BIO Advisory Committee Meeting
March 2014
OPERATING DEFINITIONS:

• **Genome:** the full complement of genetic material within an organism

• **Phenome:** the physical, behavioral and molecular characteristics of an organism resulting from the interaction of the genome and the environment
This is an old question...
....but it is also a new question

Honeybee

Royalactin

Daphnia sps.

Kairomones
At increasing levels of detail
... in the laboratory and the field

Lots of data!
BIO Exploration of G2P

- MCB/USDA workshop report
- IOS workshop reports
- National Research Council Report
- G2P Working Group White Paper
Community Consultation

• BIO will post a community wiki
  – Framing statement
  – Request for feedback
    • Key questions, issues and opportunities
    • Bottlenecks impeding progress and remedies
    • New strategies that can be used for engaging and enhancing an interdisciplinary workforce
    • Improvements needed for multi-dimensional integration of data over multiple scales
• Follow up workshops and planning activities
A Few of the Challenges Going Forward

- Defining the scope of G2P
- Capitalizing to the full extent on existing investments
- Identifying areas where BIO can make additional strategic investments
  - Tools for high-throughput phenotyping in models and non-models
  - Data management, analysis, and standards
  - Integration of data across scales
  - Visualization of outcomes
A good hockey player plays where the puck is. A great hockey player plays where the puck is going to be.

Wayne Gretzky
Discussion