



Biomedical Research Advisory Council

William G. “Bill” Bankhead Jr., and David Coley Cancer Research Program

James and Esther King Biomedical Research Program

Live Like Bella Pediatric Cancer Research Initiative

Fiscal Year 2024-25 Annual Report

Ron DeSantis
Governor

Joseph A. Ladapo, MD, PhD
State Surgeon General

Table of Contents

Biomedical Research Program Introduction.....	3
Biomedical Research Advisory Council Membership and Goals.....	4
Biomedical Research Awards for the 2024-25 Funding Cycle	6
Appendix A: William G. "Bill" Bankhead, Jr., and David Coley Cancer Research Program.....	8
Program Overview	8
Table 2: Bankhead-Coley Fiscal Year 2024-25 Grants	9
Table 3: Bankhead-Coley Fiscal Year 2023-24 Grants	10
Table 4: Bankhead-Coley Fiscal Year 2022-23 Grants	11
Table 5: Bankhead Coley Fiscal Year 2021-22 Grants	12
Table 6: Bankhead Coley Fiscal Year 2020-21 Grants	13
Appendix B: James and Esther King Biomedical Research Program	14
Program Overview.....	14
Table 7:James and Esther King Fiscal Year 2024-25 Grants.....	15
Table 8: James and Esther King Fiscal Year 2023-24 Grants.....	16
Table 9: James and Esther King Fiscal Year 2022-23 Grants.....	17
Table 10: James and Esther King Fiscal Year 2021-22 Grants.....	18
Table 11: James and Esther King Fiscal Year 2020-2021 Grants.....	19
Table 12: James and Esther King Fiscal Year 2019 – 20 Grants	19
Appendix C: Live Like Bella Pediatric Research Initiative Program	20
Program Overview.....	20
Table 13: Live Like Bella Fiscal Year 2024-25 Grants	21
Table 14: Live Like Bella Fiscal Year 2023-24 Grants	22
Table 15: Live Like Bella Program Fiscal Year 2022-23 Grants.....	23
Table16: Live Like Bella Fiscal Year 2021-22 Grants	24
Appendix D: National Institutes of Health (NIH) Research Funding	25
Table 17: Top 20 Recipients for NIH Research.....	25

Biomedical Research Program Introduction

Since 2001, the Florida Legislature has recognized the need to support vital research conducted in both academic and private institutions through the William G. “Bill” Bankhead Jr. and David Coley Cancer Research Program (Bankhead-Coley) (section 381.922, Florida Statutes), the Live Like Bella Pediatric Cancer Research Initiative (Live Like Bella) (section 381.922, F.S.) and the James and Esther King Biomedical Research Program (King Program) (section 215.5602, F.S.). During Fiscal Year 2024-25, \$17,354,919 was awarded to Bankhead-Coley, Live Like Bella, and King Program grantees. FY 2024-25 funding provided for 13 Bankhead-Coley, nine Live Like Bella, and 10 James and Esther King new research grants made to universities and established research institutes across the state to support researchers working to improve cancer prevention, diagnosis, and treatment.

Biomedical research grants are awarded through a competitive peer review process. Awards are based on scientific merit, as determined by independent peer review by experts who are located outside Florida, and free from conflicts of interest. Full-time researchers at any Florida-based university or established research institution are eligible to apply. All awardees provide regular updates that are included in this annual report. For additional details on grants, see appendices A through C.

Per statutory requirements, this report includes the following information:

- Florida’s rank relative to other states along with its total National Institutes of Health (NIH) biomedical research funding
- Progress toward programmatic goals, particularly in the prevention, diagnosis, treatment, and cure of diseases related to tobacco use, including cancer, cardiovascular disease, stroke, and pulmonary disease
- Recommendations to further the mission of the programs
- List of recipients of program grants or fellowships
- For each research project supported by grants or fellowships awarded under the program, the report includes:
 - Summary of the research project and results or expected results of the research
 - Status of the research project, including if the project has concluded or the estimated date of completion
 - Amount of the grant or fellowship awarded and the estimated or actual cost of the research project
 - List of principal investigators under the research project
 - Title, citation, and summary of findings of a publication in a peer-reviewed journal resulting from the research
 - Source and amount of any federal, state, or local government grants, or donations or private grants or donations generated because of the research project.
 - Status of a patent, if any, generated from the research project and an economic analysis of the impact of the resulting patent
 - List of postsecondary educational institutions involved in the research project,

description of each postsecondary educational institution's involvement in the research project, and number of students receiving training or performing research under the research project

Biomedical Research Advisory Council Membership and Goals

The Biomedical Research Advisory Council (BRAC) advises the State Surgeon General regarding the direction and scope of the biomedical research program (subsection 215.5602(4), F.S.). BRAC's responsibilities include, but are not limited to:

- Providing advice on program priorities
- Providing advice on the overall program budget
- Participating in periodic program evaluation
- Assisting in the development of guidelines to ensure fairness, neutrality, and adherence to the principles of merit and quality in the conduct of the program
- Assisting in the development of appropriate linkages to nonacademic entities, such as voluntary organizations, health care delivery institutions, industries, government agencies, and public officials
- Developing criteria and standards for the award of research grants
- Developing guidelines relating to solicitation, review, and award of research grants and fellowships, to ensure an impartial, high-quality peer review system
- Reviewing reports of peer review panels and making recommendations for research grants and fellowships
- Developing and providing oversight regarding mechanisms for the dissemination of research results
- Selecting, by majority vote, six members of the council who must combine with seven members of the Florida Cancer Control and Research Advisory Council, to form a joint committee to develop performance measures, a rating system, a rating standard, and an application form for the Cancer Center of Excellence Award (section 381.925, F.S.)

