Laboratory focus
Dr. King is a pediatric hematology and oncology specialist at St. Louis Children's Hospital who makes her home in occupational therapy. The laboratory studies children with chronic illness, specifically those with sickle cell disease (SCD) or brain tumors. Children in both populations experience cognitive deficits that affect academic achievement. Topics of the lab include implementation of evidence-based care, early intervention, cognitive rehabilitation, transition from pediatric to adult health care, and quality of life for brain tumor survivors and individuals with SCD. In addition, Dr. King currently directs The Heartland Sickle Cell Disease Network, a partnership with SCD care providers and community organizations to improve overall care and quality of life for patients with SCD in a four-state region that includes Missouri, Iowa, Kansas and Nebraska.

Questions explored in laboratory
1. How can we improve implementation of evidence-based care for children with SCD?
2. How can we improve implementation of evidence-based survivorship care for survivors of cancer?
3. What are the educational needs of adolescents with SCD as they transition from pediatric to adult health care and to independent living, and how can we best meet those needs?
4. What role does the environment of children with SCD play in their development in relation to the disease itself?
5. What is the best method of early intervention and parenting education to improve cognitive and academic outcomes for young children with SCD?

Contributions to rehabilitation science
For the past 10 years, Dr. King has investigated factors that influence cognitive and educational outcomes of children with SCD. Her lab is one of the first in pediatric hematology to focus on parenting and the family's social environment. Dr. King and her associates have reported that the family environment has an equal, if not greater, impact on cognition and educational attainment of this vulnerable population. She also collaborates with a multidisciplinary team to study cognitive and educational outcomes of students with SCD and has contributed to assessments and interventions to improve educational outcomes of this vulnerable population.

Dr. King has also been a site investigator on interventional trials to study the effect of chronic blood transfusions and hydroxyurea on reducing central nervous system injury and improving functional outcomes in patients with SCD. In future studies, Dr. King will continue to evaluate cognitive outcomes of children who undergo stem cell transplant.

Current and recent funding
Title: Heartland/Southwest Sickle Cell Disease Network Principal Investigator: Allison King, MD, PhD Funding Source: U1EMC27865 Health Resources & Services Administration (HRSA)
Project Period: 9/1/14-6/30/21
Total Award: $4,321,826
Title: The implementation of cognitive screening and educational support to improve outcomes of adolescents and young adults with sickle cell disease: From clinic to the community and back
Principal Investigator: Allison King, MD, PhD Funding Source: U01HL138994 NIH - NHLBI
Project Period: 8/5/16-6/30/22
Total Award: $4,209,624
Title: Impacts of the ACA dependent care provision on young adults with cancer
Principal Investigator: Kim Johnson, MPH, PhD Co-Investigator: Allison King, MD, PhD Funding Source: WU IPH, Center for Health Economics & Policy Pilot Program
Project Period: 6/1/17-6/30/18
Title: Prevalence of developmental delay and contributing factors among children with sickle cell disease
Principal Investigator: Kim Johnson, MPH, PhD Co-Investigator: Allison King, MD, PhD
Funding Source: U01HL138994 NIH - NHLBI
Project Period: 8/3/16-7/31/22
Total Award: $4,209,624
Title: Sickle cell disease and environmental factors with cognitive function in children with sickle cell disease
Principal Investigator: Allison King, MD, PhD
Funding Source: U15MD002884 National Institutes of Health, National Heart Blood and Lung Institute
Project Period: 9/1/15-8/31/18
Total Award: $1,584,000
Title: Transition needs of adolescent with sickle cell disease: American Journal of Hematology, 90(2), 139-143.
Principal Investigator: Abeline A., Dr. King
Funding Source: NIH-NCRR-Office of the Director
Project Period: 10/1/12-9/30/17
Total Award: $1,674,380
Representative publications


