

Collaborations in Grants Development: Insights from the Florida–Caribbean Consortium for Agricultural Education

**Mahadev Bhat
Krish Jayachandran
Pilar Maul
Heather Belmont
Arlin Toro**

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Outline of our Presentation

Introduction

Basic philosophy of collaboration

Steps in collaboration development

An example: FCCAgE

Concluding remarks

Introduction

The process of collaboration will start much ahead of grant writing

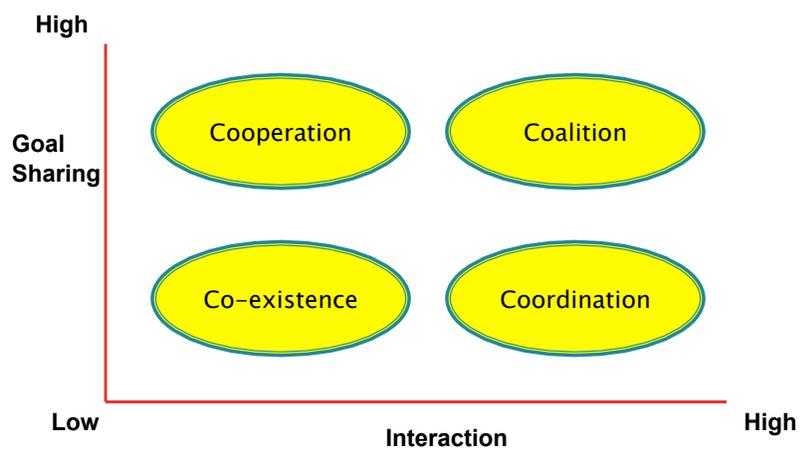
Smaller research grants

Faculty collaborations

Student transfers or placements

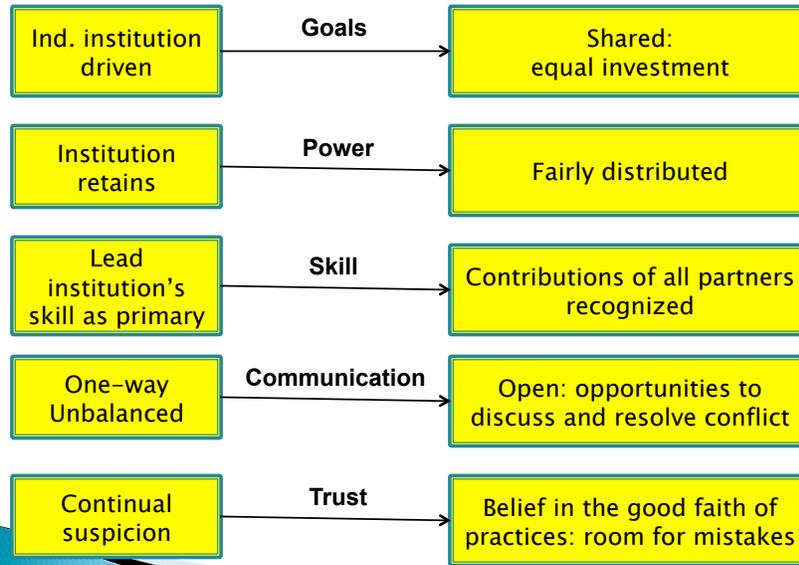
Graduate students placement

Philosophy of Collaboration



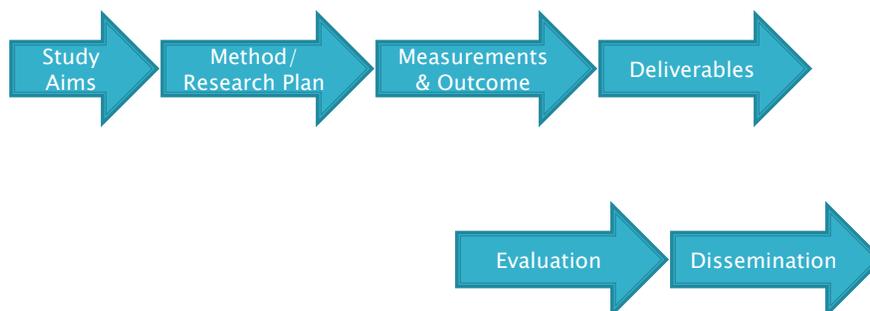
(Source: Miner et al., 2001)