The BRAC comprises 11 members including the chief executive officer of the Florida Division of the American Cancer Society, or designee; chief executive officer of the Greater Southeast Affiliate of the American Heart Association, or designee; and chief executive officer of the American Lung Association of Florida, or designee.

The remaining eight members are appointed by the Governor (four appointees), Senate President (two appointees) and Speaker of the House (two appointees). The BRAC members, as of July 2024, are listed below. Biographical statements or curriculum vitae available upon request:

- Daniel Armstrong, PhD (Chair), Professor and Special Senior Advisor to the Chair, Pediatrics; Director, Mailman Center for Child Development, University of Miami Miller School of Medicine. Seat: American Cancer Society
- Stephen Black, PhD, Director, Center for Translational Science; Chair, Department of Cellular and Molecular Medicine; Associate Vice President for Translational Research.

Florida International University; Seat: Governor

- Nicole de Lara Puente, Chief Executive Officer, Live Like Bella Childhood Cancer Foundation; Seat: Governor
- Shaye Moskowitz, MD, Neuroscience Medical Director, Broward Health Physicians Group, Seat: Governor
- Akram Shibani, MD, Ascension Medical Group, St. Vincent's Lung Institute; Seat: Governor
- Jennifer I. Vidrine, PhD, MS, Assistant Center Director of Research Community Partnerships, Senior Member, Department of Health Outcomes and Behavior, Moffitt Cancer Center, Professor, Department of Psychology and Oncologic Sciences University of South Florida, Seat: Senate
- Julianne M. Serovich, PhD, Dean of the College of Behavioral and Community Services, University of South Florida, Seat: Senate.
- Guilherme Oliveira, MD, MBA, Professor of Medicine, Vice-President and Chief, Heart and Vascular Institute, and Chief of the Division of Cardiovascular Sciences, Tampa General Hospital; Seat: House of Representatives
- Roxana S. Dronca, MD, Director, Mayo Clinic Comprehensive Center; Seat: House of Representatives
- Vacant Seats: American Lung Association and American Heart Association

Biomedical Research Awards for the 2024-25 Funding Cycle

Awards for the Bankhead-Coley, King Program, and Live Like Bella research grants for FY 2024-25 are presented in Exhibit 1:

Exhibit 1: Biomedical Research Awards by type and program source, FY 2024-25

Research Priority	Description of Research	Number of Awards and Funding Source
Prevention and Treatment	Focuses on research related prevention and improved treatment or care delivery that contributes to a reduction in deaths in at least one of the following types of cancers: pediatric, lung, breast, prostate, colon, or melanoma.	11 Bankhead-Coley 9 King 9 Live Like Bella
Screening	Focuses on improving screening accuracy and detection for high-risk subgroups, and/or improved implementation of a cancer screening program that results in an increase in early detection or prevention of at least one of the cancers listed above.	1 Bankhead-Coley
Obesity	Enhances the understanding of the relationship between obesity, healthy weight, and at least one of the cancers listed above.	1 Bankhead-Coley 1 King

Florida's research infrastructure for cancer and tobacco-related diseases continues to expand. Table 1 includes a list of the institutions and organizations that received research funding from BRAC Programs during FY 2024-25.

Table 1: Awarded Institutions

All Children's Research Institute	H. Lee Moffitt Cancer Center and Research Institute	University of Central Florida
Florida International University	Mote Marine Laboratory	University of Florida
Florida State University	Nemours Children's Hospital	University of Miami

Appendix A: William G. "Bill" Bankhead, Jr., and David Coley Cancer Research Program

Program Overview

The Bankhead-Coley Program advances progress toward cures for cancer. Cancer is the second leading cause of death for Floridians, after heart disease. Funding through this program aims to improve cancer research and treatment in the state by:

- Attracting new research talent and grant-producing researchers.
- Funding proposals that demonstrate the greatest ability to attract federal research grants.
- Encouraging the development of bioinformatics to allow researchers to exchange information.
- Facilitating technical collaboration, business development, and support for intellectual property related to research.

Aiding multi-disciplinary research through greater participation in clinical trials networks and reducing the disparate impact of cancer on certain groups

In FY 2023-24, 141 applications were submitted in response to the Bankhead-Coley Funding Opportunity Announcement, and 13 cancer research projects were awarded.

