

CURRICULUM VITAE
CYNTHIA L. JACKSON

Business Address: Department of Pathology
APC 12-122
Rhode Island Hospital
593 Eddy Street
Providence, Rhode Island 02903

Business Telephone: (401) 444-4370

Electronic Mail Address: Cynthia_Jackson@Brown.edu

EDUCATION

Undergraduate Barnard College, Columbia University, New York.
Biochemistry, A.B., 1976, cum laude.

Graduate School University of Illinois, Urbana, 1976-1983, Ph.D. in
Biochemistry, 1983.

POSTGRADUATE TRAINING

Fellowship Postdoctoral Research Fellow, Children's Hospital
Medical Center, Harvard Medical School, Boston,
MA. Sponsored by Dr. Jan L. Breslow.
February 1983 - July 1984.

Postdoctoral Research Fellow, Center for Cancer
Research, Mass. Institute of Technology, Cambridge,
MA. Sponsored by Dr. David Housman.
August 1984 - August 1988.

POSTGRADUATE HONORS AND AWARDS

Phi Lambda Upsilon (Chemistry Honor Society),
University of Illinois, 1977
USPHS Predoctoral Trainee, University of Illinois,
1978 - 1980
NIH Postdoctoral Fellow, National Institutes of Health,
1984 -1987
Charles A. King Trust, Postdoctoral Fellowship,
Charles A. King Foundation, awarded for 1987 - 1988.

PROFESSIONAL LICENSES AND BOARD CERTIFICATION

Clinical Laboratory Scientist, awarded 1996.
High Complexity Lab Director from American Board of Bioanalysts
awarded 11/2004

ACADEMIC APPOINTMENTS

Assistant Professor of Pathology, Brown University Medical School,
September 1989 - June 1998

Associate Professor of Pathology, Brown University Medical
School, July 1998 - present

HOSPITAL APPOINTMENTS

Director of Clinical Molecular Biology, Department of Pathology,
Rhode Island Hospital,
September 1988 - August 1997

Co-Director of the Clinical Molecular Biology Laboratory,
Department of Pathology, Lifespan Academic Medical Center,
September 1997 – present

Director of the Clinical Molecular Biology Laboratory
Department of Pathology, Lifespan Academic Medical Center,
2002 - present

OTHER APPOINTMENTS

Ad Hoc Reviewer for the Journal Genomics, 11/94 - Present
Ad Hoc Reviewer for the Journal Cytogenetics and Cell Genetics,
11/94 - Present
Ad Hoc Reviewer for the USDA Competitive Research Grants
Program, 11/96 - Present
Ad Hoc reviewer for the journal Diagnostic Molecular Pathology,
4 /98 - Present
Study Section Member for the Army Breast Cancer Research
Program,
9/98 - Present
Study Section Member for the Army Ovarian Cancer Program
Project Grants, 1/99 – Present
Reviewer for the Israel Science Foundation, 4/03 - Present

HOSPITAL COMMITTEES

Pathology Dept., Clinical Pathology Committee, 1990 - 1995
Pathology Department Research Committee, 1990 - 1992; 2003 - Present
Search Committee for Director of Cytogenetics, 1990
Surgical Pathology Fellowship Selection Committee, 1992 - 1994
Rhode Island Hospital Research Advisory Committee, 1993 - 1995
Lifespan Research Advisory Committee, 1995 - 1997
Search Committee Surgical Pathology, 1994
Recombinant DNA Committee, 1994 - Present
Radioactive Drug Committee, 1994 - Present
Research Day Planning Committee, 1995 - Present

UNIVERSITY COMMITTEES

Search Committee for Assistant Professor of Orthopaedics, 1993
Pathology Department - Strategic Planning Committee on Research, 1994
Reader Undergraduate Honors Thesis Program, 1994
Member PLME Summer Research Project Review Committee, 1997 - Present
Member Admission Committee Molecular Biology, Cell Biology and Biochemistry Graduate Program, 1997
Member of the Graduate Council, 1999-2002
Member of the Medical Faculty Executive Committee, 2004- Present

MEMBERSHIP IN SOCIETIES

Sigma Xi
American Society for Human Genetics
American Women in Science
New England Regional Genetics Group
Professional Women in Genetics
Association for Molecular Pathology

COMMUNITY SERVICE

Member University of Rhode Island Biosafety Committee, 1994 - Present
Ph.D. Thesis Committee Member Laura Galligan University of Rhode Island/Dept. Food Science and Nutrition¹, 1994
Pharmacology Program University of Rhode Island Lecturer in Human Pathophysiology Class on Pharmacology & Genetics, 1994 - 1996

MA. Thesis Committee Member Junbiao Sang, University of Rhode Island/Dept. Food Science and Nutrition, 1997

RESEARCH INTERESTS

My research focus is on understanding how mutations in the RNase component of the mitochondrial ribonucleoprotein (RMRP) gene result in the genetic disease cartilage-hair hypoplasia.

A second research interest is in the cloning and identification of a tumor suppressor gene located at 9p13.

