

David Matichak

Email: dmatichak@uthsc.edu

EDUCATION

- 07/2023 - Present **University of Tennessee Health Science Center**
Neurosurgery Residency
- 08/2019 – 05/2023 **University of Miami Miller School of Medicine (UMMSM)**
Doctor of Medicine (MD) Candidate, Class of 2023
- 08/2013 - 05/2017 **University of Florida**
Bachelor of Science in Microbiology and Cell Science
Honors: Cum Laude

RESEARCH EXPERIENCE

- 5/2022 - Present **MEK Inhibitor Utility in Glioblastoma: A Review**
Surgical Neurology Branch, National Institute of Neurological Disorders and Stroke, National Institutes of Health – PI: Yeshavanth Kumar Banasavadi-Siddegowda, PhD
I am currently assisting in the writing of a review article aimed at examining the role of MEK and the MAPK/ERK pathway in glioblastoma. Additionally, we examine the current pre-clinical and clinical applications of MEK inhibitors and their role in the treatment of glioblastoma.
- 5/2022 – 3/2023 **Trends in Leadership among Neurosurgical Oncology Fellowship Programs**
Department of Neurosurgery, University of Miami – PI: Ricardo Komotar, MD, Michael Ivan, MD
This project is aimed at examining current leadership trends among neurosurgical oncology fellowship programs by detailing patterns, demographics, national surgical societal involvement, and research output for those currently in the Fellowship Director role.
- 3/2022 – 3/2023 **Cranial Gun Shot Wounds: A Geo-Spatial and Public Health Burden Analysis**
Department of Neurosurgery University of Miami and University of Indiana – PI: Angela Richardson MD PhD
This project was aimed at examining gunshot wounds to the head (GSWH) who presented to both Ryder Trauma Center and the Medical Examiner's Office in Miami Dade County. Our aim was to evaluate pre-hospital GSWH risk factors in relation to race, socioeconomic status, psychological disorders, and substance use in order to better direct primary prevention efforts for firearm related injury.
- 11/2021 - Present **Coagulopathy of Traumatic Brain Injury**
Divisions of Trauma, Surgical Critical Care, and Burns, Daughtry Family Department of Surgery UMMSM – PI: Kenneth G. Proctor, PhD
I am currently assisting in preliminary data collection aimed at examining coagulopathy in blunt vs penetrating TBI, clinical improvement (or lack thereof) with correction of coagulation parameters, and use of TEG vs conventional coagulation testing in TBI patients.

RESEARCH EXPERIENCE CONT.

2/2022 - 7/2022

Rare presentation of angiomatosis in the paranasal sinuses mimicking juvenile nasopharyngeal angiofibroma in a 16-year-old male*Department of Neurosurgery/Otolaryngology-Head and Neck Surgery, UMMSM– PI: Jacques Morcos MD, Zoukaa Sargi MD MPH*

I assisted in the write up of a rare presentation of pediatric angiomatosis of the paranasal sinus and skull base mimicking juvenile nasopharyngeal angiofibroma (JNA), representing only the second reported case of paranasal sinus angiomatosis in the literature.

5/2021 - 12/2021

Osteosarcoma of the Pelvis: Clinical Presentation and Overall Survival*Department of Orthopedic Surgery UMMSM/Huntsman Cancer Institute, University of Utah School of Medicine – PI: John Groundland, MD*

I assisted in a study aimed at further understanding the clinical presentation and overall survival rates of osteosarcoma of the pelvis as this disease presents a significant therapeutic challenge due to the complexity of pelvic anatomy. My roles included data collection, writing, and editing.

12/2020 - 6/2021

The impact of social media presence, age, and patient reported wait times on physician review websites for sports medicine surgeons*Department of Orthopedic Surgery, Rush University Medical Center – PI: Brian J. Cole, MD*

I assisted in a study which investigated the presence of a correlation between professional social media usage and patient-reported online ratings of orthopedic surgeons in the state of Florida. My roles include data collection, writing, and editing.

04/2020 - 08/2020

Patient-Reported Outcomes Measurement Information System Physical Function Validation for Use in Anterior Cervical Discectomy and Fusion: A 2-Year Follow-up Study*Department of Orthopedic Surgery, Rush University Medical Center – PI: Kern Singh, MD*

I aided in a study which evaluated the correlation of Patient-Reported Outcomes Measurement Information System - Physical Function (PROMIS PF) with legacy patient-reported outcome measures (PROMs) among patients undergoing anterior cervical discectomy and fusion. My roles included writing and editing.

