



# BIOSPARK

VALENCIA  
COLLEGE

## Transforming the Biotechnology Internship Experience to Empower Students and Promote Program Growth

NSF Grant#2000242

# Our Grant Team



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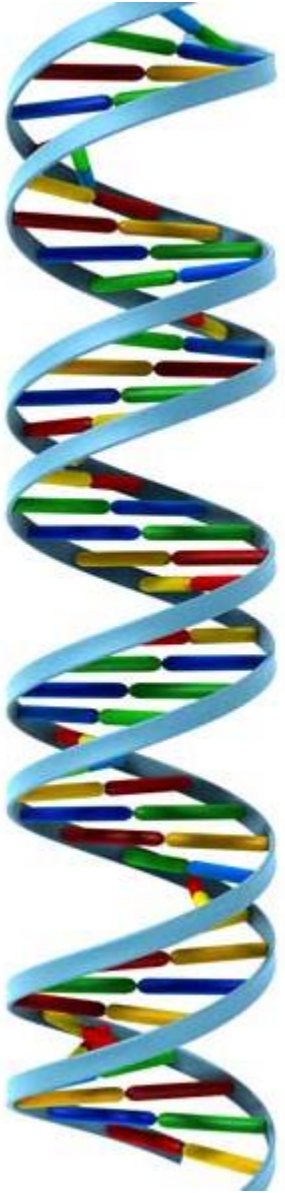
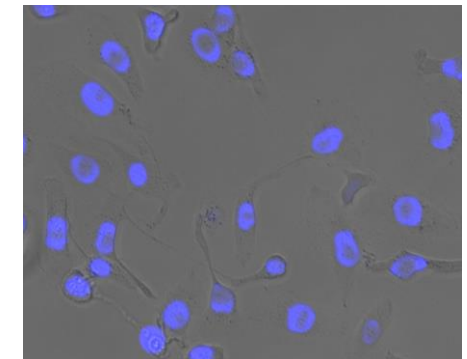
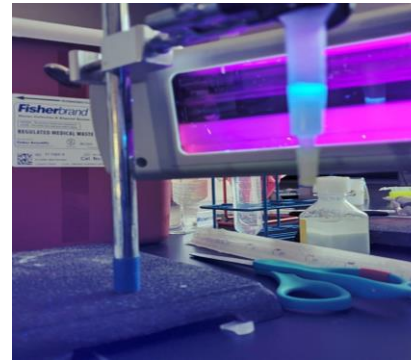
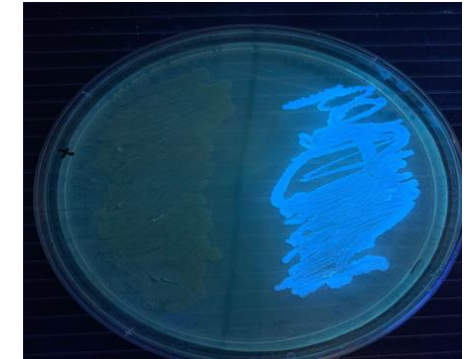
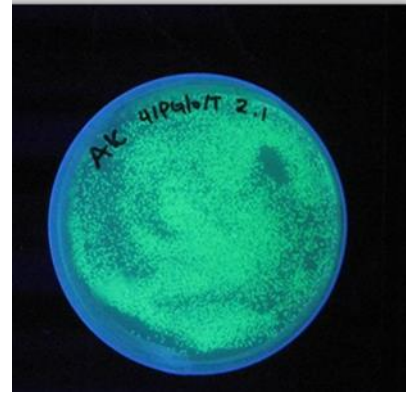


# Outline

1. Valencia Biotechnology Program
2. Impact on Student Opportunities
3. Program initiatives to improve workforce readiness
4. Streamlined student internship processes
5. Enhanced Biotech Awareness
6. Program Growth
7. Impact of Program Growth on Students

