Curriculum Vitae

Personal Data:

Name:	Robert Fred Clark
Address:	Department of Biomedical Sciences Meharry Medical College 1005 D.B. Todd Blvd. Nashville, TN 37208 (615) 327-6012 Fax #: (615) 327-6072 rclark@mmc.edu

Education:

1982-1988	Ph.D. in Biological Sciences (August 1988), University of California at Irvine, Irvine, CA 92717 The Distribution of Proteins in Nuclei and Chromosomes: A Novel Immunoelectron Microscopic Localization Technique Advisor: Dr. Barbara A. Hamkalo
1978-1982	B.A. in Biology (1982), Pomona College, Claremont, CA 91711

Professional Experience:

2005-present	Adjunct Assistant Professor, Department of Neurosurgery, University of Tennessee Research centered on the genetics and epidemiology of primary brain tumors.
2005-present	Visiting Scientist with Dr. Robert W. Williams, Department of Anatomy and Neurobiology, University of Tennessee Research centered on the study of neurodegenerative disease in humans using system genetics in mice.
2005-present	Assistant Professor, Department of Biomedical Sciences, Meharry Medical College Research centered on neurodegenerative disease genetics.
1996-2005	Assistant Professor, Departments of Psychiatry; Neurology; Pathology; and Microbiology, Meharry Medical College Research centered on Alzheimer's disease genetics.
1993-1996	Research Instructor of Genetics in Psychiatry, Department of Psychiatry, Washington University School of Medicine Research centered on identification and characterization of the Alzheimer's disease locus on chromosome 14.
1992-1993	Postdoctoral Research Associate with Dr. Alison M. Goate, Department of Psychiatry, Washington University School of Medicine Postdoctoral research centered on identification of the Alzheimer's disease locus on chromosome 14.

1988-1992	Postdoctoral Research Associate with Dr. Sarah C.R. Elgin, Department of Biology, Washington University Postdoctoral research centered on identification and characterization of heterochromatin proteins and their genes in Drosophila.
1983-1988	Graduate Student with Dr. Barbara A. Hamkalo, Department of Molecular Biology and Biochemistry, University of California, Irvine Graduate research centered on developing a procedure for the immunoelectron microscopic localization of proteins on nuclei, chromosomes, and chromatin and utilizing this procedure to localize RNA polymerase II, topoisomerase I, histone H1 subtypes, and other antigens.
1981	American Heart Association Student Research Associate with Dr. Urban J. Lewis, Scripps Clinic and Research Foundation, La Jolla, CA Studies on the differences of specific binding of human growth hormone to liver sedimentation fractions of the male and female rat.

Awards, Grants, and Fellowships:

2001-present	NIH/NIMH Minority Research Infrastructure Support Program Grant, Genetics of Late Onset Dementia in African Americans (R24 MH57067)
1999-2003	NIH/NIGMS Minority Biomedical Research Support Program Grant, Drosophila melanogaster as a Model Organism to Study the Presenilin Gene (S06 GM08037)
1999	American Health Assistance Foundation, A Genetic Search for Presenilin-Interacting Genes
1997-1999	American Federation for Aging Research, Characterization of the Drosophila Presenilin Gene
1996-1997	Sigma Kappa Foundation Grant, Using Drosophila as the Model Organism to Characterize the Presenilin Genes and Proteins
1996	Missouri Alzheimer's Disease and Related Disorders Program Grant, Isolation and Characterization of the Drosophila Presenilin Genes
1996	Finalist for O'Leary Prize for Outstanding Postdoctoral Research in Neuroscience
1993	The Eleventh Wellcome Summer School, Human Genome Analysis: From YAC to Gene
1992-1993	NIH Clinical Sciences Training Grant
1990-1992	NIH Postdoctoral Research Fellowship (GM 13347)
1984-1988	Predoctoral Carcinogenesis Training Grant
1982-1983	UCI Regents' Fellowship

Professional Societies:

2005-present	Society for Neuroscience
1997-present	Genetics Society of America
1993-present	The American Society of Human Genetics
1988-present	The American Society for Cell Biology

Teaching:

1996-2005	Medical Genetics, Meharry Medical College, Nashville, TN
1998-2004	Research Education for Undergraduates, Meharry Medical College, Nashville, TN
1998-2003	Psychiatric Genetics, Meharry Medical College, Nashville, TN
1998	Topics in Genetics (Course Director), Meharry Medical College, Nashville, TN
1987	Biochemistry Laboratory (Course Coordinator), University of California, Irvine, CA
1983-1986	Biochemistry Laboratory, University of California, Irvine, CA

