for multiple undergraduate, medical students, and residents

2015-2016 Official resident mentor for two first year medical students, UCSF Surgery Interest Group

2013 Individual mentor for 3-week undergraduate student shadowing program

TEACHING:

2021 Difficult Case Presentations, Stanford neurosurgery resident teaching (Jan, Mar & Oct 2021)

2021 Invited guest/speaker, "Narratives in Neurosurgery, Stanford School of Medicine (Oct 2021)

2021 "Basics of Spine Surgery", Stanford neurology resident teaching (Aug 2021)

2021 "Current Challenges and Emerging Technologies in Neurosurgery", Stanford Surgical Technology and Entrepreneurship Virtual Summer Institute for international high school students (Aug 2021)

2021 Spinal Deformity Talk & Hands-on Teaching in Cadaver Lab, Stanford neurosurgery resident annual spine course (June 2021)

2021 Invited guest/speaker, YMA (regional high school student group): The journey towards becoming a physician (May 2021)

2021 "Common Spine Consults", Monday morning Stanford neurosurgery resident teaching (Apr 2021)

2021 "Basics of Spine Surgery", Stanford Physician Assistant student teaching (Mar 2021)

2021 "Spinal Deformity", Stanford physical medicine & rehab resident teaching (Feb 2021)

2020 Invited Panel Speaker, Surgical Interest Group Annual Surgical Specialties Fair, Stanford School of Medicine (Oct 2020)

2020 Invited Speaker, "Narratives in Neurosurgery", Stanford School of Medicine

2020 "Spinal Deformity", Stanford outpatient spine APP teaching (June 2020)

2020 "Spinal Deformity and Techniques", Virtual teaching, 7D international employees (May 2020)

2020 "Spinal Deformity and Techniques", Virtual teaching, Stryker regional employees (Apr 2020)

2020 "Common Spine Consults", Stanford neurology resident teaching (Apr 2020)

2020 Difficult Case Presentation, Stanford neurosurgery resident teaching (Mar 2020)

2020 "Spinal Deformity", Stanford physical medicine & rehab resident teaching (Feb 2020)

2020 Invited guest/speaker, Women In Neurosurgery Panel, Stanford School of Medicine (Feb 2020)

2019 Invited Speaker, "Robotics in Spine Surgery", Stanford Neuroscience Journal Club (Nov 2019)

2019 Difficult Case Presentations, Stanford neurosurgery resident teaching (June & Oct 2019)

2019 "Common Spine Consults", Stanford outpatient spine APP teaching (May 2019)

2019 "Common Spine Pathology", Stanford Neuroscience Health Center medical assistant lecture

2019 "Common Spine Pathology", Stanford Neuroscience Health Center new patient coordinators lecture

2019 Spinal Deformity Talk & Hands-on Teaching in Cadaver Lab, Stanford neurosurgery resident annual spine course (May 2019)

2019 "Spinal Cord Injury", Monday morning Stanford neurosurgery resident teaching (May 2019)

2019 "How to Find the Job You Want", Hosted dinner and gave lecture to Stanford neurosurgery residents (April 2019)

2019 "Spinal Deformity", Monday morning Stanford neurosurgery resident teaching (April 2019)

2019 Invited Speaker, Stanford Undergraduate Neuroscience Society, "Medicine & Masala Event"

2015-2016 Teacher, biweekly educational sessions for UCSF neurosurgical interns

2015-2017 Invited Teacher, UCSF Health Policy Course for medical students; Topic- Physician Reimbursement

2015 Invited Expert, NEJM Open Forum, High Value Care in Daily Practice

COMMUNITY SERVICE:

2015 Participant, Mission: BRAIN Neurosurgical Mission Trip to Guadalajara, Mexico

REGIONAL AND NATIONAL INVITED TALKS:

