31. In honor of Dale Augustine
   Hannah Coggeshell: Examining the role of protocadherins in collective cell
   invasion and cancer
   Mentor: Jocelyn McDonald, Biology

32. In honor of Dr. John R. Massey
   Elizabeth Rorigiate: Contribution of Beta-Human Papillomavirus 6 and
   Mitotic Errors to Skin Cancer
   Mentor: Nick Wallace, Biology

33. In honor of Mahlon & Patricia Wheeler
   Caroline Gambill: Cancer Prevention Coverage in Kansas Middle and High
   School Health Education Curricula
   Mentor: Richard Rosenkrantz, Food, Nutrition, Dietetics & Health

34. In honor of Rob Regier
   Samantha Goetting: Preventing inflammation by limiting the innate
   immune system in disease
   Mentor: Erika Geisbrecht, Biochemistry & Molecular Biophysics

35. In honor of Roy & Catherine Johnson
   Adeline Chang: Molecular Characterization of multidrug resistant AcrB
   efflux pump in Staph aureus (MRSA), a frequent pathogen in Cancer Patients
   Mentor: Govind Veddypaapan, Biology

36. In honor of James R. & Elizabeth Circle Garver
   Diana Najera: Alternative pathways for cellular iron uptake
   Mentor: Maureen Gorman, Biochemistry & Molecular Biophysics

37. In honor of James & Susan Ryan, Sr
   Gage Wright: Development of Electronic Chip for Rapid Cancer Diagnosis
   Mentor: Jun Li, Chemistry

38. In honor of Rodney A. Nemechek
   Amanda Currie: In silico screening and synthesis of inhibitors to
   carcinogenic NTMT1
   Mentor: Ping Li, Chemistry

39. In honor of Marvin D. & Myrtle M. Jones
   Joseph Hammer: Gated Nano-Carriers for Controlled Release of Anticancer
   Drugs
   Mentor: Stefan Bossmann, Chemistry

40. In honor of Myrtle & Evelyn Bryan
   Abigail Parker: The role of a tafazzin homolog in lipid metabolism and the
   cellular life cycle
   Mentor: Ruth Welti, Biology

41. In honor of Philip D. “Woody” Woodward
   Seth Peery: Flavonoid anticancer compounds and associated
   transcriptional regulators in green algae
   Mentor: Kathrin Schrick, Biology

42. In honor of Kaw Valley Rodeo Association
   Kyle Thompson: A novel transcriptional activation domain with relevance
   to gene expression in cancer cells
   Mentor: Kathrin Schrick, Biology

SPECIAL THANKS!

The Johnson Cancer Research Center thanks Dave Lewis, who had volunteered
for to be the banquet emcee. Dave is a local radio broadcaster, business owner
and entertainer, as well as the public address announcer for K-State football
and men’s basketball. He is also a former member of the Johnson Cancer
Research Center Advisory Council and founder of the annual Polyester Party
benefit event.

We also thank our guest speaker, Gabrielle Phillips. Gabrielle will receive
her bachelor's degree in chemical engineering in May. She currently works as
an undergraduate researcher in University Distinguished Professor Ruth Welti's
laboratory. She studies the TAZ gene which is critical in in cell survival during
aging. Although Gabrielle studies the gene in plants, human tumor cells
express too much of the gene. This may be one method that tumor cells use to
live longer than they should. Gabrielle has received numerous awards
including the prestigious Goldwater Scholarship and Cancer Research Awards.
She was a Kansas-DeA Network of Biomedical Research Excellence (K-NBRE)
Freshman scholar and Sint Trainee, and the German Academic Exchange
Service awarded her a research internship in science and engineering. This
summer Gabrielle plans to do rural medicine clinical rotations and in the long
term she wants to improve treatment and delivery options for patients.
In honor of the Lori Kautzman Family
Rogier Aernethay: Effect of Tick saliva from Amblyomma americanum on cancer cell proliferation
Mentor: Kristopher Silver, Entomology

In honor of John & Jennie Haymaker
Courtney Johnson: Microfluidic-based single cell analysis for the examination of rare cells indicative of early stages of cancer or chemotherapy resistance: the development of an integrated heating element to maintain cell viability during high throughput single-cell analysis
Mentor: Chris Culbertson, Chemistry

In honor of Midge Jones
Molly Leyda: Hypoxic macrophage phenotypes in placentas and tumors
Mentor: Sherry Fleming, Biology

In honor of Karen Elleen (Jones) Prevette
Joshua Lingo: Biodistribution of novel B2-Glycoprotein I peptide
Mentor: Sherry Fleming, Biology

In honor of Veterans of Foreign Wars
Ashley Bartels: Constructing Blood-Brain Barrier Penetrant Agents: Correlating the Effects of Physicochemical Properties as a Function of Transport and Accumulation
Mentor: Ryan Rafferty, Chemistry

In honor of the Beth Montelone Family
Emma Francisco: Studying the effect of viral genetics on tissue tropism using a potential oncolytic virus
Mentor: Rolfie Clem, Biology

