

**PALM BEACH COUNTY  
BOARD OF COUNTY COMMISSIONERS**

**WORKSHOP SUMMARY**

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**Meeting Date:** March 27, 2007  
**Department:** Administration  
**Submitted By:** Administration  
**Submitted For:** Economic Development  
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**I. EXECUTIVE BRIEF**

**Title:**  
Life Science Cluster Development Strategy

**Summary:**

The Business Development Board's Life Science Strategic Steering Group will present an update of the current status of the Life Science Industry in Palm Beach County and recommend steps to achieve goals that will enhance the viability of the industry in Palm Beach County.

**Background and Policy Issues:**

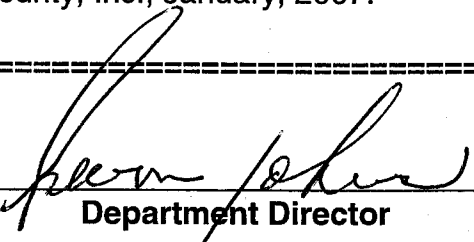
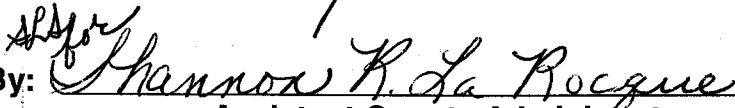
The Life Science Steering Group was formed in October of 2006 as a result of the growing interest in the life science industry in Palm Beach County. The Business Development Board recognized the need to consult leaders in industry, academia, research and government to access the quality of the life science community in this County, and recommend ways to achieve a viable, reputable, and desirable life science community in Palm Beach County.

The presentation will focus on:

1. The existing industry resources in the County by analyzing and assessing the current community of life science organizations in Palm Beach County.
2. Identify the types of organizations that should be recruited to Palm Beach County, and establish criteria for prospect organizations to be measured by.

**Attachments:**

1. Report: Life Science Strategic Steering Group Business Development Board of Palm Beach County, Inc., January, 2007.

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**Recommended by:**  3-1-07  
Department Director Date  
  
**Approved By:**  2-28-07  
Assistant County Administrator Date

## II. FISCAL IMPACT ANALYSIS

### A. Five Year Summary of Fiscal Impact:

Fiscal Years	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
Capital Expenditures					
Operating Costs					
External Revenues					
Program Income (County)					
In-Kind Match (County)					

NET FISCAL IMPACT

No. ADDITIONAL FTE  
POSITIONS (Cumulative)

Is Item Included In Current Budget? Yes \_\_\_\_\_ No \_\_\_\_\_  
Budget Account No.: Fund \_\_\_\_\_ Department \_\_\_\_\_ Unit \_\_\_\_\_  
Object \_\_\_\_\_ Reporting Category \_\_\_\_\_