PUBLICATIONS

1. Jacobson, B.M., Gerhard, D.S., **Jackson, C.L.**, and Smallwood, J. (1980). Mechanism of Decomposition of the Ene Adducts of Some 1,3-Cyclohexadiene to Benzene or Tetralin and Dihydroenophile. *J. Org. Chemistry* 45: 3344-3347.
2. **Jackson, C.L.**, Bruns, G.A.P., and Breslow, J.L. (1984). Isolation and Sequence of a Human Apolipoprotein CII cDNA Clone and its Use to Isolate and Map to Chromosome 19 the Gene for Apolipoprotein CII. *Proc. Natl. Acad. Sci. USA* 81: 2945-2949.
3. Zannis, V.I., Cole, F.S., **Jackson, C.L.**, Kurnit, D.M., and Karathanasis, S.K. (1985). Distribution of Apolipoprotein A-1, CII, CIII and E mRNA in Fetal Human Tissues. Time Dependent Induction of Apolipoprotein E mRNA by Cultures of Human Monocytes-Macrophages. *Biochemistry* 24: 4450-4455.
4. **Jackson, C.L.**, and Shapiro, D.J. (1986). Dexamethasone and Estrogen Regulate *Xenopus Laevis* Albumin mRNA Levels. *BBRC* 136: 8-15.
5. **Jackson, C.L.**, Bruns, G.A.P., and Breslow, J.L. (1986). Isolation of cDNA and Genomic Clones for Apolipoprotein CII. *Methods in Enzymology* 128: 788-800.
6. Das, H.K., **Jackson, C.L.**, Miller, D., Leff, J., and Breslow, J.L. (1987). Characterization of the Human Apolipoprotein CII Gene: Demonstration of a Novel Chromosome 19 Specific Minisatellite in its Third Intron. *J. Biol. Chem.* 262: 4787-4793.
7. Harley, H., Brook, D., **Jackson, C.L.**, Glaser, T., Kent, R., Shaw, D., Harper, P., and Housman, D. (1988). The Localization of a Human Na K

- ATPase alpha Subunit Gene to Chromosome 19q12-19q13.2 and Linkage to the Myotonic Dystrophy Locus. *Genomics* 3: 380-384.
8. Warburton, D., Gersen, S., Yu, M-T., **Jackson, C.L.**, Handelin, B., and Housman, D.E. (1990). Monochromosomal Rodent Human Hybrids From Microcell Fusion of Human Lymphoblastoid Cells Containing an Inserted Dominant Selectable Marker. *Genomics* 6: 358-366.
 9. **Jackson, C.L.**, Britt, D.E., Graw, S.L., Potts, A., Santoro, K., Buckler, A.J., Housman, D.E., and Mark, H.F.L. (1992). Construction and Characterization of Radiation Hybrids for Chromosome 9, and their use in Mapping Cosmid Probes on the Chromosome. *Somatic Cell and Molecular Genetics* 18: 285-301.
 10. Graw, S.L., Buckler, A.J., Britt, D.E., **Jackson, C.L.**, Taruscio, D., Baldini, A., Menninger, J., Ward, D., and Housman, D.E. (1992). Generation and Characterization of a Human Chromosome 9 Cosmid Library. *Somatic Cell and Molecular Genetics* 18: 269-284.
 11. Mark, H.F.L., Santoro, K.G., and **Jackson, C.L.** (1992). Characterization of Chromosomes 9 and 19 Somatic Cell and Radiation Hybrids: A Comparison of Approaches. *Applied Cytogenetics* 18(5): 149-156.
 12. Galligan, L.J., **Jackson, C.L.**, and Gerber, L.E. (1993). Carotenoids Slow the Growth of Small Cell Lung Cancer Cells. *Annals of New York Academy of Science* 691:267-269.
 13. Donaldson, D.H., Britt, D.E., Jones, C., **Jackson, C.L.** and Patterson, D. (1993). Localization of the Gene for the Cilicary Neurotrophic Factor Receptor (CNTFR) to Human Chromosome 9. *Genomics* 17: 782-784..
 14. Gafvels, M.E., Caird, M., Britt, D., **Jackson, C.L.**, Patterson, D. and Strauss III, J.F. (1993). Cloning of a cDNA encoding a putative human very low density lipoprotein/apolipoprotein E receptor and assignment of the gene to chromosome 9pter-p23. *Somatic Cell Mol. Genet.* 19:557-569.
 15. Chozick, B.S., Weicker M.E., **Jackson, C.L.**, Finkelstein, S.D., Ambler, M.W., Epstein, M.H. and Finch, P.W. (1994). Pattern of Mutant p53 Expression in Human Astrocytomas Suggests the Existence of Alternate Pathways of Tumorigenesis. *Cancer* 73:406-415.
 16. Wu, C.D., **Jackson, C.L.** and Medeiros, L.J. (1996). Splenic marginal zone cell lymphoma: An immunophenotypic and molecular study of six cases. *American Journal of Clinical Pathology* 105:277-285.