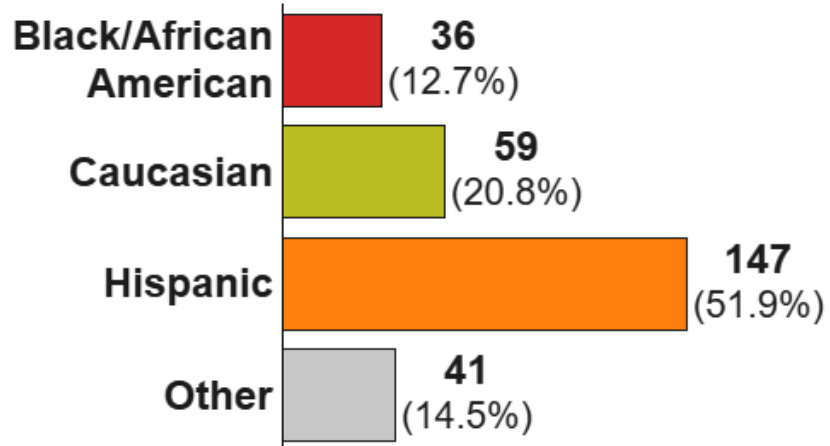
# Valencia Biotechnology Program

- AS degree
  - 61 credit hours
  - 1 course short of additional AA degree
- All Biotech Classes taught in the lab
- Internship with Leading Industry Partners



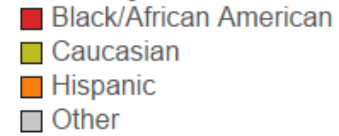
# Student Demographics

## Race/Ethnicity of Program Majors 2022/23

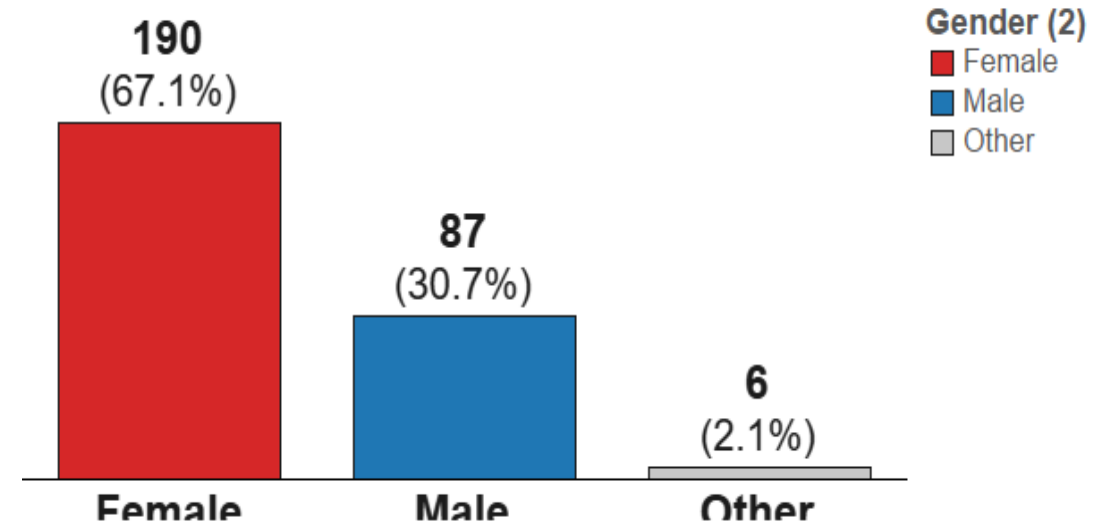


Completion - Enrollment(state)

### Ethnicity 2020

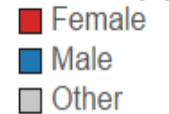


## Gender of Program Majors 2022/23



Completion - Enrollment(state)

### Gender (2)





# NSF Grant Objectives



1. Expand our Biotechnology partners and expanding the Biotech community and our industry partners serving our current students and K-12 students.
2. Amplify Biotechnology essential skills training for students.
3. Enhance “In-house” experience for Valencia students.
4. Expand the biotechnology community.