Fellows / Graduate Students Trained:

2003-present	Rhonda Nelson, Graduate Student, Meharry Medical College, Nashville, TN
1997-2003	Mark M. Murray, Graduate Student, Meharry Medical College, Nashville, TN
1997-1999	Christopher J. Jones, Postdoctoral Fellow, Meharry Medical College, Nashville, TN

Editorial Appointments:

1998-present	Member of Initial Review Board of the Medical and Scientific Advisory Council, Alzheimer's Disease and Related Disorders Association, Chicago, IL

Committees and Offices Held:

2002-2005	Co-organizer for Annual Neuroscience Symposium, Meharry Medical College, Nashville
1996-2004	Graduate Student Application Committee, Meharry Medical College, Nashville, TN
1996-2003	Research Committee Chair for the Department of Psychiatry, Meharry Medical College, Nashville, TN
2001	Co-organizer for Meharry/Vanderbilt Genetics Training Program, Nashville, TN
1998-2001	Committee for Chairperson Evaluations, Meharry Medical College, Nashville, TN
1998-present	Advisor to the Board, MedSupport FSF International, Dunedin, FL

Publications:

Clark, R.F., Wei, L., Homayouni, R., and Williams, R.W. Transcriptome-QTL Mapping in Mice Reveals a Common Gene Network Shared by Several Neurodegenerative Diseases in Humans, submitted.

Murray, M.M. and **Clark, R.F.** A Multi-locus Model for the Prediction of Alzheimer's Disease in African Americans, submitted.

Murray, M.M., Jones C.J., and **Clark, R.F.** The Presenilin Gene is Very Highly Conserved throughout Evolution, in preparation.

Nelson, R.L., Halagappa, V.M., Pearson, M., Matsuoka, Y., Brown, M., Iyun, T., Martin, B., Laferla F.M., **Clark, R.F.**, and Mattson, M.P. Serotonin-Selective Reuptake Inhibitor Ameliorates Behavioral Deficits And Reduces Abeta Pathology In 3xTgAD Mice, in preparation.

Murray, M.M. and **Clark, R.F.** (2004) Genetic Risk Factors for Alzheimer's Disease in African Americans, Am. J. Med. Genet. 130B: 63.

Murray, M.M. and **Clark, R.F.** (2002) Contributions of Multiple Loci on the Associated Risk of Alzheimer's Disease in the African-American Population, Neurobiology of Aging 23: S345.

Murray, M.M., Jones, C.J., and **Clark, R.F.** (2000) The Presenilin Gene is Very Highly Conserved throughout Evolution, Neurobiology of Aging 21: S48.

Nowotny, P., Gorski, S.M., Han, S.W., Philips, K., Ray, W.J., Nowotny, V., Jones, C.J., **Clark, R.F.,** Cagan, R.L., and Goate, A. (2000) Post-translational Modification and Plasma Membrane Localization of the Drosophila melanogaster Presenilin, Mol. Cell. Neurosci. 15: 88-98.

Jones, C.J. and **Clark, R.F.** (1998) Isolation of Mutations in the Presenilin Gene of Drosophila melanogaster, Neurobiology of Aging 19: S287.

Clark, R.F., Nowotny, P., Jones, C.J., Phillips, K., and Goate, A.M. (1997) The Use of Drosophila melanogaster as a Model Organism to Characterize the Presenilin Gene Associated with Early-Onset Alzheimer's Disease, Am. J. Hum. Genet. 61: 968.

Clark, R.F. and Goate, A. (1997) Recent Developments in the Genetics of Alzheimer's Disease. In. Pharmacological Treatment of Alzheimer's Disease: Molecular and Neurobiological Foundations., Eds. Brioni & M. Decker, J. Wiley & Sons, New York., pp.193-215.

Clark, R.F, Hutton, M., Talbot, C., Wragg, M., Lendon, C., Busfield, F., Han, S.W., Perez-Tur, J., Adams, M.D., Fuldner, R., Roberts, G.W., Karran, E., Hardy, J., and Goate, A. (1997) The Role of Presenilin in the Genetics of Alzheimer's Disease, CSHSQB 61: 551-558.

Barton, A.J.L., Crook, B.W., Karran, E.H., Brown, F., Dewar, D., Mann, D.M.A., Pearson, R.C.A., Graham, D.I., Hardy, J., Hutton, M., Duff, K., Goate, A.M., **Clark, R.F.**, and Roberts, G.W. (1996) Alteration in Brain Presenilin 1 mRNA Expression in Early Onset Familial Alzheimer's Disease, Neurodegeneration 5: 213-218.

