
TODD B. FRANCIS, MD, PHD, FAANS

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Postgraduate Employment

Vice Chief, Division of Neurosurgery, Trinity Health Oakland, Pontiac, Michigan — 2019-Present

Staff Neurosurgeon, Trinity Health Oakland, Pontiac, Michigan — 2018-Present

Associate Chief of Neurosurgery, Henry Ford Macomb Hospital, Charter Township of Clinton, Michigan — 2016-2018

Co-Director, Spine Trauma Program, Department of Neurosurgery, Henry Ford Medical Group, Detroit, Michigan — 2016-2018

Senior Staff Neurosurgeon, Department of Neurosurgery, Henry Ford Medical Group, Detroit, Michigan — 2016-2018

Chief of Neurosurgery (East Region), Cleveland Clinic, Cleveland, Ohio — 2015-2016

Associate Director, Center for Spine Health (East Region), Cleveland Clinic, Cleveland, Ohio — 2015-2016

Assistant Professor of Surgery, Cleveland Clinic Lerner College of Medicine of Case Western Reserve University (CCLCM of CWRU), Cleveland, Ohio — 2013-2016

Associate Staff Neurosurgeon, Center for Spine Health, Cleveland Clinic Foundation, Cleveland, Ohio — 2012-2016

Postgraduate Training

Fellowship in Clinical Spine Surgery, Cleveland Clinic; Cleveland, Ohio — 2011-2012

Residency in Neurosurgery, Wayne State University School of Medicine/Detroit Medical Center, Detroit, Michigan — 2005-2011

Internship in Surgery, Wayne State University School of Medicine/Detroit Medical Center, Detroit, Michigan — 2010-2011

Education

Wayne State University School of Medicine, Detroit, Michigan — PhD (Physiology), 2010

Wayne State University School of Medicine, Detroit, Michigan — MD, 2004

Wayne State University School of Medicine, Detroit, Michigan — MS (Basic Medical Science), 1999

The University of Michigan, Ann Arbor, Michigan — BS (Cellular and Molecular Biology), 1998

Licensure and Certification

Board Certified, American Board of Neurological Surgeons (2017)

Michigan License No 4301084497 (Expiration 7/24/2026)

NPI No 1265607139

Memberships (Past and Present)

Academy of Spinal Cord Injury Professionals

American Association for the Advancement of Science

American Association of Neurological Surgeons

American Congress of Rehabilitation Medicine

American Medical Association

American Paraplegia Society

American Spinal Injury Association

AOSpine, North America

Congress of Neurological Surgeons

Council of State Neurosurgical Societies

Joint Section on Disorders of the Spine and Peripheral Nerves of the AANS/CNS

Joint Section on Neurotrauma & Critical Care of the AANS/CNS

Joint Section on Tumors of the AANS/CNS

Lumbar Spine Research Society

Michigan Association of Neurological Surgeons

Michigan State Medical Society

National Neurotrauma Society

North American Spine Society

PhD Thesis

Metabolic Targeting of Malignant Glioma: Modulation of Glycolytic Flux by Erythropoietic Factors (UMI Publication No. AAT 3412109)

Honors

Findatopdoc.com, “Top Doctor, Michigan”, 2021-2023

Metro Detroit Top Doctors, 2020

DAISY Foundation Team Award, St. Joseph Mercy Oakland, 2020

Trademark Top Doctors of America Honors Edition, 2019

Consumers Research Council of America “America’s Top Surgeons”, 2018

Fellow of the American Association of Neurological Surgeons, July, 2017

Award for Excellence in Scholarly Activities, Wayne State University School of Medicine, Department of Neurosurgery, 2010

First Place in Basic Science, Oral Presentation: Michigan Association of Neurological Surgeons 26th Annual Meeting, Mackinac Island, MI. June, 2008

First Place, Oral Presentation: Michigan Association of Neurological Surgeons 27th Annual Meeting, Boyne Mountain, MI. June, 2009

Grants

Research Program Committee Grant (Cleveland Clinic), 2013: Biomechanical Comparison of Zero Profile Fusion Device to Standard Anterior Cervical Plate Fixation. Principal Investigator: Francis TB. Co-Investigators: Mageswaran P, Torre-Healy A. Amount - \$12,500

5R01 CA116257 (NCI/NIH) Mathupala, S.P. Ph.D. (PI) Lactate Transport as a Therapeutic Target in Glioma. Role: Resident/Graduate Student (80% Effort), 7/2006-6/2008

Invited Presentations

Speaker, Henry Ford Hospital Neurosurgery Grand Rounds — 2016

Speaker, Henry Ford Hospital Neurosurgery Grand Rounds — 2015

Speaker, Hillcrest Hospital Surgical Neurotrauma Update — 2015

Panelist, “Treatment Options for Managing Chronic Back Pain.” Cleveland, OH — March 2015

