We asked Architects:
What can Synthetic Biology do for you?

They answered:
Make us exciting, new materials

So we boldly went where no iGEM team has gone before...
Soils, Rotting Fruit on Planet Earth

Seeking: A quiet place to divide
Within: The confines of a petri dish

Relationship: Colonial
Ethnicity: Gram Negative Bacteria
Body Type: Microscopic
Height: 0.6-0.8x1.0-4.0 μm
Eyes: None
Hair: Flagella
Occupation: Cellulose production
Languages:
1. G-bit assemble synthesized DNA into digested backbone plasmid. Three separate Gibson reactions for three separate genes, each producing a unique plasmid product.
2. Amplify each gene from plasmid template using primers with sequence identity to target neighbor sequence. Three separate PCR amplifications, resulting in 3 unique products.
3. Join amplified products and linearized backbone plasmid together by Gibson assembly
BBa_K850001 was excised from the Biobrick vector plasmid using Xba1 and Spe1 and cloned into the expression vector pUC19.

Cell lysates from transformed and untransformed cells were compared by electrophoresis on a denaturing 12% polyacrylamide gel.

Cells containing the BBa_K850001 insert in the proper orientation (starred lanes) expressed a protein of about 27kD.

The predicted molecular weight of NAG1 is 27.5 kD, showing the right protein is being expressed.
HUMAN PRACTICES
NYU GALLATIN 2012
Some products for "sale" paralleled those in the survey including GM corn (food), an acetobacter chair (cotton), and a microbial fuel cell (fuel).

Others were conceptual such as Biocrete (concrete substitute), a living watch, and bioprogrammable paint.
PROTOTYPING
NYU GALLATIN 2012
1. Submitted Bba_K850000, Bba_K850001, and Bba_K850002 as new parts to the Standard Registry of Biological Parts.

2. Successfully characterized Bba_K850001 as regulating Gl6P/FR6P using electrophoresis.

3. Identified product type, gender, and awareness as statistically significant predictors of support for GM products in a national survey sample. (Age and education not significant predictors.)

4. Explored the emotional roots of public sentiment concerning synthetic biology in interviews at the Atlantic Antic and raised public awareness.