

SEE SCIENCE POSTERS

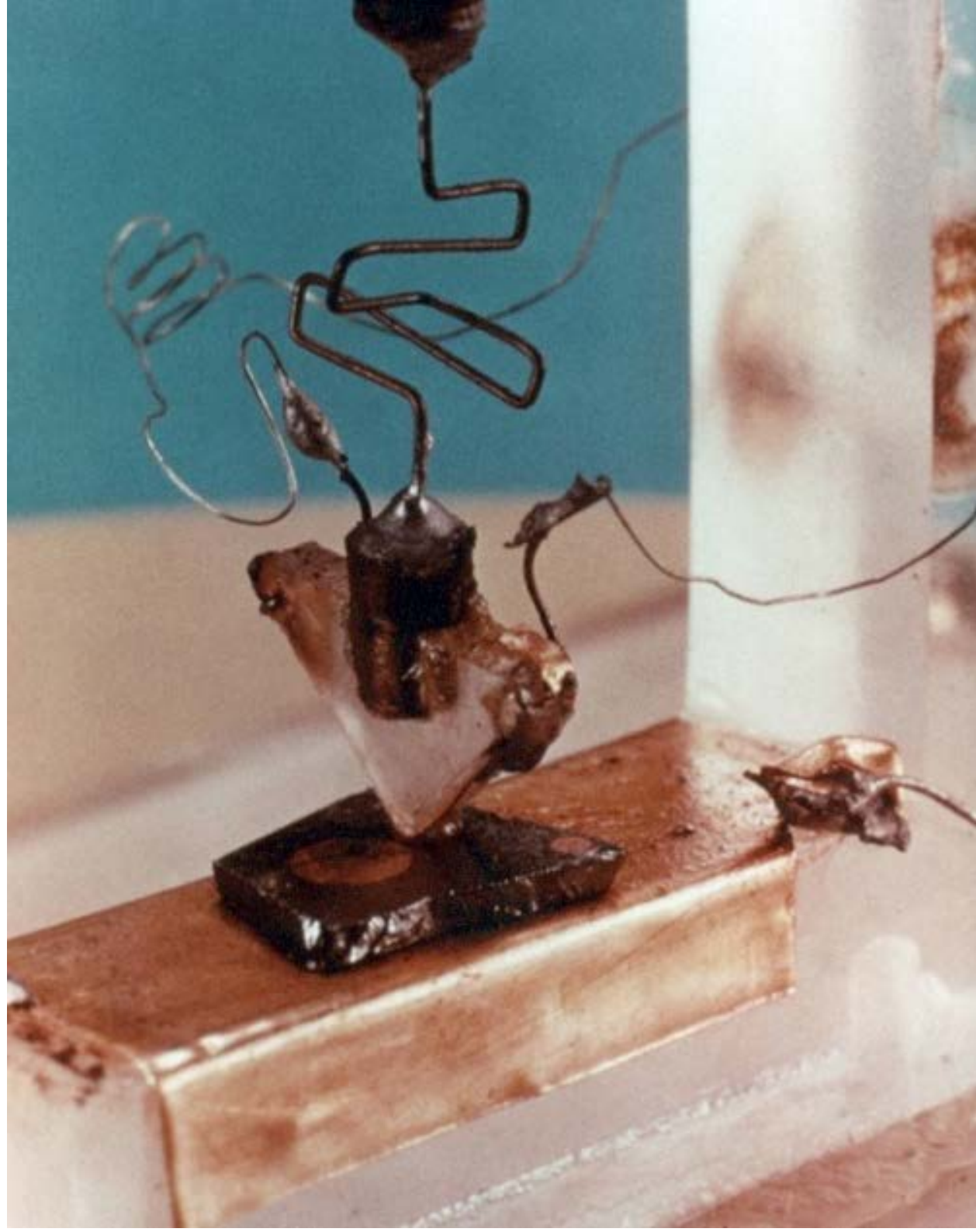
Don't know what what is? - the name

Proving the safety of our

