

PROMOTION REPORT - INDIVIDUAL
(October 1, 2004 - December 31, 2007)

Candidate for promotion to: Full Professor

Submission date of last successful promotion: Fall 2004

I. GENERAL INFORMATION

Faculty Name: David R. Howard	Department: Biology
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Education

Ph D, University of California, Riverside, Biology. (1991).

Summer Course, Marine Biological Laboratory, Woods Hole, MA, Physiology - Cell and Molecular. (1984).

BA, Occidental College, Los Angeles, CA, Biology. (1983).

II. TEACHING

A. Teaching Narrative

[Download File \(howard.davi/promotion/Teaching-DRH-1.pdf\)](http://howard.davi/promotion/Teaching-DRH-1.pdf)

B. Teaching Schedule

Summer 2007

Course & Section	Title	New Course Prep.	New Format for Existing Course	Enrollment	Number of Credit Hours	Delivery Mode
BIO - Biology 499-106	INDEPENDENT RESEARCH	No		1	2	

Spring 2007

Course & Section	Title	New Course Prep.	New Format for Existing Course	Enrollment	Number of Credit Hours	Delivery Mode
BIO - Biology 105-L55	GENERAL BIOLOGY	No		24	0	
BIO - Biology 315-1	CELL BIOLOGY	No	No	99	4	Classroom

[Download File \(howard.davi/schteach/BIO315syllabus-S2007-1.pdf\)](http://howard.davi/schteach/BIO315syllabus-S2007-1.pdf)

BIO - Biology 315-L55	CELL BIOLOGY	No		19	0	Laboratory
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[Download File \(howard.davi/schteach/LabSyllabuss2007-1.pdf\)](http://howard.davi/schteach/LabSyllabuss2007-1.pdf)

BIO - Biology 492-1	HONORS CAPSTONE SEMINAR IN BIOLOGY	No	No	16	1	Classroom
BIO - Biology 499-10	INDEPENDENT RESEARCH	No		1	2	
BIO - Biology 499-3	INDEPENDENT RESEARCH	No		3	1	

BIO - Biology 799-5	RESEARCH: MASTER'S THESIS	No		1	2	
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Fall 2006

Course & Section	Title	New Course Prep.	New Format for Existing Course	Enrollment	Number of Credit Hours	Delivery Mode
BIO - Biology 105-6	General Biology	No	No	110	4	Classroom

[Download File \(howard.davi/schteach/Bio105SyllabusTThF06DRH-1.pdf\)](http://howard.davi/schteach/Bio105SyllabusTThF06DRH-1.pdf)

BIO - Biology 315-L51	CELL BIOLOGY LABORATORY	No		18	0	Laboratory
BIO - Biology 315-L53	CELL BIOLOGY LABORATORY	No		20	0	Laboratory
BIO - Biology 315-L55	CELL BIOLOGY LABORATORY	No		20	0	Laboratory
BIO - Biology 450-2		No		1	3	
BIO - Biology 499-4	INDEPENDENT RESEARCH	No		1	1	

Summer - Other 2006

Course & Section	Title	New Course Prep.	New Format for Existing Course	Enrollment	Number of Credit Hours	Delivery Mode
BIO - Biology 499-106	INDEPENDENT RESEARCH	No		1	2	

Spring 2006

Course & Section	Title	New Course Prep.	New Format for Existing Course	Enrollment	Number of Credit Hours	Delivery Mode
BIO - Biology 315-54	Cell Biology Laboratory	No	No	19		Laboratory
BIO - Biology 315-55	Cell Biology Laboratory	No	No	19		Laboratory
BIO - Biology 449-001	Microtechniques & Electron Microscopy	No	Yes	8	3	Classroom

[Download File \(howard.davi/schteach/449SyllabusS06-1.doc\)](http://howard.davi/schteach/449SyllabusS06-1.doc)

BIO - Biology 449-51	Microtechnique and Electron Microscopy Laboratory	No	Yes	8		Laboratory
BIO - Biology 450-2	INTERNSHIP IN BIOLOGY	No		1	1	
BIO - Biology 491-001	Capstone Seminar	No	No	29	1	Classroom
BIO - Biology 491-002	Capstone Seminar	No	No	31	1	Classroom
BIO - Biology 499-007	Independent Research	No		1	1	Laboratory
BIO - Biology 549-001	Microtechnique & Electron Microscopy	No	Yes	5	3	Classroom
BIO - Biology 549-1	MICROTECHNIQUE AND ELECTRON MICROSCOPY	No		4	3	
BIO - Biology 549-51	Microtechnique and Electron Microscopy Laboratory	No	Yes	5		Laboratory

BIO - Biology 549-L51	MICROTECHNIQUE AND ELECTRON MICROSCOPY	No		4	0	
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Fall 2005

Course & Section	Title	New Course Prep.	New Format for Existing Course	Enrollment	Number of Credit Hours	Delivery Mode
BIO - Biology 105-005	General Biology	No	Yes	87	4	Classroom
BIO - Biology 315-001	Cell Biology	No	No	80	4	Classroom
BIO - Biology 315-51	Cell Biology Laboratory	No	No	20		Laboratory
BIO - Biology 315-53	Cell Biology Laboratory	No	No	20		Laboratory
BIO - Biology 499-007	Independent Research	No		1	1	Laboratory

