

1. Project Title

# The Florida Senate Local Funding Initiative Request Fiscal Year 2023-2024

LFIR # 1951

UCF College of Medicine - Immunotherapy to Prevent & Improve Muscle & Bone Waste

2. Senate Sponsor Tom Wright

**3. Date of Request** 02/22/2023

#### 4. Project/Program Description

Funding will be used to develop an immunotherapy against both myostatin and activin A, proteins that negatively regulate muscle growth. By targeting these together, we aim to prevent muscle waste associated with space flight for astronauts and with normal aging for adults. An additional benefit of targeting inhibitors of muscle growth would include improved conservation of bone mass in both populations.

#### 5. State Agency to receive requested funds

Board of Governors

State Agency contacted? No

#### 6. Amount of the Nonrecurring Request for Fiscal Year 2023-2024

Type of Funding	Amount
Operations	500,000
Fixed Capital Outlay	0
Total State Funds Requested	500,000

7. Total Project Cost for Fiscal Year 2023-2024 (including matching funds available for this project)

Type of Funding	Amount	Percentage	
Total State Funds Requested (from question #6)	500,000	100%	
Matching Funds			
Federal	0	0%	
State (excluding the amount of this request)	0	0%	
Local	0	0%	
Other	0	0%	
Total Project Costs for Fiscal Year 2023-2024	500,000	100%	

#### 8. Has this project previously received state funding? No

Fiscal Year	Amount		Specific	Vetoed
(уууу-уу)	Recurring	Nonrecurring	Appropriation #	

#### 9. Is future funding likely to be requested?

Yes	
500,000	

a. If yes, indicate nonrecurring amount per year.

### b. Describe the source of funding that can be used in lieu of state funding.

private dollars

#### 10. Has the entity requesting this project received any federal assistance related to the COVID-19 pandemic?

No



The Florida Senate Local Funding Initiative Request Fiscal Year 2023-2024

If yes, indicate the amount of funds received and what the funds were used for.

### **Complete questions 11 and 12 for Fixed Capital Outlay Projects**

- 11. Status of Construction
  - a. What is the current phase of the project?

OPlanning ODesign OConstruction

- b. Is the project "shovel ready" (i.e permitted)?
- c. What is the estimated start date of construction?
- d. What is the estimated completion date of construction?
- 12. List the owners of the facility to receive, directly or indirectly, any fixed capital outlay funding. Include the relationship between the owners of the facility and the entity.

#### 13. Details on how the requested state funds will be expended

Spending Category	Description	Amount
Administrative Costs:		
Executive Director/Project Head Salary and Benefits		0
Other Salary and Benefits		0
Expense/Equipment/Travel/Supplies/ Other	Covered by designated research partners in collaboration with UCF College of Medicine. Costs requested for travel for Dr. Parks and principal researcher between the designated partner and UCF College of Medicine (2 trips X 2 investigators X 0.44 per mile X 50 miles plus meals) = \$200	200
Consultants/Contracted Services/Study		0
Operational Costs: Other		
Salary and Benefits	Salary and benefits are requested for 1.0 FTE postdoctoral fellow (\$60,000 for 1 year) Salary and benefits for 0.5 FTE graduate student (\$30,000 for 1 year) All additional project salary and benefits will be covered by designated research partners in collaboration with UCF College of Medicine.	90,000
Expense/Equipment/Travel/Supplies/ Other	Costs requested for travel for Trainees between research partner and UCF College of Medicine (5 trips X 2 trainees X 0.44 per mile X 50 miles plus meals) = \$500	500
Consultants/Contracted Services/Study	All NHP studies to assess safety/tolerability and efficacy will be contracted to an external service provider. Non-GLP studies will be conducted at Envol Biomedical, a Florida-based contract research organization.	409,300
Fixed Capital Construction/Majo	r Renovation:	
Construction/Renovation/Land/ Planning Engineering		0
Total State Funds Requested (m	ust equal total from question #6)	500,000



# The Florida Senate Local Funding Initiative Request Fiscal Year 2023-2024

#### 14. Program Performance

#### a. What specific purpose or goal will be achieved by the funds requested?

To develop an immunotherapy against both myostatin and activin A, proteins that negatively regulate muscle growth. By targeting these together, we aim to prevent muscle waste associated with space flight for astronauts and with normal aging for adults. An additional benefit of targeting inhibitors of muscle growth would include improved conservation of bone mass in both populations.

#### b. What activities and services will be provided to meet the intended purpose of these funds?

Completing the work necessary to identify our lead immunotherapy targeting Activin A and Myostatin. The lead immunotherapy will be tested for efficacy, and in parallel, process development activities will be initiated to ensure scalability of the drug product and produce the drug under good manufacturing practices in preparation for the clinical trial.

#### c. What direct services will be provided to citizens by the appropriation project?

With successful preclinical and clinical development, this immunotherapy could benefit astronauts by preventing muscle and bone loss associated with space flights. This immunotherapy is also intended to benefit older individuals experiencing bone and muscle resorption associated with age.

#### d. Who is the target population served by this project? How many individuals are expected to be served?

Greater than 800 individuals who are elderly, astronauts, or those will poor physical health will be treated.

#### e. What is the expected benefit or outcome of this project? What is the methodology by which this outcome will be measured?

This immunotherapy is intended to benefit a large population experiencing health complications associated with muscle and bone loss. While astronauts represent a small and select population, the older population who could benefit from this therapy in Florida represents 10,464,793 individuals, according to 2022 demographics. Improved bone and muscle physiology would prevent some of the acute pathological effects of space flights, prevent or reduce injuries, and improve recovery after injuries.

#### f. What are the suggested penalties that the contracting agency may consider in addition to its standard penalties for failing to meet deliverables or performance measures provided for the contract?

Clear milestones and criteria for success will be defined at initiation of the project. The research partner is fully committed to deliver; however, we cannot guaranty success of an investigational drug. If a portion or the entirety of the project would be canceled for unknown circumstances, the research partner will return the portion of the funds that were not used.

#### **15. Requester Contact Information**

a. First Name	Alexander	Last Name	Cartwright
b. Organization	University of Central Florid	da	
c. E-mail Address	president@ucf.edu		
d. Phone Number	(407)823-2484	Ext.	

#### **16. Recipient Contact Information**

a. Organization University of Central	l Florida
---------------------------------------	-----------

- b. Municipality and County | Orange
- c. Organization Type



LFIR # 1951

□For Profit Entity				
□Non Profit 501(c	:)(3)			
□Non Profit 501(c	:)(4)			
□Local Entity				
☑University or Co	llege			
□Other (please sp	becify)			
d. First Name	Alexander	Last Name	Cartwright	
e. E-mail Address	president@ucf.edu			
f. Phone Number	(407)823-2484			
17. Lobbyist Contact Information				
a. Name	Janet D. Owen			
b. Firm Name				
c. E-mail Address	janet.owen@ucf.edu			
d. Phone Number	(407)823-3733			