

Christine R. (Moore) Rodriguez, Ph.D.

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EDUCATION

Harvard University/ Harvard Medical School, 1999-2001. Postdoctoral fellow, Department of Microbiology and Molecular Genetics. Project: regulation of gene expression and bacterial pathogenesis in *Salmonella typhimurium*.

Harvard University/ Harvard Medical School, 1994-1999. Ph.D. Genetics, Biological and Biomedical Sciences Program. Harvard Medical School, Boston, MA. Thesis title: "Characterization of mRNA Capping Enzyme and its Recruitment to RNA Polymerase II."

Benedictine University (formerly Illinois Benedictine College), 1990-1994. B.S. *summa cum laude*. Biology major, molecular biology concentration. Graduate of liberal arts Scholars Program, where 20 students participated in a seminar-based liberal arts colloquium each semester, culminating in an honors thesis. Lisle, IL.

TEACHING EXPERIENCE

Lecturer, summer 2002, 2003. Harvard University Summer School BiOS-1 Introductory Biology course. Lectured 25% of course covering Genetics component and designed exams. Course director, William Fixsen, Ph.D.

Education consultant, 2002-present. Harvard University Biology Multimedia Project. Contributed to grant writing for Howard Hughes-endorsed multimedia project to create computer videos of Biology lab techniques. Oversee the production of videos based on Genetic coursework and manage undergraduate students working on these videos. Project director, Robert Lue, Ph.D.

Preceptor, fall 2001-spring 2002. Harvard University BS50 Genetics and Genomics. Directed team of teaching assistants for large undergraduate Genetics course (Fall: 100+ students, Spring: 300+ students). Developed and implemented unique case study approach to studying human genetic disorders, including student research projects and an expert discussion forum. Responsible for direction of lab education component of course; revised lab manual and integrated new student research project into the lab experimental component. Assisted course directors in writing exams, lecturing. Managed administrative details of course. Course directors, William Gelbart and Dan Hartl, Ph.Ds.

Teaching Fellow, spring 2001. Harvard University BS50 Genetics and Genomics. Instructed two laboratory sections in basics of Genetics and Molecular Biology experiments. Designed course review material for students. Course director, Dan Hartl, Ph.D.

Instructor, fall 2000. Harvard Medical School Department of Microbiology and Molecular Genetics. Part of a three member team of postdoctoral fellows designing and leading a 7-week graduate course in critical discussion of primary literature in Microbiology. Course director, Catherine Lee, Ph.D.

TEACHING EXPERIENCE, continued

Undergraduate advisor, summer 2000. Harvard Medical School, laboratory of Dr. Catherine A. Lee. Trained and directed project development of an undergraduate student from the Harvard Medical School SHURP summer research program. Mentored student in experimental design and problem solving skills.

Teaching assistant and tutor, fall 1998 - spring 1999. The Winsor School, Boston, MA. Assisted Dr. Acha Lord with laboratory instruction of high school advanced placement biology laboratory. Tutored individual students on course lecture material.

Research advisor, summer 1997-summer 1998. Harvard Medical School, laboratory of Dr. Stephen Buratowski. Trained and directed project development of a visiting scientist from Japan. Taught basic laboratory skills and experimental design.

Undergraduate advisor, spring 1996-spring 1998. Harvard Medical School, laboratory of Dr. Stephen Buratowski. Trained and assisted a Harvard University undergraduate student in his biochemistry honors thesis. Mentored student in experimental design and problem solving skills.

Teaching assistant, spring 1996. Harvard Medical School. Facilitated discussion of primary literature and evaluated graduate students in an advanced seminar entitled "Critical Thinking in Eukaryotic Molecular Biology."

Workshop teaching assistant, summers 1993 and 1994. Illinois Benedictine College. Assisted leader of a workshop designed to teach college faculty new Molecular Biology laboratory techniques.

Instructional Assistant, fall and spring semesters, 1992-1994. Illinois Benedictine College. Member of founding program of Instructional Assistance at IBC. Guided undergraduate students in facilitated discussion and instructional review sessions. Served as an instructional assistant for College Biology, Genetics, and Cell Biology. Participated in analysis of this pioneer instructional assistance program and presented a seminar on its benefits (see publications).

Teaching assistant, fall and spring semesters, 1991-1994. Illinois Benedictine College. Assistance in laboratory instruction and evaluation of undergraduate students in laboratory components of Genetics, General Chemistry, and Organic Chemistry.