17. Miranda, R.N., Glantz, L.K., Myint, M.A., Levy, N., **Jackson, C.L.**, Glantz, M.J., Medeiros, L.J. (1996). Stage IE Non-Hodgkin's lymphoma involving the dura: A clinicopathologic study of five patients. *Arch Pathol Lab Med* 120:254-260.
18. Chiang, P.-W., Fogel, E.D., **Jackson, C.L.**, Lieuallen, K., Lennon, G., Qu, X., Wang, S.-Q., Kurnit, D.M. (1996). Isolation, sequencing and mapping the human homologue of the yeast transcription factor, SPT5. *Genomics* 38:421-424.
19. **Jackson, C.L.** (1997). Unit 3.2 construction of somatic cell hybrids. In *Current Protocols in Human Genetics*, Edited by N. Dracopoli, J. Haines, B. Korf, D. Moir, C. Morton, C. Seidman, J.G., Seidman and D. Smith, J. Wiley & Sons, NY.
20. Henley, J.D., Geary, W.A., **Jackson, C.L.**, Wu, C.D. and Gnepp, D. (1997). Dedifferentiated acinic cell carcinoma: A report of a case and review of the literature. *Human Pathology* 28:869-873.
21. Takezawa, K., **Jackson, C.**, Gnepp, D and King, T. (1998) Molecular characterization of Warthin's tumor. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology and Endodontics* 85: 569-575.
22. Klinger JR, Siddiq FM, Swift RA, **Jackson CL**, Pietras L, Warburton RR and Hill NS (1998). C-type natriuretic peptide expression and pulmonary vasodilation in hypoxia - adapted rats. *American Journal of Physiology* 275; (Lung Cell Mol Physiology 19; 645-652, 1998).
23. Eisenberg I, Thiel C, Levi T, Tiram E, Argov Z, Sadeh M, **Jackson CL**, Thierfelder L and Mitrani-Rosenbaum. (1999). Fine structure mapping of the hereditary inclusion body myopathy locus. *Genomics* 55, 43-48.
24. Prakash P, **Jackson CL**, and Gerber LE (1999). Subcellular accumulation of beta-carotene and retinoids in growth-inhibited HCl-H69 small cell lung cancer cells. *Nutrition and Cancer* 34(1)-76-82.
25. Povey S, Campbell L, Chadwick B, **Jackson CL**, Ozelius L and Slaugenhaupt S. (1999). Summary of the 6th Annual Chromosome 9 Workshop. *Annals of Human Genetics* 63, 101-107.
26. Luo M, Shang, Simkevich CP, **Jackson CL**, King TC and Rosmarin AG. (1999). Characterization and localization to chromosome 7 of ψ hGABP α (GABPAP), a human processed pseudogene related to the *ets* transcription factor, hGABP α (GABPA). *Gene* 234(1): 119-126.

27. Bearer E, Chen AH, Chen AF, Li Z, Smith RJ, Mark HFL and **Jackson CL.** (2000) 2E4/Kaptin, a candidate gene for the deafness locus, DFNA4. *Annals of Human Genetics* 64: 189-196.
28. Mills DR and **Jackson CL.** (2001) Assignment of p22 dynactin light chain (DCTN3) to human chromosome region 9p13 by radiation hybrid mapping. *Cytogenet. and Cell Genetics* 92: 166
29. Eisenberg I, Hochner H, Shemesh M, Levi T., Poticha T, Sadeh M, Argov Z, **Jackson CL,** and Mitrani-Rosenbaum S. (2001) Physical and transcriptional map of the hereditary inclusion body myopathy locus on chromosome 9p12-p13. *European Journal of Human Genetics* 9: 501-509.
30. Prakash P, Manfredi TG, **Jackson CL** and Gerber LE. (2001) Effect of β -carotene on the morphology of NCI-H69 small cell lung cancer cells. *Journal of Nutrition* (in press)
31. Terek RM, Lin C, Mak S, Meitner P, **Jackson CL,** Grunstein I and Block JA. Cloning and chromosomal localization of IK and IKP, a human chondrosarcoma associated gene. (manuscript submitted)
32. Prakash P, Manfredi TG, Jackson CL and Gerber LE. (2002). Beta-carotene alters the morphology of NCI-H69 small cell lung cancer cells. *Journal of Nutrition* 132: 121-124.
33. DePaepe ME, Mao Q, Huang C, Zhu D, Jackson CL and Hansen K. (2002) Postmortem RNA and Protein Stability in perinatal human lungs. *Diagnostic Molecular Pathology* 11(3): 170-176.

OTHER PUBLICATIONS

Jackson, C.L. Unit 3.2 Construction of Somatic Cell Hybrids. *Current Protocols in Human Genetics.* J. Wiley and Sons, New York.