Panelist, “Ask the Experts: Relieving Back Pain.” Cleveland, OH — September 2014

Speaker, Special Course IV, “Treatment of Odontoid Fractures OP/non OP.” AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, FL — March 2014

Invited Presentations (Continued)

Speaker, Hillcrest Hospital Surgical Neurotrauma Update — 2014

Lecturer, Cleveland Clinic Spine Fellowship Core Curriculum Series — 2014

Speaker, Hillcrest Hospital Surgical Neurotrauma Update — 2013

Speaker, Hillcrest Hospital Surgical Neurotrauma Update — 2012

Speaker, University of Chicago Section of Neurosurgery Grand Rounds — 2012

Duties and Responsibilities

Publishing

Editorial Reviewer, The Spine Journal, 2016-present

Editorial Board, Journal of Surgery: Open Access, 2016-present

Editorial Reviewer, Global Spine Journal, 2015-present

Editorial Reviewer, World Neurosurgery, 2015-present

National

Reviewer, NASS Annual Scientific Meeting, 2020

Member, Spine Expert Panel (Orthopedic Clinical Excellence Council), Trinity Health, 2019

Member, Epic Neurosurgery Clinical Content Decision Group, Trinity Health, 2019

Reviewer, NASS Annual Scientific Meeting, 2019

Member, Evidence-Based Guideline Development Committee, NASS, 2018—Present

Reviewer, NASS Annual Scientific Meeting, 2018

Member, Section on Spine Motion Technology, NASS, 2017—Present

Moderator, Abstract Presentations: Operating Room Management, NASS 32nd Annual Meeting, 2017

Reviewer, NASS Annual Scientific Meeting, 2017

Reviewer, AANS Annual Scientific Meeting, 2016

Reviewer, NASS Annual Scientific Meeting, 2016

Faculty, Simulation Based Neurosurgical Training, CNS Annual Meeting, 2015

Reviewer, AANS Annual Scientific Meeting, 2015

Faculty, Spine Cadaver Lab, AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, 2015

Duties and Responsibilities (Continued)

Faculty, Simulation Based Neurosurgical Training, CNS Annual Meeting, 2014

Faculty, AANS Spine Online Education, 2014-

Member, Exhibits Committee, AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, 2014-

Member, Reference Committee (alternate), CSNS, 2014-Present

Member, Patient Safety Ad Hoc Committee, CSNS, 2014-Present

Member, Reimbursement Committee, CSNS, 2014-Present

Member, Communication and Education Committee, CSNS, 2014-Present

Appointee (CNS caucus), Council of State Neurosurgical Societies (CSNS), 2013 – 2016

Member, Payor Response Committee, AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, 2013-Present

Member, Outcomes Committee, AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, 2013-Present

Past Fellow Mentor, Council of State Neurosurgical Societies, 2011-2012

Resident Socioeconomic Fellow, Council of State Neurosurgical Societies, Education Committee, 2010-2011

Local

Surgeon Representative, Trinity Health Clinical Excellence Council for Trinity Health Michigan — 2024 - Present

Member-At-Large, Department of Surgery Advisory Committee, Trinity Health Oakland — 2024 - Present

Surgery Peer Review Committee, Trinity Health Oakland — 2021 - Present

Surgeon Leader, Spine Center of Excellence, Trinity Health Oakland — 2020 - Present

Neurosurgery Liaison, Trauma Committee, Trinity Health Oakland — 2020

Division Representative, Surgical Services Executive Committee, Trinity Health Oakland — 2020

Member, Neuroscience Peer Review Committee, Trinity Health Oakland — 2019 - Present

Director, Medical Student Elective Rotation (Neurosurgery), Trinity Health Oakland — 2024-2025

Member, Imaging and Pathology Peer Review Committee, Trinity Health Oakland — 2019

Reviewer/Staff, Cleveland Clinic MyConsult — 2015

Member, Protocol Committee, Northeast Ohio Trauma Symposium, Cleveland, Ohio — 2015

Duties and Responsibilities (Continued)

Lab Faculty, Cleveland Spine Review Hands-On 2015, Cleveland Clinic, Cleveland, Ohio — 2010-2015

Instructor, Resident Spine Cadaver Lab Course, Department of Neurosurgery, Cleveland Clinic — 2013-2015

Judge, Neurological Institute Research Day, Cleveland Clinic — 2014

Faculty, Medtronic Catalyst Tour Residents and Fellows Labs, Cleveland, Ohio — 2014

