**Mastorakos, Panagiotis, MD PhD**

panagiotis.mastorakos@utsouthwestern.edu

**Positions**

**Assistant Professor of the Department of Neurological Surgery and Peter O’Donnell Jr. Brain Institute**

University of Texas Southwestern

07/2023 – present

**Peter O’Donnell Jr. Brain Institute Investigator**

University of Texas Southwestern

07/2023 – present

**Education**

**Cerebrovascular fellowship**

Thomas Jefferson University Hospital

07/2022 – 06/2023

**Endovascular neurosurgery fellowship**

University of Virginia

07/2021 – 06/2022

**Neurosurgery Residency**

National Institutes of Health and University of Virginia

07/2016 – 06/2022

**Neurosurgery Internship**

University of Virginia

07/2015 – 06/2016

**Graduate Education**

Department of Neurosurgery Athens School of Medicine, University of Athens School of Health Sciences, Greece

Thesis: Non-viral gene vectors able to distribute homogeneously within the brain parenchyma for the treatment of diseases of the central nervous system.

**Ph.D.,** 03/2013 - 10/2017

**Medical Education**

University of Athens School of Health Sciences, Greece

**M.D.**, 09/2006 - 08/2012

**Research**

**Immunology of cerebrovascular injury (2018 – 2021)**

**National Institutes of Health,** National Institute of Neurological Disorders and Stroke, Viral Immunology and intravital imaging section

Mentor: Dorian McGavern, Senior investigator

We identified temporally distinct innate immune response mechanism affecting secondary injury and repair following hemorrhagic stroke and traumatic brain injury.

**Nanoparticle design for drug and gene delivery to the CNS (2013 – 2015)**

**Johns Hopkins University School of Medicine,** Center for Nanomedicine and Hunterian Neurosurgery Laboratory

Mentors: Justin Hanes, Director of the Center for Nanomedicine and Henry Brem, Director of the Department of Neurosurgery

We developed nanoparticle formulation able to effectively traverse the extracellular matrix to deliver drug and gene therapeutics in a targeted fashion. This work is the basis of four patents (US9937270B2, US10335500B2, US20170173172A1, US20180271796A1) as well as three R01 and one R24 NIH funded grants (1R01EB020147, 1R01HL127413, 1R01CA197111, 1R24MH106083).

**Molecular genetics of endocrine disorders (2010)**

**National Institutes of Health,** Section on Endocrinology and Genetics

Mentor: Constantine Stratakis, Senior Investigator

We identified a new association between succinate dehydrogenase mutations and patients with pituitary adenomas, pheochromocytomas and paragangliomas.

**Selected articles**

1. Mandal D, Bugarini A, Asuzu DT , Mullaney D, **Mastorakos P**, Stoica S, Alvarez R, Scott G, Maric D, Elkahloun AG , Zhuang Z, Chew EY, Yang C, Linehan WM, Lonser R, Chittiboina P. Proteostasis modulation in germline missense von Hippel Lindau disease. **Clinical Cancer Research**. 2023
2. **Mastorakos P**, Russo MV, Zhou T, Johnson K, McGavern DB. Antimicrobial immunity impedes CNS vascular repair following brain injury. **Nature Immunology**. 2021. 34556874
3. **Mastorakos P**, Mihelson N, Burks S, Latour L, Frank J, McGavern D. Temporally distinct myeloid cell responses mediate damage and repair after cerebrovascular injury. **Nature Neuroscience**. 2021. 3362481
4. **Mastorakos P**, McGavern D. The Anatomy and Immunology of Vasculature in the Central Nervous System. **Science Immunology**. 2019; 31300479
5. **Mastorakos P**, Zhang C, Song E, Choi WK, Berry S, Park HW, Kim YE, Hanes J, Suk JS. Biodegradable brain-penetrating DNA nanocomplexes and their use to treat malignant brain tumors. **Journal of controlled release.** 2017; 28694032
6. **Mastorakos P**, da Silva AL, Chisholm J, Choi WK, Boyle MP, Hanes J, Suk JS. Highly Compacted Biodegradable DNA Nanoparticles Capable of Overcoming the Mucus Barrier for Inhaled Lung Gene Therapy. **PNAS**. 2015; 26124127

**Online**

Pubmed publication list: <https://www.ncbi.nlm.nih.gov/myncbi/1t7qoVLggf3kZ/bibliography/public/>

Google scholar profile: <https://scholar.google.com/citations?user=qK0ACLkAAAAJ&hl=en&oi=ao>

Web of Science profile: <https://www.webofscience.com/wos/author/record/ABG-1157-2021>

**Awards**

*Research recognition*

Disease-Oriented Clinical Scholars (DOCS) Program Award, UT Southwestern (2023)

Best clinical research poster, Congress of Neurological Surgery, Cerebrovascular Section (2022)

Excellence in research award, Department of Neurosurgery, University of Virginia (2022)

Jane - Nugent basic science presentation award, The Neurosurgical Society of the Virginias (2022)

National Institute of Neurological Disorders and Stroke Director’s Award; “For outstanding collaboration and leadership in efforts to understand the mechanism of edema formation following cerebrovascular injury” (2021)

Nature cardiovascular research journal editors pick; “Antimicrobial immunity impedes CNS vascular repair following brain injury. Nature Immunology.” (2021)

Donald O. Quest, MD, FAANS(L) Basic Science Award, AANS Young Neurosurgeons Research Forum; “Immunology of Cerebrovascular Injury: Innate Drivers of Damage and Repair” (2021)

National Institute of Neurological Disorders and Stroke Clinical Research Excellence Award; “Intrathecal endoscopy for spinal arachnoiditis: lessons learned from a single center experience” (2021)

Jane - Nugent basic science presentation award, The Neurosurgical Society of the Virginias (2021)

National Institutes of Health Fellows Award for Research Excellence, National Institutes of Health (2021)

Inflammatory Disease Scientific Interest Group (SIG) award runner-up, National Institutes of Health (2020)

Jane - Nugent basic science presentation award, The Neurosurgical Society of the Virginias (2019)

Immunology Interest Group award - Neuroimmunology session, National Institutes of Health (2018)

Award for Research Excellence, Center for Nanomedicine/ Johns Hopkins University (2014)

“Empeirikeion” Scholarship for support of research fellowship (2014)

*Academic achievements*

John A. Jane, Sr. Highest Board Score Award, University of Virginia (2019)

John A. Jane, Sr. Neuroanatomy Award, University of Virginia (2017)

Graduated with high honors, 'Summa cum laude', University of Athens School of Health Sciences, (2012, top 1% of class)

Honorary award for excellence in university studies, Institute of National Scholarships (2007, 2008, 2009, 2012)

Award for exceptional athletic and academic achievements, National Sports Association (2007)

Sponsorship for personal skills and academic achievements, EFG Eurobank, (2006)

Scholarship for academic excellence in fundamental sciences, London International Youth Science Forum (2006)