Spring 2005

Course & Section	Title	New Course Prep.	New Format for Existing Course	Enrollment	Number of Credit Hours	Delivery Mode
BIO - Biology 105-1	General Biology	No		141	4	
BIO - Biology 105-2	General Biology	No		34	4	
BIO - Biology 315-L53	CELL BIOLOGY LABORATORY	No		19	0	
BIO - Biology 315-L55	CELL BIOLOGY LABORATORY	No		18	0	
BIO - Biology 499-10	INDEPENDENT RESEARCH	No		1	2	
BIO - Biology 499-8	INDEPENDENT RESEARCH	No		1	1	

Fall 2004

Course & Section	Title	New Course Prep.	New Format for Existing Course	Enrollment	Number of Credit Hours	Delivery Mode
BIO - Biology 315-1	CELL BIOLOGY	No		79	4	
BIO - Biology 315-L51	CELL BIOLOGY LABORATORY	No		17	0	
BIO - Biology 315-L52	CELL BIOLOGY LABORATORY	No		20	0	
BIO - Biology 315-L54	CELL BIOLOGY LABORATORY	No		20	0	
BIO - Biology 499-2	INDEPENDENT RESEARCH	No		1	1	

C. Additional Teaching Evidence

Summary of the Major Field Test Results relevant to Cell Biology, BIO 315. As a nationally standardized exam, it provides an objective measure of student learning.

[Download File \(howard.davi/promotion/MFTCellBio-DRH-1.pdf\)](http://howard.davi/promotion/MFTCellBio-DRH-1.pdf)

Summary of Cell Biology Pre-/Post-Course Tests

Both a summary of the results and details for all 25 questions are provided. Administered in Spring 2007.
[Download File \(howard.davi/promotion/Cells07AssessSummary-DRH-1.pdf\)](#)

Summary of Assessment of Cell Biology

A summary of the results of a survey given in Spring 2007, details from all the questions, and all student comments.

[Download File \(howard.davi/promotion/CellSp07SurveyResults-DRH-1.pdf\)](#)

Cell Writing Assignment

Instructions to students for the writing assignment in Cell Biology. Instructions are also used by Jennifer Miskowski. Dr. Miskowski wrote the example on pages 4 & 5.

[Download File \(howard.davi/promotion/Cell-Writing-AssignSp07-DRH-1.pdf\)](#)

Microscopy Lab Manual

Lab manual that I wrote for BIO 449/549. Surprisingly, companies that sell \$285,000 microscopes provide less written instruction for their instruments than supplied with an ipod.

Font is large in some parts so it can be read in darkened microscope rooms.

[Download File \(howard.davi/promotion/MicroscopyManual-DRH-1.pdf\)](#)

Microscopy Student Letters

Unsolicited letters from 2 former Microscopy BIO 449 students.

[Download File \(howard.davi/promotion/StudentLetters-DRH-1.pdf\)](#)

Grad Student Microscopy BIO 549 Project Portfolio

Demonstrates that learning goals were met. Only part of the final portfolio is presented due to large file size.

[Download File \(howard.davi/promotion/Final Portfolio - C SalmExample-1.ppt\)](#)

Undergrad Student Microscopy BIO 449 Project Portfolios

Demonstrate that learning goals were met.

[Download File \(howard.davi/promotion/UGbio549Portfolios-DRH-1.pdf\)](#)

Summary of Assessment of General Biology, BIO 105

Includes a summary of the assessment surveys given Fall 2006, all item details, and all unedited student comments.

[Download File \(howard.davi/promotion/BIO105F06Assess-DRH-1.pdf\)](#)

III. SCHOLARSHIP

A. Scholarship Narrative

[Download File \(howard.davi/promotion/Scholarship-DRH-1.pdf\)](#)

B. Intellectual Contributions

Published and Accepted

1. Instructor's Manual

Cooper, S. T., Galbraith, A. M., Gerber, D. T., Hanmer, D., Howard, D. R. *Biology 103 & 105 Lab Manual. 5th edition.* (5th). Eden Prairie, MN: Outernet Pub..

Type of Review	Acceptance Rate	Author Workload	Author Ordering	Audience of Circulation
None	%	Cooper, Scott T. Galbraith, Anne M.	Authors in alphabetical order	

		Gerber, Daniel T. Hanmer, Debbie Howard, David R.		
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2. Journal Article, Academic Journal

Howard, D. R., Miskowski, J. A., Grunwald, S. K., Abler, M. L. (2007). Assessment of a Bioinformatics across Life Science Curricula Initiative. *Biochemistry & Molecular Biology Education*, 35(1), 16-23.

Type of Review	Acceptance Rate	Author Workload	Author Ordering	Audience of Circulation
Peer-reviewed	65%	Howard, David R.- 40% Miskowski, Jennifer A.-10% Grunwald, Sandra K.-10% Abler, Michael L.- 40%	First and last authors major contributors	International

[Download File \(grunwald.sand/intellcont/Abler07manuscript-1.pdf\)](http://grunwald.sand/intellcont/Abler07manuscript-1.pdf)

Miskowski, J. A., Howard, D. R., Abler, M. L., Grunwald, S. K. (2007). Design and Implementation of an Interdepartmental Bioinformatics Program Across Life Science Curricula. *Biochemistry and Molecular Biology Education*, 35(1), 9-15.

