

## **Edward Kelly Steven Mrachek**

51 Mirabel Court  
Little Rock, AR 72223  
(701) 570-0124  
Kelly.Mrachek@ucdenver.edu  
kellymrachek@gmail.com

### **Education**

#### **University of Colorado – Children’s Hospital Colorado July 2018 – Present**

Pediatric Pathology Fellowship PGY-7 Program Director: J. Black, M.D. Aurora, Colorado

#### **University of Virginia Health System July 2016**

Neuropathology Fellowship PGY-5 – PGY-6 Program Director: M. B. S. Lopes, M.D., Ph.D. Charlottesville, Virginia

#### **Penrose-St. Francis Pathology Residency Program June 2016**

Pathology AP/CP Residency PGY-2 – PGY-4 Program Director: D. Newton, M.D. Colorado Springs, Colorado

#### **Sanford School of Medicine, University of South Dakota June 2013**

Pathology AP/CP Residency PGY-1 Program Director: J. Ziebarth, M.D. Sioux Falls, South Dakota

#### **Creighton University School of Medicine May 2012**

Doctor of Medicine Omaha, Nebraska

#### **Concordia College May 2008**

Bachelor of Arts Moorhead, Minnesota

**Major / Minor:** Biology / Chemistry

**Awards:** Cum Laude with Honors in Biology Dean's List

#### **Alexander Public School May 2004**

High School Diploma Alexander, North Dakota

**Awards:** Honor Student

### **Research Experience & Presentations**

**Mrachek E.K.S.,** P. Batchala, S. Patel, C. Fadul, D. Schiff, E. Williams, M.B.S. Lopes. (2018, June). Neuroradiology concordance with neuropathology in predicting 1p/19q-codeletion in IDH-mutant lower-grade gliomas. American Association of Neuropathologists: 2018 Annual Meeting, Platform, Louisville, Kentucky.

**Mrachek E.K.S.,** M.B.S. Lopes. (2018, June). Diagnostic slide session. 6-year-old male with cerebellopontine angle mass: inflammatory myofibroblastic tumor with ALK-DCTN1 fusion. American Association of Neuropathologists: 2018 Annual Meeting, Platform, Louisville, Kentucky.

**Mrachek E.K.S.,** S. Newman, J. Mandell. (2018, June). Endogenous *Aspergillus* endophthalmitis: a case study of inpatient phthisis bulbi with enucleation due to fungal infection. American Association of Neuropathologists: 2018 Annual Meeting, Poster, Louisville, Kentucky.

**Mrachek E.K.S.,** S. Moosa, F. Choudhry, M. Shaffrey, M.B.S. Lopes. (2017, June). Leptomeningeal cyst: a case study and review of the literature. American Association of Neuropathologists: 2017 Annual Meeting, Poster, Garden Grove, California.

**Mrachek E.K.S.,** D. Davis, B.K. Kleinschmidt-DeMasters. (2015, June). Dual use of E-cadherin and D2-40 immunostaining in unusual meningioma subtypes. American Association of Neuropathologists: 2015 Annual Meeting, Poster, Denver, Colorado.

**Mrachek E.K.S.,** S. Lummus, D. A. Damek, B.K. Kleinschmidt-DeMasters. (2014, September). "Erdheim-Chester disease mimicking CLIPPERS." College of American Pathologists: 2014 Annual Meeting, Poster, Chicago, Illinois.

Tiwana, J., Hartman S., **Mrachek E.K.S.,** Modrykamien A. (2010, October). "Pontine Myelinolysis: With Appropriate Hyponatremia Correction." Poster presented at the American College of Physicians: 2010 Nebraska Chapter Scientific Meeting, Omaha, Nebraska.

**Mrachek E.K.S.,** N. Z. Moore, S. Eikenberry, J. Nagy, E. Kostelich, Y. Kuang, M.C. Preul. (2010, April). "3D Volumetric MRI Measurements of Glioblastoma Multiforme to Predict Directional Tumor Progression: Modification and Validation of 3D Glioma Growth Model." Poster presented at the 2010 National Student Research Forum, Galveston, Texas.

**Mrachek E.K.S.,** N. Z. Moore, S. Eikenberry, J. Nagy, E. Kostelich, Y. Kuang, M.C. Preul. (2010, February). "3D Volumetric MRI Measurements of Glioblastoma Multiforme to Predict Directional Tumor Progression: Modification and Validation of 3D Glioma Growth Model." **First Place Poster Presentation** at the 2010 Midwest Student Biomedical Research Forum, Omaha, Nebraska.