# Impact on Student Opportunities

- Increased Industry Partners by 39%
- Added 23 Internship Positions Available
- Increased our Industry Partnership Score from 55% in 2019 to 88% in 2024.
  - Score determined by Working Partners Partnership Rubric



# Workforce Preparation

- Time management
- Written and verbal communication
- Budgeting
- Teamwork
- Networking





# Developed Biotech and Workforce Skills

## Canvas Modules

- Biotech Modules
  - Biotechnology Research
  - Emerging Technologies
  - Biomanufacturing
- Workforce Modules
  - Networking
  - Problem Solving
  - Research Integrity

202410 Intern Explor in Biology BSC-2941-12670

These modules will cover Biotechnology and Essential Workforce topics designed to better prepare you to enter the workforce. You will need to complete all the assignments in each module. The modules can be completed in any order; however, the information and assignments within the modules need to be completed in order. You can access the modules through the links below.



### Biotechnology Modules

#### 1. [Biotechnology Research](#)

This module introduces different aspects and areas of Biotechnology as well as the latest news in the field of Biotechnology. You will research the different areas of biotechnology and take a quiz related to the material. You will also select a topic from the latest news in biotechnology and complete a discussion post about the article.

#### 2. [Emerging Technologies](#)

This module introduces two emerging technologies, mRNA Vaccines and Genome Editing. In this modules you will watch a series of videos that have quizzes embedded in them.

#### 3. [Biomanufacturing](#)

This module introduces biomanufacturing. You are required to watch a biomanufacturing video and then complete a virtual lab.

#### 4. [CITI Training - Optional](#)

This model has human subject research training and certification.

##### 1. [Networking](#)

This module reviews why networking is important and provides information on how to network. For this assignment you will participate in one networking event or opportunity and complete a discussion post about the event you attended.

##### 2. [Problem Solving and Integrity](#)

This module introduces Research Integrity through a video and article. After watching the video and reading the article, you are given a scenario that relates to research integrity. You will then be required to complete a discussion post related to the scenario.





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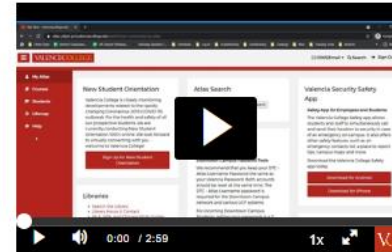
# Streamlined Student Internship Processes

## Developed Canvas Courses

- Application requirements
- Application process
- Registration process
- Internship sites available

### Internship Registration Process – BSC 2941

1. Meet the course and GPA requirements.
  - 12 credits completed
  - Minimum 2.0 GPA
  - [BSC 2426C Biotechnology Methods I](#)
2. Log in to Navigator with your Atlas username and password.
  - [Link to Navigator Login](#)
3. Complete the internship application in Navigator by the Open Enrollment deadline.
  - Instructions provided in the video



- Deadlines can be found at the bottom of this webpage: <https://valenciacollege.edu/students/internship/students/internships.php>
- 4. Research [internship sites](#).
- 5. Send your resume to [OsceolaCareerCenter@valenciacollege.edu](mailto:OsceolaCareerCenter@valenciacollege.edu) for a critique.
  - [Tips for Biotechnology Resumes](#)
- 6. Upload your resume to Navigator.



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5. Enhanced Biotech Awareness
6. Program Growth
7. Impact of Program Growth on Students

# Enhanced Biotech Awareness

- Biotech Connect Initiatives
- Biotech Week Celebrations


**BIOTECH CONNECT**  
**MEET**  
**BOB BANKS**

FROM AA TO BS TO  
ASSOCIATE DIRECTOR  
UCF OFFICE OF RESEARCH



- Veterinary Medicine
- Animal Sciences
- Agricultural Sciences
- Meat Sciences
- Human Liver Research
- Lab Animal Sciences

Join us at Room 148  
3rd April 2024 @1-2pm  
There will be Pizza and drinks!



