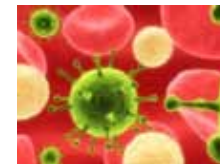




# BIOSCIENCE IN THE 21<sup>ST</sup> CENTURY:

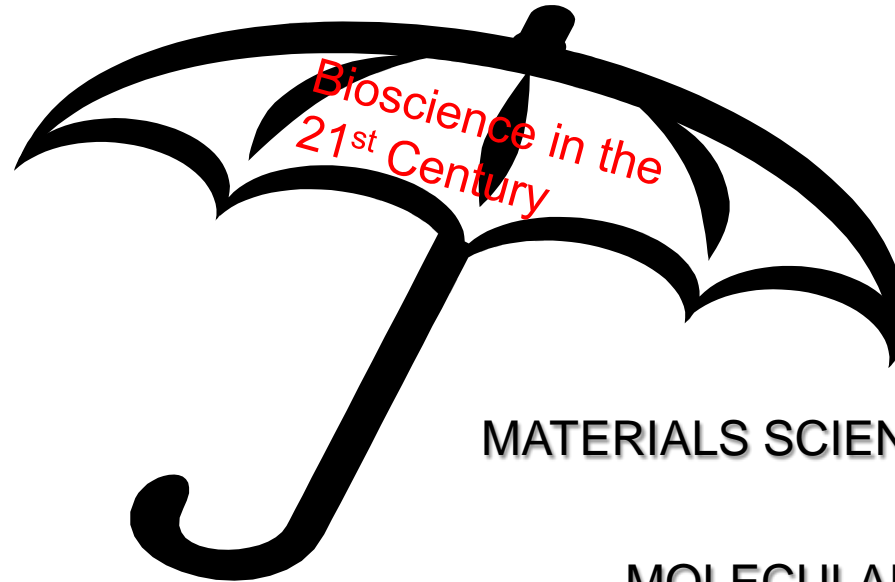
## HIGHLIGHTS AND FUTURE PROSPECTS



# 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

BIOCHEMISTS

BIOLOGICAL ENGINEERS

CHEMISTS

CELL BIOLOGISTS

PHYSICISTS

CLINICIANS

MATERIALS SCIENCE ENGINEERS

MOLECULAR BIOLOGISTS

MICROBIOLOGISTS

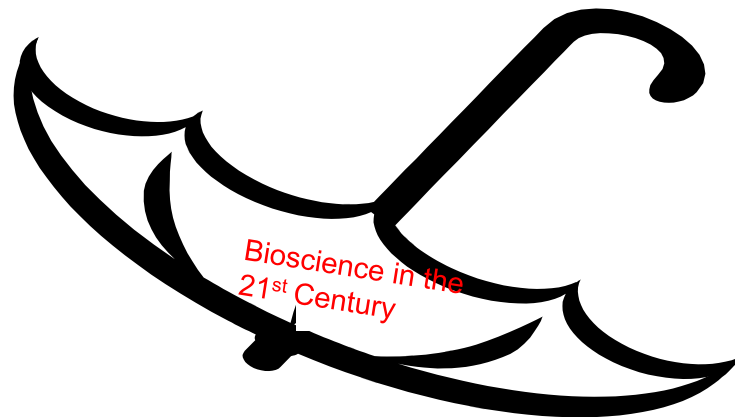
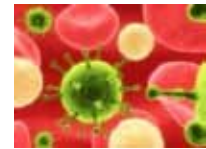
VIROLOGISTS

CHEMICAL ENGINEERS

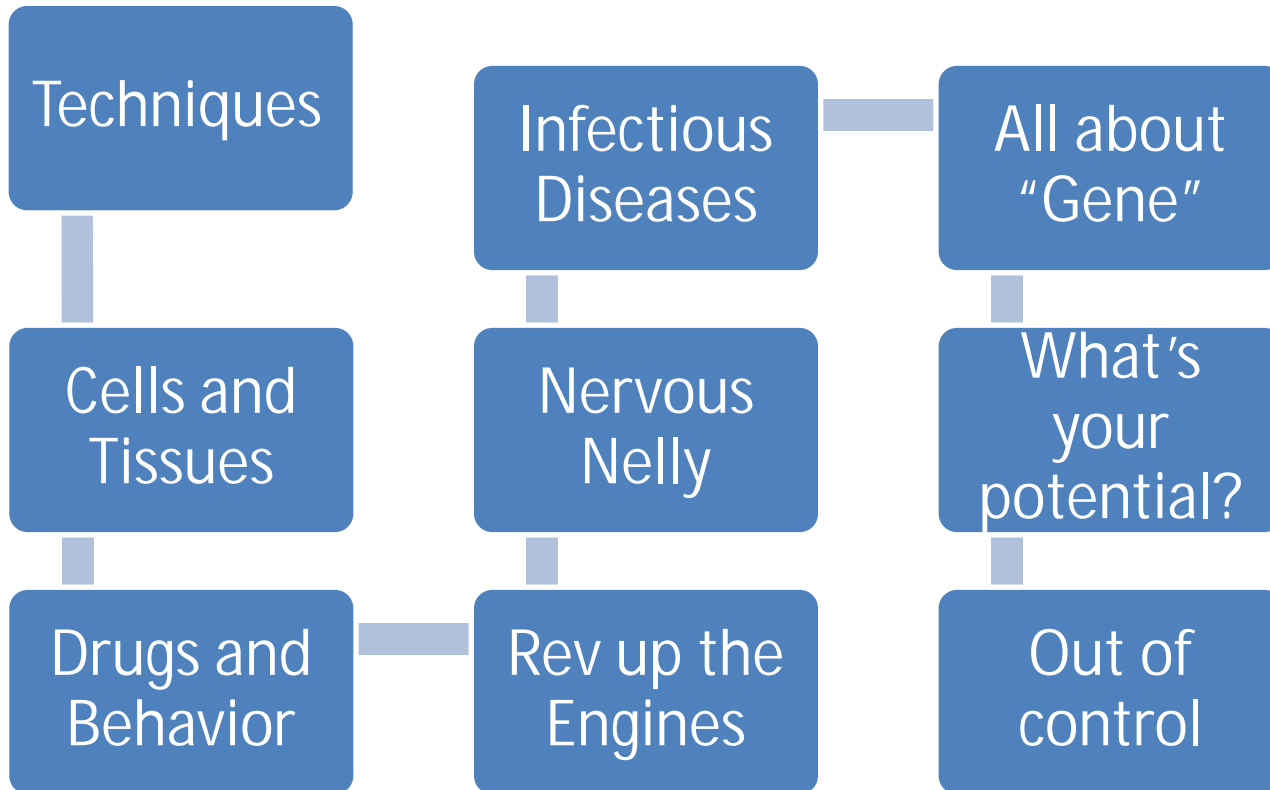
COMPUTER SCIENTISTS

# 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  
R. Michael Burger  
Brian Chen  
Xuanhong Cheng  
Dena Davis  
Julie Haas  
Ned Heindel  
M. Kathryn Iovine  
Murray Itzkowitz  
Sabrina Jedlicka  
Kristen Jellison  
Michael Kuchka  
Linda Lowe-Krentz  
Daniel Lopresti  
Jutta Marzillier  
John Nyby  
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!**