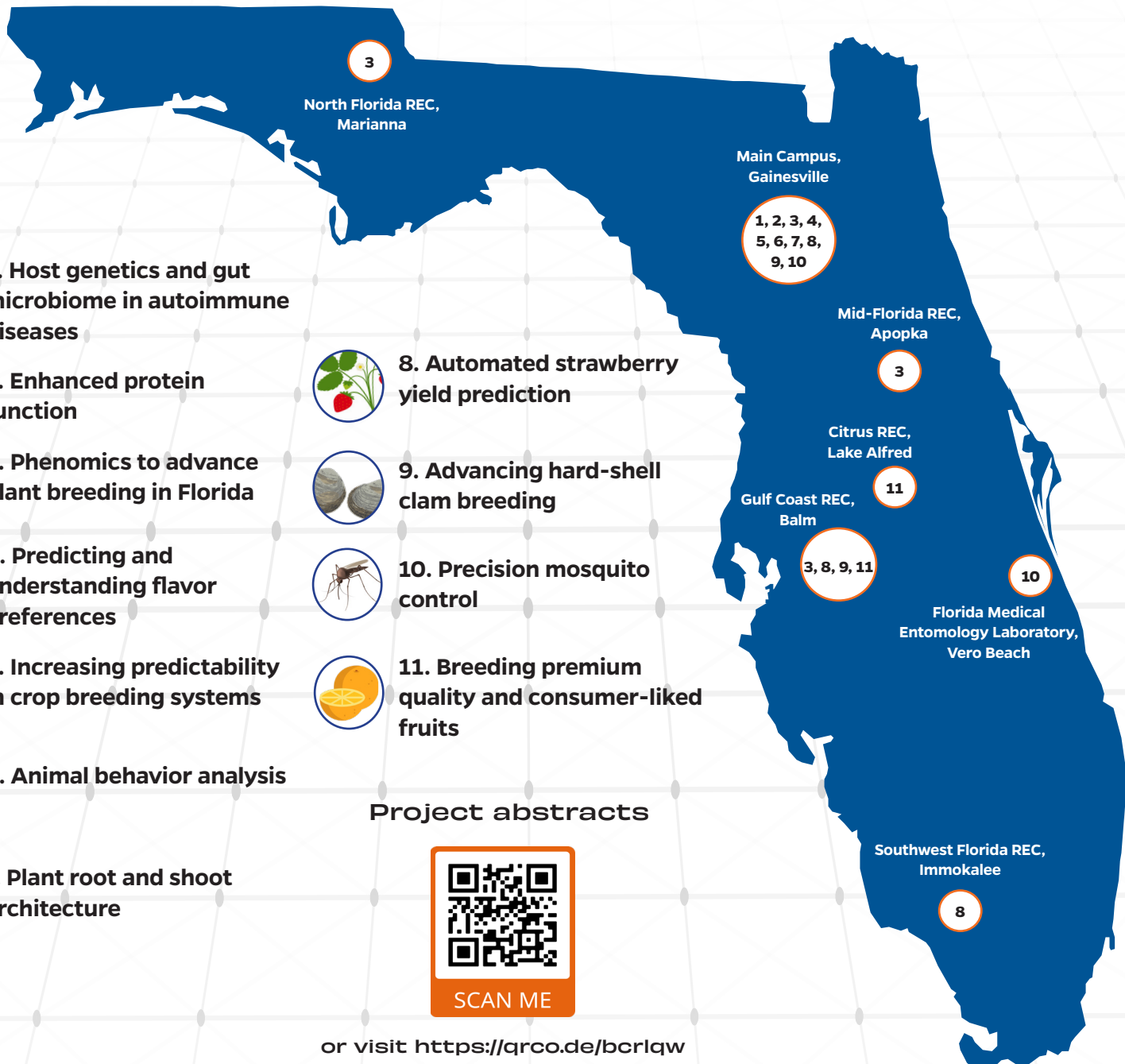


# Launching Innovative Faculty Teams in Artificial Intelligence (LIFT AI)

UF/IFAS is committed to leveraging artificial intelligence to solve problems for Florida and beyond. The office of the UF/IFAS Dean for Research awarded 11 faculty teams a total of \$261,723 in funding through a new program called **Launching Innovative Faculty Teams in AI (LIFT AI)**. The creation of these teams and a gift from NVIDIA upgrading the University of Florida's HiPerGator super computer will foster important AI research in agriculture, natural resources, and human systems.