Table 2: Bankhead-Coley Fiscal Year 2024-25 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
25B01	H. Lee Moffitt Cancer Center & Research Institute	Kamran Ahmed, MD	\$1,499,997	Brain MRI Surveillance in Stage IV Breast Cancer	9/30/2029	No	No	No
25B02	H. Lee Moffitt Cancer Center & Research Institute	Inna Smalley, PhD	\$600,000	Understanding how tumor cells co-opt meningeal stroma in melanoma leptomeningeal disease	7/31/2028	No	No	No
25B03	H. Lee Moffitt Cancer Center & Research Institute	Daniel Abate-Daga, PhD	\$600,000	Engineering metabolic fitness and vaccination capacity in gamma/delta CAR-T cells	7/31/2028	No	No	No
25B04	University of Miami	Fangliang Zhang, PhD	\$100,000	The roles of protein arginylation and nitrosylation in immunotherapy for high-grade prostate cancer	2/28/2026	No	No	No
25B05	University of Miami	Scott Welford, PhD	\$600,000	Multilevel Action Toward Colorectal Cancer and Hepatitis C Education and Screening (MATCHES)	7/31/2028	No	No	No
25B06	University of Miami	Daniel Bilbao, PhD	\$100,000	High-throughput automated GrandMaster Tissue Microarray to advance cancer research in South Florida	7/31/2026	No	No	No
25B07	H. Lee Moffitt Cancer Center & Research Institute	Zeynep Eroglu, MD	\$749,996	Adjuvant/neoadjuvant immunotherapy in melanoma based on serial plasma ctDNA monitoring	7/31/2029	No	No	No
25B08	University of Miami	Jay Spiegel, MD	\$1,500,000	Axi-cel Combined with Mosenutuzumab and Polatuzumab in Aggressive Large B-cell Lymphomas	9/30/2029	No	No	No
25B09	University of Florida	Lizi Wu, PhD	\$600,000	Exploiting LKB1 Inactivation for Enhanced Treatment Efficacy and Immune Response in Lung Cancer	7/31/2028	No	No	No
25B10	University of Florida	Mingyi Xie, PhD	\$600,000	Decipher microRNA mis-regulation in Colorectal Cancer via Semantic Embedded Graph Neural Networks	7/31/2028	No	No	No
25B11	H. Lee Moffitt Cancer Center & Research Institute	Conor Lynch, PhD	\$600,000	Dissecting bone stromal effects on $\gamma\delta$ CAR-T mediated killing of metastatic prostate cancer	12/31/2024	No	No	No
25B12	H. Lee Moffitt Cancer Center & Research Institute	Brian Ruffell, PhD	\$600,000	STING activation underlies response to chemioimmunotherapy in TNBC	5/31/2027	No	No	No
25B13	University of Florida	Michalina Janiszewska, PhD	\$296,565	Novel mRNA degraders to target hypoxic tumor microenvironment	5/31/2027	No	No	No

Table 3: Bankhead-Coley Fiscal Year 2023-24 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
24B01	Mayo Clinic Jacksonville	Pooja Advani, MD	\$288,000	Therapeutic Modulation of De Novo Lipogenesis to Enhance Immunogenicity of Triple Negative Breast Cancer	3/31/2027	No	No	No
24B02	H. Lee Moffitt Cancer Center & Research Institute	Uwe Rix, PhD	\$576,000	Novel Combination Approaches for Targeting Oncogenic Signaling Dependencies in POU2F3-driven small cell lung cancer	4/30/2027	No	No	No
24B03	H. Lee Moffitt Cancer Center & Research Institute	Ana Patriciada Silva Gomes, PhD	\$576,000	Metabolic Factors that Condition Breast Cancer Metastasis	4/30/2028	No	No	No
24B04	H. Lee Moffitt Cancer Center & Research Institute	Keiran Smalley, PhD	\$576,000	Optimizing Immunotherapy Strategies for Melanoma Brain Metastases	4/30/2027	No	No	No
24B05	H. Lee Moffitt Cancer Center & Research Institute	Shannon Christy, PhD	\$1,427,911	Multilevel Action Toward Colorectal Cancer and Hepatitis C Education and Screening	4/30/2028	Yes	No	No
24B06	H. Lee Moffitt Cancer Center & Research Institute	Nicholas Lawrence, PhD	\$576,000	Developing ULK3 Inhibitors for the Treatment of Multiple Myeloma	4/30/2027	No	No	No
24B07	H. Lee Moffitt Cancer Center & Research Institute	Peter Forsyth, MD	\$ 575,998	Using Dendritic Cell Therapy to Enhance Adaptive Immune Response in Leptomeningeal Disease from Breast Cancer is an Effective Treatment and Prevention for LMD Recurrence	12/11/2024	No	No	No
24B08	H. Lee Moffitt Cancer Center & Research Institute	Florian Karreth, PhD	\$100,000	Defining the Non-Canonical Functions of MYBL2 in Melanoma Progression	12/31/2024	No	No	No
24B09	Nova Southeastern University	Dmitriy Minond, PhD	\$100,000	In Vivo and SAR Studies of Novel Anti-Prostate Cancer Compounds	12/31/2024	No	No	No
24B10	University of Florida	Young-Rock Hong, PhD, MPH	\$284,943	Understanding the Impact of Obesogenic Environments on Incidence of Colorectal Cancer	12/31/2024	No	No	No
24B11	University of Florida	Weizhou Zhang, PhD	\$100,000	Proteolysis Targeting Chimera Against Nuclear Receptor NR4A1 for Melanoma Therapy	12/31/2024	No	No	No
24B12	University of Miami	David Lombard, MD, PhD	\$576,000	Targeting the Chromatin Scaffold Menin to Overcome Resistance to Targeted Therapy in Melanoma	5/31/2027	No	No	No
24B13	University of Miami	Zhipeng Meng, PhD	\$576,000	Role and Therapeutic Potential of the MAP4K-Hippo Pathway in Nonalcoholic Fatty Liver Disease and Liver Cancer	5/31/2027	No	No	No
24B14	University of Miami	Tongyu Wikramanayake, PhD	\$576,000	Pathogenesis and Prevention of Taxane-Induced Permanent Chemotherapy-Induced Alopecia	5/31/2027	No	No	No
24B15	University of Miami	Justin Taylor, MD	\$576,000	Novel Therapeutic Targeting of Covalent and Non-Covalent BTK Inhibitor Resistance	5/31/2027	Yes	No	No
24B16	All Children's Research Institute/Johns Hopkins University	Ranjan Perera, PhD	\$576,000	Therapeutic and Diagnostic Potential of Urine-Enriched Molecular Markers for High-Risk Prostate Cancer	4/30/2027	No	No	No
24B17	All Children's Research Institute/Johns Hopkins University	Masanobu Komatsu, PhD	\$576,000	Drug induction of tertiary lymphoid structures and its therapeutic benefits	3/31/2027	No	No	No