1. *Enhanced Recovery after Spine Surgery (ERAS): Lessons Learned from Two Academic Institutions (CC Zygorakis)*, UCSF 10th Annual Techniques in Complex Spine Course, Las Vegas, NV (Nov 2021).
2. *Lessons from Fellowship: Deformity (CC Zygorakis)*, Stryker Sponsored Regional Virtual Teaching Initiative (Oct 2021).
3. *Thoracolumbar Deformity for the Non-Deformity Surgeon: Scoliosis Considerations (CC Zygorakis)*, Instructor in 3-hr special course, Congress of Neurological Surgeons Annual Meeting, Austin TX (Oct 2021).
4. *Challenging Cervical Pathologies: Lessons Learned in Early Practice (CC Zygorakis)*, AANS/CNS Spine Section Annual Meeting, San Diego, CA (Jul 2021).
5. *Practical Matters: What Every APP/Surgeon Team Needs to Know (CC Zygorakis)*, Developer, lead organizer and teacher of new 3-hr special course at AANS/CNS Spine Section Annual Meeting, San Diego, CA (Jul 2021).
6. *What's New in Spine Surgery (CC Zygorakis)*, Stanford Annual Navigating Spine Care Virtual Course (Aug 2021).
7. *Complex Spine Case Presentation, (CC Zygorakis)*, Virtual Global Spine Conference (May 2020).
8. *Challenging Oral Boards Case Presentations (CC Zygorakis)*, AANS/CNS Spine Section Annual Meeting, Las Vegas, NV (Mar 2020).
9. *My Aching Back: Spinal Problems, Solutions, and Future Directions (CC Zygorakis)*, Silicon Valley CA Nurse Practitioner Meeting, San Jose, CA (Jan 2020).
10. *When to Operate (CC Zygorakis)*, Stanford Annual Navigating Spine Care Course, Palo Alto, CA (Aug 2019).
11. *Latest Advances in Management and Treatment of Spinal Tumors (CC Zygorakis)*, CC Care Tumor Board, Fresno, CA (Jun 2019).
12. *Spinal Deformity (CC Zygorakis)*, Stanford Comprehensive Spine Center Launch, Palo Alto, CA (Jun 2019).
13. *My Aching Back: Spinal Problems, Solutions, and Future Directions (CC Zygorakis)*, California Association of Nurse Practitioners, Palo Alto, CA (2019).
14. *Back and Neck Pain in Women: Spinal Problems, Solutions, and Future Directions (CC Zygorakis)*, Stanford Health Library, Palo Alto, CA (May 2019).
15. *Operating Room Costs (CC Zygorakis)*, Johns Hopkins School of Medicine Choosing Wisely Event (2018).
16. *Enhanced Recovery After Spine Surgery, (CC Zygorakis, R Young, E Cottrill, AK Ahmed, AM Zhu, Z Pennington, et al.)*, UCSF Techniques in Complex Spine Surgery Course, Las Vegas, NV (Nov 2018).
17. *Robot-Assisted Pedicle Screw Placement (CC Zygorakis, N Theodore)*, AANS/CNS Spine Section Annual Meeting, Orlando, FL (Mar 2018).
18. *Trends in Cost and Utilization in Spine Surgery, (CC Zygorakis)*, UCSF Techniques in Complex Spine Surgery Course, Las Vegas, NV (Nov 2017).
19. *Direct Cost Analysis of 38 Cervical Spinal Deformity Operations Across Two Major Spinal Deformity Centers with Implications for Catastrophic Costs and 90-Day Cost Bundles, (CC Zygorakis, J Scheer, L Upton, Seungwon Yoon, S Yeramani, R Hostin, M O'Brien, C Shaffrey, J Smith, V Deviren, CP Ames)*, Congress of Neurological Surgeons, Boston, MA (Oct 2017).
20. *Comparison of Patient Outcomes in 3,725 Overlapping versus 3,633 Non-Overlapping Neurosurgical Procedures at a Single Institution (CC Zygorakis, M Keefe, J Lee, J Barba, Michael W McDermott, P Mummaneni, MT Lawton)*, General Scientific Session, Congress of Neurological Surgeons, Boston, MA (Oct 2017).