“Antonios Moraitis” award for academic excellence and contribution to the community (2006)

**Journal Articles** (h-index 19)

*Neuroimmunology*

1. Fitzpatrick Z, Rosenblum JS, Tuong ZK, Chandrashekhar V, Negro-Demontel ML, Allinson KSJ, **Mastorakos P**, Chittiboina P, Maric D, Donahue D, Ferdinand JR, Portet A, Penalver A, Gillman E, Zhuang Z, Clatworthy MR, McGavern DB. Venous plexus-associated lymphoid hubs support meningeal humoral immunity. **Nature**. 2022. (under revision)
2. **Mastorakos P**, Russo MV, Zhou T, Johnson K, McGavern DB. Antimicrobial immunity impedes CNS vascular repair following brain injury. **Nature Immunology**. 2021. **journal cover image; NatureCVR editors pick.**
3. Mason HD, Johnson AM, Mihelson NA, **Mastorakos P**, McGavern DB. Glia limitans superficialis oxidation and breakdown promotes cortical cell death after repeat head injury. **JCI Insight**. 2021.
4. **Mastorakos P**, Mihelson N, Burks S, Latour L, Frank J, McGavern D. Temporally distinct myeloid cell responses mediate damage and repair after cerebrovascular injury. **Nature Neuroscience**. 2021. 3362481
5. **Mastorakos P**, McGavern D. The Anatomy and Immunology of Vasculature in the Central Nervous System. **Science Immunology**. 2019; 31300479

*Cerebrovascular neurosurgery*

1. Naamani KE., Khanna O., **Mastorakos P.**, … , Jabbour PM., Rosenwasser RH., Tjoumakaris S. Predictors of Transfemoral Access Site Complications in Neuroendovascular Procedures: a Large Single-Center Cohort Study. **Clinical Neurology and Neurosurgery.** 2023
2. Naamani KE., **Mastorakos P.**, Yodkoff CJ., Abbas R., Tjoumakaris ST., Gooch MR., Herial NA., Rosenwasser RH., Zarzour H., Schmidt RF., Jabbour PM. Comparison of PED/PED Flex and PED Shield in the treatment of unruptured intracerebral aneurysms. **JNS.** 2023
3. Naamani KE., Hunt A., Jain P., Lawall CL., Yudkoff CJ., Fadel OE., Ghanem M., **Mastorakos P.**, … Rosenwasser RH., Jabbour PM. The Rate and Predictors of 30-Day Readmission in Patients Treated for Unruptured Cerebral Aneurysms: A Large Single-Center Study. **Neurosurgery.** 2023
4. Sokolowski JD., Soldozy S., Norat P., Sharifi KA., Kearns K., Liu L., Williams A., Yagmurlu K., **Mastorakos P.**, Miller GW., Kalani MY., Park M., Kellogg R., Tvrdik P. Preclinical Models of Middle Cerebral Artery Occlusion: New Imaging Approaches to a Classic Technique. **Frontiers in Neurology.** 2023; 37409019
5. Chandrabhatla AS., Kuo, EA., Sokolowski J., Kellogg R., Park M., **Mastorakos P**. Artificial Intelligence and Machine Learning in the Diagnosis and Management of Stroke: an Assessment of FDA-approved Solutions. **Journal of Clinical Medicine.** 2023; 37297949
6. Naamani KE., **Mastorakos P.**, … Patel AB., Jabbour P., Dmytriw AA., et al. WorldWideWEB Consortium. Long-Term follow-up of Cerebral Aneurysms Completely Occluded at 6 months After Intervention with the Woven (WEB) Device: a Retrospective Multicenter Observation Study. **Transl Stroke Res.** 2023; 37165289
7. Dabhi N., **Mastorakos P**., Sokolowski J., Kellogg R., Park M. Mechanical thrombectomy for anterior cerebral artery large vessel occlusion: review of the literature. **AJNR**. 2022; 36128166
8. Dabhi N., **Mastorakos P**., Sokolowski J., Kellogg R., Park M. Thrombolytic Therapy and Thrombectomy for Acute Ischemic Stroke in Drug Users. 2022; **Surgical Neurology International**. 2022.
9. Ironside N., Patrie J., Sherman N., Ding D., Kumar JS., Rizvi T., **Mastorakos P**., Hussein M., Naamani KE., Abbas R., 6; Harrison SM., Ironside L., Kearns KN;, Doan KT., Shabo LM., Marfatiah S., Roh D., Lignelli-Dipple A., Claassen J., Worrall BB., Johnston KC., Jabbour P., Park MS., Connolly ES., Mukherjee S., Southerland AM., Chen CJ. Quantification of Hematoma and Perihematomal Edema Volumes in ICH (QUANTUM) Trial: Design Considerations in an Artificial Intelligence Validation Study. **Clinical Trials: Journal of the Society for Clinical Trials**. 2022
10. Sokolowski J., Mastorakos P., Fisher J., Kellog R. Direct carotid puncture for neuroendovascular procedures. **Acta Neurochirurgica**. 2022; 35137269
11. Ahn J., **Mastorakos P.**, Sokolowski J., Chen CJ., Kellogg R., Park M. Effects of hyperoxemia on aneurysmal subarachnoid hemorrhage outcomes. **Neurosurgical Focus.** 2021; 31731268. **Included in JNSPG Journal Club**
12. Letchuman V., Ampie L., Mastorakos P., Raper D., Kellogg R., Park M. Experimental Animal Models for the Study of Moyamoya Disease. **Neurosurgical Focus.** 2021; 34469866
13. Rosenblum JS, Wang H, Dmitriev PM, Cappadona AJ, **Mastorakos P**, Xu C, Jha A, Edwards N, Donahue DR, Munasinghe J, Nazari MA, Knutsen RH, Rosenblum BR, Smirniotopoulos JG, Pappo A, Spetzler RF, Vortmeyer A, Gilbert MR, McGavern DB, Chew E, Kozel BA, Heiss JD, Zhuang ZZ, Pacak K. Developmental vascular malformations in EPAS1-gain-of-function syndrome. **JCI Insight**. 2021; 33497361. **journal cover image**
14. I. Pomeraniec J, **Mastorakos P**, Raper D, Park MS. Re-rupture following flow diversion of a dissecting aneurysm of the vertebral artery: case report and review of the literature. Flow diversion of fusiform dissecting aneurysm of the vertebral artery: case report and review of the literature. **World Neurosurgery**. 2020; 32730963
15. Sokolowski JD, Chen CJ, Soldozy S, **Mastorakos P**, Burke RM, Nguyen JM, Myers KM, Kalani MYS, Park MS. Nimodipine after aneurysmal sabarachnoid hemorrhage: fourteen-day course for patients that meet criteria for early hospital discharge. **Clinical Neurology and Neurosurgery**. 2021; 106299
16. Ding D, Buell T, Raper D, Chen CJ, **Mastorakos P**, Liu KC, Vollmer D. Sylvian Arteriovenous Malformation Resection and Associated Middle Cerebral Artery Aneurysm Clipping: Technical Nuances of Concurrent Surgical Treatment. **Cureus.** 2018; 29805922
17. Ilyas A, Chen CJ, Ding D, **Mastorakos P**, Taylor D, Pomeraniec J, Lee CC, Sheehan J. In Reply: Letter to the Editor: Cyst Formation after Stereotactic Radiosurgery for Brain Arteriovenous Malformations: A Systematic Review. **JNS**. 2018; 28548596
18. Ilyas A, Chen CJ, Ding D, **Mastorakos P**, Taylor D, Pomeraniec J, Lee CC, Sheehan J. Cyst Formation after Stereotactic Radiosurgery for Brain Arteriovenous Malformations: A Systematic Review. **JNS.** 2018; 28548596
19. **Mastorakos P**, Liu K, Schomer A. Adverse effects of aggressive blood pressure control in patients with intracerebral hemorrhage. **JNC.** 2017; 160102
20. Ilyas A, ChenCJ, Raper D, Ding D, Buell T, **Mastorakos P**; Liu K. Endovascular Mechanical Thrombectomy for Cerebral Venous Sinus Thrombosis: A Systematic Review. **JNIS.** 2017; 28213478
21. Chen CJ, **Mastorakos P**, Caruso J, Ding D, Schmitt P, Raper D, Evans E, Newman S, Jensen M. Transorbital Approach to Endovascular Obliteration of Cavernous Carotid Fistula: Case Report and Review of the Literature. **Cureus**. 2017; 28191380