Presented by Biotech Program & Biotech Club. Prizes sponsored by Student Development.  
This material was funded based upon work supported by the National Science Foundation under Award Number 2000242

**LEARN. CONNECT. NETWORK**

*Grab a Passport*  
**& WIN PRIZES**

**CELEBRATE BIOTECH WEEK**  
**CONNECT, LEARN AND GET FREE FOOD & PRIZES!**

- 1** **Biotech Week Launch, Library at 9:30am**  
Join us as we kick off Biotech Week with bagels, coffee & pastries.
- 2** **Biotech Biosymposium, Hallway from 10am-2pm**  
Check out the posters to learn about the exciting research and work being done by our very Biotech Students in their internship!
- 3** **Decorate Your Own Science Cookie, Outside Rm 148 from 11-1pm**  
Cookies with a science twist? Decorate your very own science cookies with the Biotech Club Members
- 4** **Biotech Connect, Rm 148 from 1-2pm**  
Come to learn and connect with Bob Banks and learn about how he started with an AA to BS to Associate Director at the UCF Office of Research.

**Explore Biotech Careers, Library, 12-2pm**  
Check out the library exhibits, student posters on the hallway in the first floor and explore all the career options in the Biotech field!

Presented by Biotech Program & Biotech Club. Prizes sponsored by Student Development.  
This material was funded based upon work supported by the National Science Foundation under Award Number 2000242



# Enhanced Biotech Awareness

- BioSymposium
- Networking Opportunities
- Field Trips to Biotech labs
- Celebration of Biotech





# Program Growth

- Companies that hire students
- Increase in the number of completers (technical certificates and AS degrees)
- BACE credential
- InnovATEBio Envisioning the Next Bioscience Workforce – State Team



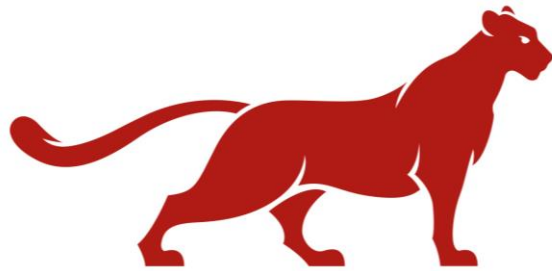
# Where Our Biotech Alumni Work







# Degree and Certificate Earners 2020-2023



**57**

AS Degree



**54**

Biotechnology Laboratory  
Specialist

**84**

Biotechnology Specialist

**49**

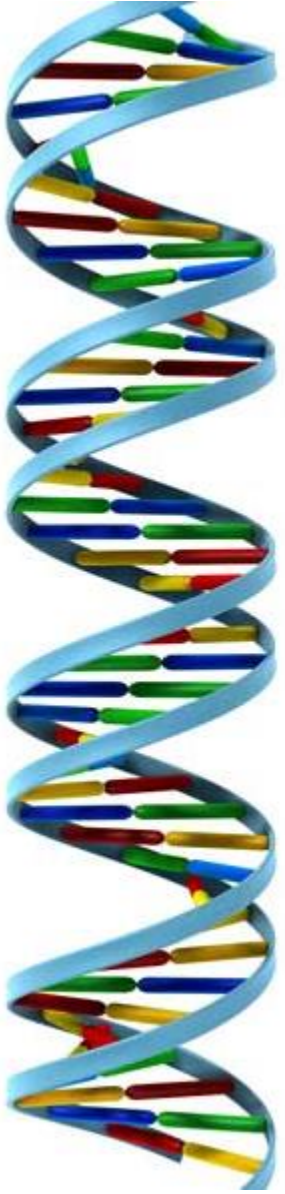
BACE Credential (21-24)

# Program Impact - InnovATEBio Envisioning the Next Bioscience Workforce

- Member of the Florida State Team
- State Team “Talent Table” at the BioFlorida Celebration of Biotechnology
- Hosted the BioFlorida Central Florida Chapter Event



# Student Impact Story



**Victor Conte**



# Thank you!

- Mentor Connect and Elaine Johnson
- The ATE Community
- Industry Partners
- Grant Team
- Administration
- Lab Staff



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