

FLORIDA'S BIOMEDICAL RESEARCH ADVISORY COUNCIL UPDATE

September 17, 2021



Daniel Armstrong, PhD
Chair, Florida Biomedical Research Advisory Council

Affiliations

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- Department of Pediatrics and Sylvester Cancer Center, University of Miami (UM) Miller School of Medicine
- Holtz Children's Hospital at UM/Jackson Memorial Medical Center
- American Cancer Society (Representative to the Biomedical Research Advisory Council (BRAC))
- Florida Association of Children's Hospitals (FACH)-President
- Association of University Centers on Disability (AUCD)-President-elect
- Early Learning Coalition of Miami-Dade/Monroe-Vice Chair



Driving Principles For Research Grant Awards

- Intentionally create “Critical Mass” of research to address Strategic Goals
- Create synergy among Florida investigators to more rapidly advance progress toward Strategic Goals
- Use the Biomedical Research Grant Program to drive collaboration between investigators across Florida’s cancer research institutions



Current Funding and Active Grants

- James and Esther King Biomedical Research Program
 - **\$8 million available to award research grants in Fiscal Year (FY) 2021-2022**
 - **Lawton Chiles Endowment will end July 1, 2022 (reducing award total up to \$2.1 million annually)**
 - 70 active research grants
- Bankhead-Coley Cancer Research Program
 - \$10 million available to award research grants in FY 2021-2022
 - \$500,000 appropriated annually to the McKnight Brain Institute paid for through this fund
 - 79 active research grants
- Live Like Bella Pediatric Cancer Research Initiative
 - \$3 million available to award research grants in FY 2021-2022
 - 53 active research grants