Table 4: Bankhead-Coley Fiscal Year 2022-23 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
23B01	University of Florida	Lizi Wu, PhD	\$587,097	Elucidating and Targeting INSL4 Signaling in Lung Cancer	3/31/2026	No	No	No
23B02	University of Florida	Chengguo Xing, PhD	\$294,300	AB-Free Kava in Lung Cancer Chemoprevention	3/31/2025	No	No	Yes
23B05	H. Lee Moffitt Cancer Center and Research Institute	Joseph Markowitz, MD, PhD	\$588,600	IFx-Hu2.0 Facilitates Immune Responses in Melanoma	3/31/2026	No	No	Yes
23B07	H. Lee Moffitt Cancer Center and Research Institute	Michael Jain, MD, PhD	\$1,471,500	A Clinical Trial of Pirtobrutinib and Brexucabtagene Autoleucal in Patients with Relapsed or Refractory Mantle Cell Lymphoma	9/30/2027	No	No	No
23B08	H. Lee Moffitt Cancer Center and Research Institute	Jose Guevara-Pantino, MD, PhD	\$294,300	CD3z-Independent Signaling Module for CAR-T Cell Therapies Against Solid Cancer	3/31/2026	No	No	No
23B09	H. Lee Moffitt Cancer Center and Research Institute	Ahmad Tarhini, MD, PhD	\$535,908	Inherited Genetic Variation as a Predictor of the Risk of Immune Related Adverse Events and the Likelihood of Clinical Benefit	3/31/2026	No	No	No
23B10	H. Lee Moffitt Cancer Center and Research Institute	Lixin Wan, PhD	\$588,600	Resotring FZR1 Tumor Suppressor Function in Human Cancers	3/31/2026	No	No	Yes
23B11	H. Lee Moffitt Cancer Center and Research Institute	Eric Lau, PhD	\$294,600	Modulating Dendritic Cell (DC) Polarization and Biology with L-Fucose to Enhance DC Vaccine Efficacy	5/31/2026	No	No	Yes
23B12	Florida Atlantic University	Esther Guzman, PhD	\$588,600	Cutting Fuel Lines to Ras Driven Cancers with Marine Natural Products	3/31/2026	No	No	No
23B13	University of Central Florida	Deborah A. Altomare, PhD	\$588,600	Translational Utility of Tumor-Derived FGF19 in a Novel Blood-Based Endocrine Suppression Approach	3/32/2026	Yes	No	Yes
23B14	University of Central Florida	Otto Phanstiel, PhD	\$588,600	Potentiating Immunotherapies via Polyamine Blocking Therapy	3/31/2026	Yes	Yes	Yes
23B15	University of Miami	Barbara Bedogni, PhD	\$588,600	Notch1 Selective Targeting to Overcome Immunotherapy Resistance	3/31/2026	No	No	Yes
23B16	University of Miami	Stephan C. Schurer, PhD	\$1,471,500	Next-Generation Biomedical Big Data Platform for Cancer Research and Collaboration Across Florida	3/31/2026	No	No	Yes

Table 5: Bankhead Coley Fiscal Year 2021-22 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
22B01	H. Lee Moffitt Cancer Center and Research Institute	Susan Vadaparampil, PhD	\$1,424,806	HPV MISTICS: HPV Multilevel Intervention Strategies Targeting Immunization in Community Settings	9/30/2026	Yes	No	Yes
22B02	H. Lee Moffitt Cancer Center and Research Institute	Eric K. Lau, PhD	\$573,000	The Trouble with Testosterone: Delineating How Androgen Drives Melanoma Invasiveness and Metastasis via Fucosylation-Regulated Cellular Adhesion	11/30/2025	No	No	Yes
22B03	H. Lee Moffitt Cancer Center and Research Institute	Jose R. Conejo-Garcia, MD, PhD	\$1,432,499	Heterogeneity of Metastatic Small Cell Lung Cancer: Implications for the Design of Effective Immunotherapies	9/30/2026	Yes	No	No
22B05	H. Lee Moffitt Cancer Center and Research Institute	Joseph Kissil, PhD	\$573,000	Establishing the Functional Differences Between Variant Oncogenic KRAS Alleles and Identification of Allele-Selective Inhibitors	3/31/2025	No	No	No
22B06	H. Lee Moffitt Cancer Center and Research Institute	Brandon Manley, MD	\$716,250	Establishing the Role of Aberrant Splice Variants as a Clinical Biomarker in Clear Cell Renal Cell Carcinoma	9/30/2026	Yes	No	No
22B07	H. Lee Moffitt Cancer Center and Research Institute	Vincent Luca, PhD	\$573,000	Structure-Guided Engineering of LAG3 Immunomodulatory Function	3/31/2025	Yes	No	Yes
22B08	Mayo Clinic Jacksonville	E. Aubrey Thompson, PhD	\$573,000	Spatial Analysis of the Immune Landscape of Stage 4 Triple Negative Breast Cancer	3/31/2025	Yes	No	Yes
22B09	Nova Southeastern University	Dmitriy Minond, PhD	\$573,000	Spliceosomal Modulation for Regulation of Melanoma Immunogenicity	3/31/2025	Yes	No	Yes
22B10	University of Florida	Jonathan Licht, MD	\$573,000	Mitochondrial Modulators of Multiple Myeloma Growth and Therapy Resistance	3/31/2025	Yes	No	Yes
22B12	University of Miami	Antonio Barrientos, PhD	\$573,000	Targeting Mitochondrial Protein Synthesis to Combat Blood Malignancies	3/31/2025	No	No	No
22B13	University of Miami	Jonathan Schatz, PhD	\$573,000	Inhibition of the Cell-Cycle Kinase GAK, a Novel Therapeutic Target in Diffuse Large B-Cell Lymphoma	3/31/2025	No	No	Yes