*General Neurosurgery*

1. Mandal D, Bugarini A, Asuzu DT, Mullaney D, **Mastorakos P**, Stoica S, Alvarez R, Scott G, Maric D, Elkahloun AG , Zhuang Z, Chew EY, Yang C, Linehan WM, Lonser R, Chittiboina P. Proteostasis modulation in germline missense von Hippel Lindau disease. **Clinical Cancer Research.** 2023
2. Fang FY, Pomeranic IJ, Mastorakos P, Heiss JD. Reducing Institutional Imaging Costs for Stereotactic Brain Biopsy. **Journal of Neurosurgery Research and Reviews.** 2022
3. Mortazavi A, Nwokoye D, Asuzu AT, Scott G, **Mastorakos P**, Chittiboina P. Multiple VHL related hemangioblastomas and holocord syrinx: Identifying the causative lesion. **JNS case lessons**. 2021
4. **Mastorakos P,** Pomeraniec IJ, Bryant JP, Chittiboina P, Heiss J. Flexible thecoscopy for extensive spinal arachnoiditis. **JNS spine.** 2021
5. Alvarez R, **Mastorakos P**, Hogan E, Oshegbo G, Mack J, Wiley H, Chew E, Chittiboina P. Retrobulbar Hemangioblastomas in von Hippel-Lindau Disease: Clinical Course and Management. **Neurosurgery.** 2021; 33442737. **journal cover image**
6. Alvarez R, **Mastorakos P**, Chittiboina P. Resection of a Conus Medullaris Hemangioblastoma: Case Report. **Interdisciplinary Neurosurgery.** 2021; 33457210
7. **Mastorakos P**, Pomeraniec IJ, Shah S, Shoushtarizadeh A, Quezado MM, Heiss J. Mobile myxopapillary ependymoma with associated filum terminale cyst: A Case Report. 2020. **World Neurosurgery**. 2020; 32339736
8. Theeler et al. NCI-CONNECT: Comprehensive Oncology Network Evaluating Rare CNS Tumors Histone Mutated Midline Glioma Workshop Proceedings. **Neuro-oncology**. 2020. 32642676
9. Davis GT, Chatrath A, **Mastorakos P**, Paisan G, Chen CJ, Buell T, Jane, Jr. J. Cerebrospinal Fluid Area and Syringogenesis in Chiari 1 Malformation. **JNS.** 2020. 32084641
10. Moosa S, Wang TR, **Mastorakos P**; Sheehan J, Elias JW. Gamma Knife Radiosurgery for Trigeminal Neuralgia Reduces Neurovascular Compression: A Case Report after 11 Years. **Stereotactic and Functional Neurosurgery.** 2019; 31487732
11. **Mastorakos P**, Lynes J, Maggio D, Nduom E. Resection of myxopapillary ependymoma of the filum terminale. **Operative Neurosurgery**. 2020; 30620941
12. **Mastorakos P**, Chatrath A, Mehta GU, Wildeman M, Moosa S, Jane J. Ganglioglioma arising from the septum pellucidum: case report and review of the literature. **Peds Neurosurgery.** 2019; 30620941
13. **Mastorakos P**, Mehta GU, Chatrath A, Moosa S, Lopes MB, Jane J. Tumor to Cerebellar Peduncle T2-weighted imaging intensity ratio fails to predict pituitary adenoma consistency. **J Neurol Surg B Skull Base**. 2019;
14. Moosa S,Dale D, **Mastorakos P**, Liu K, Starke R.Endoport-assisted surgical evacuation of a deep-seated cerebral abscess. **J. Clin. Neuroscience**. 2018; 29716807
15. **Mastorakos P**, Xu Z, Yu J, Hess J, Qian J, Chatrath A, Taylor DG, Kondziolka D, Warnick R, Chiang V, Sheehan J. BRAF V600 mutation and BRAF kinase inhibitors in conjunction with stereotactic radiosurgery for intracranial melanoma metastases: a multicenter retrospective study. **Neurosurgery**.2018 May; 29846702
16. **Mastorakos P**, Taylor D, Chen CJ, Buell T, Jane J. Prediction of cavernous sinus invasion in patients with Cushing’s disease by Magnetic Resonance Imaging. **JNS.** 2018; 29979125. **2019 JNS Editor’s choice.**
17. **Mastorakos P**, Hays M, Caruso J, Chen CJ, Ding D, Taylor DG, Lopez B, Shaffrey M. Transtentorial Progression of Optic Nerve Glioblastoma: Case Report. **JNS.** 2017; 28298017
18. Taylor DG, **Mastorakos P**, Jane Jr. J, Oldfield EH. Two Distinct Populations of Chiari I malformation Based on Presence or Absence of Posterior Fossa Crowdedness on Magnetic Resonance Imaging. **JNS**. 2016; 27588590
19. Xekouki P, Szarek E, Giubellino A, Quezado M, Bullova P, Mastroyiannis S, **Mastorakos P**, Wassif CA, Raygada M, Rentia N, Dye L, Cougnou A, Dee K, Sierra ML, Lyssikatos C, Belyavskaya E, Malchoff C, Eng C, Maher LJ, Pacak K, Lodish M, Stratakis CA. Pituitary adenoma with paraganglioma/pheochromocytoma (3PAs) and succinate dehydrogenase defects in human and mice. **JCEM**. 2015; 25695889