In honor of Wayne & Nancy Cottrill
Carolina Bueno: Guanine metabolism in C. difficile, an important bacterial pathogen that affects cancer patients in hospitals and healthcare settings
Mentor: Revathii Govind, Biology

In honor of the Lindquisits & Tachas
Megan Campbell: Sulphur dioxide oxidation and cancer pathophysiology: Defining viral oxidoreductase substrates
Mentor: Lorena Passarella, Biology

In honor of Michael Lukert
Ariana Cecil: The differential role of SMP1 and SMP2 in cervical cancer
Mentor: Katsura Asano, Biology

In honor of David R. & Janice W. von Riesen
Lydia Waner: The Role of Tumor Suppressor Gene Lhx5 During Stem Cell Proliferation and Neuronal Migration in the Developing Zebrafish Forebrain
Mentor: Thomas Mueller, Biology

In honor of Warren R. Rolf
Jacob Cindrich: DNA-Linked Amphiphilic Peptide Capsule Complexes in Saline Solutions
Mentor: John Tomich, Biochemistry & Molecular Biophysics

In honor of Fraternal Order of Eagles
Lake Winter: Regulated expression of decapping enzymes in oncolytic vaccinia virus
Mentor: Zhilong Yang, Biology

In honor of Warren & Jean White
Whitney Pepper: Identification of cancer driver mutations in SMP1 and SMP2
Mentor: Katsura Asano, Biology

In honor of Don Marrs & Kansas Postmasters
Mayme Loyd: Purification and characterization of LPS-like factor from Chlorella cell wall membrane
Mentor: Masaaki Tamura, Anatomy & Physiology

In honor of Jerome D. Lueers
Tanji Lewis: Cell-based Evaluation of Copper-Activated Drugs Against Pancreatic Cancer
Mentor: Stefan Bossmann, Chemistry

In honor of Smoky Valley Chiropractic
Benjamin Epp: Policies & Practices Related to Physical Activity in Kansas Middle Schools
Mentor: Richard Rosenkrantz, Food, Nutrition, Dietetics & Health

In honor of Phil & Margaret Howe
Baltazar Claro-Martinez: Tissue distribution of BAP-magnetic nanoparticles in control and tumor bearing mice
Mentor: John Tomich, Biochemistry & Molecular Biophysics

In honor of Dale H. & Joan Evans Nordstrom
Megan Goebbels: Coordination of cell signaling pathways through the cytoskeleton in a yeast model system
Mentor: Greg Finnigan, Biochemistry & Molecular Biophysics

In honor of Varena Mechser
Emma Hawkins: Development of Heterogenous Spheroids of Colon Cancerous and Non-Cancerous Cells
Mentor: Annelise Nguyen, Diagnostic Medicine & Pathobiology

In honor of Helen L. Graves
Abdulrahman Naema: Production of omega-3 fatty acid-containing healthy oils that have positive effects in cancer prevention and treatment
Mentor: Ruth Welti, Biology

In honor of Mason's Wish
Brittany Funk: The Evolution of Natural Products: From Total Synthesis, Elaboration into Delivery Vehicles, and Combinational Applications as Anticancer Agents
Mentor: Ryan Rafferty, Chemistry

In honor of Steven Cutright
Madelyn Hilgers: Role of c-Myc and SMP oncogenes in aberrant mRNA translation in colorectal cancer
Mentor: Chingakham Ranjit Singh, Biology

In honor of Regina M. Hudiburg
Paige Coke: Study of Euglena anti-Humor factor-dependent granulopoesis
Mentor: Masaaki Tamura, Anatomy & Physiology

In honor of Gailand Bartlett
Carmen Del Real: Screening for modifiers of protein phosphatase function in collective invasion to reveal cancer mechanisms
Mentor: Jocelyn McDonald, Biology

In honor of Coach Bill Snyder & $800 WIBW AM
Johnathon Moses: Technical feasibility assessment of using directional microwave ablation applicators for treating spinal tumors
Mentor: Punit Prakash, Electrical & Computer Engineering

In honor of Gwendolyn Tinklin
Jared Newell: A Behavioral Paradigm and Computational Infrastructure for Imaging Neurophysiological Processes in Zebrafish Models of Cancer
Mentor: Thomas Mueller, Biology

In honor of American Legion Auxiliary, Unit 17
Marta Stetsiv: Cancer-promoting roles of NUAK and Stv in the context of protein aggregation
Mentor: Erika Geisbrecht, Biochemistry & Molecular Biophysics

In honor of Ken & Rosemary Visser
Joshua Spradlin: Establish cell lines expressing inducible decapping enzymes of oncolytic vaccinia virus
Mentor: Zhilong Yang, Biology

In honor of George S. Bascom
Michelle Coca: Examining the role of protocadherins in collective cell invasion and cancer
Mentor: Maureen Gorman, Biochemistry & Molecular Biophysics

In honor of the Pink & Purple Polyester Party & Elena Guthals
Ethan Kallenberger: gc1qR as an Emerging Therapeutic Target for Breast Cancer
Mentor: Brian Geisbrecht, Biochemistry & Molecular Biophysics

2019-2020 Undergraduate Student Cancer Research Awards