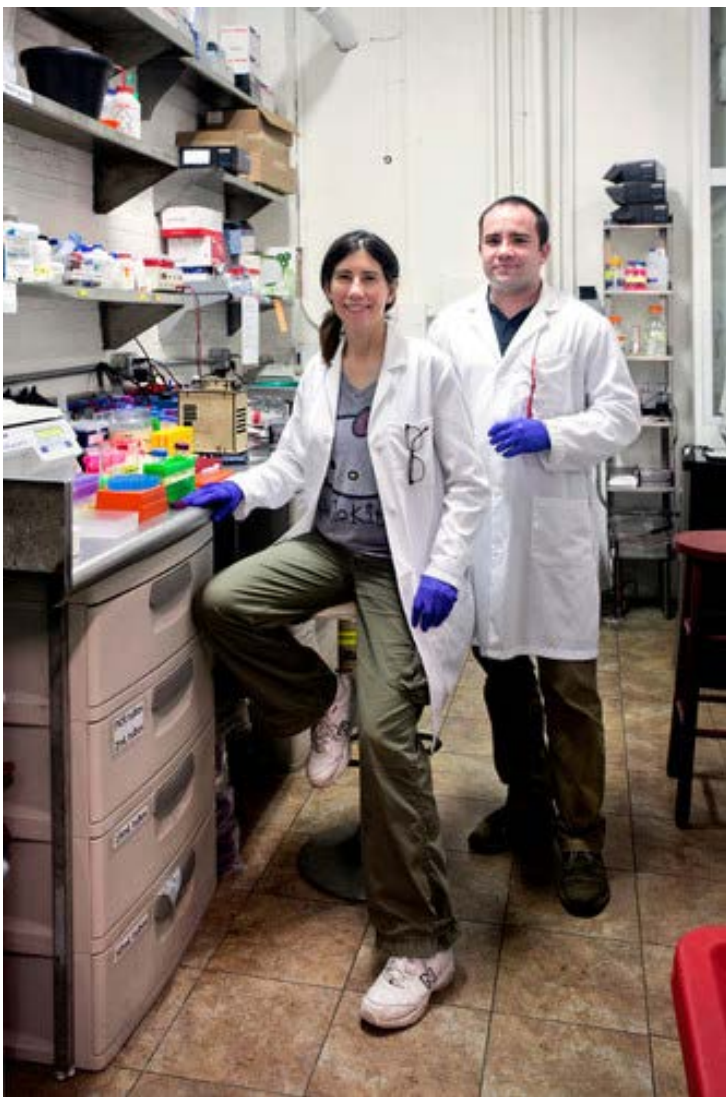
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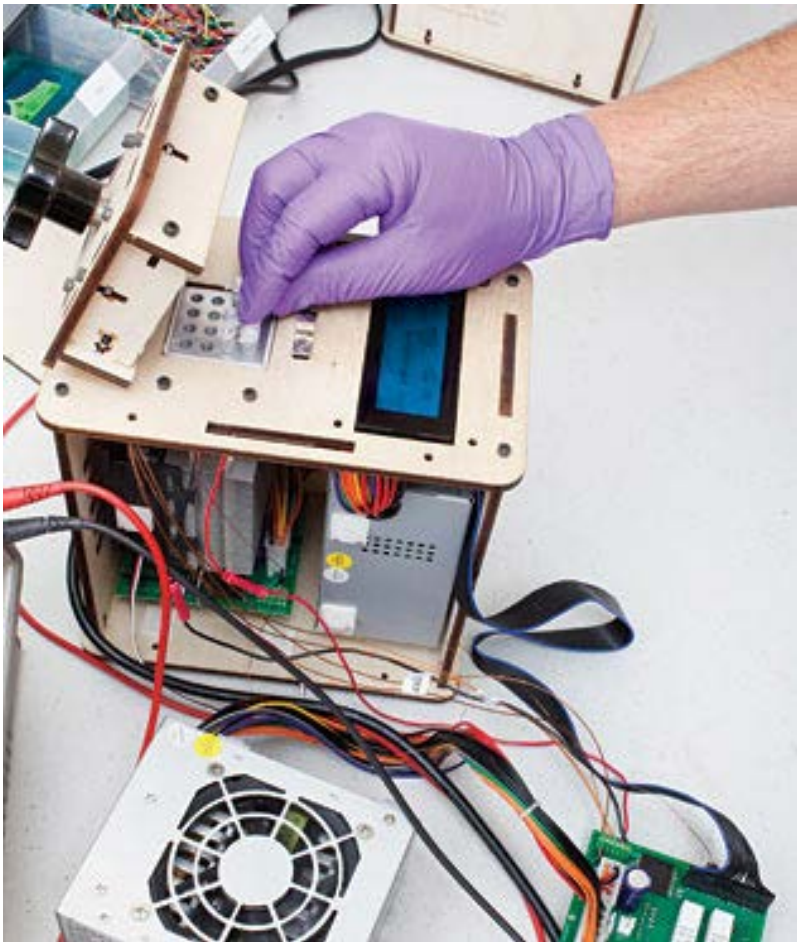
Hacker Culture

