

May 29, 2007

Tom Shiner  
Director of Special Projects  
Workforce Florida, Inc.  
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Tallahassee, FL 32308  
Phone (850) 921-1132

Dear Tom, please find enclosed Deliverable #10 for the Strategic Plan and DRAFT Year 2 Deliverables.

As we discussed on the phone, I anticipate that the Employ Florida BANNER Center for Biotechnology will complete 100% of our Year 1 deliverables by June 30, 2007, the current contract end date. At this time, it is of limited benefit to execute a no-cost contract extension, unless we are unable to execute the Year 2 contract by July 1, 2007. Given the rapid pace of developments in Biotechnology across the state, it is important that our BANNER Center moves forward with the goals and activities outlined in our Strategic Plan (attached) without delay.

Enclosed are:

1. Deliverable #10
  - a. Strategic Plan and Draft Year 2 Deliverables
  - b. Leveraged funds summary
  - c. Invoice for \$37,500

Sincerely,

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University of Florida • Center of Excellence for Regenerative Health Biotechnology

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COMMUNITY COLLEGE



**Employ Florida BANNER Center for Biotechnology**  
**Strategic Plan**  
**Deliverable #10**  
**May 29, 2007**

The Employ Florida Business Assistance Now for New Economy Results (BANNER) Center for Biotechnology serves as a resource center for all Biotechnology education and training within the State of Florida. New statewide initiatives are being implemented to expand Florida's biotechnology industry. The establishment of Scripps Florida, the Burnham Institute, and the Torrey Pines Institute for Molecular Studies along with creation of new companies, and establishment of the UF CERHB are some of the catalysts of this growth. Along with this expansion is the need to fill technical positions with trained and qualified workers.

The Employ Florida BANNER Center for Biotechnology is a state-wide collaborative effort of the University of Florida's Center of Excellence for Regenerative Health Biotechnology (CERHB) partnering with: UF's Center for Pre-collegiate Education and Training (CPET), Santa Fe Community College (SFCC), Florida Community College at Jacksonville (FCCJ), Indian River Community College (IRCC), Embry-Riddle Aeronautical University (ERAU), and the International Society for Pharmaceutical Engineering (ISPE).

In our first year (October 2, 2006 to June 30, 2007) we met or exceeded our goals and contract deliverables. Some highlights include:

- 1) An implementation plan was developed; this served as a framework for our activities. Since the effort incorporated multiple sites, we established efficient lines of communication between the different parties and partitioned work appropriately. A website was created ([http://cerhb.rgp.ufl.edu/education\\_index.html](http://cerhb.rgp.ufl.edu/education_index.html)) to facilitate interactions with students and the community.
- 2) An Advisory Council was assembled comprised of leaders from industry, workforce boards, and economic development agencies from across the state. This council met three times quarterly since our proposal was funded in October 2006. The Council has played an important role in our success by providing guidance, strategic contacts, and review of our program and curricula.
- 3) A needs assessment was conducted to determine the current and future needs of companies from around the state. Biotechnology companies were cataloged, including their subspecialty, employee profile, geographic distribution, and stage of maturity. The needs assessment survey was distributed statewide, from which we obtained a projection of the number of new hires and training needs. This information was utilized to develop curricula that addressed immediate needs within the industry as well as

prepare a workforce capable of supporting the projected growth. Concurrently, we surveyed existing training programs within the state to identify gaps in regional training needs.

- 4) An Industry focus group has been held each quarter since funding began in October 2006. The first one occurred in Gainesville, the second in Jacksonville, and the third in Fort Pierce. A professional moderator led the discussions. Comments from the focus group were captured and used to structure curricula course content, frameworks, and student outcomes.
- 5) Developed hands-on curricula in Industrial Biotechnology for entry-level and incumbent workers throughout the state. Two curricula are being offered in May and June 2007, that address the needs identified by the industry: primarily, experience with biotechnology-based processes and facilities, and an understanding of the regulatory and quality systems associated with working in a controlled environment. Twenty-five lectures with corresponding wet lab exercises were matched to on-line modules. The extensive documentation that is required and maintained in this highly regulated industry was also prepared and incorporated into the state-of-the-art "Year 1" curricula. Students and instructors were provided secure access to the on-line curriculum, and student progress is monitored automatically. 40 hours of combined on-line and wet lab training followed by an exam lead to an industry recognized certificate.
- 6) Two separate offerings of both curricula at each of the three sites (Gainesville, Jacksonville, and Fort Pierce) were made available from May 8 - 18, 2007 and in June 2007 to maximize the appeal and accommodate student schedules. 75 enrollees were anticipated, however, 166 applications were received to date, and 122 have been accepted for training; enrollment into OSMIS is in progress. The extra students will be accommodated in additional offerings during the Year 2 contract period. This deliverable will be submitted by June 30, 2007.
- 7) Training is in progress so the number of completers is not known at this time. This deliverable will be submitted by June 30, 2007.
- 8) A pipeline study is in progress. A detailed survey was developed, and posted to the website and mailed directly to 133 companies. Results are pending. This deliverable will be submitted by June 30, 2007.
- 9) Articulation Agreements are currently being developed and this deliverable will be submitted by June 30, 2007. Possible articulation agreements include:
  - a. School Board of Alachua County <>SFCC
  - b. North Marion High School<>SFCC
- 10) The Strategic Plan is outlined below.