### B. Recommended Sources of Funds/Summary of Fiscal Impact:

### C. Departmental Fiscal Review:

## III. REVIEW COMMENTS

### A. OFMB Fiscal and/or Contract Dev. and Control Comments:

*NO FISCAL IMPACT INVOLVED IN THIS ITEM.*

*John Dink* 3-5-07  
6/15/07 3/5/07 OFMB *ON* 03/01/07

Contract Dev. and Control

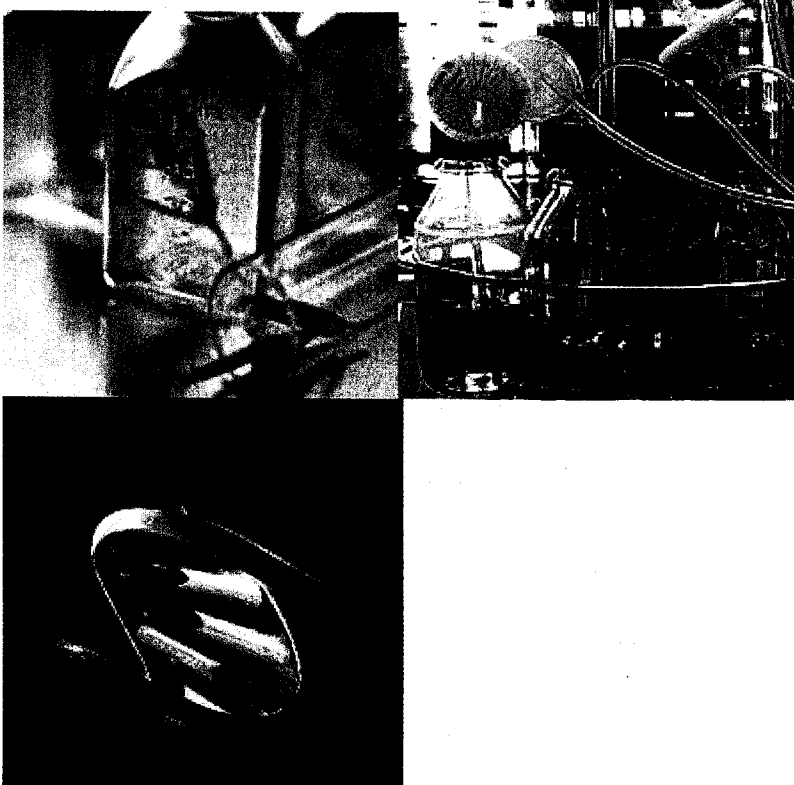
### B. Legal Sufficiency:

*[Signature]* 3/6/07  
Assistant County Attorney

### C. Other Department Review:

\_\_\_\_\_  
Department Director

(THIS SUMMARY IS NOT TO BE USED AS A BASIS FOR PAYMENT.)



**LIFE SCIENCE STRATEGIC STEERING GROUP**

**BUSINESS DEVELOPMENT BOARD OF PALM BEACH COUNTY, INC.**

**JANUARY 2007**

## **Roster of Members**

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Kenneth Kirby, TransDermal Technologies (Co-Chair)  
Pete Martínez, IBM (Co-Chair)

Brandy Escobar-Evans, Nabi BioPharmaceuticals  
Casey Steinbacher, North Palm Beach County Chamber of Commerce  
Ed Willey, Palm Beach Community College  
Frank Compiani, RSM McGladrey & Pullen  
Harry Orf, Ph.D., Scripps-Florida  
Kevin Johns, Palm Beach County Economic Development Office  
Larry Lemanski, Ph.D., Florida Atlantic University  
Mel Rothberg, South Florida BioScience Consortium  
Mike Mitrione, Gunster Yoakley  
Patrick Kay, Alexandria Real Estate Equities  
Rhys Williams, Tequesta Marine BioSciences  
Rina Dukor, Ph.D., BioTools  
Sheridan "Sherry" Snyder, BioCatalyst International  
Stanley Kim, Ph.D., Ruden McClosky  
Stephen Dunn, Dawson James Securities  
Teri Swift, BioCatalyst International  
Thomas Lipin, M.D., Jupiter Medical Center  
Troy McLellan, Greater Boca Raton Chamber of Commerce

Andrew Duffell, Business Development Board  
Gary Hines, Business Development Board  
Kelly Smallridge, Business Development Board

## **Mission**

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The mission of the Business Development Board of Palm Beach County, Inc. is to stimulate economic energy, promote business diversity and enrich the vitality of Palm Beach County.

The mission of the Life Science Strategic Steering Group is to analyze the current status of the life science industry in Palm Beach County, serve as a voice and advisory group for the life science community, and recommend steps to achieve goals and metrics that will enhance the viability of the industry in the area.

## **Introduction**

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The Life Science Strategic Steering Group was formed in October 2006 as a result of the growing interest in the life science industry in Palm Beach County. The Business Development Board recognized the need to consult leaders in industry, academia, research and government to assess the quality of the life science community in this county, and recommend ways to achieve a viable, reputable and desirable life science community in Palm Beach County.

The three tasks asked of the Group were:

1. Map the existing industry resources in the county by analyzing and assessing the current community of life science organizations in Palm Beach County.
2. Identify the types of organizations that should be recruited to Palm Beach County, and establish criteria for prospect organizations to be measured by.
3. Recommend strategies for funding incentives for potential recruits.

**Findings**

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The Group analyzed the current status the life science community in Palm Beach County. It was noted that the arrival of Scripps transformed the industry in South Florida, and created momentum that can be capitalized on to build a significant life science community to rival the ones in San Diego and the Boston area.