Type of Review	Acceptance Rate	Author Workload	Author Ordering	Audience of Circulation
Peer-reviewed	65%	Miskowski, Jennifer A.-40% Howard, David R.- 10% Abler, Michael L.- 10% Grunwald, Sandra K.-40%	First and last authors major contributors	International

[Download File \(grunwald.sand/intellcont/Grunwald07manuscriptNEW-1.pdf\)](http://grunwald.sand/intellcont/Grunwald07manuscriptNEW-1.pdf)

Howard, D. R., Herr, J., Hollister, R. (2006). Using trypsin and soybean trypsin inhibitor to teach principles of enzyme kinetics. *American Biology Teacher*, 68(2), 99-104.

Type of Review	Acceptance Rate	Author Workload	Author Ordering	Audience of Circulation
Peer-reviewed	%	Howard, David R.- 70% Herr, Julie-20% Hollister, Rhiannon-10%	First author major contributor	National

[Download File \(howard.davi/intellcont/ABT_Feb06_howard_A-1.pdf\)](http://howard.davi/intellcont/ABT_Feb06_howard_A-1.pdf)

Howard, D. R., Miskowski, J. A. (2005). Using a Module-Based Laboratory to Incorporate Inquiry into a Large Cell Biology Course. *Cell Biology Education*, 4, 249-260.

Type of Review	Acceptance Rate	Author Workload	Author Ordering	Audience of Circulation
Peer-reviewed	%	Howard, David R.- 50% Miskowski, Jennifer A.-50%	Authors in alphabetical order	International

[Download File \(howard.davi/intellcont/CBE-2005HowardMiskowski-1.pdf\)](http://howard.davi/intellcont/CBE-2005HowardMiskowski-1.pdf)

Howard, D. R., Colleen, T. M., Catherine, T. D. (2004). Motility of a biflagellate sperm: Waveform analysis and cyclic nucleotide activation.. *Cell Motility and the Cytoskeleton*, 59, 249-260.

Type of Review	Acceptance Rate	Author Workload	Author Ordering	Audience of Circulation
Peer-reviewed	Not Known%	Howard, David R.- 60% Colleen, Trantow M.-30% Catherine, Thaler	First author major contributor	International

		D.-10%		
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[Download File \(howard.davi/intellcont/Howard-et-al-2004-1.pdf\)](http://howard.davi/intellcont/Howard-et-al-2004-1.pdf)

3. Nationally Standardized Exam

Howard, D. R. (2007). *Dental School Admissions Test*. American Dental Association.

Type of Review	Acceptance Rate	Author Workload	Author Ordering	Audience of Circulation
Peer-reviewed	Not Known%	Howard, David R.-100%		International

Howard, D. R. (2006). *Optometry School Admissions Test*.

Type of Review	Acceptance Rate	Author Workload	Author Ordering	Audience of Circulation
Peer-reviewed	%	Howard, David R.-100%		

Howard, D. R. (2006). *Dental School Admissions Test*.

Type of Review	Acceptance Rate	Author Workload	Author Ordering	Audience of Circulation
Peer-reviewed	%	Howard, David R.-100%		

Howard, D. R. (2005). *Dental School Admissions Test* (pp. Online exam). Chicago, IL: American Dental Association.

Type of Review	Acceptance Rate	Author Workload	Author Ordering	Audience of Circulation
Peer-reviewed	%	Howard, David R.-100%		International

Howard, D. R. (2005). *Optometry School Admissions Test* (pp. Online exam). Chicago, IL: Optometrists Association of America.

Type of Review	Acceptance Rate	Author Workload	Author Ordering	Audience of Circulation
Peer-reviewed	%	Howard, David R.-100%		International

Works in Progress

Other Scholarly Activities

1. Paper presented at academic conference

Howard, D. R., Miskowski, J. A., UWL SAH Day of Celebration, UWL College of Science and Allied Health, "The Cell Biology Story: A New Paradigm for Teaching and Learning", <http://>. (September 9, 2004).

Meeting Type	Scope	Format of Presentation	Published in Proceedings?	Refereed Proceedings?	Invited or Accepted	Published Elsewhere?
Academic	Local					

Rott, M. A. (Presenter & Author), Abler, M. L. (Author Only), Bratina, B. J. (Author Only), Cooper, S. T. (Author Only), Galbraith, A. M. (Author Only), Howard, D. R. (Author Only), Miskowski, J. A. (Author Only), Weaver, T. M. (Author Only), Grunwald, S. K. (Author Only), American Society for Microbiology Conference for Undergraduate Educators, ASM, New Orleans, LA, "Incorporating Bioinformatics into the Life Science Curriculum: A Comprehensive Multidisciplinary Approach". (May 2004).

Meeting Type	Scope	Format of Presentation	Published in Proceedings?	Refereed Proceedings?	Invited or Accepted	Published Elsewhere?
Academic	National	Poster	Yes	Yes	Accepted	No

Howard, D. R., Miskowski, J. A., 5th Annual UWL Conference on Teaching and Learning, University of Wisconsin - La Crosse; La Crosse, WI, "Incorporating learning-centered techniques into a large, content-heavy course.", <http://>. (January 20, 2004).