## **Strategic Plan:**

### Industry Involvement

An Advisory Council was assembled comprised of leaders from industry, workforce boards, and economic development agencies from across the state. This council will meet quarterly. The Council will continue their important role by providing guidance, strategic contacts, and review of our program and curricula. Nominees for new Council members representing different regions and companies/workforce boards/ etc will be voted upon and invited to join for a two-year period upon approval from WFI. Possible new members include representation from start-up companies, Kelly Services (temp agency), Kforce (temp agency), Burnham Institute, Torrey Pines Institute for Molecular Studies, Miami-Dade College, and Palm Beach Community College for wider state reach.

Industry focus groups will continue to be held semi-annually. We will target regions of the state previously not included in Year 1. A professional moderator will lead the discussions. Comments from the focus group will be captured and we will use the data to tailor our curricula.

Our collaborator, ISPE, is a pharmaceutical and biopharmaceutical-based professional organization with 23,000 industrial professionals in 80 countries. Their continued deep involvement ties us closely to an organization with the industry's global perspective.

BioFlorida, the state's biotech industry association, participates in the effort and serve on the Advisory Council to provide industry feedback, promote focus group events, assist in curriculum certification efforts, promote the curricula, and maintain a job posting website.

Due to the rapidly evolving biotechnology sector in Florida, a follow-up needs assessment will be conducted annually to re-evaluate the current and future needs of existing training programs and biotechnology companies from around the state. New biotechnology companies will be interviewed, including their subspecialty, employee profile, and geographic distribution, and stage of maturity. We also will revise the projection of the number of new hires and training needs, and will use all of the data to tailor our curricula to meet regional needs.

Our partner companies include small, medium, and large biopharmaceutical, agritech, and device companies. We will continue to include them in the development and implementation of our curricula, and as internship sites for our graduates.

### Curricula

The curricula we developed in Year 1 will be offered next year and in future years. We will continue to refine these curricula and offer them at least twice a year at all three original locations (Gainesville, Jacksonville, and Fort Pierce) and additional locations such as Palm Beach Gardens and Miami. These curricula serve as a gateway into more advanced curricula outlined below that we will develop during Year 2 and beyond.

Topics introduced in the Year 1 curricula will be developed in more depth. In Year 2 we will develop additional advanced and specialized curricula that will be matched to on-line modules. These curricula will focus on specific topics that are Industry focused and driven. Topics may include two of the eight (depending on industry input):

1. Quality Assurance: GLP, GMP, and GCP compliance, document writing, document control, document auditing, personnel training, quarantine and release, corrective actions, and validation
2. Laboratory and Aseptic Techniques: cell culture, microscopy, closed systems, media and buffer preparation
3. Cleanroom environments: Facility design and specifications, environmental monitoring, critical cleaning, and gowning
4. Quality Control analytical assays: protein-based assays, nucleic acid-based assays, and cell-based assays and analysis, sampling, standards and controls, and validation
5. Downstream processes: Chromatographic, filtration, and centrifugal methodologies and analysis, and validation
6. Regulatory Affairs: Federal regulations, working with the FDA, assembling and filing an IND, IDE, or 510K application, clinical trials
7. Business and Legal: Project management (timelines, budgets, resources, communication), outsourcing, intellectual property protection
8. Laboratory and Facility equipment maintenance: calibration, metrology, qualification, validation, and preventative maintenance

The specific curricula will be chosen based on feedback from Industry. This will also allow specific regional needs to be addressed. Courses may be offered twice during the Year 2 contract period. Curricula will be reviewed and lead to Industry-recognized certificates.

### Year 2 Budget

In Year 2, the same level of support from WFI is requested as we expand our curricula to include advanced topics, expand our statewide reach, continue the promotion of the offerings to reach interested students and workers, conduct focus groups and advisory council meetings (at new locations throughout the state), and train teachers, students, and workers in the Year1 and advanced curricula.

