

Curriculum Vitae

Paul A. Kirchman

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Education, Research, and Work Experience

Associate Professor of Biology and Interim Chair of Sciences and Mathematics,
Harriet L. Wilkes Honors College, Florida Atlantic University
May 2005 - Present

Associate Professor of Biology and Interim Chair of Social Sciences and Mathematics,
Harriet L. Wilkes Honors College, Florida Atlantic University
December 2004 – May 2005

Associate Professor of Biology, Harriet L. Wilkes Honors College
Florida Atlantic University
August 2004 – December 2004

Assistant Professor of Biology, Honors College
Florida Atlantic University
August 1999 – July 2004

Post-doctoral Fellow, Department of Biochemistry and Molecular Biology
Louisiana State University Medical Center
May 1994 – June 1999

Post-doctoral Research, Center of Marine Biotechnology
University of Maryland, College Park, MD
October 1992 - March 1994

Doctor of Philosophy, Department of Microbiology and Immunology
Emory University, Atlanta, Georgia
July 1987 - October 1992

Bachelor of Science, Biology (Honors)
Eckerd College, St. Petersburg, Florida
August 1983 - May 1987

Grants Awarded

PI on National Institutes of Health Academic Research Enhancement Award (AREA, R-15)
"Mitochondrial Function and Aging in *S. cerevisiae*" (1 R15 AG021956-01) – May, 2003.

Co-PI on National Science Foundation CCLI-Adaptation and Implementation Grant, "Discovery-
Based Science and Mathematics in an Environmental Context" (NSF-0088211) – May, 2001.

Research Initiation Award, Florida Atlantic University, "Analysis of the Relationship Between
Mitochondrial Genotype and Longevity in *Saccharomyces cerevisiae*" (RIA-21) - March, 2000.

National Research Service Award, Individual Postdoctoral Fellowship, National Institutes of Health,
"Role of a *LAG1* homologue in Yeast Replicative Life Span." (AG05710), September, 1995.

Publications

Jiang, J.C., **Kirchman, P.A.**, Allan, M., and Jazwinski, S.M. (2004) Suppressor analysis points to the subtle role of the LAG1 ceramide synthase gene in determining yeast longevity. *Exp. Gerontol.* **39**: 999-1009.

Kirchman, P.A., Miceli, M.V., West, R.D., Jiang, J.C., Kim S., and Jazwinski, S.M. (2003) Prohibitins and Ras2 protein cooperate in the maintenance of mitochondrial function during yeast aging. *Acta Biochim. Pol.* **50**: 1039-1056.

Guillas, I., **Kirchman, P.A.**, Chuard, R., Pfefferli M., Jiang, J.C., Jazwinski, S.M., and Conzelmann, A. (2001) C26-CoA-dependent ceramide synthesis of *Saccharomyces cerevisiae* is operated by Lag1p and Lac1p. *EMBO J.* **20**: 2655-2665.

Kirchman, P.A., S. Kim, and S.M. Jazwinski. (1999) Interorganelle signaling is a determinant of longevity in *Saccharomyces cerevisiae*. *Genetics* **152**:179-190.

Kim, S., **P.A. Kirchman**, A. Benguria, and S.M. Jazwinski. (1999). Experimentation with the yeast model. in **Methods in Aging Research**. (B.P. Yu ed.), CRC Press, Boca Raton, pp. 191-213.

Shama, S., **P.A. Kirchman**, J.C. Jiang, and S.M. Jazwinski. (1998). Role of RAS2 in recovery from chronic stress: effect on yeast life span. *Exp. Cell Res.* **245**:368-378.

Jiang, J.C., **P.A. Kirchman**, M. Zagulski, J. Hunt, and S.M. Jazwinski. (1998). Homologues of the yeast longevity gene *LAG1* in *Caenorhabditis elegans* and human. *Genome Res.* **8**:1259-1272.

Kim, S., J.C. Jiang, **P.A. Kirchman**, I. Rubelj, E.G. Helm, and S.M. Jazwinski. (1998). Cellular and Molecular Aging. in **Comprehensive Geriatric Oncology**, second edition, (L. Balducci, W.B. Ershler, G.H. Lyman, eds.) Harwood Academic Publishers. pp. 123-155.

Rahman, I., M. Shahamat, **P.A. Kirchman**, E. Russek-Cohen, and R.R. Colwell. (1994). Methionine uptake and cytopathogenicity of viable but nonculturable *Shigella dysenteriae* Type 1. *Appl. Environ. Microbiol.* **60**:3573-3578.

Kirchman, P.A., H. DeGrazia, E.M. Kellner, and C.P. Moran Jr. (1993). Forespore-specific disappearance of the sigma-factor antagonist SpoIIAB: implications for its role in determination of cell fate in *Bacillus subtilis*. *Mol. Microbiol.* **8**:663-671.

Satola, S., **P.A. Kirchman**, and C.P. Moran Jr. (1991). Spo0A binds to a promoter used by a σ^A RNA polymerase during sporulation in *Bacillus subtilis*. *Proc. Natl. Acad. Sci.* **88**:4533-4537.

Kenney, T.J., **P.A. Kirchman**, and C.P. Moran Jr. (1988). Gene encoding σ^E is transcribed from a σ^A -like promoter in *Bacillus subtilis*. *J. Bacteriol.* **170**:3058-3064.

Scott, J.R., **P.A. Kirchman**, and M.G. Caparon. (1988). An intermediate in transposition of the conjugative transposon Tn916. *Proc. Natl. Acad. Sci.* **85**:4809-4813.

Senior Theses Supervised

- Gabriela Botta, *Copper supplementation extends yeast life span under conditions requiring respiratory metabolism*, May, 2005.
- Erin Kidwell, *The induction and resuscitation of Escherichia coli into and from the "viable but non-culturable" state*, May 2005.
- Kari Edelson, *The Effects of Mitochondrial DNA Mutations and Membrane Potential Uncoupling on the Metabolic Activity of Yeast*, May, 2005.

- Kristen Morrell, *Generation of Yeast Mn-SOD Mutants with Increased Activity by Error- Prone PCR*, December, 2004.
- Kayley Malencia, *Inducible Expression of Yeast Manganese Superoxide Dismutase in E. coli*, April, 2004.
- Shane Sandford, *Deletion of superoxide dismutase 1 from Saccharomyces cerevisiae to study the oxidative theory of aging*, April, 2004.
- Shaleene Persaud-Vasquez, *Construction of a yeast strain containing an allele of SOD2 with increased activity*, April 2004.
- Maureen LaLonde, *Construction of a Saccharomyces cerevisiae strain for use as a tool to analyze manganese superoxide dismutase mutants*, August 2003.
- Jessica S. Keith, *Effects of mtDNA mutations on growth rates in Saccharomyces Cerevisiae*, May 2003.
- Sandra Siller, *Evolution of Yeast MnSOD with improved activity via error-prone PCR*, May 2003.

Courses Taught

- Biological Principles (BSC 1010)
- Genetics (PCB 3063)
- Microbiology and Microbiology Laboratory (MCB 3023 & MCB 3023L)
- Scientific Writing II (ISC 4932)
- Biotechnology Laboratory (BSC 4403L)
- Life Science (BSC 1005)
- How and Why We Age (IDS 4933)
- Science and Math Seminar (IDS 4933)