- Creating and sharing with each other
- Placing a high value on freedom of inquiry; hostility to secrecy
- Information-sharing as both an ideal and a practical strategy
- Upholding the right to fork
- Emphasis on rationality
- Distaste for authority
- Playful cleverness, taking the serious humorously and their humor seriously





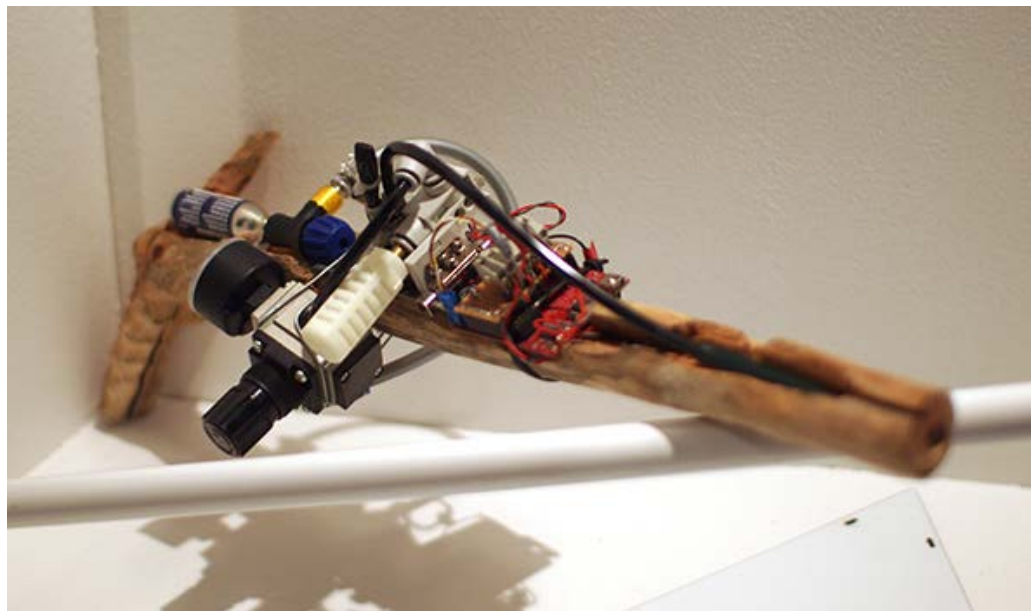




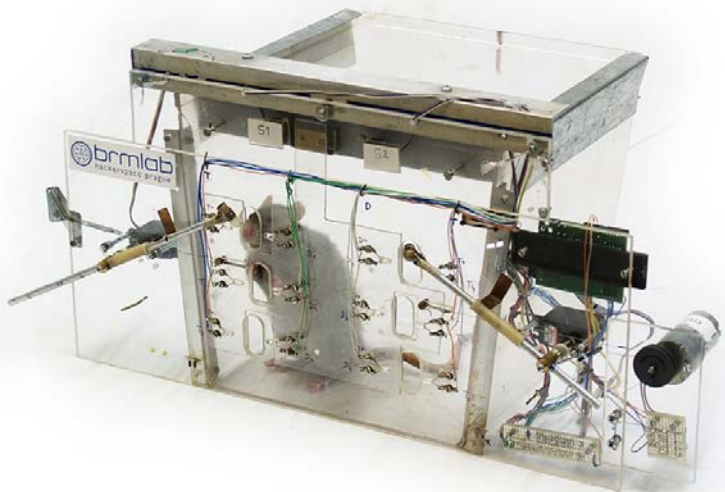
OpenPCR



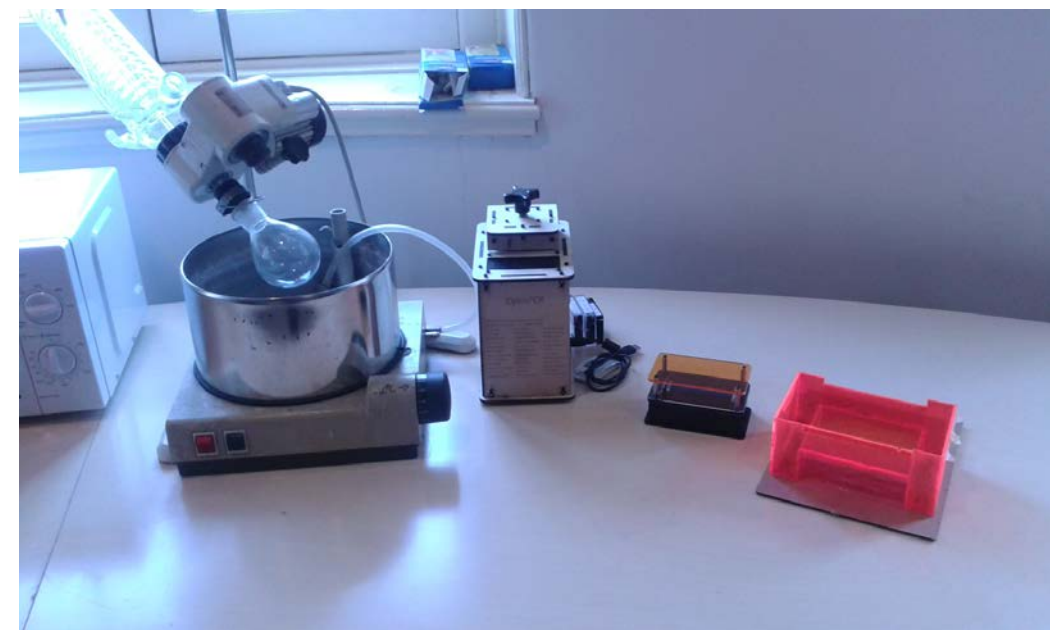
Gogofuge



Rüdiger Trojok







The Foo Camper's guide to biological engineering

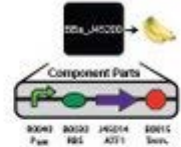
Ginkgo
BioWorks



Transformation-Foo v.1

1. GET DNA FROM THE DATABASE USING THE HOLE-PUNCH TOOL.
2. SELECT THE "DNA-LOAD" INTO YOUR PREPARED CELLS.
3. LET YOUR CELLS CHILL OUT WITH THEIR NEW DNA ON ICE FOR 30 MINUTES.
4. DIP YOUR CELLS IN 45°C WATER FOR 1 MINUTE.
5. ADD 250 µL OF MEDIA.
6. THEN TAPE YOUR TUBE TO SOMETHING SHORT (OR) IN A COMPUTER'S COOLING FAN OR TOP OF MONITOR - FOR ONE HOUR.
7. FINALLY, POUR YOUR TUBE INTO AN AGAR-PLATE PLATE UP INTO 3 µL OF LB-AND, STAIN IT REDDISH, AND THEN INCUBATE IT OVERNIGHT IN THE WARM PLACE USED IN STEP 5. ALL DONE!