Meeting Type	Scope	Format of Presentation	Published in Proceedings?	Refereed Proceedings?	Invited or Accepted	Published Elsewhere?

Academic	Local	Oral Presentation				
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Maher, M. A. (Presenter & Author), Grunwald, S. K. (Presenter & Author), Howard, D. R. (Presenter & Author), Miskowski, J. A. (Presenter & Author), UW System Women and Science Program Spring Retreat, Wisconsin Dells, WI, "Designing and Implementing a Case-Based Course". (May 2001).

Meeting Type	Scope	Format of Presentation	Published in Proceedings?	Refereed Proceedings?	Invited or Accepted	Published Elsewhere?
Academic	State	Oral Presentation			Accepted	

Howard, D. R., Biology Research Experience for Undergraduates Workshop, National Science Foundation, Washington, DC, "Recruiting for a New REU Site in Biology and Chemistry", <http://www.mpcer.nau.edu/reuworkshop/>, Abstract. (March 8, 2007).

Meeting Type	Scope	Format of Presentation	Published in Proceedings?	Refereed Proceedings?	Invited or Accepted	Published Elsewhere?
Academic	National	Poster	No	No	Accepted	

Howard, D. R., Faculty Research Day, UW-L, La Crosse, WI, "Of Algae & Men: Why NIH funds research on pond scum", <http://>. (January 16, 2007).

Meeting Type	Scope	Format of Presentation	Published in Proceedings?	Refereed Proceedings?	Invited or Accepted	Published Elsewhere?
Academic	Local	Oral Presentation	No	No	Invited	

Howard, D. R., UW System Women and Science Spring Conference, Office of Professional and Instructional Development, Wisconsin Dells, WI, "The impact of cognitive psychology research on teaching and learning in STEM". (May 19, 2006).

Meeting Type	Scope	Format of Presentation	Published in Proceedings?	Refereed Proceedings?	Invited or Accepted	Published Elsewhere?
Academic	Regional		No	No	Accepted	No

Howard, D. R., 23rd Annual Most Accessible Award Presentation, Students Advocating Potential Ability, UW-L, "Keynote Address: The role of students and student groups in improving teaching". (April 13, 2006).

Meeting Type	Scope	Format of Presentation	Published in Proceedings?	Refereed Proceedings?	Invited or Accepted	Published Elsewhere?
Non-Academic	Local		No	No	Invited	No

Murray, S. E., Achenreiner, G. R., Hoskins, D. J., Howard, D. R., Udermann, B. E., 2006 Conference on Teaching and Learning, UW-L SOTL Work Group and Provost's Office, UW-La Crosse, "UW-Systems Teaching Fellows/Scholars Program", <http://>. (January 17, 2006).

Meeting Type	Scope	Format of Presentation	Published in Proceedings?	Refereed Proceedings?	Invited or Accepted	Published Elsewhere?
Academic	Local	Oral Presentation	No	No	Accepted	No

Achenreiner, G. R., Chavalas, M. W., Hoskins, D. J., Howard, D. R., Ledocq, R. L., 7th Annual Conference on Teaching and Learning, UW-La Crosse, UW-La Crosse, "UW-System Teaching Fellows/Scholars Program Panel". (January 17, 2006).

Meeting Type	Scope	Format of Presentation	Published in Proceedings?	Refereed Proceedings?	Invited or Accepted	Published Elsewhere?
Academic	Local	Oral Presentation	No	No	Invited	No

Howard, D. R., American Society for Cell Biology Annual Meeting, American Society for Cell Biology, San Francisco, CA, "Teaching Structural Analysis across the Biology Curriculum with Digital Microscopy". (December 12, 2005).

Meeting Type	Scope	Format of Presentation	Published in Proceedings?	Refereed Proceedings?	Invited or Accepted	Published Elsewhere?
Academic	International		Yes	Yes	Accepted	No

2. Editorial and Review Activities

"Cell Biology Education", American Society for Cell Biology, Invited Manuscript Reviewer, International, Appointed, 1 items edited/reviewed, Academic. (September 2005 - December 2005).

Peer reviewed manuscript for Cell Biology Education

"Multidisciplinary Research Grants Program Grant Proposal", North Carolina Biotechnology Center, Invited Manuscript Reviewer, Regional, Appointed, 1 items edited/reviewed, Academic. (October 2005 - November 2005).

Reviewed a \$250,000 grant and evaluated it for funding priority.

"Monoclonal Antibodies to the Optic Tectum and Cerebellum of the Bullfrog, *Rana catesbeiana*", Transactions of the Missouri Academy of Science, Ad Hoc Reviewer, Papers, National, Appointed, 1 items edited/reviewed, Academic. (April 2005 - May 2005).
Manuscript review

"Cell and Molecular Biology, 4th ed" Gerald Karp", John Wiley and Sons, Other, National, Appointed, 5 items edited/reviewed, Academic. (November 2004 - December 2004).

Reviewed 5 chapters and made suggestions for improvement.