In addition to WFI support, a considerable amount of in-kind and cash support is provided by the collaborating institutions including donation of equipment, reagents, facilities and time.

MAJOR COST CATEGORY	SOURCE		AMOUNT
	WFI	LEVERAGE	
<b>GRANTS MANAGEMENT</b>			
Program manager	\$61,091		\$61,091
Project coordinators	\$75,000		\$75,000
P/T Administrators	\$21,600		\$21,600
Administration overhead for UF	\$28,500		\$28,500
Grants mgmt @ SFCC and ISPE		In-kind	\$5,750
<b>FOCUS GROUPS and VALIDATION</b>			
Focus Group facilitator	\$2,000		\$2,000
Focus Group hosting	\$2,000		\$2,000
Validation survey from ISPE		In-kind	\$1,010
			\$8,000
<b>DEVELOPMENT AND INSTRUCTION</b>			
Subject Matter Experts	\$18,800		\$18,800
Beta tester	\$4,000		\$4,000
Instructor	\$32,000		\$32,000
Instructor time @ UF, SFCC, IRCC		In-kind	\$40,000
Lab Module Production	\$30,000		\$30,000
Web design from IRCC		In-kind	\$6,000
Model prototyping @ IRCC		In-kind	\$6,600
<b>DEPLOYMENT</b>			
ALE	\$30,000		\$30,000
Promotion	\$44,300		\$44,300
Promotion by FCCJ		\$2000	\$2000
Promotion by ISPE		In-kind	\$6300
Symposium	\$27,000		\$27,000
Web portal hosting	\$5,709		\$5,709
Webinar thru IRCC		In-kind	\$6,600
Training	\$86,000		\$86,000
Council meetings	\$18,000		\$18,000
Equipment use @ SFCC, FCCJ, IRCC		In-kind	\$44,000
Laboratory Equipment @ IRCC		\$10,000	\$10,000
Equipment, reagents, trainers donation to UF		In-kind	\$18,023
A/V production and media printing @ IRCC		In-kind	\$5,000
<b>JOB PLACEMENT, TRACKING</b>			
ABRWB and First Coast		In-kind	\$12,000 PENDING
<b>TRAVEL</b>			
Travel	\$14,000		\$14,000
<b>Subtotal from WFI</b>			\$500,000
<b>Subtotal from Leverage</b>			\$159,283**
<b>TOTAL BUDGET</b>			\$659,283

\*\* does not include PENDING commitments

### Specific Outcomes

**New programs.** Two advanced curricula will be developed each year. The specific curricula will be chosen based on feedback from Industry. This will also allow specific regional needs to be addressed. Curricula will be reviewed by experts and lead to an Industry-recognized certificate.

**Projected number of enrollees.** We anticipate 95 enrollees into the program in Year 2 and will track through OSMIS.

**Projected number of completers.** We anticipate 85 completers of the program in Year 2 and will track through OSMIS.

**Projected number of Job placements.** We will work with our local workforce boards to place graduates of the programs into jobs. We will also work with our local companies to provide internships that could then lead to full-time employment. We will work with High School, Community College, Research Institute (Scripps, Burnham, and TPIMS), and University job placement offices. In addition, with the involvement of Kelly Services (temp agency) and/or Kforce (temp agency), graduates could be placed in temporary positions at companies; usually temporary workers are hired full-time if there is a good fit. In addition to Monster, BioSpace and other job websites, our partners Employ Florida Marketplace, ISPE, BioFlorida, and the UF Biotechnology Incubator all have websites for job posting, and we will train our students on how to access and utilize these resources. Lastly, we will track how incumbent worker graduates are able to be promoted or change positions within their existing company. We anticipate placing 50% of our graduates into the workplace in Year 2 and will track through OSMIS. In subsequent years we expect an increased placement rate as more positions will become available through statewide initiatives in biotechnology (spin-off companies from Torrey Pines, Burnham, and Scripps for example), but trained workers are needed in advance to support this industry growth.

### Expanded partnerships

As stated above, we will invite Miami-Dade College and Palm Beach Community College to join the Advisory Council. We will also offer the Year 1 curricula to Miami-Dade College and Palm Beach Community College and train their instructors in order to facilitate the training of more students across the state. In subsequent years we will offer them the advanced curricula as well, and include even more educational institutes from other regions of the state. In addition, these partners will provide additional venues to hold Focus Group meetings to encompass more of the state.

