

Julia Kennedy-Darling

1101 University Ave. 4232

Madison, WI, 53703

608.262.2181

jkennedy@chem.wisc.edu

EDUCATION

University of Chicago, Chicago, IL

- Masters of Science in Chemistry; 2009
- Bachelors of Science in Chemistry with honors; 2009

PUBLICATIONS

Plug-based Microfluidics with defined surface chemistry to miniaturize and control aggregation of amyloidogenic peptides. Angew. Chem. Int. Ed. 2009 48: 1487 - 1488.

RESEARCH

Department of Chemistry, **University of Wisconsin at Madison**

Graduate Student Researcher with the Smith Group; 2009 - Present

Surface chemistry:

- Developed new attachment chemistries for amorphous carbon based surfaces
- Designed novel patterning methods for amorphous carbon substrates for molecular-level control of surface chemistry

Antibody production and proteomics:

- Raised antibodies against chemical tags that can be used to identify novel protein-protein interactions
- Raised antibodies against new and unique post-translational modifications of proteins

Synthetic Biology:

- Synthesized models of cell components through a bottom-up approach using an e. coli. cell free system and liposomes as the vesicle for membrane protein production

Department of Chemistry, **University of Chicago**

Undergraduate Researcher with the Ismagilov Group; 2005 - 2009

- Studied the behavior of aggregating peptides in microfluidic plugs
- Developed assays to quantify low levels of both inhibitory and acceleratory molecules on the aggregation of amyloid beta peptides in biological samples
- Quantified the contribution of the air-water interface as well as oil-water interface in protein crystallization batch methods using a model protein, TDP-1

FELLOWSHIPS/AWARDS

- Genomic Science Training Program trainee, University of Wisconsin, Madison; 2010-present
- Physical and Chemical Methods in Biology trainee, University of Chicago; 2007 - 2009
- Dreyfus Grant Program, University of Chicago; 2006
- Dean's List, University of Chicago; 2008 - 2009
- NCAA Scholar Athlete, Women's Varsity Soccer Team, University of Chicago; 2005-2008

TEACHING EXPERIENCE

High school AP chemistry tutor, Middleton High school, Madison, 2010 - present

- Tutored students weekly in preparation for the Advanced Placement exam in chemistry

Teaching Assistant for Advanced General Chemistry, University of Wisconsin at Madison, 2009

- Led over forty college freshman in introductory chemistry discussions and labs

Teaching Assistant for Organic Chemistry, University of Chicago, 2008

- Led twenty college sophomores in organic chemistry discussions and labs

Aerial School Science Fair, Judge and Mentor, Chicago IL; Winter 2008

- Guided middle school students in science fair project options and designs

Neighborhood Schools Program Tutor, University of Chicago; 2008

- Tutored high school students twice a week in math, reading and writing