Contracts, Grants, and Sponsored Research

Howard, D. R. (Principal), Galbraith, A. M. (Co-Principal), Miskowski, J. A. (Supporting), Cooper, S. T. (Supporting), Grunwald, S. K., Bratina, B. J., Schwan, W. R., Taylor-Winfrey, B. C., Hoffman, M. A., External Grant, "REU Site: Summer Undergraduate Research Program in Biomolecular Sciences at UW - La Crosse", National Science Foundation, Funded, \$241,091.00, howard.davi/congrant_research/REU2006Proposal-DRH-1.pdf. (sub: August 2006, start: February 2007, end: January 2010).

[Download File \(howard.davi/congrant_research/REU2006Proposal-DRH-1.pdf\)](http://howard.davi/congrant_research/REU2006Proposal-DRH-1.pdf)

Miskowski, J. A. (Principal), Rossinni, A. K. (Co-Principal), Bratina, B. J. (Supporting), Hoffman, M. A. (Supporting), Howard, D. R. (Supporting), Opdahl, A. M. (Supporting), Schwan, W. R. (Supporting), Seebach, B. S. (Supporting), External Grant, "MRI: Acquisition of a Confocal Microscope to Advance Interdepartmental Research and Training in Biomolecular Sciences at UW-LaCrosse", National Science Foundation, Funded, \$289,268.00, miskowsk.jenn/congrant_research/MRIMiskowski-1.pdf. (sub: January 2006, start: August 2006, end: July 2009).

[Download File \(miskowsk.jenn/congrant_research/MRIMiskowski-1.pdf\)](http://miskowsk.jenn/congrant_research/MRIMiskowski-1.pdf)

Howard, D. R. (Principal), External Grant, "Cloning & in vivo role of flagellar protein kinase A", National Institute of Health, Funded, \$185,226.00, howard.davi/congrant_research/NIHPropComplete-DRH-1.pdf. (start: September 2005, end: August 2008).

[Download File \(howard.davi/congrant_research/NIHPropComplete-DRH-1.pdf\)](http://howard.davi/congrant_research/NIHPropComplete-DRH-1.pdf)

Galbraith, A. M., Howard, D. R. (Co-Principal), UW-L Grant, "Funding for NSF-REU Social Activities", Funded, \$2,090.00. (sub: April 2007, start: July 1, 2007, end: June 30, 2008).

Student Research

1. Graduate Student Theses/Projects

Thesis Advisor, Boateng, Lindsay, Biology, "Determining potential AKAP binding domains in *Chlamydomonas* cAMP-dependent protein kinase," Proposal. (January 2007 - Present).

Thesis Committee Member, Ellingson, David, Biology, "Expression of Cdc7 in yeast meiosis," In-Process. (October 2005 - Present).

Thesis Committee Member, Burand, Elizabeth, Biology, "Electrical manipulation of PC12 cells in culture," Proposal. (September 2005 - Present).

Thesis Committee Member, Meyer, Michael, Biology, "Expression and role of NudC in *C. elegans* germline cells," In-Process. (2004 - Present).

Thesis Committee Member, Musch, German, Biology, "An anatomical characterization of peripheral nerve afferents which innervate interneurons in the central pattern generator of rodent," Completed. (2003 - July 2006).

Thesis Committee Member, Hanson, Seth, Biology, "Expression of and interaction between Cdc7 and Dbf4 in *Sacharomyces cerevisiae* during meiosis," Completed. (2002 - December 2005).

2. Undergraduate Research

Awowale, John, Biology, "Determining the Effects of Inner Arm Dynein Mutations on Flagellar Motility," In-Process. (2007-2008).

Role: Faculty advisor and mentor: Taught student additional methods of image analysis. Guiding student to select appropriate mutants for analysis.

Germane Honors: National Science Foundation Research Experience for Undergraduates Scholar

Dates and Locations Presented:

–.

Lamont, Sarah, Biology, "Determining if the Gene Product of *Genie214.2* is a cAMP-dependent Protein Kinase," In-Process. (2007-2008).

Role: Faculty advisor and mentor: Design experiments and protocols. Taught student techniques including PCR, gene cloning, bacterial expression of proteins, SDS-PAGE, affinity purification of proteins, kinase activity assays.

Dates and Locations Presented:

–.

Moore, Tyler, Biology, "Using Biotin-PKI to Determine the Location of PKA in *Chlamydomonas* flagella," In-Process. (2007-2008).

Role: Faculty advisor and mentor: Design experiments and protocols. Taught student cell culture, avidin/biotin chemistry, fluorescence and confocal microscopy.

Germane Honors: College of SAH Dean's Summer Fellow

Dates and Locations Presented:

–.

Hunnicut, Abigail, Biology, "Using Biotin-PKI to Purify *Chlamydomonas* PKA," Completed. (2006-2007).

Role: Faculty advisor and mentor: Designed experiments and protocols. Taught student all methods necessary including flagellar isolations and fractionations, avidin/biotin chemistry, bead precipitation pull-down assays, SDS-PAGE, and silver staining gels.

Dates and Locations Presented:

UW-L's Annual Celebration of Research and Creativity – Poster. La Crosse, WI. (April 2007).
UW-L's Annual Celebration of Research and Creativity – Poster.

