

# We'll Rise You Shine!

WHAT'S  
UP DOC?

## PRESENTATION AGENDA

### WELCOME

**Joan Slaughter**  
Founder and Executive Director

### FAMILY PERSPECTIVE

**Marc and Jennifer Belo**  
Parents of Danjela, Cancer Patient and MAF Ambassador

### RESEARCH UPDATE

**Jean Mulcahy-Levy, MD**  
Assistant Professor, Pediatric Hematology & Oncology  
University of Colorado School of Medicine

**David A. Solomon, MD, PhD**  
Assistant Professor, Pathology  
University of California, San Francisco School of Medicine

**Rajeev Vibhakar, MD, PhD, MPH/MSPH**  
Assistant Professor, Pediatric Hematology & Oncology  
University of Colorado School of Medicine

### CLOSING REMARKS

**John Dudasch**  
Board President



## SPEAKER BIOGRAPHIES



### **JOAN SLAUGHTER**

#### **Executive Director & Founder, The Morgan Adams Foundation**

Joan is the mother of Morgan Adams. With a background in accounting, Joan was a member of a special projects' divestiture team for a Fortune 100 company prior to Morgan's diagnosis. After Morgan died, Joan and her late husband, Steven Adams, started the foundation that bears their daughter's name. Joan serves as Executive Director and has focused her work on fundraising and raising community support for pediatric cancer research. Joan also serves on the Philanthropy Council of the Children's Hospital Colorado Foundation Board, is the Chair of the Colorado Kids' Cancer Association, and serves as a Patient Advocate on the NIH's Pediatric Central Institutional Review Board. Joan and Steven have two other children, Andrew and Sara Grace.

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### **MARC, NADIJA, DANJELA, AND JENNIFER BELO**

#### **Ambassador Family**

Danjela is an incredible 16-year-old high school sophomore who loves roller coasters! Unfortunately, due to her cancer treatment, Dani can no longer ride them. Dani comes from an active military family. Her dad Marc, a Staff Sergeant in the Army National Guard, was deployed most of 2020 and stayed connected to the family through video calls. Dani's mom Jennifer is an entrepreneur who has made thousands of masks to help others stay safe during the pandemic. She even donates a portion of her proceeds to help kids with cancer! Dani's younger sister Nadija is 12 years old and is always there for Dani, providing encouragement and a helping hand whenever she needs it. The entire family are huge fans of the Pittsburgh Penguins hockey team.

In 2016, 11-year-old Danjela had a headache that persisted all day. After dinner, she went to her room and started screaming in pain, holding her head. Her parents immediately took Dani to the ER where they discovered a 7cm mass on the left side of her brain. She deteriorated quickly and was airlifted to Children's Hospital Colorado and went straight into surgery. The tumor had burst and was bleeding into her brain. Shortly after, Danjela was diagnosed with a CNS Neuroblastoma. This diagnosis blindsided her family because, up until the night of her surgery, there was no indication anything was wrong. Dani had no symptoms at all: no vision, hearing, or balance issues, no dizziness, nothing at all.

Danjela endured more than a year of treatment and was doing well when the cancer returned in 2018. In October 2018, Danjela began an experimental treatment, but had a huge setback when she began to suffer from seizures which left her with partial right-side paralysis, short-term memory loss, and the inability to speak. This episode kept Dani hospitalized for almost 6 weeks while she regained strength and ability to walk and talk. As a result, she missed 95% of her 8th grade year of school. She continued to gain strength and mobility and was able to begin her freshman year of high school on time and with somewhat of a more normal teenage life.

Unfortunately, Danjela's cancer is devious and keeps popping back up. In 2020, she had three rounds of targeted radiation to treat three separate areas and still has residual side effects from those treatments. She has reached certain limits for treatment, and that's why a group of doctors and researchers are searching diligently for an answer.



### **JEAN MULCAHY-LEVY, MD**

**Assistant Professor, Pediatric Hematology & Oncology  
University of Colorado School of Medicine  
Morgan Adams Foundation Pediatric Brain Tumor Research Program  
Center for Cancer and Blood Disorders, Children's Hospital Colorado**

Dr. Mulcahy-Levy has a broad background in oncology research, with specific training and expertise in autophagy and pediatric brain tumors. Her laboratory research has focused on the study of autophagy, a multi-step cellular catabolic process that contributes to cell and organism survival during nutrient deprivation and other stresses, particularly chemotherapy and radiation. Autophagy has been shown to be important in the development of cancer and is a promising target for manipulation to improve cancer treatment and survival as well as overcome resistance mechanisms. Her goal is to determine how to utilize autophagy to improve therapy for patients with malignant central nervous system (CNS) tumors. As a Fellow and now as an early investigator, she laid the groundwork for her current research by determining the importance of the connection between BRAF mutations and autophagy addiction in brain tumors. By focusing on the use of currently available and inexpensive drugs known to be effective autophagy inhibitors, this work has the potential for rapid translation into clinical trials to improve outcomes for pediatric CNS tumors.