Prihar, G., Fuldner, R.A., Perez-Tur, J., Lincoln, S., Duff, K., Crook, R., Hardy, J., Phillips, C.A., Venter, J.C., Talbot, C., **Clark, R.F.**, Goate, A., Li, J.H., Potter, H., Karran, E., Roberts, G.W., Hutton, M., and Adams, M.D. (1996) Structure and Alternative Splicing of the Presenilin-2 Gene, Neuroreport 7: 1680-1684.

Clark, R.F., Talbot, C., and Goate A. (1996) The Genomic Structure of the Human Presenilin Genes, Neurobiology of Aging 17: S12.

Hutton, M., Busfield, F., Wragg, M., Crook, R., Perez-Tur, J., **Clark, R.F.**, Prihar, G., Talbot, C., Phillips, H., Wright, K., Baker, M., Lendon, C., Duff, K., Martinez, A., Houlden, H., Nichols, A., Karran, E., Roberts, G., Roques, P., Rossor, M., Venter, J.C., Adams, M.D., Cline, R.T., Phillips, C.A., Fuldner, R.A., Hardy, J., and Goate, A. (1996) Complete Analysis of the Presenilin 1 Gene in Early Onset Alzheimer's Disease, Neuroreport 7: 801-805.

Wragg, M., Hutton, M., Talbot, C., Busfield, F., Han, S.W., Lendon, C., **Clark, R.F.**, Morris, J.C., Edwards, D., Pfeiffer, E., Crook, R., Prihar, G., Phillips, H., Baker, M., Rossor, M., Houlden, H., Karran, E., Roberts, G., Craddock, N., Hardy, J., and Goate, A. (1996) Genetic Association between Intronic Polymorphism in Presenilin-1 Gene and Late-onset Alzheimer's Disease, Lancet 347: 509-512.

Perez-Tur, J., Froelich, S., Prihar, G., Crook, R., Baker, M., Duff, K., Wragg, M., Busfield, F., Lendon, C., **Clark, R.F.**, Roques, P., Fuldner, R.A., Johnston, J., Cowburn, R., Forsell, L., Axelman, K., Lilius, L., Houlden, H., Karran, E., Roberts, G.W., Rossor, M., Adams, M.D., Hardy, J., Goate, A., Lannfelt, L., and Hutton, M. (1995) A Mutation in Alzheimer's Disease Destroying a Splice Acceptor Site in the Presenilin-1 Gene, Neuroreport 7: 297-301.

Clark, R.F., Hutton, M., Fuldner, R.A., Froelich, S., Karran, E., Talbot, C., Crook, R., Lendon, C., Prihar, G., He, C., Korenblat, K., Martinez, A., Wragg, M., Busfield, F., Behrens, M.I., Myers, A., Norton, J., Morris, J., Mehta, N., Pearson, C., Lincoln, S., Baker, M., Duff, K., Zehr, C., Perez-Tur, J., Houlden, H., Ruiz, A., Ossa, J., Lopera, F., Arcos, M., Madrigal, L., Collinge, J., Humphreys, C., Ashworth, T., Sarner, S., Fox, N., Harvey, R., Kennedy, A., Roques, P., Cline, R., Philips, C.A., Venter, J.C., Forsell, L., Axelman, K., Lilius, L., Johnston, J., Cowburn, R., Viitanen, M., Winblad, B., Kosik, K., Haltia, M., Poyhonen, M., Dickson, D., Mann, D., Neary, D., Snowden, J., Lantos, P., Lannfelt, L., Rossor, M., Roberts, G.W., Adams, M.D., Hardy, J., and Goate, A. (1995) The Structure of the Chromosome 14 Alzheimer's Disease Gene, PS-1, and Identification of Six Novel Mutations in Early Onset AD Families, Nature Genetics 11 :219-222.

Talbot, C.J., He, C., Korenblat, K.M., Goate, A.M., and **Clark, R.F.** (1995) Analysis of Candidate Genes on a Complete Yeast Artificial Chromosomal Contig of the Chromosome 14 Alzheimer's Disease Locus, Am. J. Hum. Genet. 57: 1575.

Clark, R.F., Martinez, A., He, C., Ruiz, A., Kosik, K., Lopera, F., Beherens, I.M., Busfield, F., Madrigal, L., Ossa, J., Norton, J., Goate, A.M., and Lendon, C.L. (1995) Linkage Studies in Three Large Early-onset Alzheimer's Disease Pedigrees from Colombia, Am. J. Hum. Genet. 57: 1083.