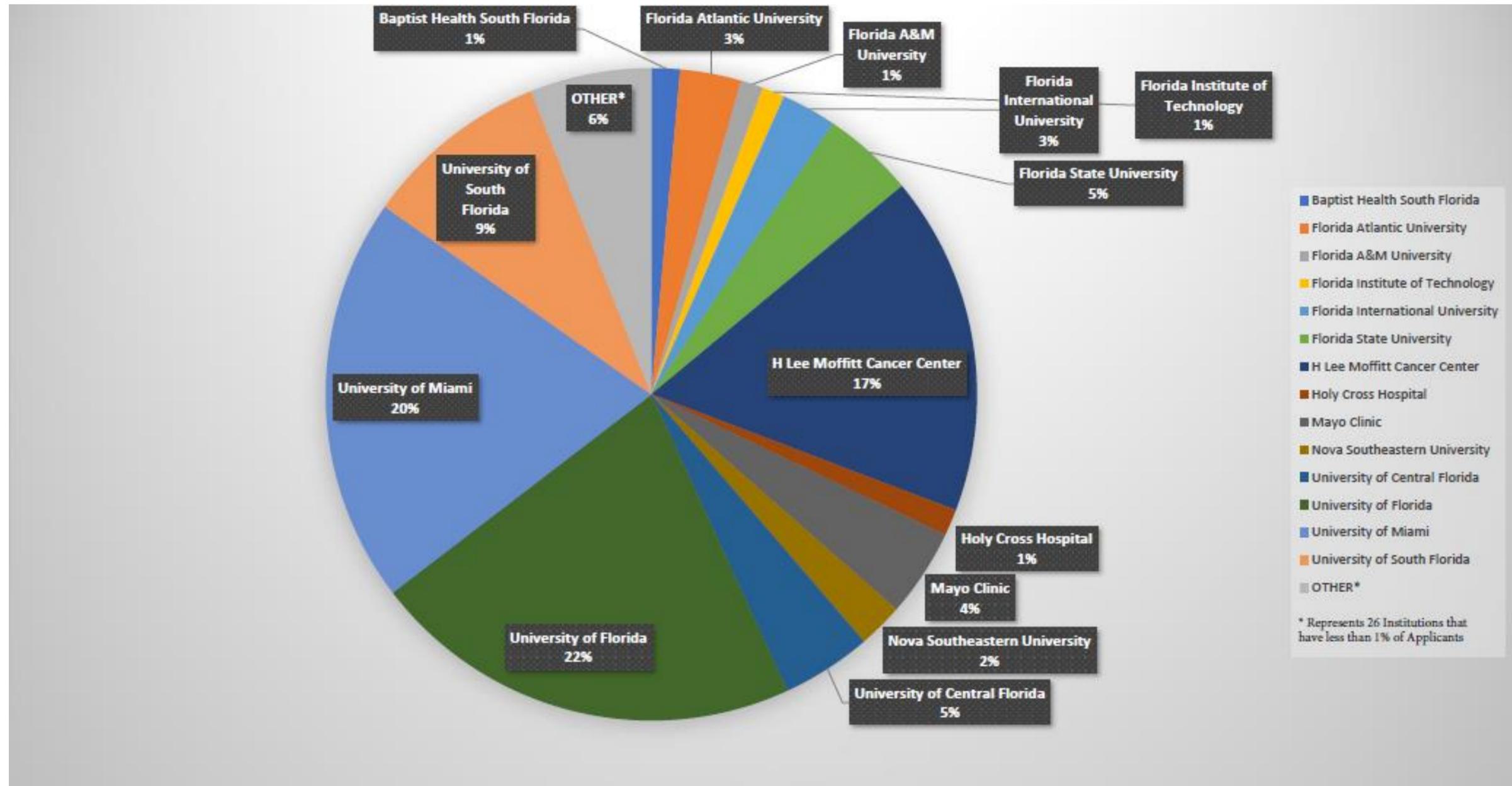


Awarded Institutions from 2006 through 2021

All Children's Research Institute	Florida State University	Saneron CCEL Therapeutics
Ave Maria University	Haley VA Hospital	Sanford-Burnham Presby
Bay Pines VA Health Care System	M.D. Anderson Cancer Center	The Scripps Research Institute
Carlos Albizu University	Mayo Clinic	South Florida Veterans Affairs Foundation
Edward Waters College	Miami Cancer Institute, Baptist Health South Florida	Torrey Pines Institute
Florida Agricultural and Mechanical University	Moffitt Cancer Center	University of Central Florida
Florida Atlantic University	Nano Discovery Inc.	University of Florida
Florida Hospital Cancer Institute	Nemours Childrens Clinic	University of Miami
Florida Institute of Technology	Nova Southeastern University	University of South Florida
Florida International University	Roskamp Institute	University of West Florida



BRAC Applicants Based on Institution FY 2015-2021



Bankhead-Coley Awards FY 2020-2021

Organization	Principal Investigator	Application Title	Mechanism of Support	Cancer Focus
H. Lee Moffitt Cancer Center and Research Institute, Inc.	Kenneth Tsai	Sensitizing Melanoma to Immunotherapy	Discovery Science	Melanoma
H. Lee Moffitt Cancer and Research Institute, Inc.	Brian Czerniecki	Overcoming Resistance in HER2 Breast Cancer through a Novel Immunotherapy Approach	Clinical Research	Breast cancer
University of Miami	Thomas Malek	CD4+ T effector cells in cancer immunotherapy	Discovery Science	Melanoma, colon cancer
H. Lee Moffitt Cancer Center and Research Institute, Inc.	Florian Karreth	Elucidating PTEN tumor suppression in melanoma	Discovery Science	Melanoma
University of Florida	Andrew R. Judge	Ursolic acid as a countermeasure to cancer cachexia	Discovery Science	Lung, colon, breast, pancreatic
H. Lee Moffitt Cancer Center and Research Institute, Inc	Gina DeNicola	Pyridine Nucleotides: Missing Link between Aging and Lung Tumorigenesis	Discovery Science	Lung cancer
University of South Florida	Rex Philpot	Cholinergic mechanisms underlying cognitive deficits during & following chemotherapy for breast cancer	Discovery Science	Breast cancer
Moffitt Cancer Center	Kathleen Egan	Biobanking for Breast Cancer Prevention and Disparity Research in Florida	Research Infrastructure	Breast cancer
University of Miami	Noula Shembade	Mechanisms of oncogenic virus-mediated chronic inflammation and tumorigenesis	Discovery Science	Leukemia and blood cancers, lung cancer, breast cancer
Florida State University	Jerome Irianto	Impact of the microenvironment on breast cancer genomic instability	High-Risk, High-Reward Discovery Science	Breast cancer
H. Lee Moffitt Cancer Center and Research Institute	Matthew Schabath	Non-invasive radiomic biomarkers to predict treatment response for immunotherapy of lung cancer	Clinical Research	Lung cancer
H. Lee Moffitt Cancer Center and Research Institute	Robert Gillies	Radiomics and Pathomics to predict upstaging of DCIS	Bridge	Breast cancer