As part of the review process, the Group performed a SWOT analysis regarding the industry in Palm Beach County. (Figure I)

**Figure I**

<b>Strengths</b> <ul style="list-style-type: none"><li>• Scripps Florida (basic research)</li><li>• Florida Atlantic University</li><li>• Demographics lend themselves to development of the cluster (availability of patients; young people attracted to the county's superior quality of life)</li><li>• BDB's Steering Group and Quick Response Action Team</li><li>• Collaborative relationship among academia, government and business</li></ul>	<b>Weaknesses</b> <ul style="list-style-type: none"><li>• Lack of clinical trials/research</li><li>• Lack of animal testing facilities</li><li>• Lack of raw intellectual property (IP)</li><li>• Affordable housing for families looking to relocate to Palm Beach County</li><li>• Lack of venture capital (VC) funds that require companies to locate in Palm Beach County as a condition of funding</li><li>• Appropriately trained workforce</li><li>• Absence of an incubator to assist companies in early stages of development</li></ul>
<b>Opportunities</b> <ul style="list-style-type: none"><li>• IP will come online as Scripps matures</li><li>• Florida Atlantic University's increased gravitas as a research university</li><li>• Biocatalyst and others can seed ventures to speed their development</li><li>• Palm Beach County's quality of life</li><li>• Palm Beach Community College</li><li>• Strengthen the technology transfer offices</li><li>• U.S. market is too big for foreign operators to ignore</li></ul>	<b>Threats</b> <ul style="list-style-type: none"><li>• Research is not commercialized and the economic development opportunity is missed</li><li>• IP is commercialized elsewhere</li></ul>

**Strengths**

The arrival of The Scripps Research Institute added immeasurable strength to the life science community in Palm Beach County, and validated the efforts of pioneer companies such as TransDermal Technologies, Nabi BioPharmaceuticals and Dyadic International. The strong foundation of research at Florida Atlantic University (FAU) is complemented by the substantive research conducted at Scripps Florida. Since its arrival in the county, Scripps has become a strong partner with FAU.

The student body of FAU is reflective of the growing popularity of Palm Beach County for young professionals. Young graduates are attracted to staying in Palm Beach County after graduation and young people from other counties and states are looking favorably at this county as a place to relocate to. This adds to the magnetism of the area as it develops the life sciences cluster: New companies need young, skilled and enthusiastic workers. In addition, the traditional base of older citizens living in Palm Beach County is attractive to researchers as they conduct clinical trials for new therapies.

The strong business environment that emerged in this county is well integrated with the educational institutions, and city and county governments. This is an unusual asset, and one that is appealing to potential recruits. The synergy between these three disparate groups makes community and economic development more efficient.

#### *Opportunities*

The features and benefits of this county are well known, and its quality of life is unsurpassed. These significant factors present promising opportunities as the county develops its life science cluster.

#### *Weaknesses*

Significant progress in critical areas is needed for the continued development of the life science cluster:

- A viable industry cluster needs the capability to conduct significant clinical trials at a respected institution.
- A teaching and/or research hospital is highly desirable. (The announcement of Boca Raton Community Hospital's relocation to FAU's main campus, and the university's partnership with the University of Miami's Miller School of Medicine, plays a significant role in bridging this gap.)

Substantial intellectual property (IP) is needed to sustain a life science community, and it currently is lacking in Palm Beach County. As Scripps Florida matures and more research comes out of FAU, additional IP will be seen in Palm Beach County. Since its inception, Scripps Florida has filed 29 patent applications.

With more IP, more venture capital (VC) funds will be enticed to fund start-up companies and spin offs from Scripps Florida and FAU. Some will establish offices in South Florida to monitor the progress of their investments.

These small companies will require incubation for the first few years of their existence while they conduct more research and trials. A significant wet lab



incubator is missing in Palm Beach County, and is needed to encourage entrepreneurialism.

### *Threats*

If these infrastructure resources are not established in Palm Beach County the economic benefit of investing in this industry and cluster will be lost. The risk of having IP commercialized in other counties or states is real unless the necessary tools exist here.

All participants in the life science cluster need to remain vigilant that new discoveries are not neglected as new research is undertaken. If new discoveries are not commercialized or developed further, the economic development benefit will be lost.