Member, Center for Spine Health Leadership Council, Cleveland Clinic — 2014-2016

Member, Low Back Pain Care Path Pilot Team, Cleveland Clinic — 2013-2016

Member, Trauma Committee, Hillcrest Hospital — 2012-2016

Member, Stroke Committee, Hillcrest Hospital — 2012-2016

Instructor, Cleveland Clinic Lerner College of Medicine Gross Anatomy Lab — 2011-2016

Invited Comments, Letters, and Reviews

Francis T: Spine Surgery: Tricks of the Trade, Third Edition Alexander R. Vaccaro, MD, PhD, MBA Todd J. Albert, MD Thieme, 2016 428 pp. (Book Review) World Neurosurgery 2017

Francis T: Image Guided Spine Surgery and its Impact on Modern Minimally Invasive Spine Surgery. Cleveland Clinic Spinal Column 2015

Francis T, Krishnaney A: ‘Check Please’ Program Looks to Use Cost Awareness—and Healthy Competition—to Cut Operating Room Waste. Cleveland Clinic Spinal Column 12-13, 2014

Francis T, Benzel E: Wrong Level Spine Surgery: A Perspective. World Neurosurgery 79(3) 451-452, 2013

Books Edited

Spine Surgery: Techniques, Complication Avoidance, and Management. VIDEO edition. Philadelphia: Elsevier – Saunders. Francis T and Benzel EC, ed., 2012

Book Chapters

Matheus V, Francis T: Transforaminal Lumbar Interbody Fusion. In *Spine Surgery: Tricks of the Trade*, 3rd Edition. Vaccaro A and Albert T (eds). Thieme Medical Publishers, New York, NY (2017)

Book Chapters (Continued)

Francis T, Bell GR: Revision Lumbar Surgery: Strategies and Techniques. In *Operative Techniques in Spine Surgery*, 2nd Edition. Rhee JM, Boden SD, Flynn JM, and Wiesel SM (eds). Lippincott Williams and Wilkins, Philadelphia, PA. (2016)

Francis T: Biomechanics of Motion Preservation Techniques. In *Benzel's Spine Surgery*, Steinmetz M and Branch C (eds). Elsevier—Saunders, Philadelphia, PA (2016)

Francis T, Kalfas I: Transpedicular Screw Fixation: Open and Percutaneous Techniques. In *Surgical Anatomy and Techniques to the Spine*, 2nd Edition.

Kim DH, Cho D, Dickman C, Kim I, Lee S, and Vaccaro A (eds). Elsevier—Saunders, Philadelphia, PA. pp. 432-439, 2013

Francis T, Bell GR: Revision Lumbar Surgery: Strategies and Techniques. In *Operative Techniques in Spine Surgery*. Rhee JM, Boden SD, Flynn JM, and Wiesel SM (eds). Lippincott Williams and Wilkins, Philadelphia, PA. pp. 281-288, 2013

Francis T, Benzel EC: Epidemiology of Spinal Cord Injury in the United States. In *Epidemiology of Spinal Cord Injuries*. Rahimi-Movaghar V, Jazayeri SB, Vaccaro AR (eds). Nova Science Publishers, Hauppauge, NY. 2012

Francis TB: Spondylotic Myelopathy with Cervical Kyphotic Deformity – Dorsal Approach. In *Spine Surgery III: Techniques, Complication Avoidance, and Management*. Benzel EC (ed). Elsevier – Saunders, Philadelphia, PA. pp. e2085-e2092, 2012

Francis TB: Management of a 45-year old with Mechanical Low Back Pain and with or without L4/5 Spondylolisthesis and no Neurological Findings: Spinal Fusion – Dorsal and Ventral Approach. In *Spine Surgery III: Techniques, Complication Avoidance, and Management*. Benzel EC (ed). Elsevier – Saunders, Philadelphia, PA. pp. e2123-e2148, 2012

Francis TB, Benzel EC: Biomechanics of Motion Preservation Techniques. In *Spine Surgery III: Techniques, Complication Avoidance, and Management*. Benzel EC (ed). Elsevier – Saunders, Philadelphia, PA. pp. 1517-1522, 2012

Peer Reviewed Publications

Healy AT, Sundar S, Cardenas R, Mageswaran P, Benzel EC, Mroz T, Francis T: Zero-Profile Hybrid Fusion Construct versus 2-level Plate Fixation Treating Adjacent Level Disease in the Cervical Spine. *J Neurosurg Spine* 21(5):753-60, 2014

Peer Reviewed Publications (Continued)

Perry T, Mageswaran P, Colbrunn R, Bonner T, Francis T, McLain R: Biomechanical evaluation of a Simulated T9 Burst Fracture of Thoracic Spine with Intact Rib Cage. *J Neurosurg Spine* 21(3):481-488, 2014

Francis T, Steinmetz M, Moore T: Traumatic Spondyloptosis of the Lumbar Spine: Closed Reduction and Internal Fixation. *Spine* 38(25):E1636-40, 2013