### **Research Experience & Presentations: Continued**

**Mrachek E.K.S.,** M.A. Boetel. (2008, April). "Impact of Sticky Trap Color on Adult Sugarbeet Root Maggot, (Diptera: Ulidiidae)." Biology Honors Paper and Presentation. Concordia College, Moorhead, Minnesota.

**Mrachek E.K.S.,** M.J. Allred, I. Johnson. (2007, April). "Human Reproduction: A Review of Female Contraception." Anatomy and Physiology Research Paper. Concordia College, Moorhead, Minnesota.

## Abstracts

**E.K.S. Mrachek**, P. Batchala, S. Patel, C. Fadul, D. Schiff, E. Williams, M.B.S. Lopes. (2018, June). Neuroradiology concordance with neuropathology in predicting 1p/19q-codeletion in IDH-mutant lower-grade gliomas. American Association of Neuropathologists, Inc. Abstracts of the 94th Annual Meeting June 7-10, 2018 Louisville, KY. *J Neuropathol Exp Neurol*. 2018, 77(6): 479-534.

**E.K.S. Mrachek**, S. Newman, J. Mandell. (2018, June). Endogenous *Aspergillus* endophthalmitis: a case study of inpatient phthisis bulbi with enucleation due to fungal infection. American Association of Neuropathologists, Inc. Abstracts of the 94th Annual Meeting June 7-10, 2018 Louisville, KY. *J Neuropathol Exp Neurol*. 2018, 77(6): 479-534.

**E.K.S. Mrachek**, S. Moosa, F. Choudhry, M. Shaffrey, M.B.S. Lopes. (2017, June). Leptomeningeal cyst: a case study and review of the literature. American Association of Neuropathologists, Inc. Abstracts of the 93rd Annual Meeting June 8-11, 2017 Garden Grove, CA. *J Neuropathol Exp Neurol*. 2017, 76(6): 491-546.

**E.K.S. Mrachek**, D. Davis, B.K. Kleinschmidt-DeMasters. (2015, June). Dual use of E-cadherin and D2-40 immunostaining in unusual meningioma subtypes. American Association of Neuropathologists: 2015 Annual Meeting, Denver, Colorado. American Association of Neuropathologists, Inc. Abstracts of the 91st Annual Meeting June 11-14, 2015 Denver, CO. *J Neuropathol Exp Neurol*. 2015, 74(6): 588-639.

**E.K.S. Mrachek**, S. Lummus, D.A. Damek, and B.K. Kleinschmidt-DeMasters. (2014, September). "Erdheim-Chester disease mimicking CLIPPERS." College of American Pathologists: 2014 Annual Meeting, Chicago, Illinois. Web-only supplement of September 2014 issue of *Archives of Pathology & Laboratory Medicine*.

Tiwana, J., Stephanie Hartman, **E.K.S. Mrachek**, and John Hurley. (2010, October). "Central Pontine Myelinolysis after Appropriate Correction of Hyponatremia." American College of Physicians: 2010 Nebraska Chapter Scientific Meeting, Omaha, Nebraska.

## Abstracts: Continued

Moore, Nina Z., **E.K.S. Mrachek**, Joshua McDaniel, Steffen Eikenberry, John Nagy, Eric Kostelich, Yang Kuang, and Mark C. Preul. (2010, May). "Volumetric MRI Measurements of Glioblastoma Multiforme to Predict Directional Tumor Progression: Modification and Validation of 3D Glioma Growth Model." 2010 American Association of Neurological Surgeons Annual Meeting, Philadelphia, Pennsylvania.

**E.K.S. Mrachek**, N. Z. Moore, S. Eikenberry, J. Nagy, E. Kostelich, Y. Kuang, and M.C. Preul. (2010, April). "3D Volumetric MRI Measurements of Glioblastoma Multiforme to Predict

Directional Tumor Progression: Modification and Validation of 3D Glioma Growth Model.” 2010 National Student Research Forum, Galveston, Texas.