Instructor, July, 1992-1995. American Legion Auxiliary Girls Nation Program, Washington DC. Girls Nation is a 10 day mock-Senate program which teaches high school girls about the structure and function of federal government. Participated as a volunteer member of educational staff as a government instructor.

RESEARCH EXPERIENCE

Postdoctoral Fellow, 1999-2001. Department of Microbiology and Molecular Genetics, Harvard Medical School, laboratory of Dr. Catherine Lee. Analysis of environmental effects upon invasion gene expression and regulation, and study of the type III secretion system in *Salmonella typhimurium*.

Graduate student and research assistant, 1994-1999. Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School, laboratory of Dr. Stephen Buratowski. Genetic analysis of the 5' mRNA capping enzyme guanylyltransferase in the yeast *Saccharomyces cerevisiae*. Discovered *in vivo* mechanism of restriction for 5' guanosine cap placement on RNA polymerase II transcripts.

Research assistant, summer 1994. U.S. Department of Energy Argonne National Laboratory, Argonne, IL, laboratory of Dr. Andrejz Joachimiak. Molecular mechanisms of GroEL chaperonins. Analyzed capacity of GroEL chaperonin for substrate, using gel shift analysis.

Research assistant, spring 1993-spring 1994. Department of Biology, Illinois Benedictine College, laboratory of Dr. Donald Taylor. Characterization of antibodies to be used as anti-thrombotic agents. Studied minimal binding interface between fibrinogen and platelet receptors using peptide mimetics.

Research assistant, summer 1992. Finch University of Health Sciences/ The Chicago Medical School, North Chicago, IL, laboratory of Dr. Donna King. Recombinant DNA technology.

PUBLICATIONS

Publications available online at <http://www.LCRM.com/Christine>

Christine R. Rodriguez, Lisa M. Schechter, and Catherine A. Lee. Detection and characterization of the *S. typhimurium* HilA protein. 2002.
BMC Microbiology 2(1):31, 104-112.

Christine R. Rodriguez, Eun-Jung Cho, Michael-C. Keogh, Claire L. Moore, Arno L. Greenleaf, and Stephen Buratowski. Kin28, the TFIIH- associated CTD kinase, facilitates the recruitment of mRNA processing machinery to RNA polymerase II. 2000.
Mol Cell Biol. 20, 104-112.

Christine R. Rodriguez*, Toshimitsu Takagi*, Eun-Jung Cho, and Stephen Buratowski. A *Saccharomyces cerevisiae* RNA 5'-triphosphatase related to mRNA capping enzyme. 1999.
Nuc Acids Res 27:2181-2188. (* denotes co-first authorship)

Christine R. Rodriguez*, Eun-Jung Cho*, Toshimitsu Takagi, and Stephen Buratowski. Allosteric interactions between capping enzyme subunits and the RNA polymerase II C-Terminal Domain. 1998.
Genes & Development, 12:3482-3487. (* denotes co-first authorship)

Eun-Jung Cho, Toshimitsu Takagi, **Christine R. Moore**, and Stephen Buratowski. mRNA capping enzyme is recruited to the transcription complex by phosphorylation of the RNA polymerase II carboxy-terminal domain. 1997.
Genes & Development 11:3319-3326.

Toshimitsu Takagi, **Christine R. Moore**, Felix Diehn, and Stephen Buratowski. An RNA 5' triphosphatase related to the protein tyrosine phosphatases. 1997.
Cell 89:867-873.

D.B. Taylor, B.D. Oostman, C.A. Dunlop, **Christine R. Moore**, J.M. Derrick, and T.K. Gartner. Demonstration of binding between a peptide analogue of the fibrinogen γ -chain sequence 402-411 and a platelet receptor mimetic.
Molec. Bio. of the Cell, **5s**, 58a, and 34th annual meeting of the American Society for Cell Biology, 1994.

D.B. Taylor, **Christine R. Moore**, R. Dixon-Kolar, and M. Retzer. The effectiveness of supplemental instruction in teaching cell biology at Illinois Benedictine College.
Molec. Bio. of the Cell, **5s**, 487a, and 34th annual meeting of the American Society for Cell Biology, 1994.

ABSTRACTS

Christine R. Rodriguez and C.A. Lee. Molecular analysis of the *Salmonella typhimurium* invasion gene transcription factor HilA in response to environmental changes. Boston Bacteriology Meeting 2000.

Christine R. Rodriguez, Eun-Jung Cho, Michael-C. Keogh, Claire L. Moore, Arno L. Greenleaf, and Stephen Buratowski. Kin28, the TFIIH- associated CTD kinase, facilitates the recruitment of mRNA processing machinery to RNA polymerase II. Oral presentation at the Cold Spring Harbor Eukaryotic mRNA Processing meeting, August 25 to 29, 1999.