James and Esther King Awards FY 2020-2021

Organization	Principal Investigator	Application Title	Mechanism of Support	Tobacco Related Disease Focus
University of Miami Miller School of Medicine	Yanbin Zhang	Defining role of FANCA in genome instability	University of Miami Miller School of Medicine	Breast cancer
University of Miami	Robert Starke	Cigarette smoke induces endothelial dysfunction leading to cerebral aneurysm pathogenesis	University of Miami	Intracranial aneurysm
University of Florida	Daiqing Liao	Novel mechanism of action and translational potential of the HDAC inhibitor SR-4370 for treating breast cancer	University of Florida	Breast cancer
Moffitt Cancer Center	Christine Chung	Effects of hypoxia in tumor immune microenvironment in tobacco-related head and neck squamous cell carcinoma (HNSCC)	Moffitt Cancer Center	Head and neck squamous cell carcinoma (HNSCC)
University of Miami Miller School of Medicine	Carlos Moraes	Mechanisms of mitochondrial DNA deletion formation	University of Miami Miller School of Medicine	Lung cancer, COPD, cardiovascular disease
University of Miami	Helen M Bramlett	Post-stroke combination of therapeutic hypothermia (TH) and whole body vibration (WBV) improves cognition in nicotine- exposed rats	University of Miami	Stroke, cerebral ischemia, age related cognitive decline
University of Miami	Scott Welford	Chemerin: a link between obesity, smoking, and renal cancer.	University of Miami	Renal cancer
University of Florida	Rajesh Mohandas	Endothelial Circadian Clock Protein PER1 Modulates Salt-sensitive Hypertension	University of Florida	Hypertension, stroke, cardiovascular disease
Florida International University	Hoshang Unwalla	Pathophysiological Mechanisms and Therapeutics for Chronic Lung Inflammation in Smokers and in COPD	Florida International University	COPD, chronic bronchitis, chronic lung inflammation
University of Florida	Chengguo Xing	Reducing tobacco-associated lung cancer risk: A randomized clinical trial of AB-free kava	University of Florida	Lung cancer and other tobacco-related diseases as one primary endpoint is to reduce tobacco use
Florida State University	Michelle Parvatiyar	Determining how tobacco use and obesity exacerbates a novel cardiovascular risk factor	Florida State University	Colon, liver cancer, and cardiovascular disease
University of Miami	Adam Wanner	Early detection of vaping-related vascular disease	High-Risk, High Reward Clinical Research	Tobacco use
University of South Florida	Hua Pan	LOI-Blood vessel preservation USF_Hua Pan	Bridge	Lung cancer