Table 6: Bankhead Coley Fiscal Year 2020-21 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
21B02	H. Lee Moffitt Cancer Center & Research Institute	Brian Czwiecki, MD, PhD	\$1,327,221	Overcoming Resistance in HER2 Breast Cancer through a Novel Immunotherapy Approach	4/30/2026	Yes	No	No
21B11	Florida State University	Jerome Irianto, PhD	\$265,440	Impact of the Microenvironment on Breast Cancer Genomic Instability	10/31/2024	Yes	No	Yes
21B12	H. Lee Moffitt Cancer Center & Research Institute	Matthew Schabath, PhD	\$1,327,180	Non-Invasive Radiomic Biomarkers to Predict Treatment Response for Immunotherapy of Lung Cancer	4/30/2026	No	No	Yes

Appendix B: James and Esther King Biomedical Research Program

Program Overview

The purpose of the King Program is to advance cures and treatment options for tobacco-related diseases. The King Program funds research initiatives that seek new insights and innovative solutions in the prevention, diagnosis, treatment, and cure of Floridians afflicted by tobacco-related diseases including cardiovascular disease, stroke, lung disease, and tobacco-related cancers. The long-term goals of the program include:

- Improving the health of Floridians by researching better prevention, diagnoses, treatments, and cures for cancer, cardiovascular disease, stroke, and pulmonary disease
- Expanding the foundation of biomedical knowledge relating to the prevention, diagnosis, treatment, and cure of diseases related to tobacco use, including cancer, cardiovascular disease, stroke, and pulmonary disease
- Improving the quality of the state's academic health centers by bringing the advances of biomedical research into the training of physicians and other health care providers
- Increasing the state's per capita funding for research by undertaking new initiatives in public health and biomedical research that will attract additional funding from outside Florida
- Stimulating economic activity in the state in areas related to biomedical research, such as the research and production of pharmaceuticals, biotechnology, and medical devices

For FY 2024-25, 60 grant applications were submitted in response to the King Program Funding Opportunity Announcement, and 10 grants were awarded.

Table 7: James and Esther King Fiscal Year 2024-25 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
25K01	University of Miami	Dionysios C. Watson, MD, PhD	\$300,000	Bacterial extracellular vesicle immunotherapy for treatment-resistant lung cancer	7/31/2027	No	No	No
25K02	University of Florida	Lizi Wu, PhD	\$600,000	Enhancing Immunotherapy Efficacy in NSCLC through Tumor Antigen-Targeted RNA Nanoparticles	7/31/2028	No	No	No
25K03	University of Florida	Daiqing Liao, PhD	\$600,000	Lipid Metabolism in Triple-Negative Breast Cancer Biology and Therapy	7/31/2028	No	No	No
25K04	University of Florida	Maria Zajac-Kaye, PhD	\$600,000	TYMS and Kras: Mechanisms and Therapeutics	7/31/2028	No	No	No
25K05	H. Lee Moffitt Cancer Center & Research Institute	Christine Vinci, PhD	\$1,498,367	Smoking Cessation and Alcohol Use among Cancer Survivors: Investigating the Efficacy of a Mindfulness-Based Intervention	7/31/2029	No	No	No
25K06	University of Miami	Ami Raval, PhD	\$600,000	Electronic cigarette vaping combined with oral contraceptive exposure exacerbates stroke outcomes in female rats	7/31/2028	No	No	No
25K07	University of Central Florida	Alicja Copik, PhD	\$600,000	The role of lncRNA in Natural Killer cell function: Implications for targeted therapies for lung cancer	7/31/2028	No	No	No
25K08	Mote Marine Laboratory	Kirstie Francis, PhD	\$314,642	Discovery of marine natural product antagonists of lung cancer immunotherapy target as novel therapies	7/31/2028	No	No	No
25K09	University of Miami	Carlos Moraes, PhD	\$600,000	Mitochondrial Effects of Cigarette Smoking in the Development of Parkinson's Disease	7/31/2028	No	No	No
25K10	University of Miami	Helen Bramlett, PhD	\$600,000	Post-stroke exosome therapy improves cognition in animals exposed to electronic cigarette vaping	7/31/2028	No	No	No

Table 8: James and Esther King Fiscal Year 2023-24 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
24K01	Mayo Clinic Jacksonville	Panagiotis Anastasiadis, PhD	\$599,999	Targeting the p120/PLEKHA7 Axis in Lung Cancer	3/31/2027	No	No	No
24K02	H. Lee Moffitt Cancer Center & Research Institute	Matthew Schabath, PhD	\$1,414,252	Infrastructure Expansion for an Enduring Rapid Tissue Donation Program	5/31/2027	No	No	No
24K03	H. Lee Moffitt Cancer Center & Research Institute	Jennifer Permuth, PhD, MS	\$600,000	Comparing the Morphology and Molecular Profile of Skeletal Muscle Tissue and the Influence of Tobacco and Obesity on Pancreatic Cancer Outcomes in a Diverse Cohort of Floridians	5/31/2027	No	No	No
24K04	H. Lee Moffitt Cancer Center & Research Institute	Jad Chahoud, MD	\$300,000	Progressive Immune Dysfunction with Advancing Disease Stage and Immune Changes Post Therapy in Penile Carcinoma	5/31/2027	No	No	No
24K05	University of Miami	Zheng Chen, MD, PhD	\$600,000	Elucidating the Impact of Smoking on Immune Suppression and Therapy Resistance in Esophageal Adenocarcinoma	5/31/2027	No	No	No
24K06	University of Miami	Shanta Dhar, PhD	\$600,000	Self-Therapeutic Nanoparticles for Managing Cardiovascular Risk in Type 1 Diabetes	5/31/2027	No	No	No
24K07	Florida State University	Pradeep Bhide, PhD	\$600,000	E-Cigarette Use During Pregnancy and the GABA Neurotransmitter System	5/31/2027	No	No	No
24K08	Florida State University	Gloria Salazar, PhD	\$600,000	Modulation of the Gut-Vascular Axis by E-Cigarette and Menthol	4/30/2027	No	No	No
24K09	Florida International University	Elisa Trucco, PhD	\$1,489,646	Developing an E-Cigarette Intervention for Hispanic/Latina(o) Youth in Florida	4/30/2028	No	No	No