## LIFT AI Project Locations



**1. Host genetics and gut microbiome in autoimmune diseases**



**2. Enhanced protein function**



**3. Phenomics to advance plant breeding in Florida**



**4. Predicting and understanding flavor preferences**



**5. Increasing predictability in crop breeding systems**



**6. Animal behavior analysis**



**7. Plant root and shoot architecture**



**8. Automated strawberry yield prediction**



**9. Advancing hard-shell clam breeding**



**10. Precision mosquito control**



**11. Breeding premium quality and consumer-liked fruits**

Project abstracts



SCAN ME

or visit <https://qrco.de/bcrlqw>

# LIFT AI faculty teams include:

## 10 UF/IFAS Departments:

**Agricultural & Biological Engineering (ABE)**  
**Agronomy (AGR)**  
**Animal Sciences (ANS)**  
**Entomology & Nematology (ENY)**  
**Environmental Horticulture (ENH)**  
**Food Science & Human Nutrition (FSHN)**  
**Forest, Fisheries & Geomatics Sciences (FFGS)**  
**Horticultural Sciences (HOS)**  
**Microbiology & Cell Science (MCS)**  
**Plant Pathology (PLP)**

## 6 UF/IFAS Research and Education Centers:

**Citrus REC (CREC)**  
**Florida Medical Entomology Laboratory (FMEL)**  
**Gulf Coast REC (GCREC)**  
**Mid-Florida REC (MREC)**  
**North Florida REC (NFREC)**  
**Southwest Florida REC (SWFREC)**

## Other affiliations:

**Florida Museum of Natural History (FMNH)**  
**Penn State University**

### 1 - Autoimmune diseases 2- Enhanced protein function



**PI: Raquel Dias** | Microbiology & Cell Science  
 Co-PIs:  
 1 - Luiz Roesch (MCS)  
 2 - Matias Kirst (FFGS), Marcio Resende (HOS)

### 3 - Phenomics for plant breeding



**PI: Changying "Charlie" Li** | Agricultural & Biological Engineering  
 Co-PIs: Heqiang Huo (MREC/HOS), Sam Hutton (GCREC/HOS), Henry Medeiros (ABE), Patricio Muñoz (HOS), Barry Tillman (NFREC/AGR), Xu "Kevin" Wang (GCREC/ABE)

### 4 - Flavor preferences



**PI: Felipe Ferrão** | Horticultural Sciences  
 Co-PIs: Raquel Dias (MCS), Patricio Muñoz (HOS), Marcio Resende (HOS), Charles Sims (FSHN), Denise Tieman (HOS)

### 5 - Predictability in crop breeding



**PI: Carlos "Charlie" Messina** | Horticultural Sciences  
 Co-PIs: Diego Jarquin (AGR), Henry Medeiros (ABE)

### 6 - Animal behavior analysis



**PI: Daniel Hofstetter** | Agricultural & Biological Engineering  
 Co-PIs: John Boney (ANS at Penn State University), Henry Medeiros (ABE)

### 7 - Plant growth



**PI: Jeongim Kim** | Horticultural Sciences  
 Co-PIs: Thomas Colquhoun (ENH), Haipeng Yu (ANS)

### 8 - Strawberry yield prediction



**PI: Wonsuk "Daniel" Lee** | Agricultural & Biological Engineering  
 Co-PIs: Shinsuke Agehara (GCREC/HOS), Yiannis Ampatzidis (SWFREC/ABE), Natalia Peres (GCREC/PLP)

### 9 - Clam breeding



**PI: Huiping Yang** | Forest, Fisheries, & Geomatics Sciences  
 Co-PIs: Xu "Kevin" Wang (GCREC/ABE), Haipeng Yu (ANS)

### 10 - Precision mosquito control



**PI: Lindsay Campbell** | Florida Medical Entomology Laboratory/ Entomology & Nematology  
 Co-PI: Robert Guralnick (FMNH)

### 11 - Breeding premium fruits



**PI: Yu Wang** | Citrus REC/ Food Science & Human Nutrition  
 Co-PIs: Fred Gmitter (GCREC/HOS), Xu "Kevin" Wang (GCREC/ABE), Vance Whitaker (GCREC/HOS)