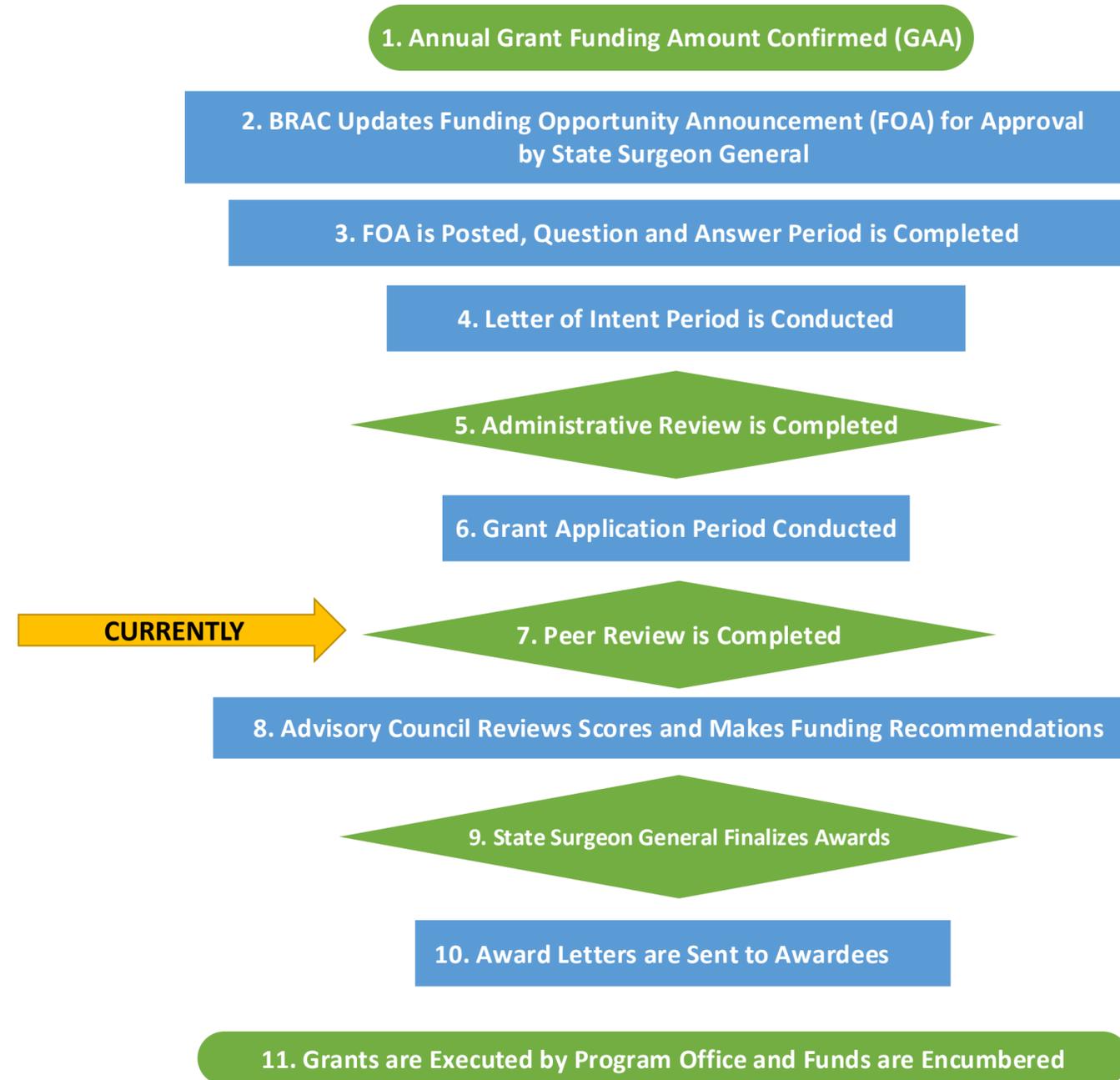


Live Like Bella FY 2020-2021

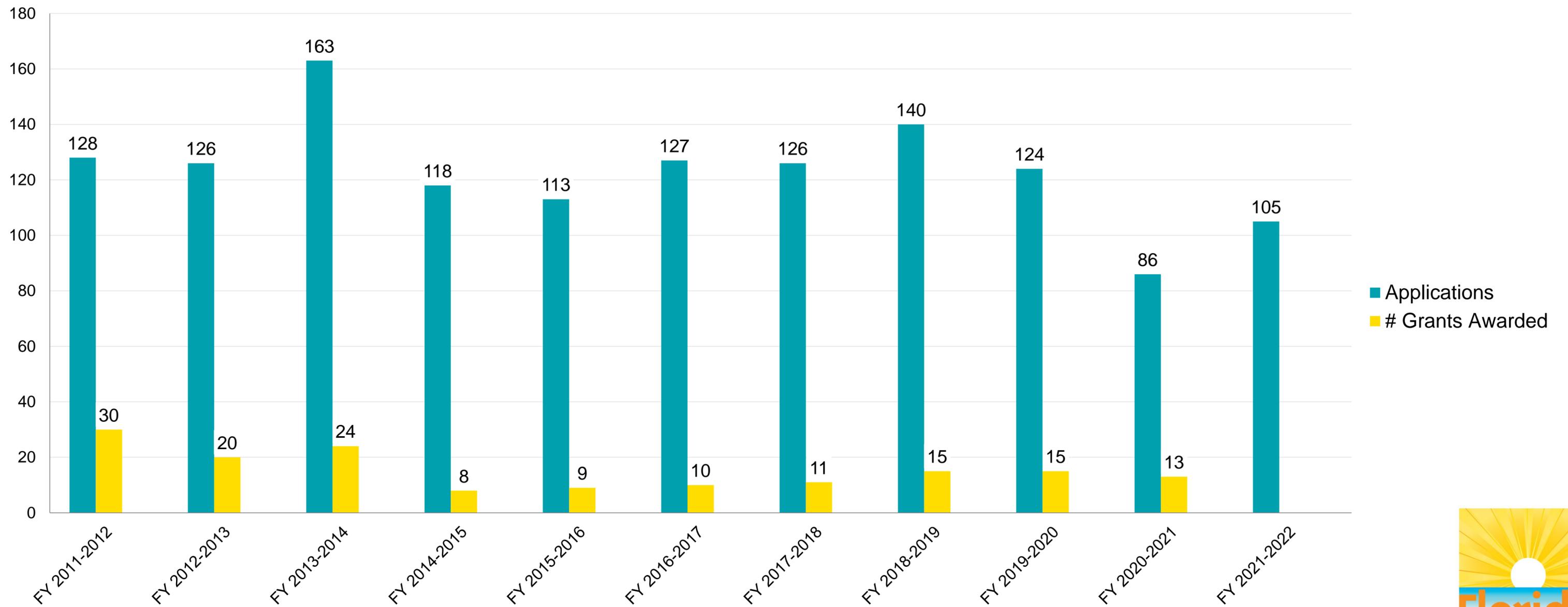
Organization	Principal Investigator	Application Title	Organization	Pediatric Cancer Focus
University of Miami	Claes Wahlestedt	Development of an IDE Submission for Drug Sensitivity Testing Platform for Pediatric Sarcoma Treatment Stratification	Multicenter Clinical Trials	Pediatric sarcoma
University of Florida	Zhijian Qian	FOX M1 as a therapeutic target for MLL-rearranged AMLs	Bridge	Pediatric acute myeloid leukemia
University of Florida	Mingyi Xie	Target RNAs induce microRNA degradation in apoptotic T-cell acute lymphoblastic leukemia cells	Discovery Science	Pediatric cancer, leukemia
H. Lee Moffitt Cancer Center	Uwe Rix	Characterization of PARP16 as a novel target in Ewing's sarcoma	Discovery Science	Ewing's sarcoma
The University of Florida	Jonathan Licht	NSD2 Mutation as Driver of Brain Invasion in Acute Lymphoblastic Leukemia	Discovery Science	Acute lymphoblastic leukemia
University of Florida	Lan Hoang-Minh	Combination Immunotherapy for Pediatric Brain Tumors	Discovery Science	Brain cancers, medulloblastoma, glioma
University of Miami	Paulo Pinheiro	The role of prenatal exposures and specific ethnicity on childhood cancer disparities in Florida	Discovery Science	All pediatric cancers
University of Miami	Regina Graham	Carbon Dot derivative for bimodal imaging and targeted drug delivery to pediatric high-grade gliomas	Discovery Science	Glioblastoma, diffuse intrinsic pontine glioma
University of Florida	Raymond Mailhot	Measuring the effects of brain radiotherapy and tumor on scholastic outcome	Discovery Science	Brain
Florida State University	Q.X. Amy Sang	Modeling Human Pediatric Brain Tumor Microenvironment	Discovery Science	Primary human pediatric brain tumors, atypical teratoid/rhabdoid tumor (ATRT), medulloblastoma, glioma.
University of Central Florida	Annette Khaled	Evaluating Chaperonin-Containing TCP1 for the Screening of Pediatric Cancers	High-Risk, High-Reward Discovery Science	Bone, peripheral nervous system, sarcomas



