

## Leslie A. Gregg-Jolly

Professor of Biology  
Grinnell College  
Grinnell, Iowa 50112-1690

### EDUCATION

---

B.A., Major: Biochemistry, 1984; Vassar College.  
M.S. and M. Ph., Biology, 1986; Yale University.  
Ph.D., Biology, 1991; Yale University.  
Research Associate, 1990-1993; Department of Molecular and Cellular Biology, University of Arizona.  
Project Kaleidoscope Leadership Workshop, Baca, CO. 2000.

### TEACHING AND RESEARCH EXPERIENCE

---

Professor of Biology, Grinnell College, 2008-  
Associate Professor of Biology, Grinnell College, 1999-2008.  
Assistant Professor of Biology, Grinnell College, 1993-1999.  
Teaching Faculty for NEH/NSF sponsored Summer Institute: *Scientific, Ethical and Social Challenges of Contemporary Genetic Technology*. University of Puget Sound, Summer 1996.

### GRANTS AND FELLOWSHIPS

---

NSF-MRI (co-pI), "Acquisition of a Quantitative Real-Time PCR System for Biological Science Research" 2008-2009.  
Grinnell College Research Grants, 1994, 1997-2002, 2004-.  
Hendrixson Research Grant, 1994, 2006, 2008.  
Mellon Faculty Career Development Grant, Summer 2005.  
NSF-RUI (co-pI), "Acquisition of a Capillary Electrophoresis System for DNA Analysis in Investigations of Adaptation, Speciation, Species Interactions and DNA Repair", 2000-2001.  
NSF-DUE-CCLI-A&I (co-pI), "Reform of Undergraduate Biology Education: Biological Inquiry and Integrative Biology", 1999-2001.  
Harris Fellowship, 1998-1999.  
American Society for Microbiology Undergraduate Research Fellowships, mentor for 4, 1998-2000.  
GTE Lectureship on The Human Genome Project (co-pI), 1994-1995.  
National Cancer Institute Postdoctoral Fellow, University of Arizona, 1991-1993.

### SERVICE

---

Associate Dean of the College 2008-  
Co-founder and co-director of Scholarly Women's Achievement Groups 2004-.  
Ad Hoc Reviewer for *Applied and Environmental Microbiology* 2004-, *Microbiology* 2008-, and *FEMS* 2007.  
Committee for Biological Chemistry 1999-.  
Health Professions Advisory Committee 1995-1998, 2005-2006.  
Planning Committee for ACM Women in Science Networking Seminar 2005-2006.  
Executive Council 2003-2005.  
Budget Steering Committee 2003-2005.  
Grinnell College Strategic Planning Steering Committee 2003-2004.  
Science Division representative on Personnel Committee 1999-2001.  
Contributor to the Grinnell Science Project, a program to encourage the success of students traditionally under-represented in the sciences: co-director for pre-orientation (1999, 2001) and supervised early research experience short projects (1994, 1995).  
NSF Panelist for CCLI proposals, July 2000.  
Ad Hoc Reviewer for the inaugural issue of the ASM journal *Microbiology Education*, 2000.  
NSF Panelist for C-RUI pre-proposals and full proposals February and May 1999, respectively.

## PUBLICATIONS

---

**Manuscripts** (Undergraduate research students are underlined.)

Gregg-Jolly, L.A., J.M. Hare, G. Whitworth, S. Li, S.B. Peterson, G. Peterson, and B. Flaherty. Identification and Characterization of *Acinetobacter baylyi ddrR*, a Novel DNA Damage Inducible Gene. Submitted to J. Bacteriol. March 7, 2008.

Chakravorty, A., M. Klovstad, G. Peterson, R.E. Lindeman and L.A. Gregg-Jolly. 2008. Sensitivity of an *Acinetobacter baylyi mpl* Mutant to DNA Damage. Appl. Environ. Microbiol. **74**:1273-1275.

Hare, J. M., S.N. Perkins, and L. A. Gregg-Jolly. 2006 A Constitutively Expressed *umuDC* Operon Regulates the *recA*-Dependent DNA Damage Induction of a Gene in *Acinetobacter baylyi* Strain ADP1. Appl. Environ. Microbiol. **72**: 4036-4043.

Rauch, P.J.G., R. Palmen, A.A. Burds, L.A. Gregg-Jolly, J. R. van der Zee, and K.J. Hellingwerf. 1996. The expression of the *Acinetobacter calcoaceticus recA* Gene Increases in Response to DNA Damage Independently of RecA and of Development of Competence for Natural Transformation. Microbiology. **142**:1025-1032.