Clark, R.F., Cruts, M., Korenblat, K.M., He, C., Talbot, C., Van Broeckhoven, C., and Goate, A.M. (1995) A Yeast Artificial Chromosome Contig from Human Chromosome 14q24 Spanning the Alzheimer's Disease Locus AD3, Hum. Mol. Genet. 4: 1347-1354.

Cruts, M., Backhovens, H., Theuns, J., **Clark, R.F.**, Le Paslier, D., Weissenbach, J., Goate, A.M., and Van Broeckhoven, C. (1995) Genetic and Physical Characterization of the Early-Onset Alzheimer's Disease Locus on Chromosome 14q24.3, Hum. Mol. Genet. 4: 1355-1363.

Clark, R.F., Hutton, M., Korenblat, K.M., Crook, R., Hardy, J., and Goate, A.M. (1994) Positional Cloning of the Chromosome 14 Alzheimer's Disease Locus, Am. J. Hum. Genet. 55: 1497.

Haltia, M., Vitaanen, M., Sulkava, R., Alu-Hurula, V., Poyhonen, M., Goldfarb, L., Brown, P., Levy, E., Houlden, H., Crook, R., Goate, A., **Clark, R.**, Korenblat, K., Patel, S., Donis-Keller, H., Lilius, L., Liu, L., Axelman, K., Forsell, L., Winblad, B., Lannfelt, L., and Hardy, J. (1994) Chromosome 14-Encoded Alzheimer's Disease: Genetic and Clinicopathological Description, Annals of Neurology 36: 362-367.

Clark, R.F. and Goate, A.M. (1993) Construction of a YAC Contig Containing the Chromosome 14 AD Locus, Am. J. Hum. Genet. 53: 1774.

Clark, R.F. and Goate, A.M. (1993) Construction of a YAC Contig Containing the Chromosome 14 AD Locus, Psychiatric Genetics 3: 159.

Clark, R.F. and Goate, A.M. (1993) Molecular Genetics of Alzheimer's Disease, Archives of Neurology 50: 1164-1172.

Saunders, W.S., Chue, C., Goebl, M., Craig, C.A., **Clark, R.F.**, Powers, J.A., Eissenberg, J.C., Elgin, S.C.R., Rothfield, N.F., and Earnshaw, W.C. (1993) Molecular Cloning of a Human Homologue of Drosophila Heterochromatin Protein HP1 Using Anticentromere Autoantibodies with Anti-Chromo Specificity, J. Cell Science 104: 573-582.

Parseghian, M.H., **Clark, R.F.**, Hauser, L.J., Dvorkin, N., Harris, D.A., and Hamkalo, B.A. (1993) Fractionation of Human HI Subtypes and Characterization of a Subtype-Specific Antibody Exhibiting Non-uniform Nuclear Staining, Chromosome Research 1: 127-139.

Clark, R.F. and Elgin, S.C.R. (1992) Heterochromatin Protein 1, a Known Suppressor of Position-effect Variegation, is Highly Conserved in Drosophila, Nuc. Ac. Res. 20: 6067-6074.

Clark, R.F. and Elgin, S.C.R. (1991) Cloning and Characterization of the Drosophila virilis Gene for the Heterochromatin-Specific Protein HP1, J. Cell Biol. 115: 92a.

Clark, R.F., Wagner, C.R., Craig, C.A., and Elgin S.C.R. (1991) Distribution of Chromosomal Proteins in Polytene Chromosomes of Drosophila, Methods in Cell Biology, Vol. 35, pp. 203-227.

Clark, R.F., Cho, K.W.Y., Weinmann, R., and Hamkalo, B.A. (1991) Preferential Distribution of Active RNA Polymerase II Molecules in the Nuclear Periphery, Gene Expression 1 (1): 61-70.

Clark, R.F. and Hamkalo, B.A. (1987) Localization of Nuclear Proteins by Immunogold Staining and Electron Microscopy, J. Cell Biol. 105: 71a.

Presentations:

Murray, M.M. and Clark, R.F. (2004) Genetic Risk Factors for Alzheimer's Disease in African Americans. Twelfth World Congress of Psychiatric Genetics, Dublin, Ireland.

Murray, M.M. and Clark, R.F. (2004) Genetic Risk Factors for Alzheimer's Disease in African Americans. Ninth International Conference on Alzheimer's Disease, Philadelphia, PA.

Clark, R.F. (2004) Genetic Risk Factors for Alzheimer's Disease in African Americans. National Institute on Aging, Baltimore, MD.