Christine R. Moore, E.J. Cho, T. Takagi, and S. Buratowski. Genetic and biochemical analysis of the mRNA capping enzyme in *Saccharomyces cerevisiae*. Annual Symposium of Ryan Fellows, Dartmouth College Conference Center. 1998.

Stephen Buratowski, Robin Buratowski, Eun-Jung Cho, Phillip Komarnitsky, Bertha Michel, **Christine R. Moore**, and Toshimitsu Takagi. Gene expression by RNA polymerase II. Yeast Genetics and Molecular Biology Meeting. 1998.

Christine R. Moore, E.J. Cho, T. Takagi, and S. Buratowski. Genetic and biochemical analysis of the mRNA capping enzyme in *Saccharomyces cerevisiae*. The Third Annual Meeting of the RNA Society, May 26 to 31, 1998.

T. Takagi, **Christine R. Moore**, F. Diehn, and S. Buratowski. An RNA 5' Triphosphatase of the *C. elegans* mRNA Capping Enzyme (CEL-1) is Related to Protein Tyrosine Phosphatases. Cold Spring Harbor Eukaryotic mRNA Processing Meeting, August 20-24, 1997.

Christine R. Moore and S. Buratowski. Genetic and Biochemical Analysis of the mRNA Capping Enzyme Guanylyltransferase. The Second Annual Meeting of the RNA Society, May 27 to June 1, 1997.

S. Buratowski, T. Takagi, **Christine R. Moore**, and F. Diehn. Biochemical and Genetic Studies of the mRNA Capping Enzyme. The Second Annual Meeting of the RNA Society, May 27 to June 1, 1997.

Christine R. Moore and S. Buratowski. Search for Suppressors of Temperature-sensitive Alleles of the Capping Enzyme Guanylyltransferase (CEG1) in *Saccharomyces cerevisiae*. The First Annual Meeting of the RNA Society, May 28 to June 2, 1996.

Christine R. Moore, B.D. Oostman, J.M. Derrick, T.K. Gartner, and D.B. Taylor. Characterization of antibodies produced against a putative platelet receptor peptide mimic for the human Fg γ -chain sequence 402-411. A.C.C.A. undergraduate science symposium at Wheaton College, Wheaton, IL. 1994.

C.A. Dunlop, **Christine R. Moore**, B.D. Oostman, J.M. Derrick, T.K. Gartner, and D.B. Taylor. Demonstration of binding between a peptide analogue of the fibrinogen γ -chain sequence 402-411 and a platelet receptor mimetic. A.C.C.A. undergraduate science symposium at Wheaton College, Wheaton, IL 1994.

Christine R. Moore, B.D. Oostman, J.M. Derrick, T.K. Gartner, and D.B. Taylor. Characterization of antibodies produced against a putative platelet receptor peptide mimic for the human Fg γ -chain sequence 402-411. Fourth Annual Argonne Symposium for Undergraduates in Science. Argonne, IL 1993.

ACADEMIC HONORS

Mechanism in Bacterial Pathogenesis NIH Training Grant recipient	2000-2001
Department of Defense/Office of Naval Research Fellow	1994-1997
Albert J. Ryan Fellow, Harvard Medical School	1997-1999
Appointed to Harvard Biological and Biomedical Sciences Program admissions committee	1998-1999
Illinois Benedictine College Scholar, graduate of liberal arts scholars curriculum	1990-1994
Illinois Benedictine College Natural Science Division Award	1994
Illinois Benedictine College Outstanding Biology Student Award	1990-1994
βββ National Biology Honors Society member	1990-1994

ACTIVITIES

Founder of Harvard Medical School Rotation Club, where students meet to share their laboratory rotation experience with others. First year students learn about rotation possibilities, while second year students gain experience presenting data.	1995-1996
Committee to plan first Biological and Biomedical Sciences (BBS) graduate student retreat	1995
BBS steering committee student representative	1995-1996
BBS student recruitment committee	1995-1996
Organize BCMP department journal club, Harvard Medical School	1997-1999
President of βββ National Biology Honors Society, Iota Pi chapter	1993-1994
Assistant coach (volunteer) of Plainfield High School Speech Team and judge of high school speech tournaments (Plainfield, IL)	1990-1994

REFERENCES

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Donald B. Taylor, Ph.D.
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Additional references available upon request.