12/2019 - 5/2020

Potential Lack of Association Between Three Vestigial Muscles in Humans: A Willed Body Donor Study*Department of Cell Biology and Anatomy UMMSM - PI: Thomas Champney, PhD*

I assisted in a study aimed at assessing the prevalence of the vestigial muscles palmaris longus, fibularis tertius, and psoas minor among willed body donors. Our study further investigated potential correlations between sex and ethnicity regarding the presence or absence of these vestigial structures. My roles included data collection, writing, and editing.

PUBLICATIONS

Matichak DP, Levy AS, Vanderveer-Harris N, Chang H, Vallejo F, Schachner B, Shah AH, Komotar RJ, Chakravarthy V, Ivan ME. Trends in Leadership Among Neurosurgical Oncology Fellowships. *World Neurosurg.* 2023 Mar 22:S1878-8750(23)00396-0. doi: 10.1016/j.wneu.2023.03.074. Epub ahead of print. PMID: 36963564.

Schoen N, **Matichak D**, Armstrong V, Sedighim S, Lew E, Jagid J, Bullock MR, Richardson A. The Cost of Gunshot Wounds to the Head: An Unevenly Distributed Burden. *World Neurosurg.* 2023 Apr;172:e201-e211. doi: 10.1016/j.wneu.2022.12.130. Epub 2023 Jan 4. PMID: 36610644.

Suresh NV, Shah VN, **Matichak D**, Ghiam MK, Pasick LJ, Abecassis II, Saad AG, Morcos J, Sargi Z, Bhatia R. Rare presentation of angiomatosis in the paranasal sinuses mimicking juvenile nasopharyngeal angiofibroma in a 16 year old male. *Radiol Case Rep.* 2022 Jul 29;17(10):3527-3534. doi: 10.1016/j.radcr.2022.07.031. PMID: 35923345; PMCID: PMC9340122.

Brown JM, **Matichak D**, Rakoczy K, Groundland J. Osteosarcoma of the Pelvis: Clinical Presentation and Overall Survival. *Sarcoma.* 2021 Dec 6;2021:8027314. doi: 10.1155/2021/8027314. PMID: 34912177; PMCID: PMC8668338.

Sama AJ, **Matichak DP**, Schiller NC, Li DJ, Donnally CJ 3rd, Damodar D, Cole BJ. The impact of social media presence, age, and patient reported wait times on physician review websites for sports medicine surgeons. *Journal of Clinical Orthopedics and Trauma.* 2021 Jul 14;21:101502. doi: 10.1016/j.jcot.2021.101502. PMID: 34350098; PMCID: PMC8319355.

Parrish JM, Jenkins NW, Cha EDK, Lynch CP, Geoghegan CE, Mohan S, Jadcak CN, **Matichak DP**, Singh K. Patient-Reported Outcomes Measurement Information System Physical Function Validation for Use in Anterior Cervical Discectomy and Fusion: A 2-Year Follow-up Study. *Neurospine.* 2021 Mar;18(1):155-162. doi: 10.14245/ns.2040458.229. Epub 2021 Mar 31. PMID: 33819942; PMCID: PMC8021822.

Hodgens BH, McSoley MJ, Milner JE, Naik KP, Howard KR, Schwartz E, **Matichak DP**, Champney TH. Potential Lack of Association Between Three Vestigial Muscles in Humans: A Willed Body Donor Study. *Cureus.* 2020 May 13;12(5):e8098. doi: 10.7759/cureus.8098. PMID: 32542153; PMCID: PMC7292683.

ABSTRACTS/POSTERS

Andrew Sama, **David Matichak**, Nicholas Schiller, Deborah Li MD, Dhanur Damodar, MD, Chester Donnally III MD, Brian Cole MD. Accepted abstract and video poster presentation of “Social Media Influences Online Physician Rating Websites for Orthopedic Sports Medicine Surgeons”. Eastern-Atlantic Student Research Forum Conference, 2021

Jeffrey Brown, **David Matichak**, John Groundland, MD. Accepted abstract and video poster presentation of “Osteosarcoma of the pelvis: a SEER database comparison of clinical presentation and overall survival”. Connective Tissue Oncology Society Conference, 2020

SERVICE AND LEADERSHIP

05/2022 – 05/2023

Neurosurgery Interest Group, UMMSM

Treasurer

Within this role I am responsible for the coordination of financial funding for general organizational events, fundraising, and educational workshops.

06/2021 – 06/2022

Academic Society Program, UMMSM

Clinical Trainer

The Academic Society Program is a collaborative effort between students, faculty, and administration to foster peer teaching of clinical skills and enhance teamwork. As a clinical trainer I serve as one the primary trainers for the society, working closely with MS1 and MS2 students to teach physical exam and history taking skills while also overseeing MD and MD/MPH training aides.