**E.K.S. Mrachek**, N. Z. Moore, S. Eikenberry, J. Nagy, E. Kostelich, Y. Kuang, and M.C. Preul. (2010, February). “3D Volumetric MRI Measurements of Glioblastoma Multiforme to Predict Directional Tumor Progression: Modification and Validation of 3D Glioma Growth Model.” 2010 Midwest Student Biomedical Research Forum, Omaha, Nebraska.

## **Manuscripts**

Pomeraniec IJ, Ding D, Starke RM, Liu KC, **Mrachek E.K.S.**, Lopes MB, Sheehan JP. Delayed cyst formation after stereotactic radiosurgery for brain arteriovenous malformations. *J Neurosurg.* 2017 Dec 1:1-10. doi: 10.3171/2017.6.JNS17559. PubMed PMID: 29192860.

**Mrachek E.K.S.**, Davis D., Kleinschmidt-DeMasters B.K. Dual use of E-cadherin and D2-40 immunostaining in unusual meningioma subtypes. *Am J Clin Pathol.* 2015, Dec;144(6):923-34. doi: 10.1309/AJCPULJ6DW5REHR. PubMed PMID: 26573000.

M.C. Preul, N. Z. Moore, **Mrachek E.K.S.**, S. Eikenberry, J. Nagy, E. Kostelich, Y. Kuang. *3D Volumetric MRI Measurements of Glioblastoma Multiforme to Predict Directional Tumor Progression: Modification and Validation of 3D Glioma Growth Model.* Research under the direction of M.C. Preul, Barrow Neurological Institute, Phoenix, Arizona.

## **Manuscripts in Submission Process**

Patel S.H., Batchala P.P., **Mrachek E.K.S.**, Lopes M.B.S., Schiff D., Fadul C.E., Patrie J.T., Jain R., Druzgal T.J., Williams E.S. Neuroimaging identifies IDH-mutant lower grade gliomas where 1p/19q codeletion is misclassified by fluorescence in situ hybridization. *AJNR Am J Neuroradiol.* (Accepted December, 2018).

Phillips K.A., Donahue J.H., Lopes M.B.S., **Mrachek E.K.S.**, Purow B., Asthagiri A., Schiff D., Fadul C.E. When a “brain tumor” is not a tumor: mimics in neuro-oncology.

## **Pediatric Soft Tissue & Neuropathology Elective Rotation Experiences**

### **Children’s Hospital Colorado Anschutz Medical Campus March & October 2015**

Pediatric Pathology & Soft Tissue Elective Rotations Supervised by J. Black, M.D.  
Aurora, Colorado

### **University of Virginia Health System January 2015**

Neuropathology Elective Rotation Supervised by M. B. S. Lopes, M.D., Ph.D. Charlottesville, Virginia

### **University of Colorado Anschutz Medical Campus March & November 2014**

Neuropathology Elective & Research Months Supervised by B. K. Kleinschmidt-DeMasters, M.D. Aurora, Colorado

### **Indiana University Health October 2014**

Neuropathology Elective Rotation Supervised by J. M. Bonnin, M.D. Indianapolis, Indiana

### **Teaching Experience**

#### **Hepatobiliary System Introduction October 2018**

Second Year Medical Students, Small Group Facilitator University of Colorado – Anschutz Medical Campus

#### **Self-Assessment in Neurosurgery (SANS) 2017-2018**

Examination questions for Neurosurgery Residents University of Virginia

#### **Monthly Neuropathology Neurosurgery Conference 2016-2018**

Neurosurgery Residents – Monthly Case Review University of Virginia

#### **Monthly Neuropathology Neuromuscular Conference 2016-2018**

Neurology Residents – Monthly Case Review University of Virginia

#### **Monthly Neuropathology Ophthalmology Conference 2016-2018**

Ophthalmology Residents – Monthly Case Review University of Virginia

#### **Antimicrobial Susceptibility March 2013**

Medical Laboratory Technician Students University of South Dakota, Sioux Falls, SD