Foundation of Sound Collaboration



(Modified from Willo Pequegnat, 2010)

Collaboration all the way through



Stages of collaborative partnership

- **Getting down to business**
Read the RFA together
- **Work backward**
What is the main program goal?
- **Align inst. strengths with goals**
- **Identify inst. limitations early on**

Stages of collaborative partnership

- **Pay attention to special needs**
Do you need admn. Clearance?
- **Brainstorm ideas**

Be INNOVATIVE
“Recycling” not a good idea
- **Put your best step forward**

USDA–NIFA HSI Grants Program
funded

Florida–Caribbean Consortium for
Agricultural Education and
Hispanic Workforce Development
(FCCAgE)

FCCAgE...

Is a consortium of four HSIs in Florida and Puerto Rico.

Purpose: Train 50+ undergraduates, and 4 masters students in biological and natural science areas for **career placement** in USDA and other federal agencies.

Main target: large body of Hispanic and under-represented students



HSI Consortium members:



NON- HSI partners:



Miami Dade County Public School District



FAIRCHILD TROPICAL BOTANIC GARDEN
Exploring, Explaining and Conserving the World of Tropical Plants



Area organic growers....

Consortium's Strength

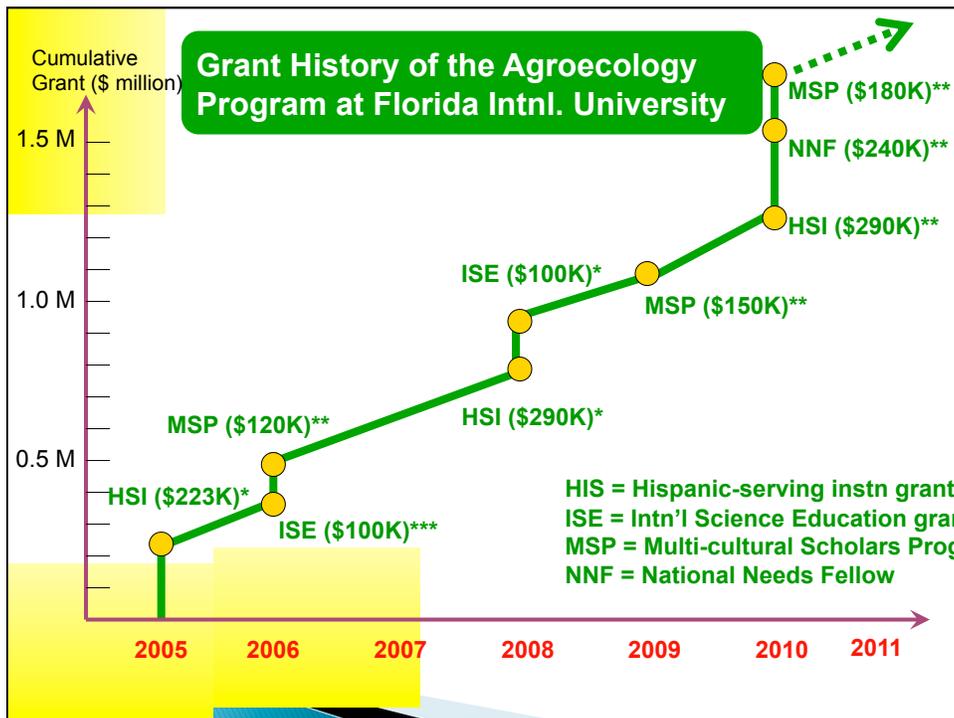
FCCAgE serves a large Hispanic student body

