



synthetic biology
by *life* technologies™



Pacific Rim

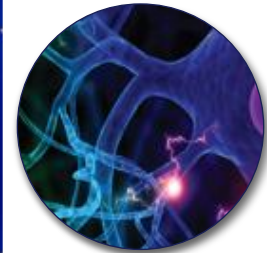
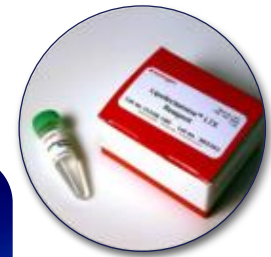
Summit on Industrial
Biotechnology and Bioenergy

October 10-12, 2012
Vancouver, Canada

Welcome and Introduction:

“Synthetic Biology Pathway to Innovation
in Fuels and Chemicals”

Todd Peterson, Ph.D.
VP, Synthetic Biology R&D



Revenue	\$3.6B
Patents & Licenses	4,300
R & D	\$330M
Customers	75,000
Products	50,000

basic and translational research – synthetic biology – forensic testing – food safety and animal health – molecular medicine



World-Renowned Tools and Reagents

GENETIC SYSTEMS

Products used to sequence and analyze DNA



- **Sequencing**
 - Capillary Electrophoresis
 - SOLiD Sequencing
 - Ion Torrent Sequencing
- **Forensic Testing**

MOLECULAR SYSTEMS

Products used to prepare biological samples and analyze gene function



- **Sample Prep**
- **PCR/qPCR**
- **Genotyping**
- **Transfection**
- **Protein Analysis**

CELL SYSTEMS

Products used to grow, and analyze cell function



- **Cell Culture Essentials**
- **Primary and Stem Cells**
- **Cellular Analysis**
- **Cell Therapy**
- **BioProduction**

Synthetic Biology

- Engineering living systems for useful purposes
- A rapidly growing field: a new approach to life sciences
- Technologies converge: engineering, biology & informatics
- Cutting edge research and development tools
- Enable broad industrial applications

Standardized Parts
Engineered Hosts
Synthesis & Assembly Tools
Computational Design Software
Analytical Tools

Healthcare



Energy



Chemicals



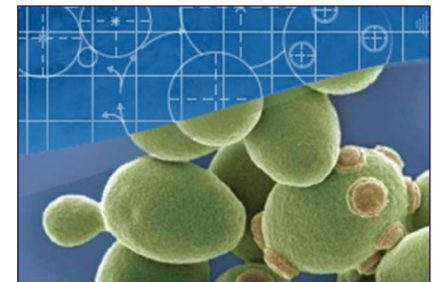
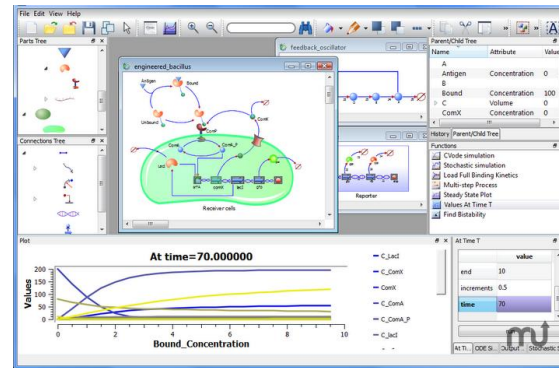
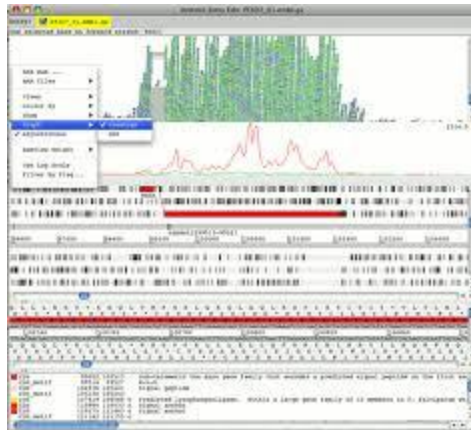
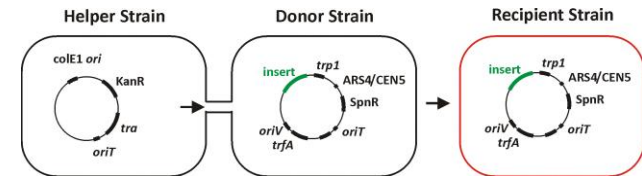
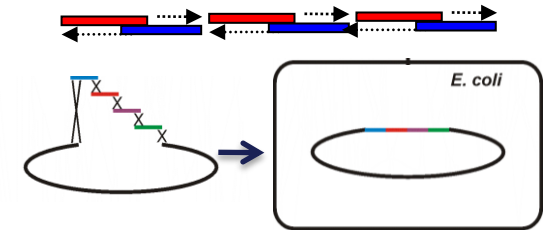
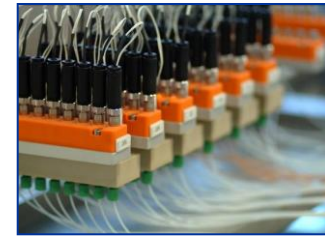
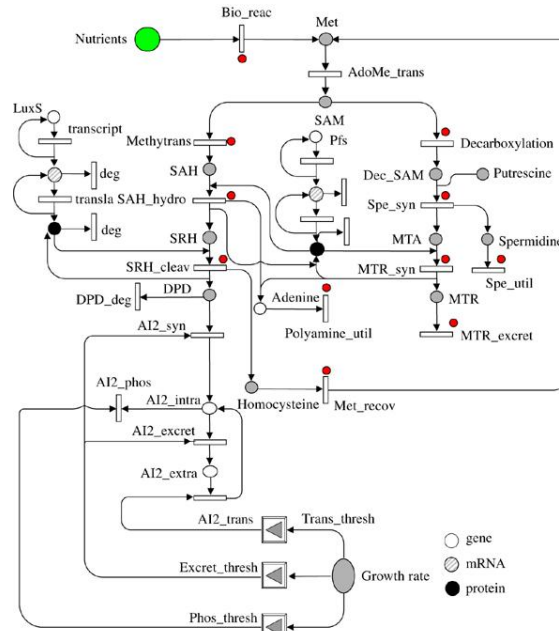
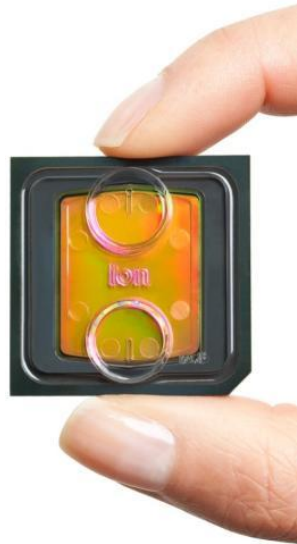
Agriculture



Bio-Remediation



Synthetic Biology Tools, Technologies, Services



Understand

Design

Build

life
technologies™



Invitrogen™

Applied Biosystems®

Gibco®

Molecular Probes®

Novex®

TaqMan®

Ambion®

Ion Torrent™

