

Assembling and Maintaining Multidisciplinary, Multi-  
Institutional Collaborative Teams

# **The Emerging Pathogens Institute at UF**

**A voyage of Discovery and Lessons learned**



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# Organization of this talk

- 1. Lessons Learned (the bottom line)**
- 2. How UF Works and is Organized**
- 3. Critical Organizational Concerns**
  - An Advisory committee**
  - The Administration**
- 4. How it was done – The nuts and bolts**

## Key Features and lessons learned from the UF Initiative (a personal perspective)

1. Overall University/Cross College efforts must come from the bottom up not top down.
2. Working with and discovering new scientists and endeavors within your institution is one of most satisfying intellectual experiences ever.
3. Trust between groups must be established and maintained.
4. The leader should have credibility in the area, i.e. National/International recognition.
5. Do your homework – make enormous efforts to find out what others have to offer.
6. It is far better to capitalize on UNIQUE features of your University and put a unique spin on the effort.
  - Our physical location
  - The extremely broad scientific base at UF – plants, animals and humans
  - Area/State wide resources already in place - IFAS extension services and the Florida Medical Entomology Laboratories in Vero Beach
7. The goals of all groups must be the same or cracks in the edifice will inevitably develop.
8. The goals and structure should be solidly in place before involving the Administration.
9. Only get people involved who understand the science, the need and relevance of the initiative.
10. Be aware of University quirks – signatory authority involved in multiple units, CV's in consistent format, Different budgetary models for different departments and Colleges.

# Me

- Came to UF in 1989
- Chair of the Department of Molecular Genetics and Microbiology, College of Medicine until 2003 (Nationally ranked 12-16<sup>th</sup>)
- Co-Founder and Co-Founding Director of SERCEB (the Southeastern Regional Center of Excellence for Emerging Infections and Biodefense) (10 Regional Centers nationwide by 2005). Annual budget of SERCEB was \$15 million/year for 5 years
  - Vanderbilt, Emory, UNC (Chapel Hill), Duke, University of Alabama and the University of Florida
- Sr. Assoc. Dean for Research, College of Medicine 2003-2008.
  - Was able to provide some small resources from the College for the endeavor
  - NIH Funded (2 grants) throughout the process
- These qualifications made me a credible leader

# Relevant Units Present at UF

Virtually all the Medically Relevant Professions are located at UF within 16 Colleges

- Agronomy
- Biology (Zoology and Botany)
- Chemistry
- Computer Sciences
- Dentistry
- Entomology
- Epidemiology & Statistics
- Engineering
- Medicine
- Nursing
- Veterinary Medicine
- Pharmacy
- Plant Sciences including Molecular Biology
- Public Health and Health Professions
- Soil & Water Sciences
- Three Microbiology Departments (CLAS, Dentistry and Medicine)

# Upper Level UF Organization

- President
  - Vice President for Research
  - Senior Vice Presidents: Agriculture and Natural Resources, Health Affairs, and Provost
  - Colleges of Medicine and Agriculture, Liberal Arts and Engineering have the core sciences necessary.
  - Other Colleges were essential as well

# UF Health Sciences

- Many Colleges
  - Medicine
  - Dentistry
  - Pharmacy
  - Public Health and Health Professions

# Health Science Departments

- College of Medicine
  - All basic Science Departments
    - (Molecular Genetics and Microbiology was the core Dept.)
  - Clinical Departments, particularly those disciplines of adult and pediatric medicine associated with Infectious Diseases, Public Health and Epidemiology
- Colleges of Dentistry, Pharmacy, Public Health and health Professions, Pharmacy



# Campus-wide Departmental Contributions from Different Colleges

- College of Agriculture and Life Sciences
  - Animal Molecular and Cell Biology
  - Animal Sciences
  - Biology
  - Entomology and Nematology
    - Florida National medical Entomology Lab (Vero Beach)
  - Plant Pathology
  - Soil and Water Sciences

# Campus-wide Departmental Contributions from Different Colleges

- College of Liberal Arts and Sciences (CLAS)
  - Animal Molecular and Cellular Biology
  - Biology (Zoology and Botany)
  - Chemistry
  - Plant Molecular & Cellular Biology

# Campus-wide Departmental Contributions from Different Colleges

- Veterinary Medicine
  - Animal Molecular and Cellular Biology Departments
  - Veterinary Medical Sciences (Dept. of Pathobiology key department).

