



Stanford-Brown-Spelman iGEM

Projects Past and Present

Stanford-Brown-Spelman – 2014

- **Cellulose Acetate** – production of bioplastic from pure bacterial cellulose
- **Amberless Hell Cell** – production of a responsible biosensor vector
- **Novel Waterproofing Mechanisms** – derived from wasp and protist proteins
- **Biodegradability Enhancement** – through esterase and cellulase production
- **Cross-Linking Protein** – to strengthen cellulose and attach biosensors
- **Ethics of Drones** – interviewed scientists & civilians about the use of drones

Stanford-Brown – 2013

- **Biowires** – constructed DNA nanowires with unique ion distributions
- **CRISPR-Cas** – demonstrated method for removing virulence genes
- **De-Extinction** – predicted, synthesized, & tested ancestral genes
- **EuCROPIS** – produced biosensors to detect sucrose excretion
- **Ethics of De-Extinction** – ethical considerations for de-extinction

Stanford-Brown – 2012

- **Hell Cell** – isolated and characterized genes from extremophiles
- **Venus** – developed cell-cycle promotes for remote biosensing on Venus
- **Biomining** – engineered production of metal binding ions on flagella
- **Patent Guide and Ethics** – generated guide for understanding patents
- **Terraforming Ethics** – generated discourse about the ethics of terraforming

Brown-Stanford – 2011

- **REGOBricks** – generated method for biocementation of sediments
- **Power Cell** – engineered cyanobacteria that excrete sucrose for cells
- **FRETcetera** – developed biosensor for DNA damage from UV radiation