*Biomedical engineering/ Nanotechnology*

1. Zhang C, **Mastorakos P**, Sobral M, Berry S, Song E, Nance E, Hanes J, Suk JS, Strategies to enhance the distribution of nanotherapeutics in the brain. **JCR.** 2017; 28739449
2. **Mastorakos P**, Zhang C, Song E, Choi WK, Berry S, Park HW, Kim YE, Hanes J, Suk JS. Biodegradable brain-penetrating DNA nanocomplexes and their use to treat malignant brain tumors. **JCR.** 2017; 28694032
3. Mead B, Kim N, Miller W, Hodges D, **Mastorakos P**, Klibanov A, Mandell J, Hirsh J, Suk JS, Hanes J, Novel Focused Ultrasound Gene Therapy Approach Noninvasively Restores Dopaminergic Neuron Function in a Rat Parkinson’s Disease Model. **Nano Letters.** 2017; 28511006
4. Zhang C, Elizabeth NE, **Mastorakos P**, Chisholm J, Berry S, Suk JS, Tyler B, Brem H, Hanes J. Convection enhanced delivery of cisplatin-loaded brain penetrating nanoparticles cures malignant glioma in rats. **JCR.** 2017;28279797
5. **Mastorakos P\***, Berry S\*, Zhang C, Song E, Patel H, Suk JS, Hanes J. Enhancing Intracranial Delivery of Clinically Relevant Non-viral Gene Vectors. **RSC Advances**. 2016; 27642512
6. Mead B, **Mastorakos P**, Suk JS, Klibanov A, Hanes J, Price R. Targeted gene transfer to the brain via the delivery of brain-penetrating DNA nanoparticles with focused ultrasound. **JCR**. 2016; 26732553
7. **Mastorakos P**, Song E, Zhang C, Berry S, Oh Y, Kim YE, Park JS, Lee S, Suk JS, Hanes J. Biodegradable DNA Nanoparticles that Provide Widespread Gene Delivery in the Brain. **Small.** 2015; 26680637
8. Oh Y, Park O, Swierczewska M, Hamilton JP, Park JS, Kim TH, Lim SM, Eom H, Jo DG, Lee CE, Kechrid R, **Mastorakos P**, Zhang C, Hahn SK, Jeon OC, Byun Y, Kim K, Hanes J, Lee KC, Pomper MG, Gao B, Lee S. PEGylated TRAIL treatment ameliorates liver cirrhosis in rats by targeting activated hepatic stellate cells. **Hepatology**. 2016; 26710118
9. **Mastorakos P**, da Silva AL, Chisholm J, Choi WK, Boyle MP, Hanes J, Suk JS. Highly Compacted Biodegradable DNA Nanoparticles Capable of Overcoming the Mucus Barrier for Inhaled Lung Gene Therapy. **PNAS**. 2015; 26124127
10. **Mastorakos P\***, Zhang F\*,Mishra M, Mangraviti A, Zhou J, Hanes J, Brem H, Olivi A, Tyler B, Kannan R. Uniform Solid Brain Tumor Distribution and Tumor Associated Macrophage Targeting of Systematically Administered Dendrimers. **Biomaterials**. 2015; 25818456
11. **Mastorakos P**, Zhang C, Berry S, Oh Y, Lee S, Kim A, Woodworth G, Suk JS, Hanes J. Highly Compact DNA Nanoparticles with Exceptionally Dense PEG Coatings Provide Uniform and Widespread Gene Transfer to the Central Nervous System. **Adv. Health. Mat.** 2015; 25761435; **journal cover image**
12. Kambhampati SP, Mishra M, **Mastorakos P**, Oh Y, Lutty G, Kannan RM. Intracellular delivery of dendrimer triamcinolone acetonide conjugates into human retinal pigment epithelial cells. **European Journal of Pharmaceutics and Biopharmaceutics**. 2015; 25701805
13. Schneider CS, Perez JB, Cheng E, Zhang C, **Mastorakos P**, Hanes J, Winkles JA, Woodworth GF, Kim AJ. Minimizing the Non-specific Binding of Nanoparticles Enables Active Targeting of Remote Tumor Cells in the Brain. **Biomaterials**. 2015; 25542792
14. **Mastorakos P**, Kambhampati SP, Mishra M, Wu T, Song E, Hanes J, Rangaramanujam K. Hydroxyl PAMAM dendrimer-based gene vectors for transgene delivery to human retinal pigment epithelial cells. **Nanoscale**. 2015; 25213606

