

# Emily A. Abdoler

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## CURRENT POSITION

**Fellow** – Department of Bioethics, National Institutes of Health (9/07 – Present)

## EDUCATION

**William Jewell College**, Liberty, MO (9/02 – 7/06)

BA Oxbridge Molecular Biology; Bioethics - *Summa Cum Laude*  
Oxbridge Honors Program  
GPA: 3.99

**Cambridge University (Homerton College)**, Cambridge, UK (9/04 – 6/05)

Junior Year Abroad Program; Oxbridge Honors Program

## WORK EXPERIENCE

**Director – Jewell Academies of Science (William Jewell College)** (2/06 – 9/07)

Liberty, MO

*Responsible for original project proposal; prepared, submitted, and implemented grant; secured institutional and outside sources of support, played lead role in developing academy design and concept, served as academy director, recruited volunteers, oversaw participant recruitment and selection, oversaw programming and curriculum development, mentored college student volunteers, served as liaison to granting organization, assisted in development of leadership training, and developed and taught bioethics course.*

**Lecturer – Biology Department, William Jewell College** (8/06 – 6/07)

Liberty, MO

- Courses

- Evolution & Ecology laboratory

- Responsible for organizing and teaching laboratory component and assigning and grading all non-exam coursework. Provided instruction and training regarding scientific writing.*

- Biodiversity & Design laboratory

- Responsible for organizing and teaching laboratory component and assigning and grading all non-exam coursework. Developed several new laboratory activities and primary literature exercises. Provided instructions and training regarding scientific writing.*

- Physiology laboratory

- Responsible for teaching laboratory sessions and grading all lab-based coursework.*

- Introduction to Cell & Molecular Biology tutorial

- With another faculty member, led six two-hour tutorial sessions on various aspects of genetics. Responsible for grading essays assigned for these sessions.*

- Other duties: *Managing research labs, purchasing, advising student organizations*

**Instructor - Liberty Public Schools Summer School Enrichment Program** (6/07)

Liberty, MO

*Designed and taught introductory bioethics course, with discussion-based activities, for middle school students*

## RESEARCH EXPERIENCE

**Do-Not-Resuscitate Order Policies in Kansas City Area Public Schools** (10/05 – 4/07)

**Center for Practical Bioethics**, Kansas City, MO

Advisor: Cindy Leyland

*Determined, analyzed, and categorized the policies regarding DNR orders for students in public school districts within the Kansas City metropolitan area (eight counties), making comparisons between KS and MO. Reassessed MO policies after a popular statewide policy provider made a major change in its DNR order policy guidelines. Presented results at various events and forums.*

**Cloning, characterization & functional analysis of DAD1 in *P. tetraurelia*** (7/03 – 7/06)

**William Jewell College, Biology Dept., Liberty, MO**

Principal Investigators: Daniel P. Heruth, PhD; Judith A. Dilts, PhD

*Determined and analyzed the sequence of macronuclear and cDNA forms of the antiapoptotic gene Dad1 (Defender Against Death-1) in the ciliated protozoan P. tetraurelia. Conducted differential expression studies to characterize Dad1 in a variety of P. tetraurelia strains. Preliminary results indicated expression is altered in strains that harbor endosymbiotic bacteria. Worked toward construction of Dad1 knock-out vectors for use in RNA interference studies.*

**Elucidation of neuronal circuitry involved in olfaction using BAC technology** (6/05 – 8/05)

**Stowers Institute for Medical Research, Kansas City, MO**

Principal Investigator: C. Ron Yu, PhD

*Engineered bacterial artificial chromosomes (BACs) using novel homologous recombination techniques to create large mitral and tufted cell protein constructs (Pcdh21) for use in transgenic mouse studies focusing on the neuronal circuitry of olfaction*

**Functional analysis of protocadherins (Stanford Summer Research Program)** (6/04 – 8/04)

**Stanford University Medical School, Genetics Dept., Palo Alto, CA**

Principal Investigator: Richard Myers, PhD

*Generated nine epitope-tagged constructs of four representative protocadherin genes. Transfected the constructs into neuroblastoma cells, creating five stable mammalian cell lines for characterization of specific binding interactions and expression patterns of the proteins of interest.*