### **Neurological Surgery Shadowing Experience**

**Creighton University SOM, Omaha, Nebraska 2008-2012**

**Barrow Neurological Institute, Phoenix, Arizona 2009-2011**

**University of Nebraska Medical Center, Omaha, Nebraska 2009-2011**

**St. Alexis Medical Center, Bismarck, North Dakota July 2008**

**MeritCare Hospital, Fargo, North Dakota June 2007**

**University of Minnesota – Twin Cities, Minneapolis, Minnesota June 2006**

### **Awards & Honors**

### **Professional & Student Memberships**

**American Association of Neuropathologists 2015-Present**

**College of American Pathologists 2012-Present**

CAP Mock Inspector, University of Virginia **2017-2018**  
AP All Commons & Autopsy  
**American Society for Clinical Pathology 2012-Present**  
**US & Canadian Academy of Pathology 2012-Present**  
**American Medical Association 2008-Present**  
**Pathology Interest Group, Creighton University SOM 2008-2012**  
**Surgery Club, Creighton University SOM 2008-2012**  
- **President 2011-2012**  
- **Vice President 2010-2011**  
- Student Member **2008-2010**

### **Professional & Student Memberships continued**

#### **Volunteer Community Service**

##### **Medical School Service:**

**Institute for Latin American Concern, Creighton University SOM June 2011**  
- Lived in the Dominican Republic campos providing medical service work.

**Project CURA: Creighton Medical United in Relief Assistance May 2009**  
- Lived in Puerto Maldonado, Peru, provided medical service work.

**Magis Clinic, Creighton University SOM, Omaha, Nebraska 2009-2012**

- **Psychiatric Clinic 2011-2012**

- Providing free mental health care to Omaha's underserved population.

- **Sexually Transmitted Infections Clinic 2010-2012**

- Providing free STD screening and treatment to Omaha's underserved.

- **Acute Care Clinic 2009-2012**

- Providing free health care to Omaha's homeless population.

**Children's Health Screening Event, Omaha, Nebraska 2009**

- Calculated and recorded children's body mass index.

**Respite Child Care, Omaha, Nebraska 2009**

- Provided child care for the Omaha Down Syndrome Society Parent's Association.

**KidVision-Prevent Blindness Nebraska, Omaha, Nebraska 2008-2009**

- Provided vision screenings to Omaha's youth.

**Medical School Service: Continued**

**10th Annual Youth Health Extravaganza, Omaha, Nebraska 2008**

- Calculated and recorded body mass indices for underserved urban youth.

**Teen Pregnancy Presentation, Omaha, Nebraska 2008**

- Presented an educational lecture on labor and delivery to expecting teen parents.

**Undergraduate Service:**

**MeritCare Hospital Emergency Dept., Fargo, North Dakota 2006-2008**

- Assisted CNAs with ER duties.

**Bethany Homes – Memory Care Unit, Fargo, North Dakota 2007-2008**

- Spent quality time with residents suffering from age-related dementia and Alzheimer disease.

**Justice Journeys, St. Paul, Minnesota October 2006**

- Service trip studying urban poverty and homelessness.

**Undergraduate Extracurricular Involvement**

**Health Professions Interest Committee 2004-2008**

- Pre-Medical Cooperative, Fargo, North Dakota 2007 - Shadowed physicians at MeritCare Hospital.

**Chemistry Club 2007-2008**

- Student science demonstrator for Science Academy.

**Homecoming Committee 2007**

**- Harvest Ball Co-Chairman**

- Organized the 2007 Homecoming Formal Ball.

### **Student Environmental Alliance 2006-08**

- Promoted environmental awareness on campus.

### **Employment Experience**

#### **Farm Hand**, Mrachek Family Farm, Alexander, North Dakota **1990-Present**

- Raised 2,000 confined hogs, 150 Black Angus cow herd, and 4,800 acres of hard red spring wheat.

#### **Custodian**, Concordia College, Moorhead, Minnesota **Fall 2004**

- Cleaned the cafeteria area after hours, swept, and mopped the floors.

### **Personal Interests & Hobbies**

I am a devoted husband and father, and I also enjoy spending quality time with friends and family, football, hunting, fishing, agriculture, exercising, technology, as well as watching science fiction films.

#### **Certified Barbeque Judge**, Kansas City Barbeque Society **2008-Present** **Collegiate History**, Concordia College, Moorhead, Minnesota **May 2007**

- History 338: Hitler's Germany. Traveled to Italy, Austria, and Germany studying Italian Fascism compared to German National Socialism.

#### **Relay for Life**, Participant **2004-Present**

#### **Make-A-Wish Foundation**, Participant **2010-Present**

### **Personal Data**

I am married to Becky Mrachek, R.N. (current fulltime mother), June 26th, 2010

Becky and I have two children, one daughter and one son: Sophia Angeline Mrachek, April 18th, 2015  
Blake Edward Mrachek, March 21st, 2017