**Oral presentations**

1. Naamani KE., **Mastorakos P.**, … Patel AB., Jabbour P., Dmytriw AA., WorldWideWEB Consortium. (2023) Long-term follow-up of cerebral aneurysms completely occluded at 6 months after intervention with the Woven EndoBridge (WEB) device: A retrospective multicenter observational study. CNS. Washington, DC.
2. **Mastorakos P.** (2023) Thrombectomy for distal vessel occlusion: case presentation. Phildelphia Neurointerventiona Club. Philadelphia, PA.
3. **Mastorakos P.**, Naamani KE., … Patel AB., Jabbour P., Dmytriw AA., et al. WorldWideWEB Consortium. (2023) Intra-Operative Predictors of Long-Term Obliteration and Management in Patients Treated with the WEB Device: Results of the WorldWideWeb Consortium. AANS; Los Angeles, CA.
4. **Mastorakos P.** (2022). Treatment of complex dural arteriovenous fistula: case presentation. Phildelphia Neurointerventiona Club, Philadelphia, PA.
5. Chittiboina P., Mandal D., Bugarini A., **Mastorakos P.**, Stoica S., Boyle J., Alvarez R., Edwards NA, Scott G., Smith C., Maric D., Zhuang Z., Chew E., Yang C., Linehan M., Lonser RR. (2022). Vorinostat for Missense Mutated Von Hippel Lindau Disease Associated Hemangioblastomas: A Pilot Study. CNS; San Francisco, CA.
6. Dabhi N., **Mastorakos P.**, Sokolowski J., Kellogg R., Park M. (2022) Mechanical thrombectomy for anterior cerebral artery large vessel occlusion: review of the literature. CNS; San Francisco, CA. **Best clinical research poster CV section**
7. **Mastorakos P.** (2022)Innate immunology of cerebrovascular injury: drivers of damage and repair; Georgetown Clinical Neuroscience Grand Rounds/ Neurology, Washington, DC.
8. **Mastorakos P.**, Ahn J., Sokolowski J., Chen CJ., Kellogg R., Park M. Effects of hyperoxemia on aneurysmal subarachnoid hemorrhage outcomes. Neurosurgical Focus journal club; Online.
9. **Mastorakos P.**, McGavern D. (2022). Immune distraction: how systemic infections trigger neurodegeneration after TBI. The Neurosurgical Society of the Virginias; Leesburg, VA; **Jane-Nugent basic science award**
10. **Mastorakos P.**, McGavern D. (2021). Immunology of Cerebrovascular Injury: Drivers of Damage and Repair. AANS; Orlando, Fl; **Quest basic science award**
11. **Mastorakos P.**,McGavern D. (2021). Immunology of Cerebrovascular Injury: Drivers of Damage and Repair; The Neurosurgical Society of the Virginias (Online); **Jane-Nugent basic science award**
12. **Mastorakos P.** (2020)Innate immunology of cerebrovascular injury: drivers of damage and repair; Georgetown Clinical Neuroscience Grand Rounds/ Neurosurgery, Washington, DC.
13. **Mastorakos P.,** Chittiboina P. (2020). MRI negative Cushing’s disease; NINDS Clinical Neuroscience Grand Rounds; Bethesda, MD.
14. **Mastorakos P.**, Chittiboina P. (2020) Case Review: Cladophialophora Bantiana. NIAID Grand rounds; Bethesda, MD.
15. **Mastorakos P.**, Boyle J., Floros K., Lonser RR., Chittiboina P. (2020) Vorinostat for Hemangioblastomas in Germline Missense von Hippel-Lindau Disease: A Phase 0 Clinical Trial. The Neurosurgical Society of the Virginias; White Sulfur Springs, WV.
16. **Mastorakos P.,** Mihelson N., Frank J., Latour L., McGavern D (2019) Divergent myeloid cell responses affect tissue damage and repair following CNS vascular injury; Immunology Interest Group workshop; Leesburg, VA.
17. **Mastorakos P.,** Heiss J. (2019). Myxopapillary ependymoma with associated filum terminale cyst; NINDS Clinical Neuroscience Grand Rounds; Bethesda, MD.
18. **Mastorakos P.**, Boyle J., Floros K., Lonser RR., Chittiboina P. (2019) Vorinostat for Hemangioblastomas in Germline Missense von Hippel-Lindau Disease: A Phase 0 Clinical Trial. AANS; San Diego, CA.
19. **Mastorakos P.,** Frank J., McGavern D. (2019) Immune mechanisms underlying restoration of CNS barriers. The Neurosurgical Society of the Virginias; Leesburg, VA. **Jane-Nugent basic science award**
20. McGavern D., **Mastorakos P.** (2019) Immune mechanisms underlying restoration of CNS barriers. Gordon Research Conference; Ventura, CA.
21. **Mastorakos P.,** Frank J., McGavern D. (2018) Microglia and peripheral myelomonocytic cells contribute to divergent outcomes following cerebrovascular injury. Immunology Interest Group workshop; Leesburg, VA; **Neuroimmunology session award**
22. **Mastorakos P.,** Heiss J. (2018). Syringomyelia Not Related to CSF Pathway Obstruction. Clinical Neuroscience Grand Rounds; Bethesda, MD.
23. **Mastorakos P.,** Nduom E. (2018). Contrast Enhancement in the Brain after Checkpoint Inhibition: Progression or Pseudoprogression? Clinical Neuroscience Grand Rounds; Bethesda, MD.
24. Zhang C., **Mastorakos P.,** Suk JS., Hanes J. (2015). Defining Essential Considerations To Achieve Optimal, Local Nanocarrier Delivery To The Brain. NanoDDS; Seattle, WA.
25. Mead B., **Mastorakos P.**, Suk JS., Song J., Hanes, J., Price R. (2015). The MRI-Targeted Delivery of Brain-Penetrating Non-Viral GDNF Gene Vectors to the Striatum with Focused Ultrasound Reverses Neurodegeneration in a Parkinson’s Disease Model. BMES Annual Meeting; Tampa, Fl.
26. Mead B., **Mastorakos P.**, Suk JS., Song J., Hanes, J., Price R. (2015). Targeted CNS Transfection Via The Delivery of Brain-Penetrating Non-Viral Gene Vectors Across the Blood-Brain Barrier with Focused Ultrasound. BMES Annual Meeting; Tampa, Fl.
27. **Mastorakos P.**, Zhang C., Song E., Suk J.S., Hanes J. (2015). *Gene delivery using Brain Penetrating Gene vectors.* 42nd Annual Meeting & Exposition of the Controlled Release Society; Edinburgh, Scotland.
28. Mead B., Timbie K.F., Miller G.W., **Mastorakos P.**, Zhang C., Suk J.S., Song J., Hanes J., Price R.J. (2015). *Delivery of Brain-Penetrating Nanoparticles Across the Blood-Brain Barrier with Focused Ultrasound: Brain Tumor and Neurodegenerative Disease Applications.* 42nd Annual Meeting & Exposition of the Controlled Release Society; Edinburgh, Scotland.
29. **Mastorakos P.**, Zhang C., Song E., Suk J.S., Hanes J. (2015). *Drug and gene delivery using brain penetrating nanoparticles.* Surgical Neurology Branch Scientific Conference/ NINDS/ NIH; Bethesda, MD.
30. **Mastorakos P.**, Zhang C., Song E., Berry S., Kim YE., Suk JS., Hanes J. (2014). *Highly Compacted Biodegradable DNA Nanoparticles Capable of Rapidly Penetrating Brain Tissue Barrier for Treating Brain Tumors*. Congress of Neurological Surgeons Annual Meeting; Boston, MA.
31. Zhang C., Nance E., **Mastorakos P.**, Chisholm J., Berry S., Hanes J. (2014). *Improving the Therapeutic Relevancy of Cisplatin for Malignant Gliomas Using Nanotechnology*. NanoDDS; Chapel Hill, NC. **Outstanding research award.**
32. Zhang, C., Nance, E., **Mastorakos, P.**, Chisholm, J., Berry, S., Hanes, J. (2014). *Nanotechnology Strategies to Improve Therapeutic Relevancy of Cisplatin for Malignant Gliomas*. BMES annual meeting; San Antonio, TX.
33. Xekouki, P., **Mastorakos, P.**, Mastroyannis, et al. (2012). *A New Syndromic Association: Pituitary Adenomas, Paragangliomas and Pheochromocytomas*. ENDO 2012: The Endocrine Society's 94th Annual Meeting & Expo; Houston, TX.