## **HONORS, GRANTS, & PRESENTATIONS**

### Honors

- **Rhodes Scholarship Finalist (District 11) 2006**
- **Phi Epsilon Society**  
*Top 10% Graduating Class*
- **William Jewell College Faculty Award 2006**  
*Highest student distinction*
- **L. E. Kresse Award 2006**  
*Senior woman most likely to succeed*
- **Judith A. Dilts Award 2006**  
*Outstanding senior biology major*
- **Mortar Board 2005-06**
- **Barry M. Goldwater Scholar 2005**
- **USA Today All-American Collegiate Academic Third Team 2005**
- **Stowers Institute Summer Scholar 2005**
- **William Jewell Cambridge Scholar 2004-05**
- **NAIA Region V Scholar-Athlete 2003**
- **Pryor Leadership Fellow 2003-06**  
*Academics-based leadership studies program*
- **Emerging Leader of the Year 2003**  
*Awarded to the William Jewell freshman displaying top leadership qualities*
- **Outstanding Oxbridge Intro. Paper 2002-03**
- **Distinguished Achievement Scholar 2003-06**  
*Highest scholarship awarded by William Jewell*
- **Coca-Cola National Scholar 2002**
- **Toyota Community Scholar 2002**

### Grants

**Kauffman Foundation Summer METS (Math, Engineering, Technology & Science) Grant 2007 (\$25,000)**

*Secured funding for volunteer-staffed summer interdisciplinary science academies focusing on inquiry-based science enrichment activities, personal development, and leadership training for middle school students (especially minorities and low-income students) in the Kansas City area. The two week-long residential academies also provided college student volunteers with service and leadership opportunities.*

**Kauffman Foundation Summer METS (Math, Engineering, Technology & Science) Grant 2006 (\$5000) - A pilot version of the 2007 Kauffman Summer METS grant**

**Oxbridge Summer Research Grant 2003 (William Jewell College)**

*Funding promoting independent undergraduate research. Studied the Dad1 gene in ciliated protozoa.*

## Presentations

- “DNR Order Policies in Kansas City Area Public Schools” April 14, 2007.  
Missouri School Nurse Association. Cape Girardeau, MO.
- “DNR Order Policies in Kansas City Area Public Schools” October 26, 2006.  
Missouri School Board Association Conference. Lake of the Ozarks, MO.
- “Cloning, Characterization & Functional Analysis of Dad1 in *P. tetraurelia*” March 30, 2006.  
Poster presentation at Kansas City Area Life Sciences Day. Kansas City, MO.
- “Cloning, Characterization, and Functional Analysis of Dad1 in *P. tetraurelia*” April 16, 2004.  
National Conference for Undergraduate Research (NCUR). Indianapolis, IN.

## SERVICE LEADERSHIP

- Pryor Leadership Program Advisory Council** (3/07 - Present)
- Center for Practical Bioethics: Intern & Volunteer** (10/05 – 5/07)
- *Assisted with aspects of Kansas City Partnership to Advance Pediatric Palliative Care and other projects*
  - *Co-organized Kansas City-wide Youth Leadership Forum for presentation of cancer documentary. Recruited student volunteers/participants, acted as event MC, and co-lead discussion on youth service and involvement.*
- Association for Women in Science - Kansas City Area Chapter** (9/03 – 5/07)
- Founder; President 2003-04, 2005-06; Faculty Advisor 2006-07
- *William Jewell College organization dedicated to promoting equality in the sciences*
  - *Planned monthly meetings and recruited professional speakers and guests*
  - *Established an after-school science club at an underserved middle school*
    - *Developed weekly curriculum, lead sessions, and recruited other college student volunteers*
  - *Served as liaison between college students and informal science education providers, creating additional service learning opportunities for students*
  - *Mentored K-12 students during various workshops, presentations, and events*
- William Jewell College Emerging Leaders Program: Director** (11/03 – 5/04)
- *Leadership program for select freshmen that recognizes excellence and potential*
  - *Worked with faculty sponsor and leadership team to organize and plan 2004 program and conference*
    - *Developed program goals, itinerary, and activities; recruited speakers; served as MC of all events*
  - *Coordinated participant recruitment and selection*
    - *Organized recruitment/selection process, developed interview activity used in subsequent years*

## UNDERGRADUATE ACTIVITIES

- **William Jewell College Student Senate**
  - Vice President 2005-06
  - Class Senator 2002-03; 2003-04
- ***Undergraduate Journal for Environmental Ethics***
  - Senior Editor 2005-06
- **Ciliate Research Lab (William Jewell College)**
  - Lab Manager 2005-06
- **βββ Biology Honor Society 2005-06**
- **Cardinal Host 2003-04; 2005-06**
- **CHaOS (Cambridge Hands on Science) 2004-05**
  - Taught science to children at community events*
- **Homerton College (Cambridge University) Union of Students**
  - Women’s Officer 2004-05
  - Cambridge Women’s Union Rep. 2004-05
- **Cambridge University Scientific Society 2004-05**
- **Cambridge University Biological Society 2004-05**
- **Homerton College (Cambridge) Boat Club**
  - Crew Member & Trainer 2004-05
- **William Jewell Emerging Leaders Program**
  - Participant 2003
- **William Jewell Varsity Cross Country 2003**