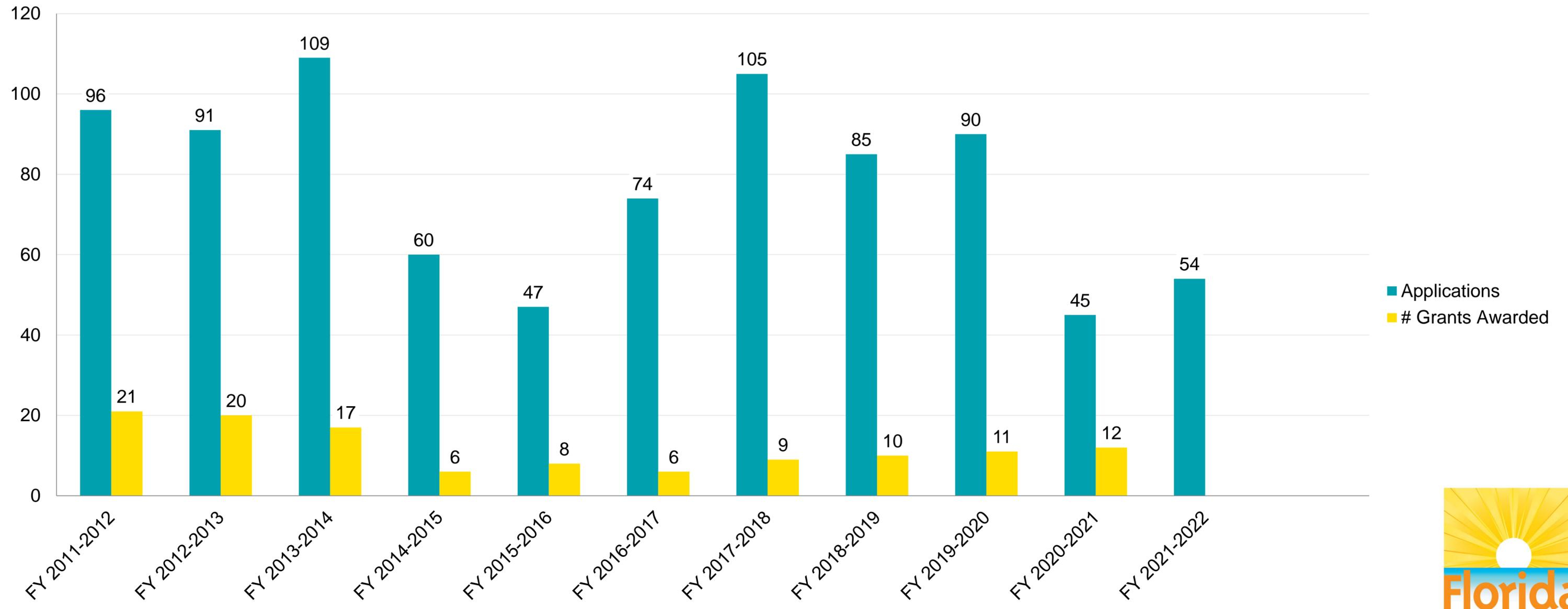
Annual Application Process



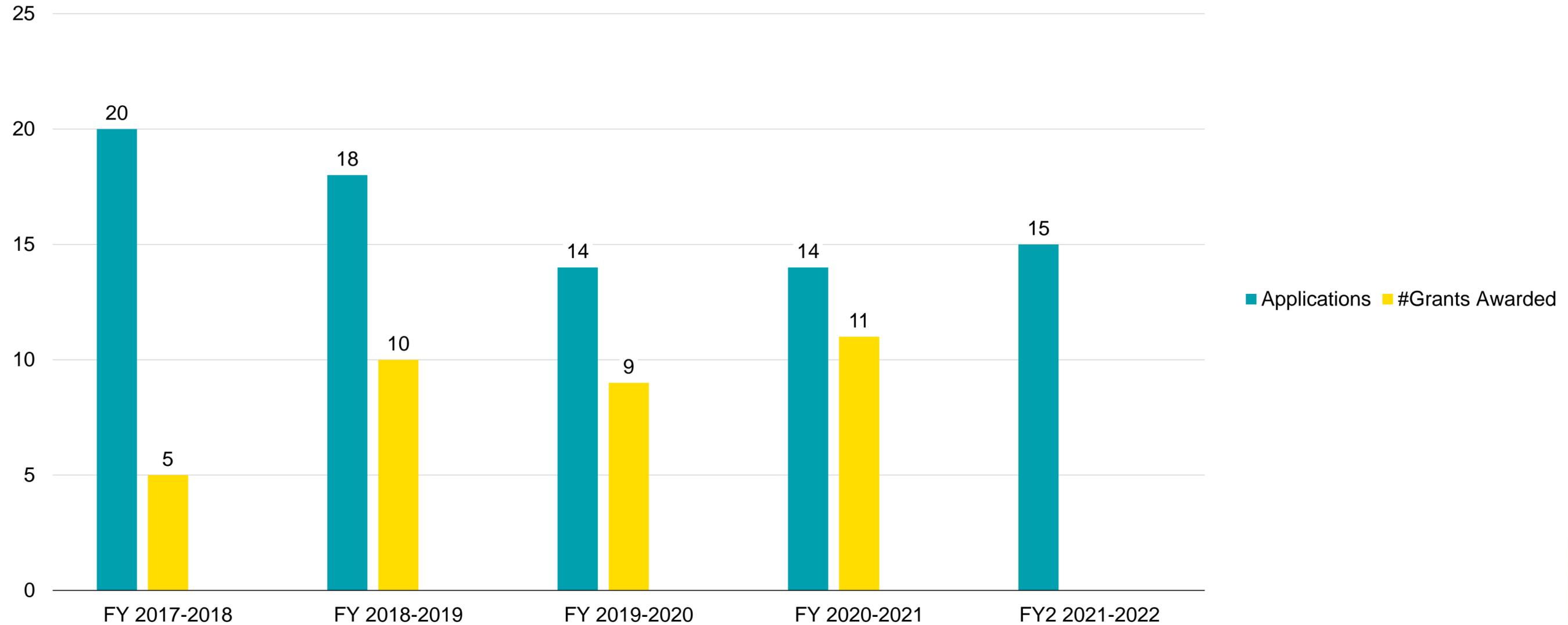
Bankhead-Coley Applications and Awards



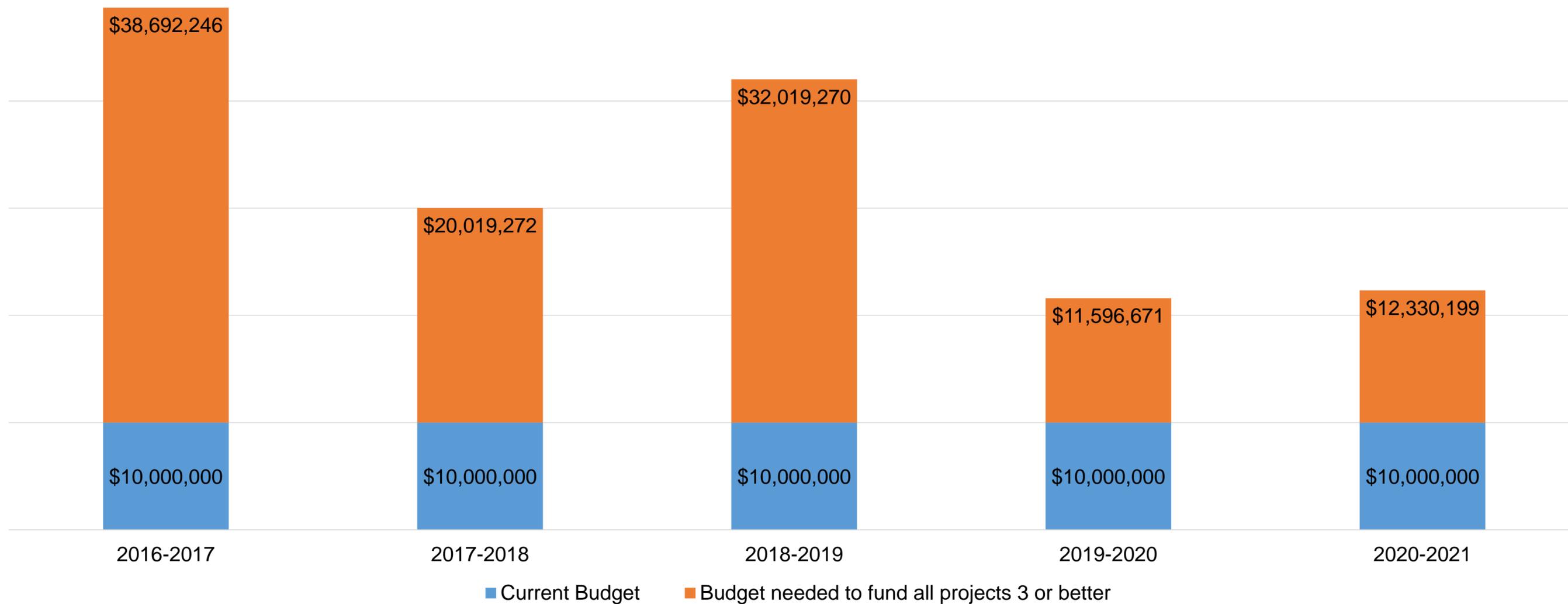
King Applications and Awards



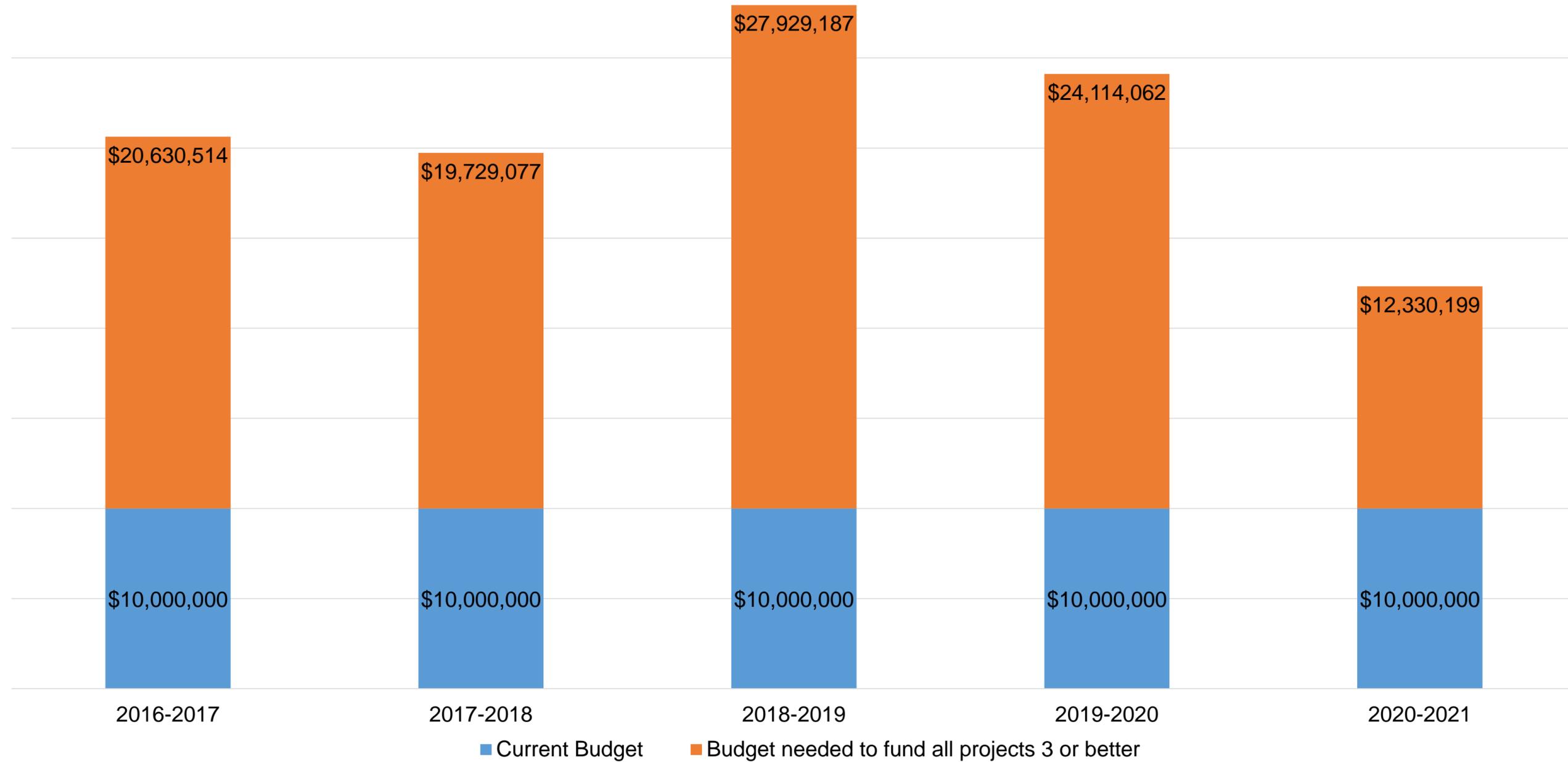
