



### BIOSCIENCE IN THE 21<sup>ST</sup> CENTURY:

# HIGHLIGHTS AND FUTURE PROSPECTS





### BIOSCIENCE IN THE 21<sup>ST</sup> CENTURY

- What biologically-relevant problems confront society?
- •What are the strategies for studying these problems?
- What are the prospects for solutions to these problems?

#### **MULTIDISCIPLINARY APPROACHES**

NEUROBIOLOGISTS

MATERIALS SCIENCE ENGINEERS

MOLECULAR BIOLOGISTS

**BIOLOGICAL ENGINEERS** 

CHEMISTS

**CLINICIANS** 

**MICROBIOLOGISTS** 

**CELL BIOLOGISTS** 

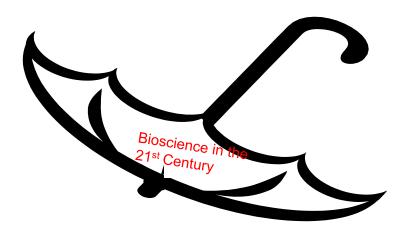
**VIROLOGISTS** 

**PHYSICISTS** 

CHEMICAL ENGINEERS
COMPUTER SCIENTISTS

#### SURVEY OF TOPICS IN BIOSCIENCE

- Neurophysiological processes and behavioral science
- Cancer and novel treatment strategies
- Genomics and bioinformatics
- Stem cell biology and disease treatment prospects
- Advances in engineered biosystems and biodevices
- Environmental biotechnology
- Infectious diseases
- Human physiology: cardiovascular disease, reproductive technologies, stress-related diseases

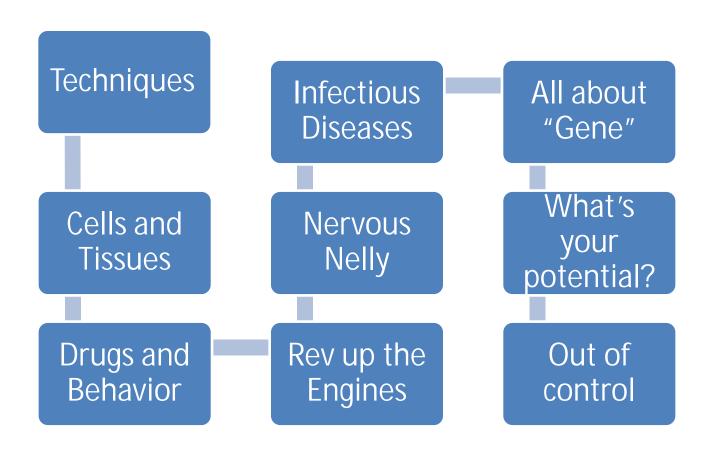








### **Bioscience Jeopardy**



# **ACKNOWLEDGMENTS**

### Bioscience PLAYBILL: Participating Faculty and Guests

#### **Departments and Programs represented:**

Biological Sciences, Bioengineering, Chemical Engineering, Civil & Environmental Engineering, Chemistry, Computer Science & Engineering, Materials Science & Engineering, Electrical Engineering



#### Lehigh University Participants:

Bryan Berger

Yvegeny Berdichevsky

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Susan Perry

**Amber Rice** 

Jeffrey Sands

**Neal Simon** 

**Robert Skibbens** 

Joshua Slee

Anastasia Thévenin

Vassie Ware

**Guests:** Ryan Wynne, St. Thomas Aquinas College

Robert Kruklitis, Lehigh Valley Health Network

Garry Morefield, VaxForm, LLC

American Society for Cell Biology, iBioSeminars© lectures by David Botstein, Sangeeta Bhatia

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## **THANK YOU!**