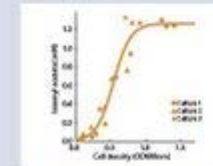
BBa_J45200 Banana Odor Generator



Mechanism & Function

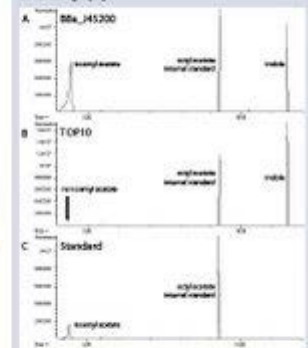
The banana odor generator (BBa_J45200) catalyzes the conversion of the precursor isomyl alcohol to the odor isomyl acetate that has a banana smell. The biorecognition device is composed of two transcriptional devices: a constitutive transcription source (BBa_J0040) and an odor enzyme generator (BBa_J45190). Odor enzyme generators produce an output an enzyme that catalyzes production of an odor from a chemical precursor.

Activity



isomyl acetate concentration increases with cell density

Chromatography



High levels of isomyl acetate are produced when the precursor isomyl alcohol is added to the culture medium (A), unlike the cellular chassis (E. coli strain TOP10) does not contain BBa_J45200 (B). The retention time of the isomyl acetate peak from BBa_J45200 is identical to that of the pure isomyl acetate standard (C). Most E. coli strains produce indole. Octyl acetate was used as an internal standard for all samples containing isomyl acetate.

Usage



Cells expressing ATF1 should be grown in the presence of isomyl alcohol (IMF).

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Registry of Standard Biological Parts
making the better, one part at a time