**Poster presentations**

1. Dabhi N., Sokolowski J., Zanaty M., Kellogg R., Park M., **Mastorakos P**. (2023) Primary Embolization of Cerebral Arteriovenous Malformations for Cure: A Systematic Review of Literature and Meta-Analysis. CNS. Washington, DC
2. Khanna O., Lan M., Ekladious F., **Mastorakos P.**, Shelley I., Gooch MR., … Jabbour PM., Tjoumakaris S. (2023) Predictors of clinically silent DWI lesions after diagnostic cerebral angiography. CNS. Washington, DC.
3. Naamani KE., **Mastorakos P.**, Yudkoff CJ., … Schmidt RF., Jabbour PM. (2023) Comparison of PED/PED Flex and PED Shield in the Treatment of Intracerebral Aneurysms. CNS. Washington, DC.
4. Naamani KE., Khanna O., **Mastorakos P.**, Momin AA., … Jabbour PM., Rosenwasser RH., Tjoumakaris SI. (2023) Predictors of Transfemoral Access Site Complications in Neuroendovascular Procedures: a Large Single-Center Cohort Study. CNS. Washington, DC.
5. Naamani KE., Hunt A., Jain P., Lawall CL., Yudkoff CJ., El Fadel O., Ghanem M, **Mastorakos P**., … Rosenwasser RH., Jabbour PM. (2023) The Rate and Predictors of 30-Day Readmission in Patients Treated for Cerebral Aneurysms: A Large Single-Center Study. CNS. Washington, DC.
6. Naamani KE., Khana O., **Mastorakos P**., et al. (2023) Transradial versus Transfemoral Access Route for Elective Endovascular Procedures: A Single-center Cost-analysis Study. AANS. Lost Angeles.
7. Naamani KE., **Mastorakos P.**, Patel AB., … Jabbour P., Dmytriw AA., WorldWideWEB Consortium. (2023) The Need for Long-Term follow-up in Completely Occluded Aneurysms at 6 months After WEB Device Treatment: Results from the WorldWideWeb Consortium. AANS; Los Angeles, CA.
8. Chandrabhatla AS., Kuo, EA., Sokolowski J., Kellogg R., Park M., **Mastorakos P.** (2022). Artificial Intelligence and Machine Learning in the Diagnosis and Management of Stroke: an Assessment of FDA-approved Solutions. CNS; San Francisco, CA.
9. **Mastorakos P.**, McGavern D. (2022) Immune distraction: how systemic infections trigger neurodegeneration after TBI. AANS; Philadelphia, PA.
10. **Mastorakos P.,** Pomeraniec IJ., Bryant JP., Chittiboina P., Heiss J. (2021) Flexible thecoscopy for extensive spinal arachnoiditis. CNS; Austin, TX.
11. **Mastorakos P.**, McGavern D. (2021) Systemic Infection Interrupts Repair after Traumatic Brain Injury. (2021) AANS; (Online).
12. Langston R., Pomeraniec J., **Mastorakos P.**, Ksenzovsky A. (2021) Survey of the Effects of the COVID19 Era on Parkinson’s Disease Patients. AANS; (Online).
13. Langston R., Pomeraniec J., **Mastorakos P.**, Ksenzovsky A. (2021) Survey of the Effects of the COVID19 Era on Parkinson’s Disease Patients. AAN Online; Abstract: **Neurology** 2021
14. Tong AP., Pomeraniec IJ., **Mastorakos P.**, Chittiboina P., Lonser RR., Zaghloul KA. (2020) Growth of Hemangioblastomas in von Hippel-Lindau Disease Demonstrates Power-law Scaling of Complex Systems. CNS Online; Abstract: Neurosurgery 2020
15. Rosenblum JS., Wang H., **Mastorakos P.**, Cappadona A., Edwards NA., Knutsen R., Smirniotopoulos J., Kozel B., Zhuang Z., Pacak K., Heiss JD. (2020) Venous and Cavernous Malformations Discovered in EPAS1-Associated Syndrome. CNS Online; Abstract: Neurosurgery 2020
16. **Mastorakos P.**, McGavern D. (2020) Systemic infection interrupts repair after traumatic brain injury. CNS Online.
17. **Mastorakos P.**, Pomeraniec J., Heiss J. (2020) Mobile Myxopapillary Ependymoma with Associated Filum Terminale Cyst. CNS Online.
18. Mihelson N., Dunker P., **Mastorakos P.**, Powrie F., McGavern D. (2020) Viral Modulation of the Glioblastoma Immune Landscape. Next Gen Immunology; Rehovot, Israel.
19. I. Pomeraniec J, **Mastorakos P**, Raper D, Park MS. (2020) Flow diversion of fusiform dissecting aneurysm of the vertebral artery: case report and review of the literature. AANS Online.
20. **Mastorakos P.**, Mihelson N., Frank J., Latour L., McGavern D. (2020) Microglia Rapidly Reconstruct the Damaged Blood Brain Barrier After Cerebrovascular Injury. AANS Online.
21. **Mastorakos P.**, Mihelson N., Frank J., Latour L., McGavern D. (2020) A Single Dose of Natalizumab (aVLA4) and Odulimomab (aLFA1) Prevents Fatal Cerebral Herniation In a Rodent Model of Hemorrhagic Stroke. AANS Online.
22. **Mastorakos P.**, Mihelson N., Frank J., Latour L., McGavern D. (2020) CCR2+ Monocytes and Pro-Angiogenic Microglia Orchestrate Repair in a Rodent Model of Hemorrhagic Stroke. AANS Online.
23. **Mastorakos P.**, Russo M., McGavern D. (2020) Systemic Viral Infection Prevents Meningeal Vascular Remodeling and Repair Following Mild Traumatic Brain Injury. AANS Online.
24. **Mastorakos P.,** Frank J., Latour L., McGavern D (2019). Divergent myeloid cell responses affect tissue damage and repair following CNS vascular injury; CNS. San Francisco, CA
25. **Mastorakos P.,** Mihelson N., Frank J., Latour L., McGavern D (2019). Divergent myeloid cell responses affect tissue damage and repair following CNS vascular injury; Immunology Interest Group workshop; Leesburg, VA
26. **Mastorakos P.**, Mihelson N., Latour L., Frank J., McGavern D. (2019) Divergent Myeloid Cell Reponses Cause Tissue Damage and Repair Following CNS Vascular Injury. NIH/NINDS Scientific retreat; Bethesda, MD
27. **Mastorakos P.**, Frank J., McGavern D. (2019) Immune mechanisms underlying restoration of CNS barriers. AANS; San Diego, CA.
28. Mihelson N., Russo MV., **Mastorakos P.,** Moritz KE., McGavern D. (2019) Viral infection impedes immune-mediated vascular repair after mTBI. Gordon Research Conference; Ventura, CA
29. **Mastorakos P.**, Frank J., McGavern D. (2019) Microglia and peripheral myelomonocytic cells contribute to divergent outcomes following cerebrovascular injury. Gordon Research Conference; Ventura, CA
30. **Mastorakos P.**, Frank J., McGavern D. (2018) Microglia and peripheral myelomonocytic cells contribute to divergent outcomes following cerebrovascular injury. Immunology Interest Group workshop; Leesburg, VA; **Neuroimmunology session travel award**
31. **Mastorakos P**., Mehta GU., Chatrath A., Moosa S., Lopes MB., Jane J. (2018). Tumor to Cerebellar Peduncle T2-weighted imaging intensity ratio fails to predict pituitary adenoma consistency. CNS. Houston
32. **Mastorakos P.,** Taylor DG., Jane J., Oldfield E. (2018). Radiographic prediction of cavernous sinus invasion in patients with Cushing’s disease. AANS. New Orealns.
33. **Mastorakos P.,** Xu Z., Yu J., Hess J., Qian J., Chatrath A., Taylor DG., Kondziolka D., Warnick R, Chiang V., Sheehan J.(2018). BRAF V600 mutation and BRAF kinase inhibitors in conjunction with stereotactic radiosurgery for intracranial melanoma metastases: a multicenter retrospective study. AANS. New Orealns.
34. Chen CJ., **Mastorakos P.**, Caruso J, Ding D, Evans AJ, Newman SA, Jensen ME. (2018) Transorbital approach for endovascular occlusion of carotid-cavernous fistulas: technical note and review of the literature. AANS. New Orleans
35. **Mastorakos P.**, Hays M., Caruso J., Chen CJ., Ding D., Taylor DG., Lopez B., Shaffrey M. (2017) Transtentorial Progression of Optic Nerve Glioblastoma: Case Report and Literature Review. AANS. Los Angeles
36. Ilyas A., Chen CJ., Ding D., Mastorakos P., Taylor D., Lee CC., Pomeraniec J, Sheehan J. (2017) Incidence of Cyst Formation following Stereotactic Radiosurgery for Brain Arteriovenous Malformations. AANS. Los Angeles