5/2021 – 05/2022

Trauma Interest Group, UMMSM

Research Coordinator

In this role I am responsible for staying apprised of research opportunities related to trauma medicine and helping interested students participate in trauma research.

09/2019 - Present

Child & Adolescent Motivation & Enrichment Program (CHAMP), UMMSM

CHAMP is an educational program at Holtz Children's Hospital where medical students work to increase literacy, promote educational growth, and act as companions for pediatric dialysis patients.

Patient Mentor (09/2019 – Present)

For the past 2 and a half years I have been meeting weekly with my assigned mentee to provide longitudinal companionship. In addition to serving as a friend, I also work to assist him in achieving his academic goals through educational mentorship and learning exercises.

Vice President (06/2020 – 06/2021)

As Vice President, I served as a patient advocate overseeing mentor/mentee satisfaction, addressing issues with pairings, and communicating with nursing staff regarding mentor/mentee progress. In addition, I performed our organizations treasurer duties, maintaining funds and reimbursements, while also organizing member shadowing schedules.

SERVICE AND LEADERSHIP CONT.

09/2019 - 06/2021

High-Risk Patient Navigation (HRPN), UMMSM

As part of the Mitchell Wolfson Sr. Department of Community Service at UMMSM, this program was created to assist patients found with high-risk screening results such as colon cancer, cervical cancer, HIV, Hepatitis C, etc. at UM health fairs in receiving longitudinal follow up care and access to health insurance.

High-Risk Patient Navigator (09/2019 – 08/2020)

My responsibilities included informing patients of their abnormal laboratory results, scheduling necessary follow-up appointments/procedures, and providing longitudinal assistance until a final diagnosis/resolution was obtained. In addition, I also assisted patients without health insurance in applying for and accessing free health insurance programs available in South Florida.

High-Risk Care Coordinator (8/2020 – 06/2021)

In this role I was responsible for overseeing the operation of the HRPN program and leading our team of 8 patient navigators. I was responsible for pairing patients with navigators, ensuring timely and regular patient check-ins, and for tracking patient progress and the proper establishment of care for our high-risk patient cohort.

11/2019 - 01/2021

Mitchell Wolfson, Sr. Department of Community Service (DOCS), UMMSM

DOCS is a nationally recognized, student-run organization providing medical service to thousands of medically underserved South Florida residents through annual health fairs and clinics.

High-Risk Navigation Station Manager

At the Keys Health Fair (2021) and Little Haiti Health Fair (2021) it was my duty to oversee the station dedicated to further assessment of patients found with high-risk screening results. Here, patients were enrolled in our High-Risk Navigation Program. In this role, I worked to maximize patient flow and team efficiency to handle the fairs' large patient volumes.

Vitals Station Volunteer

At the Keys Health Fair (2019) and South Dade Health Fair (2019) my responsibilities included collecting patient vitals, medication history, and past medical history and establishing patient charts within the DOCS EMR.

04/2020 - 06/2020

COVID -19 Community Surveillance SPARK-C Project, UMMSM*Testing Site Manager*

Working collaboratively with Miami Dade County Mayor's Office, SPARK-C was the University of Miami initiative to trace confirmed, presumptive, and exposed individuals to COVID-19 in Miami-Dade county at the start of the pandemic. My roles included overseeing and operating one of our COVID-19 testing sites within the community and conducting phone calls to Miami-Dade residents to assess COVID-19 infection status/exposure.

WORK EXPERIENCE

08/2018 - 07/2019

Florida Child Neurology, Orlando, FL

Medical Scribe

In this role I worked for Dr. Murtuza Kothawala, MD a pediatric neurologist and assistant professor at the University of Central Florida College of Medicine. As a scribe, it was my duty to accurately document patient encounters, place diagnostic/treatment orders, and fulfill pharmacy refills.

8/2017 - 8/2018

Shepherd's Hope Health Center, Longwood, FL

Shepherd's Hope is an organization of volunteer physicians and nurses who provide free primary care and specialty care to uninsured, low-income patients in Central Florida.

Discharge Coordinator (8/2017-11/2017)

I was responsible for scheduling follow-up visits, coordinating referrals with specialty physicians and social workers, and providing radiology/laboratory order instructions to patients.

Certified Nursing Assistant (12/2017 – 8/2018)

As a CNA, I was responsible for patient intake, rooming, obtaining basic patient medical history and insurance status, and collecting vitals.

HOBBIES AND INTERESTS

❖ Golf (UMMSM Dean's Cup Golf Captain 2022) ❖ Intramural Softball, Football and Basketball ❖ Fishing/Hunting ❖ Lifelong Pittsburgh Steelers and Orlando Magic Fan