Table 9: James and Esther King Fiscal Year 2022-23 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
23K01	H. Lee Moffitt Cancer Center & Research Institute	Damon J. Vidrine, DrPH, MS	\$1,427,441	Creation of an Infrastructure to Support Delivery of mHealth Interventions for Cancer Patients Throughout Florida	3/31/2026	No	No	No
23K02	H. Lee Moffitt Cancer Center & Research Institute	William Douglas Cress, PhD	\$569,400	Understanding the Mechanisms by which STK11 Loss in Lung Cancer Leads to Immune Invasion	3/31/2026	No	No	No
23K03	University of Florida	Daiqing Liao, PhD	\$569,400	Oncogenic Signaling that Promotes Lipid Synthesis and Resistance to Ferroptosis	3/31/2026	No	No	No
23K04	University of Florida	Scott Thomas Robinson, MD, PhD	\$569,400	The Impact of E-Cigarette Exposure on Skeletal Muscle Function in Peripheral Arterial Disease	3/31/2026	No	No	No
23K05	University of Florida	Satya Narayan, PhD	\$569,400	Novel Therapeutic Development for Breast Cancer	3/31/2026	No	No	No
23K06	University of Florida	Brian K. Law, PhD	\$568,499	Reducing Racial Disparity in Breast Cancer Survival with a Novel Synthetic-Lethal Strategy	5/31/2026	No	Yes	No
23K07	University of Florida	Shahabeddin Vahdat, PhD	\$565,489	The Function of Spinal Cord-Brain Pathways in Spasticity After Stroke	3/31/2026	Yes	No	No
23K08	University of Miami	Taghrid Asfar, MD, MSPH	\$1,426,500	Expanding the Role of the Safety Manager to Implement a Workplace Smoking Cessation Program in the Construction Sector	9/30/2027	No	No	No
23K09	Mayo Clinic Florida	Alan P. Fields, PhD	\$569,400	Protein Kinase C Iota Mediated Immune Suppression in Lung Squamous Cell Carcinoma	3/31/2026	No	No	No

Table 10: James and Esther King Fiscal Year 2021-22 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
22K01	Mayo Clinic Jacksonville	Owen Ross, PhD	\$1,453,280	Creating a Florida Cerebrovascular Disease Biorepository and Genomics Center	3/31/2025	No	No	No
22K02	H. Lee Moffitt Cancer Center & Research Institute	Jennifer I. Vidrine, PhD	\$1,451,330	Enhancing Long-Term Smoking Abstinence Among Cervical Cancer Survivors	9/30/2026	No	No	Yes
22K03	University of Florida	Bently Doonan, MD, MS	\$1,458,000	Novel RNA-Nanoparticle Vaccine for Treatment of Early Melanoma Recurrence Following Adjuvant Anti-PD1 Antibody Therapy	9/30/2026	No	Yes	Yes
22K05	University of Florida	Daiqing Liao, PhD	\$583,200	Development of First-in-Class HDAC3-selective Degradors for Breast Cancer Therapy	3/31/2025	No	No	No
22K06	University of Miami	Nagaraj Nagathihalli, PhD	\$583,200	Targeting CREB to Improve Response to Immunotherapy in Pancreatic Cancer	3/31/2025	No	No	No
22K07	University of Miami	Roberto Vazquez-Padron, PhD	\$583,200	The Impact of Smoking in the Venous Cellular Ecosystem and its Consequences for Arteriovenous Fistula Maturation in CKD Patients	3/31/2025	No	No	Yes
22K08	University of South Florida	Ji Li, PhD	\$583,200	Sirtuin 1 and Cardiovascular Impairment by Cigarette Smoking	3/31/2025	No	No	No

Table 11: James and Esther King Fiscal Year 2020-2021 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
21K04	H. Lee Moffitt Cancer Center & Research Institute	Christine H. Chung, PhD	\$1,339,540	Effects of Hypoxia in Tumor Immune Microenvironment in Tobacco-Related Head and Neck Squamous Cell Carcinoma	4/30/2026	No	No	Yes
21K09	Florida International University	Hoshang Unwalla, PhD	\$535,680	Pathophysiological Mechanisms and Therapeutics for Chronic Lung Inflammation in Smokers and in COPD	12/31/2024	No	No	No
21K11	University of Florida	Chengguo Xing, PhD	\$1,114,480	Reducing Tobacco-Associated Lung Cancer Risk: A Randomized Clinical Trial of AB-Free Kava	4/30/2026	Yes	No	No
21K12	Florida State University	Michelle S. Parvatiyar, PhD	\$535,396	Determining How Tobacco Use and Obesity Exacerbates a Novel Cardiovascular Risk Factor	12/31/2024	Yes	No	Yes