**Articulation Agreements.** We will develop additional articulation agreements.

Possible articulation agreements include:

- a. North Marion High School <>CFCC
- b. Terry Parker High School and Andrew Jackson H.S. <>FCCJ
- c. St. Lucie County, Martin and Indian River <>IRCC

- d. Central Florida CC<>SFCC. This relationship expands access and opportunities to secondary and post-secondary students by having portals at each of these community colleges.
- e. Lake City CC<>SFCC. This relationship expands access and opportunities to secondary and post-secondary students by having portals at each of these community colleges.
- f. Tallahassee CC<>SFCC. This relationship expands access and opportunities to secondary and post-secondary students by having portals at each of these community colleges.
- g. Lake Sumter CC<>SFCC. This relationship expands access and opportunities to secondary and post-secondary students by having portals at each of these community colleges.

#### On-line curricula

The WFI on-line biotechnology curricula will be transferred to the University of Florida as a part of the overall biotechnology curricula. UF will assume ownership and management of the WFI-Sponsored web-based biotechnology curriculum in support of the Biotechnology BANNER Center. UF will take physical possession of the electronic media courseware files and archive them to a UF computer system. In addition, UF will secure an original Biotechnology BANNER Center Internet URL for delivery of the electronic courseware. This URL will be accessible to students as a link from the current BANNER center web presence, located at and administered by the University of Florida. UF will contract with Embry-Riddle Aeronautical University to consult on the transfer and delivery of the web-based curriculum to ensure the same level of quality and service for online students, as well as to support UF's administration and management of the biotech curriculum within the delivery learning management system.

#### Sustainability

Given the high demand of our training programs in Year 1, and anticipated demand in Year 2, we will need to sustain our programs beyond Year 2. In future years, possible mechanisms to sustain the Employ Florida BANNER Center for Biotechnology include:

- 1) Local workforce dollars could be allocated to pay for eligible training candidates
- 2) Tuition could be charged to employers for incumbent training
- 3) Scholarship-reduced tuition could be charged directly to students
- 4) In years 1 and 2 donations have been received that provide equipment and reagents for the laboratory, and these may continue in subsequent years
- 5) Institutional support has provided many types on in-kind and cash support (please see table above) and these may continue in subsequent years
- 6) Companies could be charged for help from the BANNER Center in the recruitment and specific training of workers for specific projects
- 7) We will work with Workforce Boards and biotechnology companies to have curricula available if companies apply to WFI for Business Employment Solutions and Training (BEST), Quick Response Training Program grants (QRT), or Incumbent Worker Training Programs (IWT) grant funding.
- 8) We will submit proposals for Federal grant funding from the National Science Foundation (NSF), US Department of Labor, National Institutes of Health, and

other federal sources. The collaborators have a solid track record of obtaining federal grants.

For example, under an active NSF grant previously awarded to Dr. Snyder at UF, we are currently developing A) a high school major in Biotechnology – our curriculum has been accepted by Florida’s Department of Education (please see below), B) a community college biotechnology track that leads to an AA/AS degree, and C) a Career Academy for Biotechnology in the Alachua County School District in collaboration with SBAC, North Marion High School, ISPE, SFCC, and UF Center for Precollegiate Education and Training.

#### Collaborations with other BANNER Centers

We will explore linkages and identify areas of the curricula that could benefit students that are cross trained in topics found at other BANNER Centers, such as the Employ Florida Banner Center for **Logistics & Distribution** in Lake City. Biopharmaceutical warehouses deal in special reagents and materials that require cold-chain, special in-transit monitoring, tracking, sourcing, inspection and release.

Employ Florida Banner Center of Excellence **Career Academies/Secondary** in Fort Walton Beach is another BANNER Center where ties can be made to form articulation agreements for seamless transition of students into the Biotechnology BANNER Center. Appropriately tailored curricula could be co-developed and offered to secondary students.

Under Dr. Snyder’s active NSF grant described above, we are currently developing a Career Academy for Biotechnology in the Alachua County School District in collaboration with SBAC, North Marion High School, Palm Beach County School District, ISPE, SFCC, and UF Center for Precollegiate Education and Training. This career academy may provide an excellent partner with the BANNER Center for Career Academies/Secondary.

In anticipation of these new course offerings, a curriculum in industrial biotechnology was submitted by this consortium to the Florida DOE in November 2006, this curriculum was approved for CTE and Science credit in December 2006 as 3027010 BIOTECH 1, 3027020 BIOTECH 2, and 8736030 BIOTECH 3.