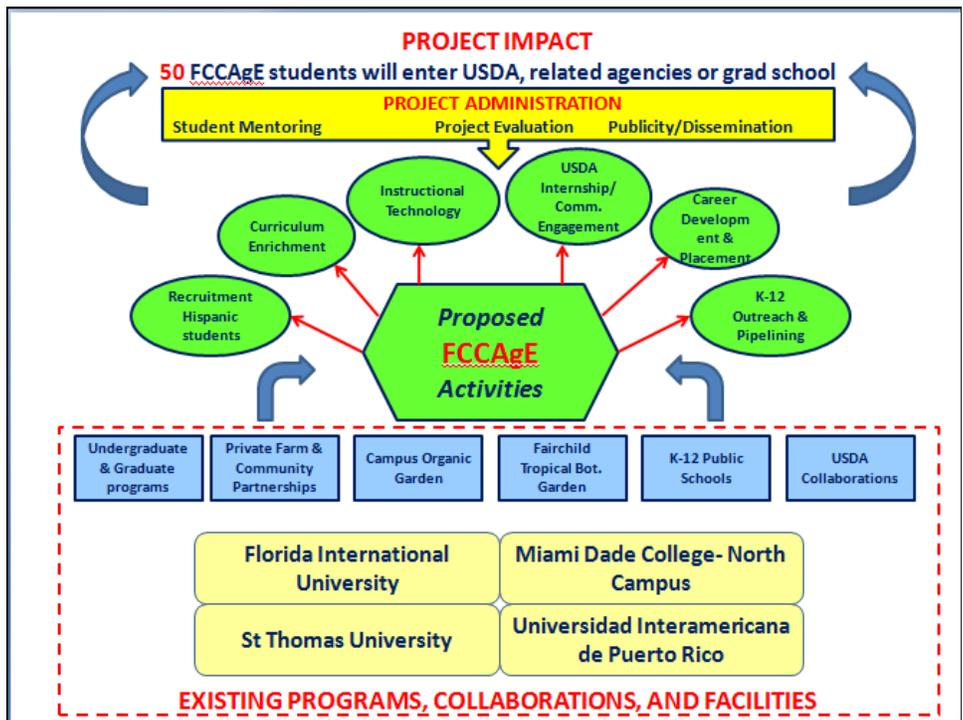
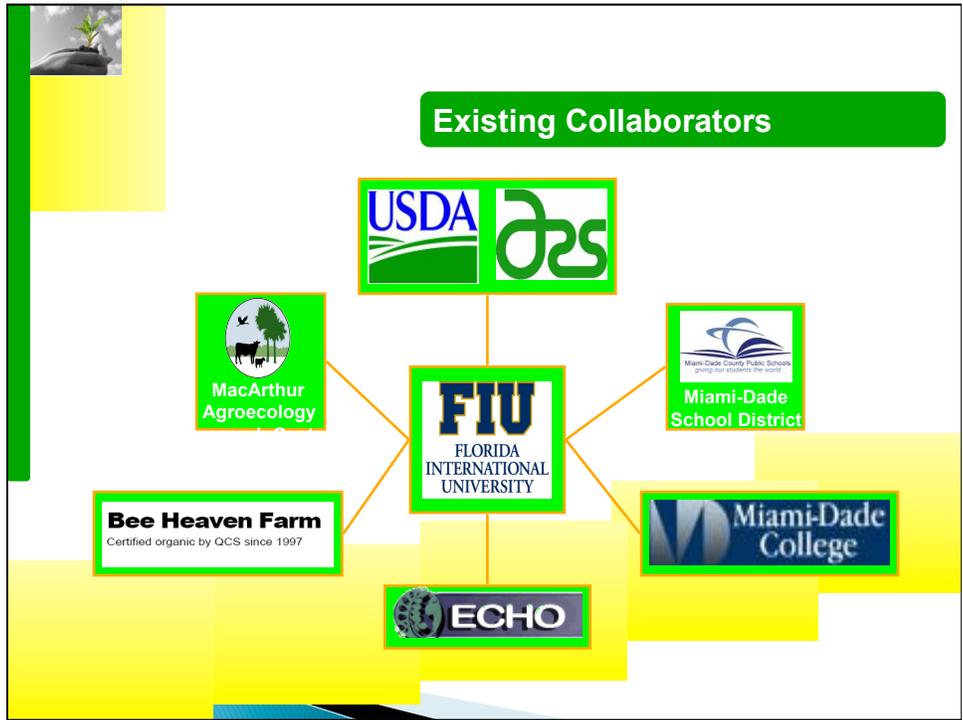
Well-established plant, food and environmental sciences Programs