ABSTRACTS

1. **Jackson, C.L.,** Bruns, G.A.P., and Breslow, J.L. (1984). Isolation and Sequence of a Human ApoCII cDNA Clone and its Use to Isolate and Map to Human Chromosome 19 the ApoCII Gene. *Fed. Proc.* 43, 1641.
2. Brook, J.D., Shaw, D.J., Harley, H., Walsh, K., Rettig, W.J., Skinner, M., Povey, S., Harper, P.S., Glaser, T., **Jackson, C.L.,** Kent, R., Housman,

- D.E. (1987). The Localization of Markers Relative to the Centromere of Chromosome 19. *Cytogenet. Cell. Genet.* 46:587.
3. **Jackson, C.L.**, Handelin, B., Gersen, S., Warburton, D., and Housman, D.E. (1988). Isolation of Microcell Hybrid Cell Lines Containing Retroviral Vector Insertions into Specific Human Chromosomes. *Genome* 30, suppl 1, 244.
 4. **Jackson, C.L.**, Gersen, S., Handelin, B., Perry, L., Warburton, D., and Housman, D.E. (1988). Isolation of Microcell Hybrid Cell Lines Containing Single Human Chromosomes Marked with a New Retroviral Vector. *Am. J. Hum. Genet.* 43, A188.
 5. **Jackson, C.L.**, Gersen, S., Handelin, B., Housman, D.E., and Warburton, D. (1989). Rodent-Human Microcell Hybrids Containing Single Human Chromosomes Marked with a Retroviral Vector. *Cytogenet. Cell. Genet.* 51, 1018.
 6. Gersen, S., Warburton, D., **Jackson, C.L.**, and Housman, D.E. Regional Localization of Excision Repair Gene ERCC5 on Chromosome 13 (1989). *Cytogenet. Cell. Genet.* 51, 1003.
 7. Gersen, S., Warburton, D., **Jackson, C.L.**, and Housman, D.E. (1989). Regional Mapping of the Excision Repair Cross Complementing Gene ERCC5 on Human Chromosome 13. *Am. J. Hum. Genet.* 45 (4), Supplement: A141.
 8. **Jackson, C.L.**, Gersen, S., Yu, M-T., Potts, A., Mark, H.F.L., Warburton, D., and Housman, D.E. (1989). Rodent-human Microcell Hybrids Containing Retroviral Insertions into Specific Human Chromosomes. *Am. J. Hum. Genet.* 45 (4), Supplement A197.
 9. Britt, D.E., Mark, H.F.L., Potts, A., Warburton, D.E., Yu, M.T., and **Jackson, C.L.** (1991). Radiation hybrids from a Marked Human Chromosome 9. *Am. J. Hum. Genet.* 49 (4), Supplement 378.
 10. **Jackson, C.L.**, Britt, D.E., Graw, S., Potts, A., Santoro, K., Buckler, A., Housman, D.E. and Mark, H.F.L. (1992). Radiation Hybrids from a Marked Human Chromosome 9. *Ann. Hum. Genet.* 56, 195.
 11. Graw, S.L., Buckler, A.J., **Jackson, C.**, Britt, D., Taruscio, D., Baldini, A., Menninger, J., Ward, D. and Housman, D.E. (1992). Generation and Characterization of a Human Chromosome 9 Cosmid Library. *Ann. Hum. Genet.* 56, 191.

12. Fountain, J.W., Graw, S.L., Kao, W., Stanton, V.P., Aburatani, H., Munroe, D.J., **Jackson, C.L.**, Dracopoli, N.C. and Housman, D.E. (1992). Further Characterization of the 9p21 Region Frequently Deleted in Human Cutaneous Melanoma. *American Journal of Human Genetics*. (Supplement) A51.
13. Britt, D.E., Mark, H.F.L., Potts, A., Santoro, K. and **Jackson, C.L.** (1993). Region Specific Cloning Using Radiation Hybrids Containing Fragments of Human Chromosome 9. Cold Spring Harbor. Laboratory Genome Mapping and Sequencing. May 12-16, 1993, page 34.
14. Gilchrist, J.M., **Jackson, C.L.**, Beckmann, D.L., Walsh, K., Speer, M.C. and Pericak-Vance, M.A. (1993). Linkage Analysis in Autosomal Recessive Limb-Girdle Muscular Dystrophy. *American Society of Human Genetics*. 53 (Supplement) 1694.
15. Britt, D.E., Mark, H.F.L., Nebres, M., Potts, A., Santoro, K. and **Jackson, C.L.** (1994). Using radiation hybrids to generate region-specific markers for human chromosome 9. *American Journal of Human Genetics*. 55 (3) (Supplement) A371.
16. Sang, J. and **Jackson, C.L.** (1994). Cloning human chromosome 9-specific cDNAs by an efficient selection strategy using somatic hybrids. *American Journal of Human Genetics*. 55 (3) (Supplement) A269.
17. **Jackson, C.L.**, Mark, H.F.L., Cha, C., Potts, A., Raina, K., Santoro, K., Walsh, K. and Britt, D.E. (1994). Radiation hybrids for human chromosome 19. *American Journal of Human Genetics*. 55 (3) (Supplement) A369.
18. Britt, D.E., Sang, J., Nebres, M., Ruiz, G., Santoro, K., Mark, H.F.L. and **Jackson, C.L.** (1994). Region specific cloning using radiation hybrids containing fragments of human chromosome 9. Cold Spring Harbor Mapping and Sequencing Meeting, May, 1994; p. 29.
19. Prakash, P., Gerber, L.E. and **Jackson, C.L.** (1995). Beta-carotene accumulates in the nucleus of small cell lung cancer cells and reduces their growth. *Fed Proceeding Abstract* 5753.
20. **Jackson, C.L.**, Britt, D.E., Sang, J. and Sang, J.B. (1995). The use of radiation hybrids to generate new markers and cDNA's for the physical mapping of 9p. Cold Spring Harbor Genome Mapping and Sequencing Meeting, May, 1995; p. 38.
21. Takezawa, K., **Jackson, C.**, King, T. and Gnepp, D. (1996). Molecular characterization of Warthin's tumor. *International Association of Oral Pathologists VIIIth International Congress*.