21. *Comparison of Patient Outcomes and Cost of Overlapping vs Non-overlapping Spine Surgery*, (**CC Zygourakis**, S Sizardkhani, M Keefe, J Lee, D Chou, P Mummaneni, CP Ames), Spine Summit Meeting, Las Vegas, NV (Mar **2017**).
22. *Geographic and Hospital Variation in Cost of Lumbar Laminectomy and Lumbar Fusion for Degenerative Conditions*, (**CC Zygourakis**, C Liu*, G Wakam, C Moriates, C Ames, P Mummaneni, J Ratliff, RA Dudley, R Gonzales), Spine Summit Meeting, Las Vegas, NV (Mar **2017**).
23. *Comparison of Patient Outcomes and Cost of Overlapping vs Non-overlapping Spine Surgery*, (**CC Zygourakis**, S Sizardkhani, M Keefe, J Lee, D Chou, P Mummaneni, CP Ames), California Association of Neurological Surgeons, San Francisco, CA (Jan **2017**).
24. *OR SCORE: A Prospective Controlled Trial of the Effect of Surgeon Scorecards on Operating Room Costs*, **CC Zygourakis**, V Valencia, C Moriates, S Catschegn, A Afshar, K Bozic, K Soo Hoo, A Goldberg, C Boscardin, R Gonzales, L Pitts, MT Lawton), American Academy of Neurological Surgeons, Jackson Hole, WY (**2016**).
25. *Comparison of Patient Outcomes in 3,725 Overlapping versus 3,633 Non-Overlapping Neurosurgical Procedures at a Single Institution* (**CC Zygourakis**, M Keefe, J Lee, J Barba, Michael W McDermott, P Mummaneni, MT Lawton, General Scientific Session, Congress of Neurological Surgeons, San Diego, CA (Sep **2016**).
26. *A Prospective Controlled Trial of the Effect of Surgeon Cost Reduction Scorecards on Operating Room Surgical Cost Reduction (OR SCORE)*, (**CC Zygourakis**, V Valencia, C Moriates, S Catschegn, A Afshar, K Bozic, K Soo Hoo, A Goldberg, C Boscardin, R Gonzales, L Pitts, MT Lawton), Congress of Neurological Surgeons, San Diego, CA (Sep **2016**).
27. *Significant Inter-Hospital Variation in Cranial Surgery Costs Using the Nationwide Inpatient Sample (NIS) Database*, (**CC Zygourakis**, C Liu, P Theodosopoulos, MT Lawton, RA Dudley, R Gonzales), Congress of Neurological Surgeons, San Diego, CA (Sep **2016**).
28. *OR SCORE: Reducing Operating Room (OR) Costs Through a Hospital-Wide Price Transparency Initiative*, (**CC Zygourakis**, V Valencia, C Moriates, S Catschegn, A Afshar, K Bozic, K Soo Hoo, A Goldberg, C Boscardin, R Gonzales, L Pitts, MT Lawton), Congress of Neurological Surgeons, New Orleans, LA (Sep **2015**).
29. *OR SCORE: Reducing Operating Room Costs Through a Hospital-Wide Price Transparency Initiative*, **CC Zygourakis**, ABIM Foundation, Costs of Care, Teaching Value in Healthcare Learning Network Webinar Series (**2015**).
30. *Clinical Utility and Cost-Effectiveness of Routine Post-operative Head CTs in Elective Aneurysm Clippings*, (**CC Zygourakis**, E Winkler, L Pitts, L Hannegan, JG Kahn, MT Lawton), American Association of Neurological Surgeons, Washington, D.C. (May **2015**).
31. *Mapping Quantitative Trait Loci for Murine Cerebroventricular Size*, (**CC Zygourakis** and GD Rosen), International Complex Trait Consortium, Memphis, TN (**2002**).
32. *Mapping Quantitative Trait Loci for Murine Cerebroventricular Size*, (**CC Zygourakis** and GD Rosen), Neuroscience Prize, Child Neurology Society, Washington D.C (**2002**).

REGIONAL AND NATIONAL POSTERS:

1. *Predictors of Variation in Neurosurgical Supply Costs and Outcomes Across 4,904 Surgeries at a Single Institution*, (**CC Zygourakis**, V Valencia, C Boscardin, R Nayak, C Moriates, R Gonzales, P Theodosopoulos, MT Lawton), Digital Poster, Congress of Neurological Surgeons, San Diego, CA (Sep **2016**).
2. *Predictors of Surgical Supply Cost in Anterior Cervical Discectomy and Fusion*, (**CC Zygourakis**, WHA Ryu, V Valencia, R Gonzales, A Theologis, B Tay, C Ames, D Chou, S Berven, P Mummaneni), Digital Poster, Congress of Neurological Surgeons, San Diego, CA (Sep **2016**).
3. *Operating Room Waste: Disposable Supply Utilization in Neurosurgical Procedures*, (**CC Zygourakis**, S Yoon, V Valencia, C Boscardin, C Moriates, R Gonzales, MT Lawton), E-Poster Presentation, American Association of Neurological Surgeons, Chicago, IL (May **2016**).