The project team has a winning record of

- Several USDA NIFA grants (over \$2 million) in the last six years

- placing student interns and graduates in USDA





ACTIVITY TARGET

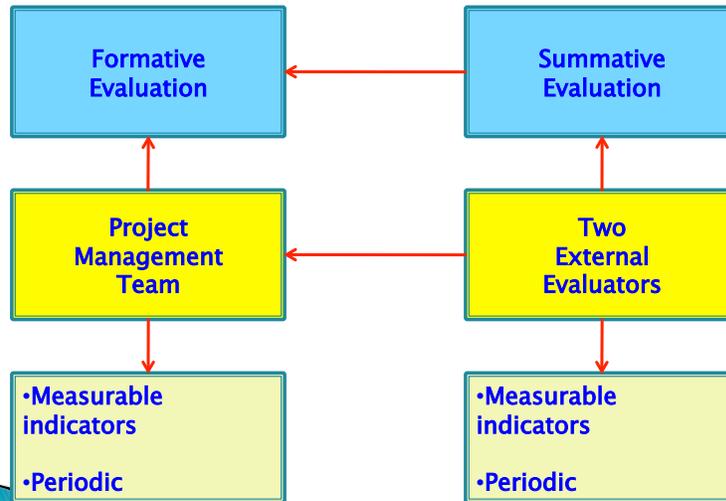
Table 2. The number of supported students and graduates at the end of four years.

Site	Bachelor's in Science				Minimum Number of Graduates After 4 Years	Master's Degree	Doctoral Degree
	Number of Students Supported each Year						
	Year 1	Year 2	Year 3	Year 4			
FIU	18	17	16	15	15	2	1
MDC	18	17	16	15	15	-	
STU	9	9	8	8	8	-	
UIA	10	10	8	8	8	2	
Total	55	53	48	46	46	4	1

PRODUCTS AND RESULTS

Strategic Area	Indicators	Level
Curriculum Development	# students enrolled	60
	# courses	15 - 20
Faculty Development	# faculty	5
	Professional meetings (days)	10
Equip/edu. materials-- student training	Supplies/printed materials (\$)	\$10,000
	Lap equipment (\$)	\$20,000
Instructional delivery	# faculty	10-15
	Technology use (hours)	500 - 1000
Experiential Learning	# hours/day	2
	# days	150
Recruitment	# students	60-65
	# school visits	10
Retention	# students enrolled	60
	# advisor hours	Variable
Degrees - level of Support	# BS degree	46
	# Masters	4
	# PhD	1
Students Stipends	# supported during the grant period	51 - 60
	# supported per year	51-60
About the students Served	# undergraduates	46
	# under-represented minority	40
K-12 Outreach	# students participation	1000
	# teachers participation	30

PRODUCTS AND RESULTS



Dissemination

- ▶ Project website – fully functional in four months
- ▶ Promotional materials and displays
- ▶ Through non-HSI partners
- ▶ Student/faculty presentations on university/college campuses
- ▶ Annual student symposium
- ▶ National conferences
- ▶ Publications

Next, I Will Turn it over to

Dr. Pilar Maul

- ▶ To talk about institutional strength
- ▶ Agency collaboration



St. Thomas University, Miami Gardens, FL

- Small private HSI university
62% Hispanic and minorities
- Offers Bachelor degrees in Biology, Chemistry, Mathematics and Computer Science
Undergraduates only
- Ongoing Research Programs

STU's Pre-FCCAgE grant "Incubation" Period

➤ **STU offers undergraduate research-based B.S. degrees in Biology, Chemistry and Mathematics**

➤ **Educational grants supporting STEM Programs:**

- CCRAA "Si Puedo" STEM Program STU-MDC
- MSEIP STEM Program MDC-STU

Science Fellows Program
Paid Summer Research internships

STU's Pre-FCCAgE grant "Incubation" Period

➤ **Previous exposure to USDA and USDA-HSI Programs**

Postdoctoral USDA appointment (2002-2005)