22. **Jackson, C.L.**, Preparata, R., Walsh, K. and Britt, D.E. (1996). A radiation hybrid map for human chromosome 9. *American Journal of Human Genetics*. (Supplement) A304.
23. **Jackson, C.L.** and Bearer, E.L. (1996). The human platelet protein, 2E4, maps adjacent to the Alzheimer's locus on human chromosome 19. *Molecular and Cell Biology*: (Supplement) 545a.
24. **Jackson, C.L.**, Sang J. and Gerber, L.E. (1997). Genes regulated by beta-carotene identified by differential display PCR. Meeting Abstract. Sixteenth International Congress of Nutrition. Abstract PM386:151.
25. Mills DR, Coughlin S, Volodina N and **Jackson CL**. (1997). Construction of a yeast artificial chromosome contig in the region of the cartilage-hair hypoplasia gene in 9p13. *American Journal of Human Genetics* 61(4) Supplement:A239.
26. Mills DR, Parikh PM, Moore DV, Preparata RM and **Jackson CL** (1998). Efforts towards developing a transcript map of human chromosome 9p13: Construction of a YAC-based physical map. *American Journal of Human Genetics* 63(4): Supplement A254.
27. Mills DR, Preparata RM and **Jackson CL**. (2000). Physical and transcript map of the critical region for cartilage-hair hypoplasia and a candidate tumor suppressor gene on human chromosome region 9p13. The 13th Annual Cold Spring Harbor Meeting on Genome Sequencing & Biology, May 2000, Cold Spring Harbor, NY.
28. Mills DR, Humphray SJ and **Jackson CL**. (2000). Mapping and genomic structure of the gene encoding the p22 light chain of dynactin (DCTN-22). *The American Journal of Human Genetics*: 64(4) suppl 2: A1493
29. **Jackson CL**, Mills DR and Humphray SJ. (2000). A large insert clone-based transcript map of human chromosome region 9p13. *The American Journal of Human Genetics*: 64(4) suppl 2: A985
30. Mills DR, Pepperell J, Tantravahi U, Shiozawa M, Matsuzaki A, Kwitek-Black AE, Jacob HJ and **Jackson, CL** (2001). Genomic Structure of the human p22 dynactin light chain (DCTN3) and comparative mapping to rat chromosome 5. *American Society of Human Genetics Meeting* October 2001.

INVITED PRESENTATIONS

1. October 1988 Selected to give a platform presentation at the Annual Meeting of the American Society of Human Genetics. My presentation was entitled "Isolation of Microcell Hybrid Cell Lines Containing Single Human Chromosomes Marked with a New Retroviral Vector".
2. August 1990 Invited participant in the International Workshop on Human Chromosome 19 in Charleston, South Carolina.
3. November 1990 Invited seminar speaker in the Department of Biology, Clark University. My presentation was entitled "Rodent-Human Microcell Hybrids Containing Single Human Chromosomes Marked with a Retroviral Vector".
4. March 1991 Invited seminar speaker in the Pathobiology Seminar Series, Brown University. My presentation was entitled "Somatic Cell Hybrids Containing Marked Human Chromosomes".
5. January 1992 Invited participant in the International Workshop on Human Chromosome 19 held in the Netherlands.
6. March 1992 Invited participant in the First International Workshop on Human Chromosome 9 held in Cambridge, England.
7. January 1994 Invited seminar speaker in the Department of Zoology, University of Rhode Island. My presentation was entitled "Physical Mapping on Chromosome 9p.
8. March 1994 Invited participant in the Second International Workshop on Human Chromosome 9 held in Cambridge, England.
9. October 1994 Invited speaker at the 4th International Transcribed Sequences Workshop. My presentation was entitled "Identification of a Transcribed Sequence Selection Scheme Using Somatic Cell Hybrids"
10. October 1994 Selected to give a presentation in the Poster Symposium at the American Society of Human Genetics Annual Meeting. My presentation was entitled "Cloning Human Chromosome 9 Specific cDNAs by an Efficient Selection Strategy Using Somatic Cell Hybrids".
11. April 1995 Invited participant at the 4th International Workshop on Human Chromosome 9 held in Williamsburg, VA.