#### Integrated Biotechnology Education

The Biotechnology BANNER Center is well positioned to participate in the integration of Biotechnology Education throughout the state. Through the collaboration of the UF Center of Excellence for Regenerative Health Biotechnology (Dr. Snyder, Director and the home of the Biotechnology BANNER Center) together with our partners statewide that include school districts, community colleges, research institutions, ISPE, UF CPET, BioFlorida, etc, we are developing multiple pathways for biotechnology education.

The integrated learning pathways include:

- Certificates from the Biotechnology BANNER Center
- Articulation from Career Academies BANNER Center to the Biotechnology BANNER Center member institutions
- High School Biotechnology Major

- Articulation from High School Biotechnology (major) programs to community college degree programs
- Biotechnology AS/AA degree programs

The integration and accessibility of these training/education pathways will provide students and incumbent workers with multiple entry points into the Biotechnology workforce upon graduation.

#### Collaboration with Workforce Boards

The Employ Florida Banner Center for Biotechnology launched at the same time Region 9, Alachua and Bradford Regional Workforce board launched their re-engineering and branding campaign for FloridaWorks. The timing has been fortuitous for the local community in the biotech industry. Alachua County is home to University of Florida, Santa Fe Community College and currently three business incubators. The primary focus of these business incubators are hi-tech and biotech companies. The Alachua County community also is home to a growing life science industry, venture capital groups, Gainesville Area Innovation Network and an active entrepreneurial community.

FloridaWorks is ready to meet the demand of a qualified biotechnology workforce to help the local life sciences companies thrive and grow. Through collaboration with the Employ Florida Banner Center for Biotechnology, University of Florida, Santa Fe Community College, School Board of Alachua County, Gainesville Area Chamber of Commerce and Council for Economic Outreach they will continue to identify opportunities to leverage workforce, education, economic development and entrepreneurial dollars.

In Year 1, FloridaWorks implemented recruitment for training candidates for the Banner Center which included: a full page color advertisement in a pull out tabloid in the Gainesville Sun promoting the April 28, 2007 FloridaWorks Career Showcase and full color posters at our OneStop locations. In Year 2, FloridaWorks will provide pre-screening, TABE testing of basic reading and math skills and Career Scope testing pre-screening tools can be implemented to help identify Biotechnology training candidates. FloridaWorks will be prepared to include biotechnology careers in the Florida Ready to Work initiative and assessments. Through the collaboration with the Banner Center for Biotechnology and a pooling of marketing funds from various collaborators, an outreach and marketing campaign to promote careers in the biotechnology industry will be developed with a focus on career ladders, knowledge acquisition and income potential.

FloridaWorks staff worked with the state and local workforce boards to add the Banner Center in Biotechnology to the EmployFlorida drop down list as certified training providers so local workforce dollars could be allocated to pay for eligible training candidates. FloridaWorks has worked towards directing local workforce dollars for Banner Center trainees once the WFI grant dollars have been exhausted.

Lastly, FloridaWorks has 1) worked with Banner Center staff to identify how to register local trainees into OSMIS and EmployFlorida.com and the most efficient way to identify individuals eligible for local training dollars. 2) Drafted a process of recruitment and registration for Banner Centers to share with other workforce regions. 3) Worked with

local biotechnology companies to list jobs and job match candidates to those jobs. 4) Added biotechnology careers to local targeted regional occupations lists so we can allocate training dollars for biotechnology training at the Banner Center. 5) Is adding Banner Center for Biotechnology to Economic Development literature.

In year 2, FloridaWorks will continue to collaborate with the Biotechnology BANNER Center, WFI, AWI, local life science companies and other workforce regions to develop processes, templates and systems that will be utilized and customized to other workforce regions in Florida.

FloridaWorks will also continue to educate local life science companies about EmployFloridaMarketplace (EFM) and encourage them to tap into the employee recruitment, training, retention and advancement resources available through FloridaWorks, Biotechnology BANNER Center, SFCC, University of Florida, and School Board of Alachua County. This collaborative effort will be used as an example for other workforce regions.

## Suggested Deliverables (Draft)

<b>Deliverable 1.</b>	Initial curricula continued offerings
<b>Deliverable 1. Documentation</b> (submit with invoice)	The Contractor shall continue to provide the initial curricula in Year 2, with two offerings in the calendar year at multiple locations. These curricula serve as a gateway into more advanced curricula that will be developed in Deliverable #5.
<b>Deliverable 1. Due Date</b>	On or before the expiration or termination date of this original Contract
<b>Deliverable 1. Payment Amount</b>	To be included in the student count of Deliverables #6 (enrollments) and #7 (completions) below.