37. Buaron N, Mangraviti A, Volpin F, Wang Y, Liu A, Pedone M, Mastorakos P, Sankey E, Chintakunta R, Goldbart R, Traitel T, Hanes J, Brem H, Tyler B, Kost. (2017). Ultrasound for Overcoming 9L Gliosarcoma Tumor Biological Barriers for Pectin-based Gene Therapy. CRS. Boston.
38. Mead B., Kim N, Mastorakos P, Suk JS, Miller W, Klibanov A, Hanes J, Price R. (2017). Targeted Delivery of Brain-Penetrating Non-Viral GDNF Gene Vectors to the Striatum with MRI-guided Focused Ultrasound Reverses Neurodegeneration in a Parkinson’s Disease Model. FUS International Symposium. Maryland.
39. Mead B., **Mastorakos P.**, Suk JS., Song J., Hanes, J., Price R. (2016). Targeted Delivery of Brain-Penetrating Non-Viral GDNF Gene Vectors to the Striatum with MRI-guided Focused Ultrasound Reverses Neurodegeneration in a Parkinson’s Disease Model. FUS International Symposium. Maryland.
40. Mead B., **Mastorakos P.**, Suk JS., Song J., Hanes, J., Price R. (2016). *Targeted Delivery of Brain-Penetrating Non-Viral GDNF Gene Vectors to the Striatum with MRI-guided Focused Ultrasound Reverses Neurodegeneration in a Parkinson’s disease model.* BMES; Minneapolis.
41. Taylor DG., **Mastorakos P.**, Jane J., Oldfield E. (2016). *Two Distinct Chiari I Populations Based on Presence or Absence of Posterior Fossa Crowdedness on Magnetic Resonance Imaging (MRI).* NSV; White Sulfur Springs
42. Zhang F., **Mastorakos P.**,Mishra M., Mangraviti A., Zhou J., Hanes J., Brem H., Olivi A., Tyler B., Kannan R. (2015). *Dendrimer Based Systemic Therapies for the Treatment of Glioblastoma.* AIChE; Salt Lake City.
43. Curley M., Mead B., Mastorakos P., et al. (2015) Targeted Expression of Tumor Suppressive miRNA-34a in the Brain Achieved by Delivering Tissue-Penetrating Non-Viral Gene Vectors Across the BBB with Focused Ultrasound. BMES Annual Meeting; Tampa, Fl.
44. Schneider C.S., Perez J.B., Cheng E., Zhang C., **Mastorakos P.**, Hanes J., Winkles J.A., Woodworth G.F., Kim A.J. (2015). Minimizing the Non-specific Binding of Nanoparticles in the Brain Enables Active Targeting of Fn14-Positive Brain Tumors. AAPS National Biotechnology Conference; San Francisco, CA. **AAPS Innovation in Biotechnology Award.**
45. Zhang F., **Mastorakos P.**,Mishra M., Mangraviti A., Zhou J., Hanes J., Brem H., Olivi A., Tyler B., Kannan R. (2015). *Dendrimer Based Systemic Therapies for the Treatment of Glioblastoma.* 9th Annual Nano-Bio Symposium, Institute of Biotechnology; Baltimore, MD.
46. Zhang, C., Nance, E., **Mastorakos, P.**, Chisholm, J., Berry, S., Hanes, J. (2015). *Nanotechnology Strategies to Improve Therapeutic Relevancy of Cisplatin for Malignant Gliomas*. BMES annual meeting. 9th Annual Nano-Bio Symposium, Institute of Biotechnology; Baltimore, MD.
47. Kim J., **Mastorakos P.**, Park HW., Suk JS., Hanes J., Green J. (2014). *Optimizing Poly(beta-amino ester) Polyplexes for Enhanced**Cellular Uptake and Particle Stability*. 9th Annual Nano-Bio Symposium, Institute of Biotechnology; Baltimore, MD.
48. Zhang, C., **Mastorakos, P.**, Sobral, M., Berry, S., Song, E., Nance, E., Suk, JS, Hanes, J. (2015). Defining Essential Considerations to Achieve Optimal, Local Nanocarrier Delivery to the Brain. NanoDDS. University of Washington, Seattle, WA.
49. **Mastorakos P.**, Zhang, C., Mead B., Song E., Price R.J., Suk J.S., Hanes J. (2015). *Biodegradable Brain Penetrating DNA Nanoparticles for Gene Delivery to the Brain.* AANS Annual Meeting. Washington, DC.
50. **Mastorakos P.\***, Zhang F.\*, Mishra M., Mangraviti A., Zhou J., Hanes J., Brem H., Olivi A., Tyler B., Kannan R. (2015). U*niform Solid Brain Tumor Distribution and Tumor Associated Macrophage Targeting of Systematically Administered Dendrimers.* AANS Annual Meeting; Washington, DC.
51. **Mastorakos P.,** Kambhampati, SP., Mishra M., Wu T., Song E., Hanes J., Rangaramanujam K. (2015). *Hydroxyl PAMAM dendrimer-based gene vectors for transgene delivery to human retinal pigment epithelial cells.* 26th Annual Wilmer Research Meeting. Baltimore, MD.
52. Mead B., **Mastorakos P.**, Suk JS., Song J., Hanes, J., Price R. (2015). *Focused Ultrasound Mediated Localized Delivery of Non-Viral Nanoparticle Gene Vectors into the Rat Brain.* ISTU; Utrecht, Netherlands. **Nadine Barrie Smith Student Award.**
53. **Mastorakos P.**, Zhang C., Berry S., Kim A., Woodworth G., Suk JS., Hanes, J. (2014). *Brain Penetrating Non-Viral Gene Vectors for Efficient Gene Transfer to Brain Tumors*. Society of Neuro-Oncology Annual Meeting; Miami, FL.
54. Mead B., **Mastorakos P.**, Suk JS., Song J., Hanes J., Price R. (2014). *Localized Delivery of Non-Viral Gene-Bearing Nanoparticles into the Rat Brain following Focused Ultrasound-Mediated BBB Opening*. 4th Focused Ultrasound Symposium; Bethesda, MD.
55. **Mastorakos P.**, da Silva A., Zhang C., Chisholm J., Berry S., Choi WK., Park HW. Suk JS., Hanes J. (2014). *Biodegradable DNA Nanoparticles for Efficient In Vivo Gene Delivery*. BMES Annual Meeting; San Antonio, TX.
56. Kim J., **Mastorakos P.**, Park HW., Suk JS., Hanes J., Green J. (2014). *Optimizing Poly(beta-amino ester) Polyplexes for Enhanced**Cellular Uptake and Particle Stability*. BMES Annual Meeting; San Antonio, TX.
57. Zhang C., Nance E., **Mastorakos P.**, Chisholm J., Berry S., Hanes J. (2014). *Densely PEG-Coated Cisplatin Nanoparticles for Treatment of Malignant Glioma*. 41st Annual Meeting & Exposition of the Controlled Release Society; Chicago, IL.
58. **Mastorakos P.**, Berry S., Zhang C., Kim A., Woodworth G., Suk JS., Hanes J. (2014). *Brain Penetrating Nanoparticles for Brain Gene Therapy*. 41st Annual Meeting & Exposition of the Controlled Release Society; Chicago, IL.
59. **Mastorakos P.**, Zhang C., Berry S., Kim A., Woodworth G., Suk JS., Hanes J. (2014). *Brain Penetrating Gene Vectors for Efficient Gene Transfer to the Brain*. 17th Annual meeting of the American Society of Gene & Cell therapy; Washington, DC.
60. **Mastorakos P.**, Zhang F., Mishra M., Mangraviti A., Zhou J., Hanes J., Brem H., Olivi A., Tyler B., Kannan R. (2014). *PAMAM Dendrimer Biodistribution in Glioblastoma and Intrinsic Targeting of Tumor Associated Macrophages*. 25th Annual Wilmer Research Meeting; Baltimore, MD.
61. **Mastorakos P.**, Zhang F., Mishra M., Mangraviti A., Zhou J., Hanes J., Brem H., Olivi A., Tyler B., Kannan R. (2014). *Systemic Administration of Dendrimers for the Treatment of Glioblastoma*. Sidney Kimmel Comprehensive Cancer Center Fellow Research Day; Baltimore, MD.
62. **Mastorakos P.**, Zhang F., Mishra M., Mangraviti A., Zhou J., Hanes J., Brem H., Olivi A., Tyler B., Kannan R. (2014). *Dendrimer Based Systemic Therapies for the Treatment of Glioblastoma*. 8th Annual Nano-Bio Symposium, Institute of Biotechnology; Baltimore, MD.
63. Mastroyannis S., Xekouki P., **Mastorakos P.**, Avgeropoulos D., Lytras A., Azevedo M., Horvath A., Malcoff C., Stratakis S. (2013). *A New Syndromic Association: Pituitary Adenomas, Paragangliomas and Pheochromocytomas*. George Washington research days; Baltimore, MD.
64. Xekouki P., Szarek E., Giubellino A., Nesterova M., Rentia N., Dye L., London E., Mastroyannis A., **Mastorakos P.**, et al. (2013). *Additional Succinate Dehydrogenase Mutations in Patients with Pituitary Adenoma and Pheochromocytomas/Paragagliomas: pituitary pathology and hormonal findings from Sdhb Heterozygous mouse model (Sdhb +/-)*. ENDO 2013: 95th Annual Meeting & Expo; San Francisco, CA.