12. January 1996 Invited speaker for the Clinical Oncology Fellows Lecture Series on Basic Techniques in Molecular Biology.
13. April 1996 Invited speaker to the Clinical Laboratory Professional Society on the Clinical Uses of PCR.
14. May 1997 Invited speaker for the Pediatric Research Colloquium Rhode Island Hospital
15. October 1998 Invited speaker at the 6th International Workshop on Human Chromosome 9.
16. April 2000 Workshop Leader at the Annual Clinical Laboratory Science Meeting. Workshop entitled "Applications of Molecular Biology in the Clinical Setting"
17. April 2004 Workshop leader at the Annual Clinical Laboratory Science Meeting. Workshop entitled "Clinical Applications of Molecular Biology"

GRANT SUPPORT

1. 2/1/90 - 1/31/91
 "Development of Cell Lines for the Mapping and Cloning of the Gene Responsible for the Friedreichs Ataxia"
 Rhode Island Foundation Grant, \$5,000
 Cynthia L. Jackson, Principal Investigator
2. 6/1/90 - 5/31/96 R29HG00044
 "Radiation Hybrids from a Marked Human Chromosome 9"
 Cynthia L. Jackson, Principal Investigator
 National Institute of Health - National Center for Human Genome Research
 Total direct costs \$350,000
3. 3/15/91 - 3/14/92
 Delineation of the Dystonia Region Using Radiation Hybrids
 Dystonia Medical Research Foundation, \$10,000
 Cynthia L. Jackson, Principal Investigator
4. 3/1/91 - 2/28/94
 DE-FG02-91ER61136
 "An Improved Method for Producing Radiation Hybrids Applied to Human Chromosome 19."

Cynthia L. Jackson, Principal Investigator
U.S. Department of Energy Division of Health and Environmental
Research
Total direct cost \$209,651

5. 7/1/92 - 6/30/93

Muscular Dystrophy Association
Linkage Analysis of Autosomal Recessive Limb Girdle Dystrophy
Dr. James Gilchrist, Principal Investigator (co-investigator 5%
effort responsible for the molecular biology aspects of the project).
Total direct costs \$36,293.

6. 7/1/93 - 6/30/95

Muscular Dystrophy Association
Linkage Analysis of Autosomal Recessive Limb Girdle Dystrophy
Dr. James Gilchrist, Principal Investigator (co-investigator 5%
effort responsible for the molecular biology aspects of the project).
Total direct cost \$77,090.

7. 1/10/93 - 11/30/97

NIH5 RO1 CA42715-08
National Institutes of Health - National Cancer Institute
Cellular Origins of Liver Cancer
Principal Investigator - Dr. Douglas Hixson, Total direct costs
\$617,735
Co-investigator 5% effort

8. 2/1/96 - 6/30/97

American Cancer Society Institutional Research
Grant/Subcontract
from Brown University
Regulation of Gene Expression by Beta-Carotene in Lung Cancer
Cells
Dr. Cynthia Jackson, Principal Investigator
Total direct cost \$11,000

9. 7/1/97 - 6/30/01

NIH RO1 HLB - National Institute of Health
Heart, Lung and Blood
Natriuretic Peptides and the Lung
Dr. Nicholas S. Hill, Principal Investigator
Total direct costs \$216,000 / year
Co-investigator 5% effort

10. 1997 - 2002

NIH RO1GM 42859-04, National Institute of Health Institute of
General Medicine
Dr. Jorge Albina, Principal Investigator
Arginine Regulation of Cell Function in Healing Wounds
Co-investigator 2% effort

11. 4/1/01-3/30/04

National Organization for Rare Diseases (NORD)
Dr. Cynthia L. Jackson Principal Investigator
Identification of a Gene Located at 9p13 Important in Adenoid
Cystic Carcinoma
Total direct cost \$50,000/yr

12. 7/01/00- 6/30/04

Evaluation of GPR30, a novel estrogen receptor for assessing
responsiveness to anti estrogen therapy
Agency: US Department of Defense
Type: Young Investigator
Principal Investigator: E. Filardo, Ph.D.
Collaborator: Cynthia L. Jackson, Ph.D. 5% effort
My role is to assist in the molecular analysis of GPR30.

13. 6/1/02- 5/31/05

Agency: NIH NIAMS
Production of a Mouse Model for Cartilage-Hair hypoplasia
Principal investigator: Cynthia L. Jackson 10% effort
Type : R21 Period June 1, 2002- May 31, 2005 Direct costs
\$50,000/yr
This grant is to produce a knockout mouse and a cartilage
specific knockout mouse for RMRP, the causative gene for the
autosomal recessive disease, cartilage hair hypoplasia.