Weber, Hayley, Biology, "Using RT-PCR to clone alternative transcripts from the *Chlamydomonas* *genie 214.2* gene," Completed. (2006-2007).

Role: Faculty advisor and mentor: Designed experiments and protocols. Taught student how to: design primers, perform RT-PCR, pour and run agarose gels, subclone gene products, sequence DNA.

Significant Student Involvement: Hayley and Jenny cloned a major portion of the PKA cDNA demonstrating alternative splicing of the gene.

Dates and Locations Presented:

National Conference on Undergraduate Research (NCUR) – Poster. San Francisco, CA. (April 2007).
UW-L's Annual Celebration of Research and Creativity –. La Crosse. (April 2007).
UW-L's Annual Celebration of Research and Creativity – Poster.

Watry, Jennifer, Biology, "Using RT-PCR to clone alternative transcripts from the *Chlamydomonas* *genie 214.2* gene," Completed. (2006-2007).

Role: Faculty advisor and mentor: Designed experiments and protocols. Taught student how to: design primers, perform RT-PCR, pour and run agarose gels, subclone gene products, sequence DNA.

Germane Honors: College of SAH Dean's Summer Fellow
Significant Student Involvement: Jenny and Hayley cloned a major portion of the PKA cDNA demonstrating alternative splicing of the gene.

Dates and Locations Presented:

National Conference on Undergraduate Research (NCUR) – Poster. San Francisco, CA. (April 2007).

UW-L's Annual Celebration of Research and Creativity – Poster. La Crosse. (April 2007).

UW-L's Annual Celebration of Research and Creativity – Poster.

Awowale, John, Biology, "Determining the Effects of Inner Arm Dynein Mutations on Flagellar Motility," In-Process. (2006-2007).

Role: Faculty advisor and mentor: Taught student theory. Designed initial experiments. Instructed student on use of high speed digital microscopy, cell culture, data acquisition, and data analysis.

Germane Honors: Wisconsin Alliance for Minority Participation (WiscAMP) Scholar

Dates and Locations Presented:

National Conference on Undergraduate Research (NCUR) – Poster. San Francisco, CA. (April 2007).

UW-L's Annual Celebration of Research and Creativity – Poster. La Crosse. (April 2007).

UW-L's Annual Celebration of Research and Creativity – Poster.

Birdsey, Nicholas, Chemistry, "Using Biotin-PKI to Identify Chlamydomonas PKA," Completed. (2006-2007).

Role: Faculty advisor and mentor: Designed experiments and protocols. Taught student all methods necessary including flagellar isolations and fractionations, avidin/biotin chemistry, SDS-PAGE, Western blotting, renaturing proteins on blots, and enzyme chemiluminescence staining.

Dates and Locations Presented:

UW-L's Annual Celebration of Research and Creativity – Poster. La Crosse, WI. (April 2007).

UW-L's Annual Celebration of Research and Creativity – Poster.

Geier, Heather, Biology, "Cloning alternative transcripts of Chlamydomonas gene JGI 214.2," In-Process. (2005-2006).

Role: Faculty advisor and mentor: Taught student how to do RNA isolations and RT-PCR. Designed experiments. Educated student about project.

Dates and Locations Presented:

–.

Martel, Cyril, Biology, "Using biotin-PKI to locate cAMP-dependent protein kinase on Western blots," Completed. (2004-2005).

Role: Trained student in biology of system and biochemical techniques.

Dates and Locations Presented:

–.

Schinzal, Mary, Biology, "Methods to identify Chlamydomonas PKA," Completed. (2004-2005).

Role: Taught student cell culture, theory of project, biochemical techniques and assays.

Dates and Locations Presented:

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C. Additional Scholarship Evidence

Letter of Support from Dr. Maria Bertagnolli, Gonzaga University

Addresses the scholarship aspects of authoring for the DAT and OAT

[Download File \(howard.davi/promotion/BertagnolliSupport-1.pdf\)](http://howard.davi/promotion/BertagnolliSupport-1.pdf)

Letter of support from Dr. Robert Morris, Widener University

Discusses the impact of Howard and Miskowski, 2005. Cell Biol Educ. 4:249-260.

[Download File \(howard.davi/promotion/Morrissupport-DRH-1.pdf\)](http://howard.davi/promotion/Morrissupport-DRH-1.pdf)

IV. SERVICE

A. Service Narrative

[Download File \(howard.davi/promotion/Service-DRH-1.pdf\)](#)

B. Service

Department Service

Assessment Committee, Chair. (September 2006 - Present)

Analyzed two years worth of data from the Biology Major Field Test and from four different forms of summative assessment administered in the Biology Capstone course. Submitted 11 page executive summary report with suggestions for improvement to the Committee. Report is in process of committee review

Budget, Member. (September 2006 - Present)

Evaluate departmental budget needs and requests. Determine use of funds.

BIO 105 Committee, Member. (August 2005 - Present)

Coordinate teaching of all lecture sections of General Biology, BIO 105 in Fall. Organized weekly meetings of faculty in Fall semesters of 2005 & 2006.