<b>Deliverable 2.</b>	The Contractor shall maintain the statewide advisory council comprised of the organizations and groups listed in Section XIII with emphasis on involving industry to the greatest extent possible, the Contractor may designate other members not specifically listed in Section XIII. Current membership is for a two-year term and additional members will be nominated and voted upon by the Council and then submitted to WFI for approval. The statewide advisory council may meet as often as the members wish but the council shall meet at least quarterly during the term of this Contract.
<b>Deliverable 2. Documentation</b> (submit with invoice)	A revised list of designees to the advisory council to include name, title and company or organization affiliation. Approved nominees are subject to approval by Workforce Florida prior to official appointment by the Contractor. Workforce Florida will provide its approval or recommendations for changes within 15 days after receipt of the tentative list. Such approval or recommendation for changes will be submitted to the Contractor by Workforce Florida's contract manager via email. If there are revisions to the original tentative list, Workforce Florida will review and respond to those changes within a like 15-day timeframe. Workforce Florida's email approval of the advisory council membership is required for payment of this deliverable. Once membership for the advisory council is approved, the Contractor shall confirm the appointments by a letter to each member with a copy to Workforce Florida.. Any changes in membership requires Workforce Florida's approval.
<b>Deliverable 2. Due Date</b>	Within 6 months of the effective date of this Contract
<b>Deliverable 2. Payment Amount</b>	\$10,000

<b>Deliverable 3.</b>	The Contractor shall conduct a follow-up needs assessment as contemplated in Attachment B to determine the: 1) number of current workers within the state in the biotechnology industry; 2) where industry businesses are concentrated within the state; 3) what programs are currently being offered through public/private postsecondary vocational training providers; and, 4) the projected number of trained workers the industry will need, in the near future. This needs assessment shall be shared with industry partners. An inventory of training providers shall be developed and provided to Workforce Florida as a result of this needs assessment. It is the intent of Workforce Florida that the needs assessment provided for this deliverable shall expand upon and be more current than the statement of needs contained in the Contractor's proposal, Attachment C.
<b>Deliverable 3. Documentation</b> (submit with	Two (2) printed copies and one (1) electronic copy of the needs assessment report with the training provider inventory.

invoice)	
<b>Deliverable 3. Due Date</b>	On or before January 30, 2008
<b>Deliverable 3. Payment Amount</b>	\$25,000

<b>Deliverable 4.</b>	Advisory council and focus group meetings. Workforce Florida shall be notified and invited to each advisory council and focus group meeting. As mentioned in Deliverable 2., there shall be at least one meeting of the council quarterly and at least one focus group semi-annually during the term of this Contract. The Contractor shall provide the documentation described below for each advisory council and focus group meeting.
<b>Deliverable 4. Documentation</b> (submit with invoice)	The date, time, location and duration of the meeting. A list of invitees. A list of attendees. A copy of the meeting agenda. A recap of the meeting specifically listing any actions that were agreed to by the members.
<b>Deliverable 4. Due Date</b>	Within 10 calendar days after each meeting.
<b>Deliverable 4. Payment Amount</b>	N/A This is a non-payable deliverable.

<b>Deliverable 5.</b>	<p>Curricula development. The Contractor shall develop or modify two sets of curricula, excluding the curricula owned and provided by Workforce Florida, as described in its proposal, Attachment C. The curricula that are developed or modified shall be 'industry-driven' in that they shall respond to the needs of industry as determined through the advisory councils, focus groups, labor market and training needs assessments described in Deliverable 3, and any other mechanisms the Contractor may employ to determine the needs and preferences of businesses in the biotechnology industry. The needs of industry will determine the advanced curricula to be developed or modified under this Contract. The curricula shall be developed and/or modified within the following parameters, again based on the needs of industry as determined through the advisory councils, focus groups and other mechanisms to determine industry needs:</p> <ul style="list-style-type: none"> <li>• As appropriate, programs shall have a component that is web-based.</li> <li>• Each program shall be modular allowing trainees the flexibility to participate in needed components of the program if the entire program is not needed.</li> <li>• To the extent possible, these curricula shall lead to an industry recognized certification.</li> <li>• Curricula shall be developed or modified to the greatest extent possible that incorporates non-traditional teaching methods; such as, interactive web-based components or full programs that can be given at an employer's location.</li> <li>• Each program shall contain specific industry accepted competencies, the attainment of which will be assessed at completion of the training.</li> <li>• Each program shall be developed or modified and constructed in such a way that it can be replicated.</li> </ul>
<b>Deliverable 5. Documentation</b> (submit with invoice)	<p>The Contractor shall provide the following for each set of curricula developed under this Contract:</p> <ul style="list-style-type: none"> <li>• Course frameworks and course outlines including length of the program and its components and a list of any prerequisites, if any.</li> <li>• A list of the occupation(s) the program trains for.</li> <li>• Copies of any training materials that help demonstrate course presentation such as a link to look at the construction of the web-based component.</li> <li>• Description of the components of the program (modularity)</li> </ul>