4. *Cost-Effectiveness Analysis of Surgical vs Medical Treatment of Prolactinomas*, (**CC Zygourakis**, B Imber, R Chen, S Han, L Blevins, A Molinaro, JG Kahn, MK Aghi), E-Poster Presentation, American Association of Neurological Surgeons, Chicago, IL (May **2016**).
5. *Sexual Function after Cervical Spine Surgery: Novel Analysis of Independent Predictors of Functional Impairment*, (M Keefe, **CC Zygourakis**, A Theologis, E Canepa, JD Shaw, LH Goldman, S Burch, S Berven, D Chou, B Tay, P Mummameni, V Deviren, C Ames), E-Poster, American Association of Neurological Surgeons, Chicago, IL (May **2016**).
6. *The Economic Impact of Revision Surgery for Proximal Junctional Failure After Adult Spinal Deformity (ASD) Surgery: A Cost Analysis of 70 Proximal Junctional Failures in 464 ASD Surgeries*, (A Theologis, **CC Zygourakis**, M Callahan, D Lau, J Scheer, S Burch, M Pekemzci, D Chou, B Tay, P Mummaneni, S Berven, V Deviren, C Ames) Neurosurgical Forum Poster, Congress of Neurological Surgeons, New Orleans, LA (Sep **2015**).
7. *Surgical Treatment of Prolactinomas is Less Expensive Than Medical Management*, (**CC Zygourakis**, BS Imber, S Han, L Blevins, JG Kahn, M Aghi), E-Poster, Congress of Neurological Surgeons, Boston, MA (Oct **2014**).
8. *What It Costs to Treat Vestibular Schwannomas: Decision-Tree Modeling of Surgical versus Non-Surgical Treatments*, (**CC Zygourakis**, T Oh, M Sun, C Partow, J Kahn, AT Parsa), E-Poster (**3rd Place, Socioeconomic Poster**), American Association of Neurological Surgeons, San Francisco, CA (Apr **2014**).
9. *Modern Treatment of Planum/Olfactory Meningiomas*, (**CC Zygourakis**, ME Suhgrue, AT Parsa, MS Berger, MW McDermott), E-Poster, 10th Annual Tumor Symposium, American Association of Neurological Surgeons, New Orleans, LA (Apr **2013**).
10. *Venous Thromboembolism Following Thoracic/Thoracolumbar Spinal Fusion*, (MG Hayden Gephart, **CC Zygourakis**, RT Arrigo, P Kalanithi, SP Lad, M Boayke), E-Poster, American Association of Neurological Surgeons, Denver, CO (Apr **2011**).
11. *Transient Pupillary Dilation following Local Papaverine Application in Intracranial Aneurysm Surgery*, (**CC Zygourakis**, AH Kim, HJ Wang, R Du), E-Poster, American Association of Neurological Surgeons- Cerebrovascular Section, Los Angeles, CA (Feb **2011**).
12. *Downstream Mediators of Sox6 Control over Cortical Interneuron Development*, (EA Azim, **CC Zygourakis**, JD Macklis), Poster, Society for Neuroscience, Chicago, IL (Oct **2009**).
13. *The Role of the Frontoinsular (FI) Cortex in Social Cognition: FI Lesions Impair Ability to Detect Shame, Guilt, Embarrassment, and Empathy*, (**CC Zygourakis**, R Adolphs, J Allman), Poster, Cognitive Neuroscience Society, San Francisco, CA (Apr **2006**).

TRAINEES:

Current Lab Members

2020-present	Christopher Leung (Full-time Clinic Research Coordinator, Apple Watch study)
2020-present	Matthew Sklar (Part-time Research Assistant)
2020-present	Harsh Wadhwa (Part-time, current Stanford medical student)
2021-present	Karen Malacon* (Part-time, current Stanford medical student)
2021-present	Guan Li (Part-time, current Stanford medical student)
2021-present	Taiyeb Rangwalla (Part-time, current University of Texas medical student)
2021-present	Janet Wu* (Part-time, current Stanford medical student)
2019-present	Parastou Fatemi*, MD (Part-time, current Stanford neurosurgery resident)

Prior Trainees

2019-2021	Ketan Yerneni (Advisor for multiple published research projects, current Northwestern medical student)
2018-2020	Uma Mahajan* (Advisor for published research manuscript, current Case Western medical student)

2015-2019 Seungwon James Yoon (Advisor for multiple published research projects, current Yale medical student applying in neurosurgery)
2014-2017 Malla Keefe* (Advisor for multiple published research projects, current University of Vermont medical student)
2013-2015 Carlene Partow* (Advisor for 3-week shadowing program, advisor for research project; current UCSF medical student applying in neurosurgery)

*Women or under-represented minorities