

YUZHANG CHEN

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OBJECTIVE

To obtain an internship at DuPont for the summer of 2015

EDUCATION

University of California, Berkeley, Class of 2017—Berkeley, CA

08/13—present

Sophomore, Honors in Chemical Engineering 2013-2014, GPA: 3.621

Regents' and Chancellor's Scholar, Top 3% of Berkeley Undergraduates; California Alumni Association Scholar, Top 2% of Berkeley Students

EXPERIENCE

The Clark Lab at Energy Biosciences Institute—Berkeley, CA

11/14—present

Research Assistant, Biomass Depolymerization Division

Conducted research with Kathryn Strobel and Meera Atreya on engineering enzymes to increase yields for biofuel synthesis by reducing lignin's effects on cellulase and by enhancing cellulase activity

The Elcin Ünal and Gloria Brar Lab—Berkeley, CA

06/2014—present

Research Assistant, Engineering dCas9 for Genetic Screens

Performed independent research on controlling gene expression by engineering dCas9 with Auxin inducible degradation (AID) pathway

Confirmed that beta estradiol induction was possible and added MxI domain to enhance transcription repression

UCSF Benioff Children's Hospital Oakland—Oakland, CA

03/2014—09/2014

Research Assistant, FIND Navigator

Observed patients and conducted intervention to determine a relationship between social factors and children's well being

Developed cultural awareness and ability to work with people from diverse backgrounds, making me a better team player

Certified by UCSF CITI program to conduct human research until 02/2017

TECHNICAL SKILLS

SOFTWARE MATLAB | JAVA | Filemaker | Snapgene | ChemBio Office | Microsoft Office | Microsoft Visio | Adobe Creative Suite

SYNTHESIS/ENGINEERING Polymers | Nanocrystals | Biofuels | cDNA | Enzymes | Bioengineering

EQUIPMENT MP-AES | HPLC | Li-Cor | Microscopes | UV-Vis | PCR | Gel Electrophoresis (SDS-PAGE, 1% Agarose) | TLC

| Column Chromatography | NMR (Proton and C14) | Speedvac | FPLC

METHODS Western Blot | Site directed mutagenesis | Gibson® Cloning | Organic Extraction | Transformation (yeast, plant, bacteria) |

Dissection (pig, nematode, cockroach, yeast tetrads) | Flow Cytometry | grid PCR | Frogging (Serial Dilutions) | Media Preparation | Tangential

Flow Filtration | Crystallization | Enzymatic Assays

PROJECTS AND EXTRACURRICULARS

Engineering Thermophilic Enzymes for Biofuel Production

11/2014—present

Cellulase, the major enzyme in biofuel production is greatly hindered by lignin. It is hoped that through modifying the structure of cellulase, the readiness of the enzyme to bind to lignin would decrease, enhancing productivity and efficiency.

06/2014—present

Engineering dCas9 for Temporal Control

Successful induction of dCas9 with beta estradiol by attaching a beta estradiol receptor to the dCas9 indicates that the enzyme's capabilities can be greatly enhanced with additional domains. Such domains would allow for genetic control in a temporal fashion, allowing for flexibility in screens.

08/2013—present

Bringing Mental Health Awareness to Campus—President of A Brighter Tomorrow /Active Minds @ Berkeley

Successfully raised awareness with limited resources and learned to budget wisely, Developed creative methods of promotion, including hand paintings and care packs to promote mental health awareness in a tangible manner