Kowalchuk, G.A., L.A. Gregg-Jolly, and L.N. Ornston. 1995. Nucleotide Sequences Transferred by Gene Conversion in the Bacterium *Acinetobacter calcoaceticus*. Gene **153**:111-115.

Lewis, L.K., G.R. Harlow, L.A. Gregg-Jolly, and D.W. Mount. 1994. Identification of High-Affinity Binding Sites for a Transcriptional Repressor Protein which Define New DNA Damage-Inducible Genes. J. Mol. Bio. **241**:507-523.

Gregg-Jolly, L.A. and L.N. Ornston. 1994. Properties of *Acinetobacter calcoaceticus recA* and Its Contribution to Intracellular Gene Conversion. Mol. Microbiol. **12**:985-992.

Averhoff, B., L.A. Gregg-Jolly, D. Elsemore and L.N. Ornston. 1992. Genetic Analysis of Supraoperonic Clustering by Use of Natural Transformation in *Acinetobacter calcoaceticus*. J. Bacteriol. **174**:200-204.

Gregg-Jolly, L.A. and L.N. Ornston. 1990. Recovery of Mutant Alleles from the *Acinetobacter calcoaceticus* Chromosome via Gap-Repair. J. Bacteriol. **172**:6169-6172.

Ornston, L.N., J.E. Houghton, E.L. Neidle, and L. A. Gregg. 1990. Subtle Selection and Novel Mutation During Evolutionary Divergence of the  $\beta$ -ketoacid pathway, p. 207-225. In S. Silver, A.M. Chakrabarty, B. Iglewski and S. Kaplan (ed.), *Pseudomonas*: Biotransformation, Pathogenesis and Evolving Biotechnology. American Society for Microbiology, Washington, D.C.

Doten, R.C., L.A. Gregg, and L.N. Ornston. 1987. Influence of the *catBCE* Sequence on the Phenotypic Reversion of a *pcaE* Mutation in *Acinetobacter calcoaceticus*. J. Bacteriol. **169**:3168-3174.

**Recent Abstracts and Presentations** (Undergraduate research students are underlined.)

Gregg-Jolly, L.A., S. Li, and C. Wagner. "Effects of Mutations in the DNA Damage Response, RecA-Dependent Gene (*ddrR*) on *Acinetobacter baylyi* Growth". Annual Meeting of the American Society for Microbiology. June 2008, Boston, MA (Abstract #H-114).

Gregg-Jolly, L. A. "Scholarly Women's Achievement Groups (SWAG): Using Small Support Groups to Enhance Scholarly Productivity at Grinnell College" Invited speaker: pKAL F21 National Assembly, Chantilly, VA, November 2007; Grinnell Board of Trustee meeting (with L. Sinnett),

Grinnell, IA, February, 2007; and ACM Women in Science Networking Seminar, Coe College, Cedar Rapids, IA, March 2006.

Gregg-Jolly, L. A., C. Lindgren and S. Kuiper. "A Faculty Development Program for Bridging the Physical and Life Sciences in Undergraduate Education". pKAL F21 National Assembly, Chantilly, VA, November 2007.

Gregg-Jolly, L. A., B. Cohn, B. Flaherty and J.M. Hare. "*ddrR* and SOS-Like Genes in *Acinetobacter baylyi* Strain ADP1". Acinetobacter 2006 Meetings, November 2006, Barcelona, Spain.

Sullivan, C.H., C.J. Bosse, L.A. Gregg-Jolly, C.A. Lindgren, V. Praitis, D.C. Robertson, and B.A. Voyles. (last five authors contributed equally) (2006). Making connections: An inquiry-based cell biology course that integrates biology and chemistry. Mol. Biol. Cell: 17 (suppl): Abstract #1954. (CD ROM).

Gregg-Jolly, L. A. "Studying the Response of ADP1 to DNA Damage: A Model System for Teaching and Research" Grinnell Alumni College, Grinnell, IA, June 2006.

Hare, J. M., S.N. Perkins, and L. A. Gregg-Jolly. "A constitutively expressed, truncated *umuDC* operon regulates the *recA*-dependent DNA damage-induction of a gene in *Acinetobacter baylyi* strain ADP1" Annual Meeting of the American Society for Microbiology. May 2006, Orlando, FL (Abstract #K037).

Gregg-Jolly, L. A., J.M. Hare, G.W. Whitworth, and S.B. Peterson. "Identification of a Non-Coding RecA-Inducible RNA in *Acinetobacter* species Strain ADP1" 64th Annual Meeting of the North Central Branch of the American Society for Microbiology, November 2004, Madison, WI.