Schreckinger M, Francis T, Rajah G, Jagannathan J, Guthikonda M, Mittal S: Novel Strategy to Treat a Case of Recurrent Lymphocytic Hypophysitis using Rituximab. *J Neurosurg* 116(6):1318-23, 2012

Colen CB, Shen Y, Ghoddoussi F, Yu P, Francis TB, Koch BJ, Monterey MD, Galloway MP, Sloan AE, Mathupala SP: Metabolic Targeting of Lactate Efflux by Malignant Glioma Inhibits Invasiveness and Induces Necrosis: An in vivo Study. *Neoplasia* 13(7):620-632, 2011

Abstracts

Biomechanical Comparison of a Zero-Profile Fusion Device and Two-Level Plate Fixation to Treat Adjacent Level Disease in the Cervical Spine. Presented at the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves. Orlando, FL, March 2014. Sundar S, Healy AT, Mageswaran P, Cardenas RJ, Mroz T, Benzel EC, Francis TB

Biomechanical Comparison of a Zero-Profile Fusion Device and Two-Level Plate Fixation to Treat Adjacent Level Disease in the Cervical Spine. Presented at the North American Spine Society's 10th Annual Evidence and Technology Spine Summit. Park City, UT, March 2014. Healy AT, Sundar S, Cardenas R, Mageswaran P, Benzel EC, MD, Mroz T, Francis, TB

Biomechanical Evaluation of Thoracic Spine Stability Following a Simulated T9 Burst Fracture. Presented at the American Association of Orthopedic Surgeons meeting. New Orleans, LA, March 2014. Perry TG, Mageswaran P, Colbrunn R, Bonner T, Francis T, McLain RF

Biomechanical Evaluation of Thoracic Spine Stability Following a Simulated T9 Burst Fracture. Presented at The Poster Session of the Congress of Neurologic Surgeons Meeting, San Francisco, CA, October 2013. Perry TG, Mageswaran P, Colbrunn R, Bonner T, Francis T, McLain RF

Modulation of Glycolysis in Glioblastoma by the Erythropoietic Factor GATA-1: An Overexpression Study. Presented at the Wayne State University Graduate Exhibition. Detroit, MI, March 2011. Monterey M, Buth A, Caruso J, Francis T, et al.

Abstracts (Continued)

A Novel Treatment Regimen in a Case of Chronic, Recurrent Lymphocytic Hypophysitis. Presented at the Michigan Association of Neurological Surgeons 29th Annual Meeting. Harbor Springs, MI, June 2011. Schreckinger M, Francis T et al.

Over-expression of GATA-1 in Glioblastoma: An in Vitro Study. Presented at the Michigan Association of Neurological Surgeons 29th Annual Meeting. Harbor Springs, MI, June 2011. Francis T, Guthikonda M, Mathupala S

Metabolism of Malignant Glioma: Down-regulation of Proliferative Capacity via Targeting Erythropoietic Factors.” Presented at the Poster Session of the American Association of Neurological Surgeons Meeting. Philadelphia, PA, May 2009. Francis T, Mathupala S, Guthikonda M

A Rare Case of Adrenal Ganglioneuroma: Case report. Presented at The Poster Session of the Joint Meeting of SNO and AANS/CNS Section on Tumors. New Orleans, LA, October 2009. Francis T, Mittal S, et al.

Renal cell cancer metastasis to the calvarium presenting as an isolated large expansile lesion: Case report. Presented at The Poster Session of the Joint Meeting of SNO and AANS/CNS Section on Tumors. New Orleans, LA, October 2009. Francis T, Mittal S, et al.

Metabolic Targeting of Malignant Glioma: Downregulation of Glioma Expressed Erythropoietic Factors via siRNA In Vitro and In Vivo. Presented at The Poster Session of the Joint Meeting of SNO and AANS/CNS Section on Tumors. New Orleans LA, October, 2009. Francis T

Metabolic Targeting of Malignant Glioma: Downregulation of Glioma Expressed Erythropoietic Factors via siRNA In Vitro and In Vivo. Presented at the Michigan Association of Neurological Surgeons 27th Annual Meeting, Harbor Springs, MI. June 2009. Francis T

The Metabolism of the Malignant Astrocytoma: Downregulation of Glioma Specific Lactate Transporter in vitro and in vivo Using Small Interfering Ribonucleic Acids Against Glioma Expressed Erythropoietic Factors. Presented at the Michigan Association of Neurological Surgeons 26th Annual Meeting. Mackinac Island, MI, June 2008. Francis T

New Thoughts on Head Injury in Southeast Michigan. Presented at the Michigan Association of Neurological Surgeons Annual Summer Conference. Mackinac Island, MI, June 2007. Francis T, Evans K, et al.