# Campus-wide Departmental Contributions from Different Colleges

- Engineering
  - Biomedical Engineering
  - Agricultural and Biological Engineering
  - Computer and Engineering Sciences
  - Programs in Nanotechnology and Micro-fabrication

# How the EPI Started –

## I. The Impetus and First Steps

- Catalytic events were 9/11 and the Anthrax scare
- Award of The SERCEB grant
  - Provided us with credentials at the National table
- **The overarching concept was to focus on diseases that directly impact health PLUS the food chain**
- UF's breadth of resources, compared to other major medical schools, gave us overwhelming and unique advantages
- Our breadth allowed not just human health, but the food chain (plants and animals) to enter the equation

# How to Proceed Towards the Goal of an Emerging Pathogens Institute?

- Personal visits to key individuals in key departments
  - Pathobiology (Vet Med)
  - Microbiology and Cell Science (IFAS/CLAS)
  - Engineering
  - Medicine
  - Plant Sciences
- Get buy in on the vision from the very beginning.
- Keep the goals few and simple

# Establish a Cross-University Steering Committee

- Concentrate on science, science, science
- People in different colleges/disciplines can identify relevant scientists
- Focus on the non-obvious, i.e. what makes you unique
- Build a desire across the campus for a focused, common goal
- **AVOID THORNY PROBLEMS YOU CAN'T CONTROL**
  - How to apportion resources (faculty lines)
  - Indirect costs issues

## Advisory Board Members

### R. Moyer Chair

Chris Batich, Ph.D.  
Department of Materials Science Engineering  
College of Engineering

Mary Brown, Ph.D.  
Department of Pathobiology  
College of Veterinary Medicine

John B. Dame, Ph.D.  
Department of Pathobiology  
Veterinary Medicine

Donn Dennis, M.D.  
Department of Anesthesiology  
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Department of Plant Pathology  
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Department of Oral Biology  
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Department of Chemistry  
College. of Liberal Arts & Sciences

Betsy Shenkman, Ph.D.  
Department of Epidemiology/Health  
Policy Research  
College of Medicine

Fred Southwick, M.D.  
Department of Medicine  
College of Medicine

Eric Triplett, Ph.D.  
Department of Microbiology and Cell  
Science  
Institute for Food and Agricultural  
Science



## II. Buy-in of relevant Units

- A committee was formed (detailed above) in which all major units were represented
- Each unit charged with evaluating their own expertise and how it might fit into overall plan
- Strengths and Deficiencies were identified
- Key areas identified, each of which brought in multiple units, i.e. Influenza, Dengue, West Nile viruses
- Major plant pathogens (Citrus Greening) in Florida identified
  - Many are microbe based, viruses, bacteria
- Mechanisms devised for linking with the Florida Medical Entomology Lab (FMEL), Florida Dept. of Public Health, and the Florida Agricultural extension services networks
- Cross College Programs defined for Key Areas
- Allowed for Cross training of Graduate students

# III. Finalized Program Areas

- **Modeling/Epidemiology** (IFAS, Med, Vet Med, CLAS)
- **Social Behavior** (IFAS, CLAS, PHHP)
- **Surveillance/Diagnostics/Nanotechnology** (Med, Vet Med, Pharmacy, IFAS, Engineering)
- **Pathogenesis/vaccines/Therapeutics** (Med, Vet Med, Pharmacy, IFAS, Plant Pathology, Dentistry)
- **Information management** (Engineering, Vet Med, Med, IFAS)
- **Involve other relevant programs and Resources**
  - Southeast Center of Excellence in Biodefense and Emerging Infections (RCE)
  - UF/IFAS
  - Center for Research at the Bio/Nano Interface
  - Southern Plant Diagnostic Network (SPDN)
  - UF Center for Telehealth
  - National Rural Behavioral Health Center (NRBHC)
  - Florida Medical Entomology Laboratory (FMEL)
  - Bureau of Economic and Business Research (BEBR)

# The Administration

- A common theme or project that emerges from multiple sources within the University will get attention from the University Administration.
- Initially do not ask for resources. Even if the initial project resources are small, it is important to show you can move things along yourselves.
- Keep the Administration out of the science.
- The Administration is needed for the thorny ADMINISTRATIVE ISSUES.

# IV. Campus Wide Meeting was Held to Present the Plan

- Ground swell from multiple Units in the University primed the Administrative Pump.
- An NIH P20 planning program project application further focused our plan.
- Administrators become informed and educated.
- Important to note: that initially we did not ask the Administration for any money.
- We did ask the Administration to expedite political and administrative barriers.
- The strength of the initiative was illustrated by a pan-college meeting to inform the campus of our progress held in Emerson Hall attended by nearly 300 people (2006) from throughout the campus.
- A campus wide initiative spurred the Administration to successfully obtain State funding for the Emerging Pathogens Institute (EPI) building which was constructed next to the UFGI.