Regents Teaching Excellence Award Proposal, Member. (February 2007 - March 2007)

Helped prepare 30 page proposal nominating the Biology Department for the Department Teaching Award.

Cell Biologist Search and Screen, Chair. (September 2006 - January 2007)

As Chair, organized meetings, phone interviews, onsite interviews, produced minutes, and filled out necessary HR paperwork. Screened applications, on site interviews.

Merit Committee C, Member. (September 2006 - October 2006)

Review 2/3 of the Biology Department for merit increases.

Assessment Committee, Member. (January 2006 - August 2006)

Coordinate assessment of the Biology Department. Compile and analyze assessment data from the Senior Capstone course, etc. Produce assessment report.

Faculty Mentoring Committee, Chair. (August 2005 - August 2006)

Mentoring of two new faculty members and one academic staff in the Biology Department. I sat in on lectures and provided written evaluations of instruction. Reviewed course materials, provided advice on teaching, scholarship, and service.

Planning and Goals Committee, Member. (August 2005 - June 2006)

Develop and edit goals for Biology Department

Radiation Biologist, Search and Screen Committee, Member. (September 2005 - March 2006)

Search and screen for the replacement of Rod Mowbray.

Promotion and Tenure Committee. (September 2005 - November 2005)

Reviewed faculty applying for promotion.

Merit Committee B, Member. (September 2005 - October 2005)

Review 2/3 of the Biology Department for merit increases.

Animal Physiologist Search Committee, Member. (October 2004 - January 2005)

Screen applications, conduct phone interviews, on-site interviews.

College Service

Campus Close-ups, Not a committee.

Represented Biology Department at several Campus Close-up visits.

National Science Foundation Sponsored Research Experiences for Undergraduate Program in Biomolecular Sciences, Director. (January 2007 - Present)
Program recruits and funds 10 undergraduate students to perform 10 weeks of summer research in the Institute for Biomolecular Science.

Responsibility: Created website for recruitment (<http://www.uwlax.edu/ibisreu/>); created online application form, emailed advertisements to every biology and chemistry department at every technical, 2 year, and 4 year college and university in Wisconsin and Minnesota; received, organized and reviewed over 120 applications; selected (with Anne Galbraith) 10 students participants; organized summer program, organized summer workshops.

Microscopy & Imaging Facility, Director. (January 2005 - Present)
Maintain and improve over \$700,000 of microscopy and imaging equipment for research and teaching. Training of faculty and students. Advice and planning of microscopy and imaging projects.

Student Recruitment, Not a committee. (October 2004 - Present)
Meet with at least 5-10 prospective students and their families each year. Answered questions about biology, pre-medicine, and pre-health professions; provided oral and written information, gave building tours. In 2006-07, met with potential athletics recruits interested in Biology or health careers.

Sabbatical, Member. (September 2006 - October 2006)
Read sabbatical proposals, determine merit, and provide ranked list to Dean. Edit College of SAH Sabbatical Guidelines.

University Service

1. Committee Involvement

Research & Grants, Member. (September 2007 - Present)
Review faculty research grants and evaluate for funding.

International Education, Member. (September 2004 - Present)
Review proposals for study tour courses. Develop guidelines for faculty teaching abroad.
Review evaluations of completed study tour courses

Professional and Community Service

1. Other professional and community service

Professional, Council on Undergraduate Research, Committee Member, Elected Biology Councillor, approximately 60 hours spent for the year, Yes, elected, Pro Bono, International. (March 2007 - Present).
Conduct business of CUR, attend annual CUR business meeting, serve on committees.

Professional, American Dental Association, Dental School Admissions Test, Test Construction Committee, Committee Member, Member, Yes, appointed, Compensated, International. (July 2003 - Present).
Construct biology section of the Dental School Admissions Test (DAT). Review item data from past exams. Review newly submitted questions.

Professional, Optometry School Admissions Test, Test Construction Committee, Committee Member, Yes, appointed, Compensated, International. (July 2003 - Present).
Construct biology section of the Optometry School Admissions Test (OAT). Review item data from past exams. Review newly submitted questions.

Professional, Council for Undergraduate Research (CUR), Campus Liaison, approximately 10 hours spent for the year, Yes, appointed, Pro Bono, National. (January 2001 - Present).
Notify relevant campus entities of CUR-sponsored programs and funding possibilities.
Coordinate any issues with CUR membership.

Public/Community, Lincoln Middle School Great Books Program, Faculty Advisor, approximately 28 hours spent for the year, No, neither, Pro Bono, Local. (September 2006 - May 2007).
Discussion group leader for sixth grade high performance learning students. Assigned six students reading and helped them grow as interpreters of literature.

Public/Community, District-Wide Parent Committee, La Crosse School District, Committee Member, approximately 12 hours spent for the year, Yes, elected, Pro Bono, Local. (September 2005 - June 2006).
Attended District-Wide Parent Committee meetings as School for Technology and the Arts I (SOTAI) representative. Served as SOTAI's liaison to the La Crosse School District. Inform SOTAI of District activities.

Public/Community, Steering Committee, School for Technology and the Arts I, Committee Member, District Parent representative, approximately 20 hours spent for the year, Yes, elected, Pro Bono, Local. (September 2005 - June 2006).
Coordinate parent/student/teacher activities. Edit school charter and committee by-laws.