14. 11/1/03-10/31/04

Agency: Human Growth Foundation
Creating a knock-in mouse model for cartilage-hair hypoplasia
Principal investigator: Cynthia L. Jackson
Type: Research grant
Direct costs \$7,500/yr

UNIVERSITY and HOSPITAL TEACHING ROLE

- 1989 - 1990** Lecturer in Introduction to General Medicine/Brown University Pathology Residency Program, 2 lecture hours on basic molecular biology. (20 residents)
- 1990 - 1991** Bio Med 285, Introduction to Pathobiology Faculty Research, 2 hour lecture on the human genome project. (2 students)
- 1991 - 1992** Bio Med 285, Introduction to Pathobiology Faculty Research, 2 hour lecture on the human genome project. (4 students)
- 1992 - 1993** Bio Med 285, Introduction to Pathobiology Faculty Research, 2 hour lecture on the human genome project. (4 students)
- Bio 201A Introduction to MCB Faculty Research, 2 hour lecture on radiation hybrids for chromosome 19. (12 students)
- Bio 287 Techniques in Pathobiology, one 3 hour lab and lecture on Southern hybridization. (10 students)
- Bio Med 283 Molecular Basis of Disease, 4 lecture hours on techniques in molecular biology and genetics. (6 students)
- Bio Med 184 General Pathology, 1 lecture hour on molecular diagnostics. (100 students)
- 1993 - 1994** Bio Med 285 Introduction to Pathobiology Faculty Research, co-course leader and lecture for 2 hours. Required course for all Pathobiology graduate students. (4 students)
- Bio Med 201A Introduction to MCB Faculty Research, 2 hour lecture on radiation hybrids for chromosome 19. (10 students)
- Bio 287 Techniques in Pathobiology, one 3 hour lab and lecture on Southern hybridization. (10 students)
- Bio Med 184 General Pathology, 1 lecture hour on molecular diagnostics. (100 students)
- Bio Med 129 Cancer Biology, 1.5 lecture hours on tumor suppressor genes. (25 students)
- Bio 195-196 Undergraduate Independent Study. (2 students)
- Lecturer in Introduction to General Medicine/Brown University

Pathology Residency Program, 2 lecture hours on basic molecular biology. (20 residents)

Brown University Pathology Residency Program, developed and instituted a molecular biology rotation for Rhode Island Hospital. This is a required rotation for the residency program. Supervised the rotation of 3 residents.

Surgical Pathology Fellow completed 2 month research rotation.

1994 - 1995

Bio Med 285 Introduction to Pathobiology Faculty Research, co-course leader coordinator responsible for the course and 2 hour lecture. (4 students)

Bio Med 201A Introduction to MCB Faculty Research. 2 hour lecture on the construction of a physical map for human chromosome 9p. (10 students)

Bio 287 Techniques in Pathobiology. Two 3 hour labs and lecture on Southern hybridization. (10 students)

Bio Med 283 Molecular Basis of Disease. Two lecture hours on techniques in molecular biology. (8 students)

Bio 195-196 Undergraduate Independent Study, 4 students.

Bio Med 130 Biochemistry Small Group Discussion Leader 8 hours. (10 students)

Lecturer in Introduction to General Medicine/Brown University Pathology Residency Program, 2 lecture hours on basic molecular biology. (20 residents)

Surgical Pathology Fellow completed a 3 month research rotation in my laboratory.

Hematopathology Fellow, Daniel Wu, completed a 6 month research rotation in my laboratory.

1995 - 1996

Bio Med 285 Introduction to Pathobiology Faculty Research, co-course leader responsible for the course. Required course for Pathobiology graduate students. (4 students)

Bio Med 201A Introduction to MCB Faculty Research. 2 hour lecture on the construction of a physical map for human chromosome 9p. (10 students)

Bio 287 Techniques in Pathobiology. Two 3 hour labs and lecture on Southern hybridization. (10 students)

Bio Med 129 Cancer Biology, 3 lecture hours on tumor suppressor genes and chromosomal aberrations in cancer. Lectured an additional 3 hours in the concurrent class offered at Pfizer. (20 students)

Bio 195-196 Undergraduate Independent Study. (2 students)

Bio Med 130 Biochemistry Small Group Discussion Leader 8 hours. (10 students)

Lecturer in Introduction to General Medicine/Brown University Pathology Residency Program, 2 lecture hours on basic molecular biology. (20 residents)

Faculty participant in the Clinical Pathology Conference at Rhode Island Hospital. Responsible for giving conferences on a rotating schedule (3 - 4 year). (10 residents)

1996 - 1997

Bio Med 285 Introduction to Pathobiology Faculty Research, co-course leader responsible for the course. Required course for Pathobiology graduate students. (4 students)

Bio Med 201A Introduction to MCB Faculty Research. 2 hour lecture on the construction of a physical map for human chromosome 9p. (10 students)

Bio 287 Techniques in Pathobiology. Two 3 hour labs and lecture on Southern hybridization. (8 students)

Bio 195-196 Undergraduate Independent Study, 2 students.

Lecturer in Introduction to General Medicine/Brown University Pathology Residency Program, 2 lecture hours on basic molecular biology. (20 students)

Faculty participant in the Clinical Pathology Conference at Rhode Island Hospital. Responsible for giving conferences on a rotating schedule (3 - 4 year). (10 residents).

