

Subject: TurnKey 2013- Budget Cuts & Research: The one session you can't afford to miss...

How will the sequester effect the pace and quality of your research?

“Sequestration will take big bite from medical research funding

The NIH, the world's largest supporter of biomedical research, will lose \$1.6 billion of its \$30-billion budget through the sequester.”

- Los Angeles Times, March 21, 2013

“Sequester Cuts to Science Slow Biomedical Research”

- PBS NewsHour, April 3, 2013

“Sequester pinches funding for research on campuses”

- The Washington Post, March 18, 2013

Reduced government funding does not mean research must come to a grinding halt. Financial challenges to research programs beckon effective alternative solutions in order for science to progress.

In a must-see session at TurnKey 2013, Dr. Jeffrey Freeman discusses the short- and long-term financial advantages of designing an energy-efficient vivarium in a simple building.

D/B Session 12: Wednesday, 17 April 9:00-9:50

Session Highlights

Sustainable Concepts in Vivarium Design:

Four Keys to Building a Low-Cost, High Quality, Adaptive Research Facility

Dr. Jeffrey Freeman, Director, Jeff Freeman & Associates, addresses four major challenges of biomedical research facility design as experienced in the recent design and construction of a 4000m² mouse breeding and research facility near Sydney.

- low capital and operating costs
- low energy use

- staff and animal welfare
- ease of maintenance

Cost-Effective Solutions for Critical Environments in Biomedical Research

In the research world, a controlled environment is no longer a luxury. It is a critical component of the vivarium and the quality of the research generated. BioBUBBLE provides exceptional custom research environments globally with simplified operation at a dramatic savings. BioBUBBLE Technology integrates sustainable designs to simultaneously elevate the standards of research and minimize capital expenditures.



bioBUBBLE Project: Australian BioResources Breeding and Research Facility

At the Australian Bioresources Breeding and Research Facility, construction of a simple building on a rural site lowered the cost of the initial investment. bioBUBBLE designed low-cost, energy-efficient environments that minimize

contaminants for mouse breeding and research and enhance working conditions.

Australian BioResources is a state-of-the-art facility integrating bioBUBBLE Technology to house mice with more than 400 different genetic types in Ultra-Clean bioBUBBLE Environments within a vivarium with a 33,000 cage capacity.

bioBUBBLE Ultra-Clean Environments subdivide a large open room



bioBUBBLE Facility Design Concept





Each bioBUBBLE Enclosure has the capacity to house 1,600 cages in individually ventilated rack systems.

BioBUBBLE Power Units supply 80-100 Air Changes per Hour of HEPA filtered air into each Ultra-Clean Enclosure. Clear vinyl walls promote communication, support colony and staff management, and provide a less isolating work environment.



The bioBUBBLE vivarium model significantly reduces energy consumption and operating costs. The Australian BioResources project exceeds the efficiency requirements of the Building Code of Australia, and saved the facility 50% over traditional hard-walled construction.

For more information, we welcome you to visit with **bioBUBBLE** in **Booth #44** in the exhibit hall at the 2013 TurnKey Conference.