It was considered important to perform the SWOT analysis before moving on. Once that exercise was accomplished, the Group analyzed the gaps that exist and propose solutions to strengthen the weaknesses. This could involve infrastructure, companies, organizations and/or regulations. Once these issues have been identified, proposals can be considered to suggest a variety of incentives that could entice organizations and companies to relocate, expand or start up in Palm Beach County.

The objectives for the life science cluster are:

- **Greater awareness of the county's life science community**, both internally and to the wider business community. This will encourage greater involvement and support as citizens, businesses and government better understand what is going on in the industry.
- **Focus the strategy of developing the cluster.** Support the Business Development Board's strategy for recruitment, expansion and retention of the industry in Palm Beach County.
- **Augment the inventory**
  - Companies -- Biotech companies that complement the existing research capabilities in the county.
  - Research institutions -- One or two more; recognizable names with excellent track records; desirable to recruit at least one international institute.
  - Talent -- Skilled workers at all levels.
  - Infrastructure -- Angel investors, venture capital, wet and dry lab space, support industries
- **Local commercialization of technologies** to benefit the county's economy. Technologies and discoveries should be spun out of research

institutions (Scripps and FAU), and should locate in Palm Beach County to employ local residents and generate more economic activity.

- **Economic development.** Improve the local economy, diversify the local economy and bring high-tech, high-wage jobs to the county; affect the education system so that young residents receive a solid education in Palm Beach County and remain here to contribute
- **Talent recruitment** (workforce and companies)
- **Funding** (angel and VC funds)
- **Brand strengthening** (translational/applied research strength)

#### **CRITERIA FOR RECRUITMENT OF LIFE SCIENCE COMPANIES**

The Group agreed on the importance of the following criteria when recruiting new life science companies (these have not been prioritized, and are not in any particular order):

1. **Quality of the organization.** Due diligence will establish whether or not the research or products being produced by the target organization is of a standard acceptable to Palm Beach County.
2. **Brand/Community Benefits.** The reputation of a particular organization will contribute to the enhancement of the cluster's reputation as a whole. An organization with a strong and respected reputation in a particular field can bring direct benefits to the citizens of Palm Beach County.
3. **Synergy**
  - ✓ with the development of the cluster
  - ✓ with other elements within the existing cluster
4. **Research dollars and internal funding.** Measurement should be taken of the number of grants awarded to research institutions, and the dollar amount of those grants.
5. **Ability to create spin-offs** and their transfer potential (Can the research lead to commercialization?). Must consider:
  - ✓ Character (company and principles)
  - ✓ Historical performance, track record
  - ✓ Type of spin-off
6. **Talent and intelligence capital**
7. **Negotiating posture.** The willingness of the target organization to negotiate (or not) with the community so that the community sees a return on its investment.
8. **Educational collaboration.** Importance should be given to outreach activities by the target organization in the educational community. Teaching our young people and engendering interest in the industry at a young age is critical to the sustainability of the cluster.
9. **Cross collaboration among clusters.** Synergies and potential for collaborative projects across industries are highly desirable. An example is the IBM-Scripps project known as Checkmate.
10. **Three "highs" for jobs:** number, quality, salary.

**11. Areas of research**

- ✓ Will it fill a gap in the cluster?
- ✓ Is it unique?
- ✓ Will it meet community needs?

**12. Capital investment** – What level of investment will the organization commit to, either in dollars or other measurable?

**13. Impact on minority population.**

**14. Local mission/unique proposition.**

**15. Multiplier effect** (opportunities for matching dollars from another source).

**Conclusion**

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The Group found that the life science cluster as it exists today in Palm Beach County is developing, and shows considerable promise. Existing research and development is underway at several institutions, among them FAU, Scripps Florida, and TransDermal Technologies. However, significant gaps exist in the infrastructure of the cluster. A wet lab incubator is needed in order to nurture entrepreneurial ventures that require venture capital funding. The funding portion of the industry is absent as of yet. As new technologies develop from today's research, they need to be commercialized and utilized to the benefit of Palm Beach County's economy so as to realize the potential of the investment made in this industry.

To fill the gaps in the infrastructure of the existing life science cluster, the Group recommends the Business Development Board follow its 2006-2011 life science recruitment strategy and use the several criteria laid out in this report to measure potential recruits.

The Group will develop an educational session for the Board of County Commissioners in Palm Beach County, and will conduct forums for the general citizenry to inform them of its findings and recommendations.