1997 - 2001

Bio Med 285 Introduction to Pathobiology Faculty Research. 2 hour lecture on the positional cloning of disease genes on 9p. (4 students)

Bio Med 201A Introduction to MCB Faculty Research. 2 hour lecture on the construction of a physical map for human chromosome 9p. (10 students)

Bio 287 Techniques in Pathobiology. Two 3 hour labs and lecture on Southern hybridization. (6 students)

Bio Med 295/296 Graduate Independent Study. (1 student)

Faculty participant in the Clinical Pathology Conference at Rhode Island Hospital. Responsible for giving conferences on a rotating schedule (3 - 4 year). (10 students)

Faculty participant in the Hematology Fellows Conference. Responsible for giving conference on a rotating schedule (3-4 year).

2002- Present Bio 287 Techniques in Pathobiology. Course co-director. Teach the molecular biology section of the class. (6-12 students)

Bio Med 295/296 Graduate Independent Study. (1 student)

Faculty participant in the Pathology Resident Conference at Rhode Island Hospital. Responsible for giving conferences on a rotating schedule (3 - 4 year). (12-15 residents and fellows)

Director of the Pathology Resident Molecular Pathology Rotation. A 1 month required rotation for pathology residents.

Faculty lecturer in the BRISAH Medical Technology Program. Responsible for a series of 3 lectures on Molecular biology in a clinical setting

UNDERGRADUATE TRAINEES

Eighteen undergraduates have completed independent study research (Bio 195/196, projects in my laboratory since 1988; George Ruiz, Michele Nebres, Amy Kim, Rob Pittman, Larry Chan, Gira Shah, Anna Schissel and Michael Eisenstein, Sean Coughlin, Kerry Todisco and Arpi Terzian, Janet Lee, Dorothy Moore and Pranay Parikh, Carole Huang and Albert Kwon, Anjali Nigelaye, Joseph Lee.

GRADUATE TRAINEES

David Mills completed a pathobiology summer rotation in my laboratory 5/95 - 8/95.

Laura Galligan - visiting student from URI, completed part of her thesis work in my laboratory.

Natalie Volodina graduate student in Molecular Cell Biology and Biochemistry completed a rotation in my laboratory, 1/97-5/97.

Junbiao Sang - visiting student from UR completed part of his MA thesis work in my laboratory.

David Mills received his PhD Degree in Pathobiology May 2001.

Over 25 residents have completed the molecular biology rotation at Rhode Island Hospital.

SUMMER STUDENTS

Michelle Nebres, 6/92 - 8/92, PLME summer research fellowship
Jonathan Siegel, 7/93 - 9/93, Medical School Independent Study
Larry Chan 6/94 - 8/94, PLME summer research fellowship
Amy Kim 6/94 - 8/94, UTRA summer fellowship
Tiffany McCombs, 6/95 - 9/95, Early Identification Program
Michael Eisenstein, 6/95 - 8/95 UTRA summer fellowship
Meda Higa, 6/97 - 8/97, Early Identification Program
Janet Lee, 6/97 - 8/97, PLME summer research fellowship
Arpi Terzian, 6/97 - 8/97 UTRA summer fellowship
Pranay Parikh, 6/98 - 8/98, PLME summer research fellowship
Carol Huang, 6/00 - 8/00, UTRA summer fellowship
Anjali Nigalaye 6/01-8/01 UTRA summer fellowship
Joseph Lee 6/02-8/02 PLME summer fellowship
Johnathan Greer 6/03-6/04 PLME summer fellowship
Aazam Vahdatshoar 6/03-8/03 UTRA summer fellowship
Christopher Song 6/03-8/03 summer fellowship

GRADUATE STUDENT THESIS COMMITTEE

Melanie Zitek, MA Pathobiology 1996
Lori Chapman Berry , M.D., Ph.D. Pathobiology PhD May 2001

GRADUATE STUDENT THESIS ADVISOR

David R. Mills Ph.D. Pathobiology 2001

POSTDOCTORAL TRAINEES

<u>Trainee</u>	<u>Date</u>	<u>Current Position</u>
Hon Fong Mark, Ph.D.	1/1/89 - 5/31/90	Director of Cytogenetics Boston University School of Medicine Center for Human Genetics
Eva Cardone, M.D.	12/1/90 - 7/1/93	Instructor Biology Dept. Penn State University
Deborah Britt, Ph.D.	12/1/90 - 5/31/95	Assistant Professor Medicine (Research) Division of Medical Oncology RIH/Brown University
Kiran Raina, Ph.D.	11/92 - 11/93	Postdoctoral Research Associate Physiology Department Tufts University
Junsheng Sang, Ph.D.		9/93 - 8/95 MBA graduate of University of Pennsylvania Wharton Business School, 1997. Currently employed COMWEB Technology Group
Junbiao Sang, M.D.	7/94 - 8/95	MA degree University of Rhode Island Research Associate Millenium Pharmaceuticals