	<ul style="list-style-type: none"> <li>• Competencies to be obtained.</li> <li>• If the program will lead to an ‘industry-recognized’ certification, documentation of that certification shall be provided.</li> <li>• Description of the training methods that will be used for each program, e.g., classroom, lab, web-based, etc.</li> </ul> <p>Payment of this deliverable for curricula development is subject to the satisfactory completion of trainee and business beta testing as described in Section XIII.</p>
<b>Deliverable 5. Due Date</b>	As they are developed during the term of the Contract. However, at least <u>one</u> set of program curricula <b>MUST</b> be developed and submitted on or before April 30, 2008.
<b>Deliverable 5. Payment Amount</b>	\$75,000 per individual program curriculum developed and approved; not to exceed \$150,000 for the two (2) programs

<b>Deliverable 6.</b>	Training enrollments. The Contractor shall recruit and enroll up to and including 75 persons in the training programs developed under this Contract and previously in Year 1. Only one payment may be made for an enrollment per individual trainee in each of the Year 1 curricula or advanced curricula under this Contract. In other words, a payment for a student who has taken the Year 1 curricula does not prohibit payment for a student enrolling in the advanced curricula.
<b>Deliverable 6. Documentation</b> (submit with invoice)	<p>A spreadsheet with the following information:</p> <ul style="list-style-type: none"> <li>• Trainee name</li> <li>• Program title, either entry or refresher, into which trainee has been enrolled</li> <li>• Date of enrollment</li> <li>• If the training is skills upgrade training, the name and location of trainee’s employer and trainee’s job title.</li> </ul>
<b>Deliverable 6. Due Date</b>	As trainees are enrolled into the training programs during the period up to and including the Contract expiration or termination date. Only one enrollment per individual trainee may be paid for each of the Year 1 curricula or advanced curricula.
<b>Deliverable 6. Payment Amount</b>	\$500 per enrollment; not to exceed \$47,500 for up to and including 95 enrollments

<b>Deliverable 7.</b>	Program completions for up to and including 65 of trainees enrolled in Deliverable 6. A ‘completion’ is deemed to have been accomplished when a trainee has satisfactorily achieved the competencies contained in the curricula. The Contractor shall employ such assessment tools necessary to ensure achievement of competencies. Only trainees that are paid as enrollments under Deliverable 6 are eligible to be paid under this completions deliverable. Only one payment per individual trainee can be paid under this deliverable.
<b>Deliverable 7. Documentation</b> (submit with invoice)	<p>A spread sheet to include:</p> <ul style="list-style-type: none"> <li>• Trainee name</li> <li>• Date of enrollment</li> <li>• Program title</li> <li>• Completion date</li> <li>• As appropriate, indicate whether the trainee attained an industry-recognized certification</li> <li>• For trainee’s completing skills upgrade training, list the employer name and trainee’s job title</li> </ul>
<b>Deliverable 7. Due Date</b>	As trainees satisfactorily complete one of the programs during the period up to and including the Contract expiration or termination date.
<b>Deliverable 7. Payment Amount</b>	\$2,000 per completion of a training program; not to exceed \$170,000 for 85 completions

<b>Deliverable 8.</b>	The Contractor shall conduct the ‘pipeline’ study described in Attachment B to determine future needs of the industry. The survey will remain on-line and accessible to employers year-round and we will also actively target new companies.
<b>Deliverable 8. Documentation</b> (submit with invoice)	Two (2) printed and one (1) electronic copies of the study.
<b>Deliverable 8. Due Date</b>	On or before the expiration or termination date of this Contract
<b>Deliverable 8. Payment Amount</b>	\$30,000

<b>Deliverable 9.</b>	As described in Section XIII, the Contractor shall develop articulation agreements with secondary and postsecondary schools.
<b>Deliverable 9. Documentation</b> (submit with invoice)	Copies of articulation agreements; at least one with a secondary school and at least one with a postsecondary school.
<b>Deliverable 9. Due Date</b>	On or before June 30, 2008
<b>Deliverable 9. Payment Amount</b>	\$30,000