**Book Chapters**

1. Chandrabhatla AS, **Mastorakos P**, Chen CJ, Ding D, Sheehan J; Predicting Outcomes of Stereotactic Radiosurgery for Dural Arteriovenous Fistulas; Cranial and spinal dural arteriovenous fistulas. Springer Nature. 2022 (in press)
2. Chandrabhatla AS, **Mastorakos P**, Levitt M, Park MS; Future directions of computational flow dynamics for intracranial aneurysms. Computational flow dynamics for intracranial aneurysms, Springer. 2022 (in press)
3. **Mastorakos P**, Raper DMS, Liu KC; Perioperative Challenges During Cerebrovascular Surgery. Essentials of Neurosurgical Anesthesia & Critical Care, Springer. 2020
4. Taylor DG, **Mastorakos P**, Paisan GM, Pomeraniec IJ, Lopes MB, Jane JAJ; Pituitary Adenomas. Textbook of Pediatric Neurosurgery. Springer Nature. 2019
5. **Mastorakos P**, Heiss J; Treatment of the Adult Chiari I Malformation. The Chiari Malformations, 2nd edition. Springler. 2020
6. **Mastorakos P**, Ding D, Starke R; General Principles for the Management of Ruptured and Unruptured Intracranial Aneurysms. Principles of Neurological Surgery. Elsevier. 2018

**Other articles**

1. Sarathy D., Ramanathan P, Sokolowski J, **Mastorakos P**, Park M. (2022). Right Encephaloduroarteriosynangiosis for Suzuki Stage IV Moyamoya Disease. **CNS Nexus**

**Patents**

1. Suk JS, **Mastorakos P**, Zhang C, Woodworth G, Hanes J. Engineering Synthetic Brain Penetrating Gene Vectors. US9937270B2.
2. Suk JS, **Mastorakos P**, Hanes J. Highly Stable Biodegradable Gene Vector Platforms Capable of Overcoming Biological Barriers. US 11007279B2
3. Kannan RM, Tyler B, **Mastorakos P**, Zhang F, Mangraviti A, Manoj M. Selective dendrimer delivery to brain tumors. US 10918720B2.
4. Zhang C, **Mastorakos P**, Suk JS, Hanes J. Compositions and methods to improve nanoparticle distribution within the brain interstitium. US20180271796A1.

**Funding**

*Grants as Principal Investigator:*

* Disease-Oriented Clinical Scholars (DOCS) Program Award (2023 - 2027)

Immune drivers of secondary injury following aneurysmal subarachnoid hemorrhage

*Personal scholarships:*

* Research scholarship from the *Empeirikeio* Foundation (2014)

**Peer review**

*Journals*

World Neurosurgery; Cureous; Current Medicinal Chemistry; Current Drug Targets; JSM Physical Medicine and Rehabilitation; European Journal of Pharmaceutics and Biopharmaceutics; Clinical Neurology and Neurosurgery; Frontiers of Neurology; Translational Stroke Research

*Grant foundations*

Wings for Life, Spinal cord research foundation

*Guest editor*

Journal of Clinical Medicine - Special Issue on Clinical Aspects of Cerebral Ischemia; 2023

**Memberships**

American association of Neurological Surgeons (2015 - present)

Congress of Neurological Surgeons (2015 – present)

AANS/CNS Cerebrovascular Section (2015 – present)