2009 USDA Kika de la Garza Science Fellowship

2010 USDA-HSI Priority Setting and Strategic Planning Workshop

➤ **Ongoing research collaboration with other institutions**

- USDA,ARS.SHRS, Miami, FL
- Bok Tower Gardens, Rare plant Conservation Program, Lake Wales, FL

STU Research-based curriculum

- ▶ Undergraduate research courses:
 - BIO 214 – Introduction to Research Methods
 - BIO 314- Research I (6 h/week)
 - BIO 315- Research II (6 h/week)
 - BIO 414- Advanced Research I (12 h/week)
 - BIO 415- Advanced Research II (12 h/week)
 - BIO 491 – Senior Thesis
- ▶ Paid summer internships (8 weeks)
- ▶ Committed faculty. Ongoing research programs



The Subtropical Horticulture Research Station, Miami, FL



- **Manages one of the 18 National Germplasm Repositories:**
U.S. clonal collections of mango, avocado, cacao, banana, sugarcane, palms, among others



- **Three Research Units:**
 - Plant genetics/Plant Sciences**
 - Mapping genes
 - Genetic variability assessment
 - Chemistry**
 - Entomology**
 - Development of methods for the management of exotic insect pests



FOSMID SEQUENCING FOR IMPROVING THE QUALITY OF GENOME ASSEMBLY IN CACAO

Meyling Gonzalez and Natalia Pelaez, STU

Mentors:

Dr. David Kuhn, Dr. Ray Schnell, USDA, ARS, SHRS

Dr. Pilar Maul, STU

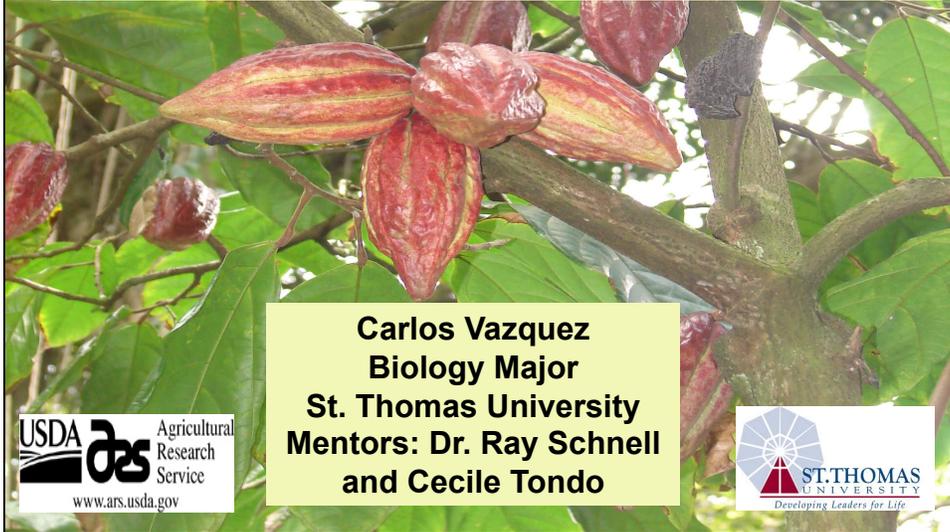


Identity Verification in Cacao Using Genetic Fingerprinting

Emer Bajuelos, STU

Mentors: Dr. Ray Schnell and Cecile
Tondo, USDA, ARS, SHRS

Determining Genetic Resistance to *Phytophthora* in Cacao by Molecular Marker Fingerprinting



Carlos Vazquez
Biology Major
St. Thomas University
Mentors: Dr. Ray Schnell
and Cecile Tondo



Chemical Characterization of Avocado (*Persea americana*) Cultivars from Three Avocado Races Using Two Volatile Collection Techniques for Leaf and Bark Material



Tais Labrador, STU

**Mentors: Dr. Bob Heath
and Elena Schnell**

2010 and 2011 STU - USDA Summer Internships -

“Celebrating Excellence in Agricultural Research”



2011 STU Science Fellows Summer Program
“Celebrating Excellence In Research”



Annual Regional Cell Biology Symposium at STU



Concluding Remarks

THANK YOU