Dr. Mulcahy-Levy received a K08 federal grant to expand the application of autophagy inhibition in both pediatric and adult CNS tumors. A first-in-pediatrics trial of autophagy inhibition based on her previously published work on gliomas harboring a BRAF V600E mutation opened in 2018 in collaboration with the Pediatric Brain Tumor Consortium and Novartis. As demonstrated by her publication and grant funding record and successful transition of findings into an upcoming clinical trial, she has built a strong research program with a long-term goal of improving clinical therapy for pediatric, adolescent, and adult patients with CNS tumors.



### **DAVID A. SOLOMON, MD, PHD**

**Assistant Professor, Pathology  
University of California, San Francisco School of Medicine**

Dr. Solomon is a neuropathologist and cancer researcher at the University of California, San Francisco with a dedicated interest in the genetic alterations that drive cancer development. He has recently discovered frequent inactivating mutations of the cohesin complex gene STAG2 in glioblastoma, urothelial bladder cancer, Ewing sarcoma, and acute myeloid leukemia (AML), which define molecular subgroups of these tumors with distinct clinical outcomes. The cohesin complex is responsible for sister chromatid cohesion following DNA replication and helps ensure faithful chromosome segregation during mitosis but has also been implicated in additional cellular processes such as regulation of chromatin architecture and gene transcription. His studies in glioblastoma demonstrated that STAG2 mutations were a direct cause of chromosomal instability and aneuploidy; however, cohesin gene alterations in urothelial carcinoma and AML have been identified primarily in near-diploid tumors, suggesting alternative mechanisms by which cohesin inactivation drives oncogenesis. Using a newly generated conditional STAG2 knockout mouse and isogenic sets of STAG2 proficient and deficient cancer cell lines, he is currently working to determine the function of STAG2 in mouse development and tumorigenesis and to identify therapeutic vulnerabilities in the many cancers harboring cohesin gene alterations. Other ongoing studies in the Solomon Lab include genomic characterization of brain tumor variants such as chordoid gliomas, choroid plexus tumors, and pineal parenchymal tumors.



**RAJEEV VIBHAKAR, MD, PHD, MPH/MSPH**

**Cancer League of Colorado Chair  
Assistant Professor, Pediatric Hematology & Oncology  
University of Colorado School of Medicine  
Morgan Adams Foundation Pediatric Brain Tumor Research Program  
Program Leader, Pediatric Neuro-Oncology  
Center for Cancer and Blood Disorders, Children’s Hospital Colorado**

As a physician-scientist who sees all too often the devastating impact of brain tumors in children, Dr. Vibhakar is highly motivated to understand the molecular basis for new therapeutic options for these patients. He thrives on working at the interface between basic biomedical discoveries and clinical medicine by engaging diverse collaborative teams to drive scientific advances necessary to improve outcomes for children with brain tumors. He was awarded a NIH K08 grant early in his career to investigate microRNA in medulloblastoma and early success resulted in his recruitment to the University of Colorado. His focal interest revolves around identification and validation of novel the molecular targets for treatment of aggressive brain tumors such as medulloblastoma and ATRT. He has developed expertise in the role of histone modifying enzymes in maintaining tumorigenesis in embryonic brain tumors and the role of DNA replication stress as a molecular vulnerability in Myc oncogene driven medulloblastoma.

To further identify novel targets, the Morgan Adams Foundation Pediatric Brain Tumor Research Program has established functional genomic pipelines using shRNA and CRISPR-Cas9 technologies. The group recently identified SETD8 as a key regulator of Myc-driven medulloblastoma. This proposal is based on the research group’s novel identification of CDK7 as a vulnerability in medulloblastoma. The team has developed all of the tools and models necessary to successfully complete the proposed work. Moreover, under Dr. Vibhakar’s leadership, the group recently became members of the Pediatric Brain Tumor Consortium and this provides an avenue to advance preclinical data into clinical trials for childhood brain tumors.



**JOHN DUDASCH**

**Board President, The Morgan Adams Foundation  
Vice-President, Skanska USA Civil West**

John Dudasch has a Bachelor of Science degree in civil engineering from Colorado State University and is the Vice President of Operations for the global engineering and construction firm Skanska USA Civil West. John and his wife Vicki were first introduced to The Morgan Adams Foundation at the Morgan Adams Concours d’Elegance in 2012, a month after losing their 11-year-old daughter Avery to a brain tumor. Both John and Vicki were so overwhelmed and impressed by the event, the cause, and the Foundation that they knew they wanted to get involved.