Table 12: James and Esther King Fiscal Year 2019 – 20 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
20K08	University of Florida	Dorian K. Roase, PT, MS, PhD, FAPTA	\$688,940	Augmenting a Post-Stroke Wellness Program with Respiratory Muscle Training: A Randomized Controlled Trial	5/31/2025	No	No	Yes
20K10	University of Miami	Taghrid Asfar, MD, MSPH	\$1,253,415	Developing and Testing Waterpipe-Specific Health Warning Labels Targeting Young People in Florida	4/30/2025	No	No	Yes

Appendix C: Live Like Bella Pediatric Research Initiative Program

Program Overview

The purpose of the Live Like Bella Initiative is to advance progress toward curing pediatric cancer through grants awarded through a peer-reviewed, competitive process. The Live Like Bella Initiative will provide grants for research to further the search for cures for pediatric cancer by pursuing the following goals:

- Expanding pediatric cancer research capacity in Florida
- Improving both research and treatment through greater pediatric enrollment in clinical trial networks
- Reducing the impact of pediatric cancer on disparate groups

For FY 2024-25, 26 grant applications were submitted in response to the Live Like Bella Funding Opportunity Announcement, and nine pediatric cancer research projects were awarded. As the program continues to become established, more grant applications will be submitted.

Table 13: Live Like Bella Fiscal Year 2024-25 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
25L01	University of Florida	John Ligon, MD	\$300,000	TCR-alpha/beta+ and CD19+ depleted KIR/KIR ligand-mismatched Haploidentical Hematopoietic Stem Cell Transplant and Zoledronate for Pediatric High Risk Solid Tumors	7/31/2028	No	No	No
25L02	All Children's Research Institute	Masanobu Komatsu, PhD	\$250,000	BBB-Penetrating Chemotherapy and TLS-Inducing Innate Immune Agonists for Pediatric Brain Tumors	7/31/2028	No	No	No
25L03	University of Florida	Nathan Seligson, PharmD	\$296,835	CDKN2A Signaling in Ewing Sarcoma	7/31/2028	No	No	No
25L04	University of Florida	Paul Castillo, MD	\$250,000	Enhancing CD70 CAR T Activity against Acute Myeloid Leukemia Leveraging Chemokine Signaling	7/31/2028	No	No	No
25L05	Florida International University	Diana Azzam, PhD	\$100,000	Optimizing Pediatric Brain Tumor Treatment: Integrating Radiation and Chemotherapy in Functional Precision Medicine	7/31/2026	No	No	No
25L06	University of Florida	Zhipeng Li, PhD	\$300,000	Targeting Ferroptosis as a Novel Therapeutic Strategy against Pediatric Neuroblastoma	7/31/2028	No	No	No
25L07	Nemours Children's Hospital	Tamarah Westmoreland, MD, PhD	\$250,000	Treatment of High-Risk Neuroblastoma in Metastatic and Immunocompetent Murine Models with the Oncolytic Zika Virus	7/31/2028	No	No	No
25L08	All Children's Research Institute	Ranjan Perera, PhD	\$600,000	ITo Develop Novel Lipid Nanoparticle-Based Therapeutics to Target H2.0-Like Homeobox Transcription Factor (HLX) to Treat Group 3 Medulloblastoma in Children	7/31/2028	No	No	No
25L09	Florida State University	Q. X. Amy Sang, PhD	\$248,517	Development of CAR-NK cell therapy for the treatment of neuroblastoma	7/31/2028	No	No	No

Table 14: Live Like Bella Fiscal Year 2023-24 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
24L01	H. Lee Moffitt Cancer Center & Research Institute	Andrew Brohl, MD	\$120,000	Towards Targeting the Chromosome 19 microRNA Cluster in Undifferentiated Embryonal Sarcoma of the Liver	5/31/2026	No	No	No
24L02	H. Lee Moffitt Cancer Center & Research Institute	Andrii Monastyrskyi, PhD	\$240,000	Development of EWS/FLI Targeted Therapies for Ewing Sarcoma	5/31/2027	Yes	No	No
24L03	H. Lee Moffitt Cancer Center & Research Institute	Jonathan Metts, MD	\$893,956	Metastatic Ewing Sarcoma Trial Testing Schedule Enhancements to Improve Outcomes	5/31/2028	Yes	No	No
24L04	University of Florida	Duane Mitchell, MD, PhD	\$864,000	CHAMP1ON – Combinatorial Hematopoietic Stem Cell and Monoclonal Antibody PD-1 Blockade Phase 1 “Window of Opportunity” Trial for Recurrent Pediatric High-Grade Glioma	5/31/2028	No	No	No
24L05	The Wertheim UF Scripps Institute	Michalina Janiszewska, PhD	\$287,937	Oncofetal Protein as a Therapeutic Target in Pediatric Brain Tumors	5/31/2027	No	No	No
24L06	University of Miami	Julio Barredo, MD	\$240,000	AMP Activated Protein Kinase (AMPK) Regulates Survival Responses at the Convergence of Energy Metabolism and Epigenetics in Acute Lymphoblastic Leukemia	5/31/2027	Yes	No	No
24L07	University of Miami	Surinder Kumar, PhD	\$288,000	SIRT7 as a Novel Therapeutic Target in Ewing Sarcoma	5/31/2027	No	No	No
24L08	University of Central Florida	Griffith Parks, PhD	\$96,107	Incucyte ® Real-Time Pediatric Cancer Cell Analysis Equipment	3/31/2025	No	No	No