License: Public

http://partsregistry.org/Part:BBa_J45200
Reporter Devices



enzyme catalysis

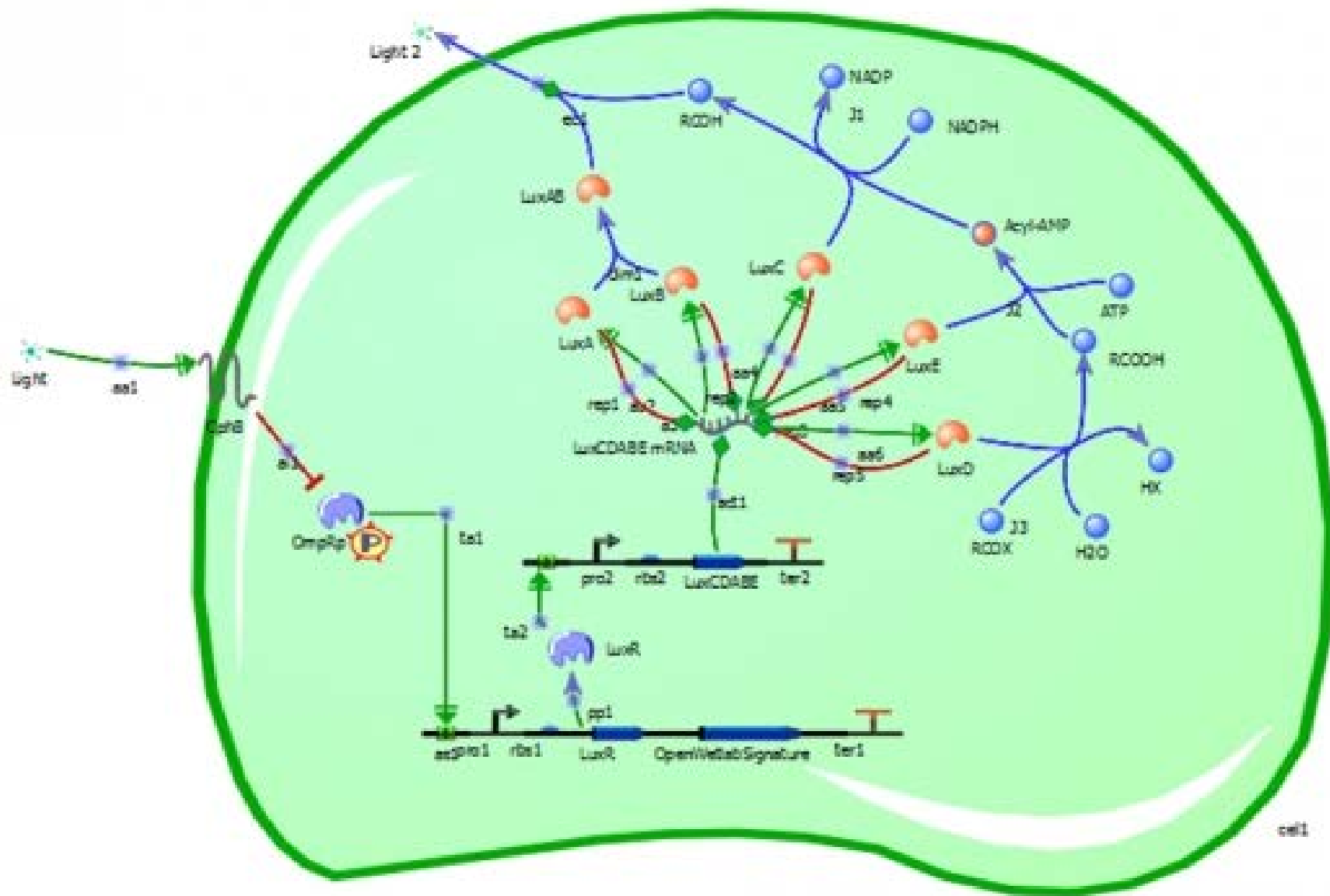
allosteric inhibition

transcription regulation

direct gene regulation

protein production

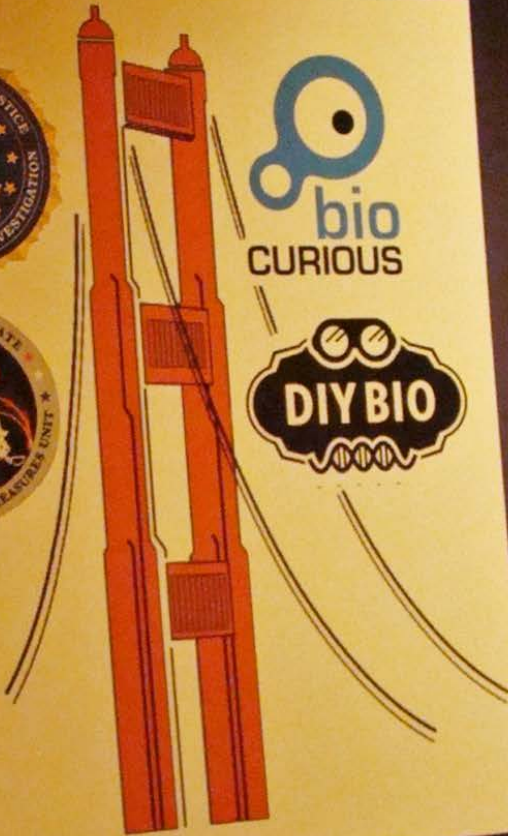
phosphorylation dephosphorylation cycle



cell



FBI – DIYbio Outreach Workshop



June 12-14, 2012
San Francisco, CA / Biocurious



Precautionary principle

- To what extent does it apply to genetics?