Murray, M.M. and Clark, R.F. (2002) Contributions of Multiple Loci on the Associated Risk of Alzheimer's Disease in the African-American Population. Eighth International Conference on Alzheimer's Disease, Stockholm, Sweden.

Clark, R.F. (2001) The Genetics of Alzheimer's Disease in African Americans. Meharry/Vanderbilt Alliance Genetics Symposium, Nashville, TN.

Murray, M.M., Jones, C.J., MacFarlane, O., and Clark, R.F. (2001) The Presenilin Gene is Very Highly Conserved Throughout Evolution. Vanderbilt Conference on Genomics: Neurogenomics, Nashville, TN.

Murray, M.M., Jones, C.J., MacFarlane, O., and Clark, R.F. (2000) The Presenilin Gene is Very Highly Conserved Throughout Evolution. RCMI International Symposium on Health Disparities, San Juan, Puerto Rico.

Murray, M.M., Jones, C.J., and Clark, R.F. (2000) The Presenilin Gene is Very Highly Conserved Throughout Evolution. Seventh International Conference on Alzheimer's Disease, Washington, D.C.

Jones, C.J., Murray, M., and Clark, R.F. (1999) Mutagenesis and Characterization of the Drosophila Presenilin Gene. 40th Annual Drosophila Research Conference, Bellevue, WA.

Clark, R.F. and Jones, C.J. (1999) The Isolation of Mutants of the Presenilin Gene in Drosophila melanogaster. Keystone Symposia on Molecular and Cellular Biology: Molecular Mechanisms in Alzheimer's Disease, Taos, NM.

Jones, C.J. and Clark, R.F. (1998) Isolating Mutations in Presenilin, a Homologue of Genes Implicated in Alzheimer's Disease. Southeast Drosophila Research Conference, Atlanta, GA.

Clark, R.F. (1998) Characterization of the Drosophila Presenilin Gene, 1998 AFAR Grantee Conference, Harriman, NY.

Jones, C.J. and Clark, R.F. (1998) Isolation of Mutations in the Presenilin Gene of Drosophila melanogaster. Sixth International Conference on Alzheimer's Disease, Amsterdam, The Netherlands.

Jones, C.J. and Clark, R.F. (1998) Isolating Mutations in Presenilin, a Homolog of Genes Implicated in Alzheimer's Disease. 39th Annual Drosophila Research Conference, Washington, D.C.

Jones, C.J., Nowotny, P., Phillips, K., Goate, A., and Clark, R.F. (1997) Characterization of the Drosophila melanogaster Presenilin Gene. Midwest Drosophila Conference, Allerton Park, IL.

Clark, R.F., Nowotny, P., Phillips, K., and Goate, A. (1997) Isolation and Characterization of the Drosophila melanogaster Homologue of the Presenilin Gene. 38th Annual Drosophila Research Conference, Chicago, IL.

Clark, R.F., Nowotny, P., Phillips, K., and Goate, A. (1997) Isolation and Characterization of the Drosophila melanogaster Homologue of the Presenilin Gene. Keystone Symposia on Molecular and Cellular Biology: Molecular Mechanisms in Alzheimer's Disease, Tamarron, CO.

Clark, R.F. (1996) Role of Presenilin 1 Gene in Alzheimer's Disease, Institute of Psychiatry, London, UK.

Clark, R.F. (1996) Role of Presenilin 1 Gene in Alzheimer's Disease, SmithKline Beecham, Brentford, UK.

Clark, R.F., Talbot, C., and Goate, A. (1996) The Genomic Structure of the Human Presenilin Genes. Fifth International Conference on Alzheimer's Disease, Osaka, Japan.

Clark, R.F. and Goate, A.M. (1996) Role of the Presenilin 1 Gene in Alzheimer's Disease. LXI Cold Spring Harbor Symposium on Quantitative Biology: Function and Dysfunction in the Nervous System, Cold Spring Harbor, NY.

Clark, R.F. and Elgin, S.C.R. (1991) Cloning and Characterization of the Drosophila virilis Gene for the Heterochromatin-Specific Protein HP1. Midwest Drosophila Conference, Allerton Park, IL.

Clark, R.F. (1987) Human H1 Subtypes: HPLC Fractionation and Subtype-Specific Antibodies. Ninth Annual West Coast Chromatin and Chromosomes Conference, Asilomar, CA.

Clark, R.F. (1986) The Immunoelectron Microscopic Localization of Proteins in Nuclei. Eighth Annual West Coast Chromatin and Chromosomes Conference, Asilomar, CA.