

- 1995 Teaching Fellow: Immunology, Microbiology and Infectious Disease
Taught to medical students at Harvard Medical School
- 1994 Teaching Assistant: Principles of Genetics
Taught to graduate students at Harvard Medical School

Publications and Presentations:

Lindner A.B., Madden R., Demarez A., **Stewart E.J.**, Taddei F. (2005) Asymmetric segregation of protein aggregates is associated with cellular aging and rejuvenation. **Submitted.**

Stewart E.J., Madden R., Paul G., Taddei F. (2005) Aging and Death in an Organism that Reproduces by Morphologically Symmetric Division. *PloS Biol*, **3**(2): e45.
<http://biology.plosjournals.org/perlserv/?request=get-document&doi=10.1371/journal.pbio.0030045>

Guyon J., Bize A., Paul G., **Stewart E.J.**, Delmas J-F. and Taddei F. (2005) Statistical Study of Cellular Aging. *ESAIM Proc.*, **14**: 100-114. Proceedings of CEMRACS 2004: *Mathematics and Applications in Biology and Medicine*.
<http://www.edpsciences.org/articles/proc/pdf/2005/01/guyon.pdf>

Stewart E.J., Madden R., Paul G., Lindner A.B., Fontaine F., Taddei F. (2005) Aging and asymmetries in *E. coli*. **Seminar** presented at Microbial Genetics and Genomics III, May 6-9, Moab, UT. Also presented as a **poster** at the Systems Biology of Ageing Workshop, November 10-11 2004, University of Newcastle, UK.

Stewart E.J., Madden, R., Taddei F., Radman M., (2002) The causes of death in *Escherichia coli*: chance or necessity? **Poster** presented at Genetics and Genomics of Microbial Systems, April 12-15 2002. Prieuré St. Lazare, Fontevraud l'Abbaye, France. Also presented at the 2nd International Conference on Analysis of Microbial cells at the Single Cell Level, June 2-4, 2002. Vejle, Denmark

Stewart E.J., Katzen F., Beckwith J., (1999) Six conserved cysteines of the membrane protein DsbD are required for the transfer of electrons from the cytoplasm to the periplasm of *Escherichia coli*. *EMBO J.* **18**(21): 5963-5971
<http://www.nature.com/emboj/journal/v18/n21/abs/7592000a.html>

Stewart E.J., Åslund F., Beckwith J., (1998) Disulfide bond formation in the *Escherichia coli* cytoplasm: an *in vivo* role reversal for the thioredoxins. *EMBO J.* **17**(19): 5543-5550
<http://www.nature.com/emboj/journal/v17/n19/abs/7591249a.html>

Stewart E.J., Åslund F., Beckwith J., (1997) The last of the *E. coli* thioredoxins. **Poster** presented at the Molecular Genetics of Bacteria and Phages 50th anniversary meeting. Madison, WI

Murphy C.K., **Stewart E.J.**, Beckwith J., (1995) A double counter-selection system for the study of null alleles of essential genes in *Escherichia coli*. *Gene* **155**(1): 1-7
[http://dx.doi.org/10.1016/0378-1119\(94\)00920-N](http://dx.doi.org/10.1016/0378-1119(94)00920-N)

Addresses:

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Personal Information:

Date and place of birth: December 14, 1968; Erie, Pennsylvania USA
Citizenship: United States of America

Education:

- 1991-1999 **Harvard University**
Cambridge MA
Date attained: June 1999
Ph.D., Microbiology and Molecular Genetics
Thesis title: The role of two thiol-disulfide redox pathways in *E. coli*.
- 1987-1991 **Pennsylvania State University**
University Park, PA
Date attained: June 1991
Bachelor of Science degree, Microbiology
- 1983-1987 **Fort Le Boeuf High School**
Waterford PA
Date attained: June 1987
High School Diploma

Professional Experience:

- 1999-2005 **Post-doctoral Fellow, Young Investigator**
Université René Descartes-Paris V
Faculté de Médecine "Necker - Enfants Malades"
Paris, France
Laboratory of Prof. Miroslav Radman
Mechanisms of aging and death in *Escherichia coli*
- 1991-1999 **Graduate Student/Research Assistant**
Harvard Medical School
Dept. of Microbiology and Molecular Genetics
Boston, MA
Laboratory of Prof. Jon Beckwith
Disulfide bond metabolism in *Escherichia coli*

- 1991 **Clinical Assistant in Microbiology**
Associated Clinical Laboratories
Erie, PA
- 1990-1991 **Scholars Program Undergraduate Researcher**
Pennsylvania State University
State College, PA
Laboratory of Prof. Robert Bernlohr
Elongation Factor Tu in starvation signaling in *E. coli*

Fellowships and Awards:

- 2005 **INSERM Poste Blanc** National Institute of Health and Medical
Research - Young Investigator (*Jeune chercheur*)
U571: Evolutionary and Medical Molecular Genetics
Institut National de la Santé et de la Recherche Médicale
- 2004 **Necker Institute** Research Associate
Aging and death in *Escherichia coli*, an Organism that Reproduces by
Morphologically Symmetric Division
- 2002-2003 **FRM** Post-doctoral Fellowship
The causes of death in *Escherichia coli*: chance or necessity?
Fondation Pour La Recherche Médical
- 2000-2002 **EMBO** Long-term Post-doctoral Fellowship
Oxidative damage and the causes of molecular misreading
European Molecular Biology Organization
- 1999 **CNRS Poste Rouge** (National Research Associate)
Oxidative damage and the causes of molecular misreading
Centre National de la Recherche Scientifique
- 1993-1994 **NIH** National Research Service Award
Regulation of Gene Expression in Prokaryotes and Eukaryotes
National Institutes of Health
- 1991-1992 **NIH** National Research Service Award
Molecular Biology of Animal Cell Growth Factors
National Institutes of Health
- 1991 Awarded Honors and Distinction with Diploma in Microbiology
Pennsylvania State University

Teaching Experience:

- 2004 Instructor: CEMRACS (Summer Mathematical Research Center on
Scientific Computing and Its Applications: *Mathematics and
Applications in Biology and Medicine*), Luminy, France
- 1996 Teaching Fellow: Mechanisms of Microbial Pathogenesis
Taught to medical students at Harvard Medical School