Public/Community, Microscope instruction & tour, School for Technology and Arts I, Not a committee, No, neither, Pro Bono. (November 11, 2005).
Provided instruction and demonstration of UW-L's advanced microscopy imaging facility to 24 fourth and fifth graders.

Professional, National Science Foundation, Grant Proposal Reviewer, External, Member, approximately 72 hours spent for the year, Yes, appointed, Compensated, National. (January 2005).
Prepared written reviews of 12 Course, Curriculum, and Laboratory Instruction grants, ranked grants, and prepared panel summary statements for 2 grants.

Service Presentations

Professional Memberships

National Association of Biology Teachers, National. (2003 - Present).
National organization for both college and K-12 biology educators

Council on Undergraduate Research, National. (1997 - Present).
Promotes and improves undergraduate research.

American Society for Cell Biology, International. (October 1984 - Present).
The major professional organization for cell and molecular biologists.

Grants

C. Additional Service Evidence

Assessment Report Submitted to Biology Department

Summarized three years of Biology Department assessment data.

[Download File \(howard.davi/promotion/BiologyAssessment-DRH-1.pdf\)](http://howard.davi/promotion/BiologyAssessment-DRH-1.pdf)

Regents Teaching Excellence Award

[Download File \(howard.davi/promotion/UWL_Biology_Regents_Teaching_Award-1.pdf\)](http://howard.davi/promotion/UWL_Biology_Regents_Teaching_Award-1.pdf)

NSF REU Website

I converted the html files of this website to a single pdf file. Some of the formatting and spacing did not convert appropriately. Links are not active, but all pages are included.

[Download File \(howard.davi/promotion/iblsreu-1.pdf\)](http://howard.davi/promotion/iblsreu-1.pdf)

REU Workshops

The organization of REU workshops I designed. Workshop handouts I created or contributed to.
[Download File \(*howard.davi/promotion/REUWorkshops-DRH-1.pdf*\)](#)

REU Assessment

Assessment tools that I created for the NSF REU program.
[Download File \(*howard.davi/promotion/REUAssessment-drh-1.pdf*\)](#)

V. ADDITIONAL INFORMATION

A. Awards and Honors

Teaching, Most Accessible Faculty, nominated, Students Advocating Potential Ability. (March 2006).

Teaching, Wisconsin Teaching Scholar, Office of Professional and Instructional Development. (June 2005).

Teaching, Most Accessible Faculty, Nominated, Students Advocating Potential Ability. (March 2005).

B. Faculty Development

Teaching, Attended Conference, "UW Women and Science Spring Conference", UW Women and Science Program, Wisconsin Dells, WI, United States, No. (May 17, 2007 - May 18, 2007).

Scholarship/Research, Attended Conference, "Annual Faculty Research Day", UW-L, La Crosse, WI, United States, No. (January 16, 2007).

Scholarship/Research, Attended Conference, "American Society for Cell Biology Annual Meeting", American Society for Cell Biology, San Diego, CA, United States, No. (December 9, 2006 - December 13, 2006).

Teaching, Attended Conference, "Annual Teaching and Learning Conference", UW-L, La Crosse, WI, United States, No. (August 29, 2006).

Teaching, Attended Conference, "Carnegie Colloquium on the Scholarship of Teaching & Learning", Carnegie Foundation for the Advancement of Teaching and UW System, Madison, WI. (April 1, 2006 - April 2, 2006).

Teaching, Workshop, "Assessment Workshop", UW System Office of Professional and Instructional Development, River Falls, WI. (February 28, 2006).

Teaching, Attended Conference, "7th Annual Conference on Teaching and Learning", UW-L, La Crosse, WI. (January 17, 2006).

Teaching, Workshop, "Lesson Study Workshop", UW-L, La Crosse, WI. (January 12, 2006).

Scholarship/Research, Attended Conference, "American Society for Cell Biology Annual Meeting", American Society for Cell Biology, San Francisco, CA. (December 10, 2005 - December 14, 2005).

Professional, Workshop, "Evaluating Teaching Performance with Teaching Portfolios", UW-L, La Crosse, WI. (August 31, 2005).

Scholarship/Research, Attended Conference, "Faculty Research Day", UW-L, La Crosse, WI. (August 30, 2005).

Scholarship/Research, Workshop, "Wisconsin Teaching Scholars Summer Institute", UW System, Office of Professional & Instructional Development, Madison, WI. (June 20, 2005 - June 24, 2005).

Teaching, Workshop, "Faculty College", UW System Office of Professional and Instructional Development, Richland Center, WI. (May 31, 2005 - June 3, 2005).

Teaching, Attended Conference, "Women & Science Spring Conference", UW Women and Science Program, Wisconsin Dells, WI, United States. (May 2005).

Teaching, Attended Conference, "OPID Spring Conference", Office of Professional and Instructional Development, Madison, WI, United States. (April 2005).

Scholarship/Research, Attended Conference, "American Society for Cell Biology Annual Meeting", American Society for Cell Biology, Washington, DC, United States. (December 2004).

C. Pre UW-L CV Link

[Download File \(howard.davi/promotion/CV07-drh-1.pdf\)](#)