

# ETHAN BASS

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## EDUCATION

### The University of Chicago

Chicago, IL

- Bachelors of Science in Chemistry – Completed June 2013
- Graduated with general honors

## EXPERIENCE

### Aloha Medicinals Incorporated

Carson City, NV

*Spawn-Making Intern* – January 2015

- Practiced tissue culture techniques, substrate preparation, inoculation, packaging of spawn, and maintenance of fungal cultures.

### Cedar Concepts Corporation

Chicago, IL

*Quality Control Chemist* – October 2013 to September 2014

- Monitored and adjusted chemical reactions by wet and instrumental analysis, including HPLC, FT-IR, UV- VIS, Karl Fischer, and Brookfield viscometer assays.
- Maintained and operated analytical instruments to GMP, GLP and ISO 9001 requirements.
- Researched the development of new products and improved existing products and processes.

### Department of Molecular Genetics and Cell Biology

Chicago, IL

*Research Assistant* – December 2011 to August 2013

- Designed and engineered mutations in recombinant DNA from *H. sapiens* and *P. falciparum*.
- Maintained insect cell lines and expressed recombinant proteins using a baculovirus expression system.
- Prepared microbiological media, buffers, competent *E. coli* cells and other lab supplies.

### International Genetically Engineered Machines Competition

Chicago, IL

*Team Member* – March to October 2013

- Designed and implemented a strategy for the isolation of recombinant DNA for expression in *B. subtilis*.
- Planned assays for the detection and quantification of keratinase activity.

## LABORATORY TECHNIQUES

- |                                  |                                     |  |
|----------------------------------|-------------------------------------|--|
| • HPLC operation and maintenance | • DNA isolation and cloning         | • Insect cell culture and transfection |
| • FT-IR                          | • Plasmid preparation               | • Protein expression and purification  |
| • UV/VIS spectroscopy            | • PCR and site-directed mutagenesis | • SDS-PAGE                             |
| • Karl Fischer titration         | • Gibson Assembly                   | • Western blotting                     |
| • Brookfield viscometer          | • DNA sequence analysis             |  |

## COMPUTER SKILLS

- |                             |          |           |                   |                              |              |
|-----------------------------|----------|-----------|-------------------|------------------------------|--------------|
| • Microsoft and Open Office | • Matlab | • R       | • Adobe Photoshop | • Adobe Illustrator          | • Sequencher |
| • ApE                       | • ImageJ | • PHREEQC | • PyMol           | • NCBI and Pub Med databases |              |