Hare, J. M., S. Perkins, and L. A. Gregg-Jolly. "A Constitutively Expressed, Novel *umuDC* Operon that Regulates a DNA-Damage Inducible Genetic Locus in *Acinetobacter* sp. Strain ADP1". Kentucky Academy of Sciences, November 2004.

Voyles, B. and L. A. Gregg-Jolly. "Identification of Starvation-Induced Genes in *Acinetobacter* species Strain ADP1" Acinetobacter 2004 Meetings, September 2004, Dublin, Ireland.

Gregg-Jolly, L. A., J.M. Hare, G.W. Whitworth, G.M. Peterson, B. A. Voyles, Q. Zheng, and J.J. Bertrand. "Generation and Characterization of *Acinetobacter* sp. Strain ADP1 Derivatives with *lacZ* Insertions in Loci Responsive to DNA Damage" Acinetobacter 2004 Meetings, September 2004, Dublin, Ireland.

Zheng, Q. and L. A. Gregg-Jolly. "Genes Regulated in Response to DNA Damage in *Acinetobacter* sp. strain ADP1" Annual Meeting of the American Society for Microbiology. May 2004, New Orleans, LA. (Abstract #H-040)

Gregg-Jolly, L. A. " SOS!?! The Response of *Acinetobacter* sp. Strain ADP1 to DNA Damage." Department of Biology, William Jewell College, March 2004.

Hare, J. and L. A. Gregg-Jolly. "UmuD is not Involved in the Response to DNA Damage of *Acinetobacter* sp. Strain ADP1." Annual Meeting of the American Society for Microbiology. May, 2003. Washington, D.C. (Abstract #K-031).

Hare, J., B. Voyles, D. Lopatto, and L. A. Gregg-Jolly. "Teaching Introductory Biology at Grinnell College with Microbiology and Inquiry-Based Methods" Annual Meetings of the American Society for Microbiology, Salt Lake City, Utah, May 2002.

***Recent Mentored Student Presentations Based upon Work Completed in my Lab***

- Li, S. "SOS or Die: Characterization of the Phenotype of an *Acinetobacter baylyi* Strain Deficient in a Novel DNA Damage Response Gene *ddrR*" Grinnell College seminar, 2007
- Cohn, B. "Searching for Putative Transcriptional Control Elements in the SOS\_Response of *Acinetobacter baylyi*" at the PEW Consortium, Undergraduate Research Symposium in the Biological Sciences and Psychology, Chicago, IL, 2006, Student Research Poster Session, Grinnell College, September 2006.
- Funk, N. "How to Control and Essential Gene: Building a Construct to Find the Function of a Novel *Acinetobacter baylyi* Gene" Conference on Undergraduate Research Meetings, North Carolina, 2006.
- Chakravorty, A. "The GP7 Mutant of *Acinetobacter baylyi* ADP1: Cell Wall Synthesis and DNA Damage" at the PEW Midstates Consortium, Undergraduate Research Symposium in the Biological Sciences and Psychology, St. Louis, Missouri, November 2005, and Student Research Poster Session, Grinnell College, October 2005.
- Cuff, L. "Solving the Mysteries of DNA Damage Repair in *Acinetobacter baylyi*" at the PEW Midstates Consortium, Undergraduate Research Symposium in the Biological Sciences and Psychology, St. Louis, Missouri, 2005, and Student Research Poster Session, Grinnell College, 2005.
- Flaherty, B. "Structure and Expression of the LGJ14 RNA" at the PEW Midstates Consortium, Undergraduate Research Symposium in the Biological Sciences and Psychology, St. Louis, Missouri, 2005, and Student Research Poster Session, Grinnell College, 2005.
- Zheng, Q. "Isolation and Characterization of DNA Damage-Responsive Genes in *Acinetobacter* sp. Strain ADP1" at the PEW Midstates Undergraduate Research Symposium in the Biological Sciences and Psychology, Chicago, IL, 2002, the Student Research Poster Session, Grinnell College 2003, the Grinnell College HHMI Symposium 2004 and a talk at Grinnell College seminar, 2003.
- Shah, A. "Further Characterization of an *Acinetobacter* ADP1 Locus Involved in Response to DNA Damage" at the PEW Midstates Consortium, Undergraduate Research Symposium in the Biological Sciences and Psychology, Chicago, IL, 2002, and Student Research Poster Session, Grinnell College, 2002.
- Ottesen, E. "The DNA Damage Response of *Acinetobacter* sp. Strain ADP1 During Stationary Phase: Characterization of the Mutant Strain JB7 Conference on Undergraduate Research. University of Wisconsin-Whitewater, 2002 and Grinnell College seminar, 2002.