Table 15: Live Like Bella Program Fiscal Year 2022-23 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
23L01	University of Florida	Jianping Huang, MD, PhD	\$297,634	Phase I/II Clinical Trial for Malignant Pediatric Gliomas Using 8R-70CAR T Cells	3/31/2027	Yes	No	Yes
23L02	University of Florida	Jordan B. Milner, MD	\$124,025	Utilization of Alpha/Beta T Cell and B Cell Depletion in Allogeneic Stem Cell Transplantation in Malignant Diseases	3/31/2026	Yes	No	No
23L03	University of Florida	Brent Reynolds, PhD	\$248,050	Intranasal Delivery of BMP-4 Using Plant-Derived Extracellular Vesicles for Treatment of Pediatric Glioma	3/31/2025	Yes	No	No
23L04	University of Florida	Steven Bruner, PhD	\$248,029	Functional Role of the SRP54 Gene in Pediatric Leukemia and Bone Marrow Failure Syndromes	3/31/2025	No	No	Yes
23L05	University of Florida	Hugh Fan, PhD	\$248,035	Towards Liquid Biopsy for Pediatric Sarcoma	3/31/2026	No	No	Yes
23L06	Florida State University	Jerome Irianto, PhD	\$124,025	Evaluation for LARP6 Inhibitor for the Treatment of Pediatric Glioblastoma	3/31/2026	No	No	No
23L07	University of Central Florida	Annette Khaled, PhD	\$248,050	Targeting Chaperonin-Containing TCP-1 for the Treatment of Neuroblastoma	3/31/2025	Yes	No	No
23L08	Florida Atlantic University	Patrick Grant, PhD	\$248,050	Identification of Epigenetic Mechanisms of Resistance to Chemotherapy in Pediatric Acute Lymphoblastic Leukemia	3/31/2025	Yes	No	No
23L09	H. Lee Moffitt Cancer Center & Research Institute	Conor C. Lynch, PhD	\$248,049	Identifying How HDAC Suppression of SLC17A7 Drives Osteosarcoma Progression and Metastasis	3/31/2026	No	No	Yes
23L10	H. Lee Moffitt Cancer Center & Research Institute	Timothy Shaw, PhD	\$122,714	Targeting ER Stress in Pediatric Acute Myeloid Leukemia	3/31/2026	No	No	Yes
23L11	H. Lee Moffitt Cancer Center & Research Institute	Jonathan Metts, MD	\$297,629	Feasibility of Generating Novel Translational and Therapeutic Strategies Based on a Multicenter, Pediatric and AYA Evolutionary Tumor Board	3/31/2027	Yes	No	No
23L12	University of Miami	Anis Ahmad, PhD	\$248,050	Preventing Treatment-Induced Nephrotoxicity in Pediatrics Cancer Survivors	3/31/2026	Yes	No	Yes
23L13	University of Miami	Warren Alperstein, MD	\$297,660	Investigating the Impact of Demographic Factors on the Development of GVHD	3/31/2025	No	No	No

Table16: Live Like Bella Fiscal Year 2021-22 Grants

Grant #	Organization	Principal Investigator	Award Amount	Project Title	End Date	Follow-on Funding	Patents	Publications
22L02	Nemours Children's Hospital	Tamarah Westmoreland, MD, PhD	\$250,000	Treatment of Diffuse Intrinsic Pontine Glioma with the Oncolytic Zika Virus	3/31/2025	No	No	No
22L03	University of Florida	Jonathan Licht, MD	\$250,000	Elucidation and Targeting of Epigenetic Changes Resulting in Glucocorticoid Resistance in Pediatric Acute Lymphoblastic Leukemia	3/31/2025	No	No	Yes
22L04	University of Central Florida	Alicja Copik, PhD	\$250,000	Edited Natural Killer Cells as an Immunotherapeutic Approach for the Treatment of Pediatric Cancers	3/31/2025	No	No	No
22L05	University of Central Florida	Griffith Parks, PhD	\$250,000	Oncolytic Virus in Combination with NK Cells for Treatment of Pediatric Cancers	3/31/2025	No	No	Yes
22L10	University of Florida	Ramzi Salloum, PhD	\$100,104	Co-Opting TME Lactate Signal to Benefit T Cell Therapy	9/30/2024	No	No	No

Appendix D: National Institutes of Health (NIH) Research Funding

In FY 2024-25, the state saw a decrease in total NIH funding from \$861 million to \$747 million. Florida ranked 13th in the nation for total number of biomedical grants awarded:

Table 17: Top 20 Recipients for NIH Research

National Institutes of Health Biomedical Research State Fundings and Rankings 2025

State	Number of Awards	Total Funding	Rank
California	7,401	\$4,528,999,132	1
New York	4,974	\$2,925,932,543	2
Massachusetts	4,778	\$2,905,213,297	3
Pennsylvania	3,363	\$1,944,710,982	4
Texas	3,003	\$1,596,144,725	5
North Carolina	2,154	\$1,321,108,871	6
Maryland	1,852	\$1,158,280,070	7
Washington	1,410	\$1,075,916,693	8
Illinois	1,807	\$1,069,242,798	9
Michigan	1,616	\$869,068,855	10
Ohio	1,626	\$865,153,560	11
Missouri	1,274	\$763,444,367	12
Florida	1,295	\$747,098,964	13
Connecticut	1,222	\$710,897,600	14
Georgia	1,246	\$679,370,457	15
Tennessee	1,098	\$675,460,677	16
Minnesota	1,083	\$616,026,492	17
Wisconsin	910	\$532,114,068	18
Colorado	1,089	\$497,911,656	19
Virginia	832	\$428,002,892	20

(Source: NIH Research Portfolio Online Reporting Tools (Report). "Data as of 9/11/25. Data will include R&D contracts, fellowships, other grant awards not yet past their budget start date." [Report.NIH.gov/award/index.cfm](https://report.nih.gov/award/index.cfm).)