<b>Deliverable 10.</b>	<p>The Contractor shall provide a strategic plan for sustaining the biotechnology BANNER center beyond the term of this Contract. The strategic plan shall, at a minimum, include the following components:</p> <ul style="list-style-type: none"> <li>• A plan to continue industry involvement in the maintenance of the programs to ensure that they continue to meet the needs of industry.</li> <li>• A plan to expand the course offerings beyond the two advanced curricula addressed under this Contract. Special emphasis shall be placed on developing training for persons seeking advanced level occupations.</li> <li>• A budget that identifies the financial needs to continue the program for the year following expiration of this Contract and lists sources of funding to meet those financial needs. This budget shall break out funds that Workforce Florida may provide for continuation of the cluster center.</li> <li>• The plan shall identify specific outcomes that will be achieved in the year following the expiration of this Contract to include: a) what new programs will be developed; b) projected number of trainees to be enrolled/completed; c) number of job placements anticipated.</li> <li>• A plan to continue and expand upon partnerships with secondary and 4-year degree institutions through the maintenance of existing articulation agreements and the creation of additional such agreements.</li> </ul>
<b>Deliverable 10. Documentation</b> (submit with invoice)	Two (2) printed and one (1) electronic copy of the strategic plan.
<b>Deliverable 10. Due Date</b>	Not later than thirty (30) calendar days before the expiration of this Contract
<b>Deliverable 10. Payment Amount</b>	\$37,500

**11. Identify 'leveraged' funds that will be added to the project (see Section 7.7). Describe the source, amount and nature of any leveraged funds.**

Source (name of organization providing funds)	Total Amount	Cash Amount	In-kind Amount (indicate amount & describe):
CERHB @ the University of Florida	\$18,023		Donations of Equipment, Reagents, and field trainers to UF's industrial biotechnology education center \$18,023=
CERHB @ the University of Florida	\$30,000		Instructor time @ 39% = \$30,000
Biotechnology Program at SFCC	\$5,000	\$5,000	For Development and Instruction
Biotechnology Program at SFCC	\$14,000		Laboratory equipment @ 5% = \$14,000
Biotechnology Program at SFCC	\$7,000		Instructor time and Grant management = \$7,000
Biotechnical AA Program @ IRCC	\$7,000		Instructor time @10% = \$7,000
Instructional Design Program @ IRCC	\$6,000		Web Portal design = \$6,000
Biotechnology Lab Program @ IRCC	\$10,000	\$10,000	Laboratory equipment
Biotechnology Lab Program @ IRCC	\$10,000		Laboratory equipment @ 10% = \$10,000
Advanced Technology Program @ IRCC	\$6,600		Webinar hosting =\$6,600
E-Learning Program @ IRCC	\$5,000		A/V production and media printing = \$5,000
Biomedical Technology Program @ IRCC	\$6,600		Rapid Prototyping lab @ 10% is \$6600. This equipment can manufacture accurate detailed models for instructional purposes
Biotechnology Program @ FCCJ	\$20,000		Lab facilities and Equipment @ 10% = \$20,000
Biotechnology Program @ FCCJ	\$3,000	\$3,000	For Development and Instruction
Biotechnology Program @ FCCJ	\$2,000	\$2,000	Advertising and Marketing
Alachua/Bradford Workforce Board	\$2000 PENDING		Job placement, tracking, worker ID, program devel.
First Coast Workforce Development	\$10,000 PENDING		Job placement, tracking, worker ID, program devel.
ISPE	\$9060		Career networking, advertising, e-mail blast, curriculum validation \$9060

Center of Excellence for Regenerative Health Biotechnology  
 13706 Innovation Drive  
 Alachua, FL 32615  
 Phone 386.418.8199 Fax 386.462.7365

**DATE:** May 29, 2007  
**INVOICE #** 63968 - D10  
**FOR:** Project 63968

**Bill To:**  
 Larry T. Champion  
 Workforce Florida, Inc.  
 1580 Waldo Palmer Lane  
 Tallahassee, FL 32308  
 Phone (850) 921-1132

**Send Payment to:**  
 University of Florida  
 Contracts and Grants  
 P.O. Box 113001  
 302 Tigert Hall  
 Gainesville, FL 32611-3011  
 Attn: Diego Vazquez

DESCRIPTION	AMOUNT
Deliverable 10, Strategic Plan for sustaining the biotechnology BANNER center.	\$37,500
<b>TOTAL</b>	<b>\$ 37,500.00</b>

Make all checks payable to **University of Florida**  
 If you have any questions concerning this invoice, contact Melodie Austin, 386.418.8199, [melodiea@ufl.edu](mailto:melodiea@ufl.edu)