Bella Applications and Awards



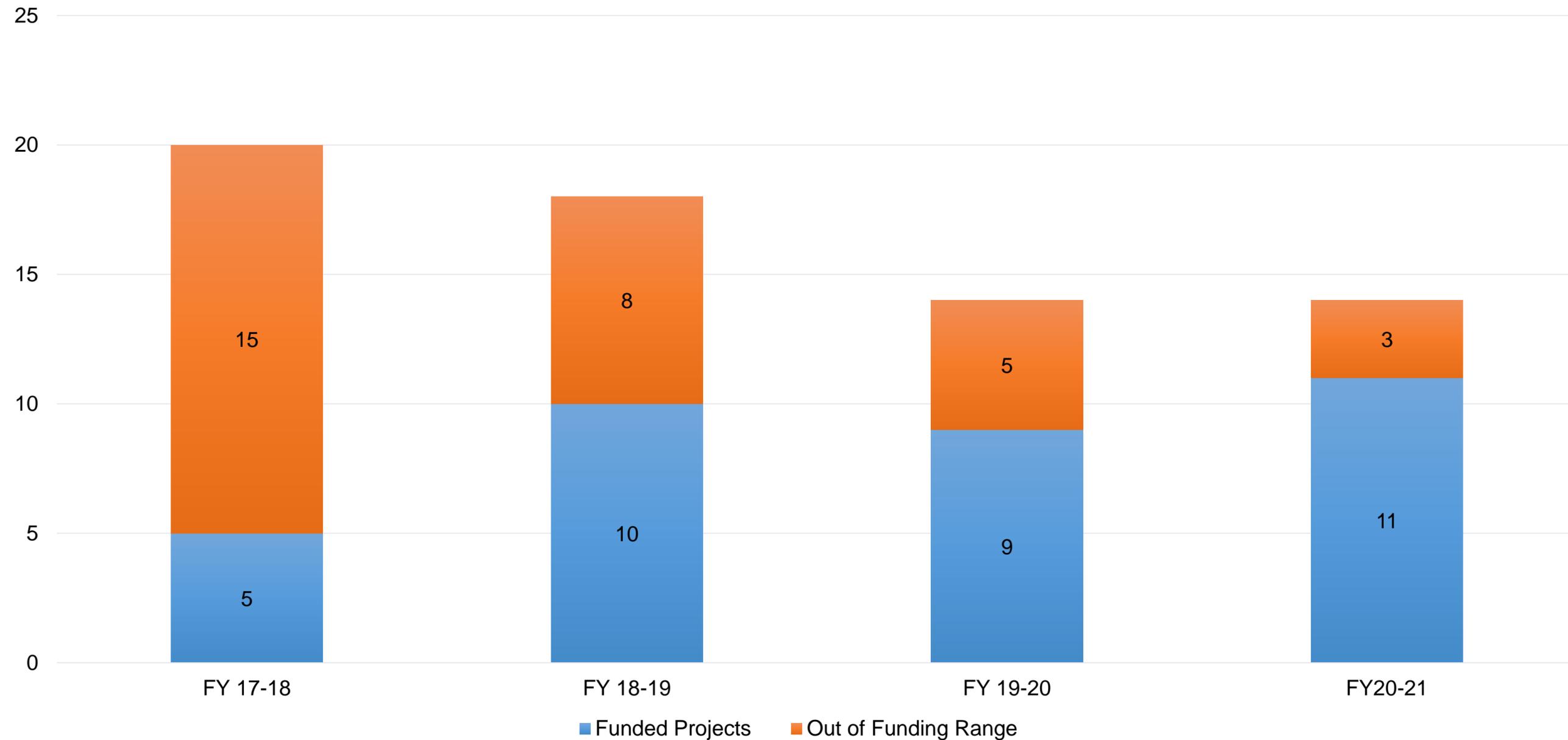
Bankhead-Coley Awards and Budget



James and Esther King Awards and Budget



Live Like Bella Applications and Funded Projects



Upcoming Biomedical Research Actions

- Live Like Bella Research Grant Symposium-
September 24, 1:30 to 5:30 PM,
the InterContinental in Miami
- The Biomedical Research Advisory Council
Annual Report - due to the Legislature by December 15
- Cancer Center of Excellence Annual Report - due to the Legislature by
December 15

