

National Council on Radiation Protection and Measurements  
7910 Woodmont Avenue, Suite 800  
Bethesda, Maryland 20814

BIOGRAPHICAL INFORMATION

Name Amy Kronenberg

Address Lawrence Berkeley Laboratory, Life Sciences Division  
1 Cyclotron Road, Bldg. 70A-1118 Berkeley, CA 94720

Street City State Zip

Birth Date [REDACTED]

Education	Institution	Field of Study	Degree	Year Conferred
	Brown University	Biology	B. A.	[REDACTED]
	Harvard University School of Public Health	Cancer Biology (Radiobiology)	D. Sc.	[REDACTED]

Professional Experience (Two most recent past positions)

Position Title	Organization	Dates
Staff Scientist II	Lawrence Berkeley Laboratory	1988-present
Research Assistant Professor	University of California, Berkeley	1989-1990

Society Affiliations Radiation Research Society, AAAS

Honors see attached curriculum vitae

Publications (Attach list of representative publications)

see attached curriculum vitae

Areas of interest related to NCRP activities (Select no more than three from enclosed list).

- Genetics
- Radiation Biology

*Portions Excl  
B/S*

Date April 26, 1993

Signature Amy Kronenberg

Amy Kronenberg

Name (Print)

AMY KRONENBERG

Birthdate: [REDACTED]

Phone No: [REDACTED]

Ex 6

Education:

A.B. Biology  
Sc.D. Cancer Biology

Brown University, Providence, RI  
Harvard University, School of  
Public Health, Boston, MA

Professional Experience:

1975-1977 Student Research Associate, Dr. Peter Heywood, Biology Department, Brown University, Providence, RI 02912

1979-1982 Research Associate in Medical Physics, Brookhaven National Laboratory, Upton, NY 11973

1988-present Staff Scientist 2, Life Sciences Division, Carcinogenesis and Radiation Biology Group, Lawrence Berkeley Laboratory, Berkeley, CA 94720

1988-1989 Research Assistant Professor of Biophysics, University of California, Berkeley, CA 94720

1989-present Member of Advisory Committee on Research Needs in Radiation Protection, National Council on Radiation Protection, Bethesda, MD

1989-present Associate Editor, Advances in Radiation Biology

1989-present Member, LBL Cell & Molecular Biology Division Seminar Committee.

1990-present Member, BEVALAC Biomedical Program Advisory Committee, LBL.

1990-1991 Member, Program Committee, National Council on Radiation Protection.

1990-present Member, Radiation Discipline Working Group, NASA

1991 Scientific Reviewer, Photochemistry and Photobiology.

1991 Member, NIH Special Study Section Review Panel

1991-present Member, BRSG Review Committee, Lawrence Berkeley Laboratory

1991-present Member, Scientific Planning Committee, Radiation Biology and DNA Repair Group, Lawrence Berkeley Laboratory

1991 & 1992 Member, DOE Grant Review Panels, Office of Health and Environmental Research.

1991, 1992, 1993 Scientific Reviewer, Radiation Research.

1992-present Member, Life Sciences Division Work For Others Committee, LBL.

1992-present Member, Program Committee, Radiation Research Society 41st Annual Meeting, Spring 1993, Dallas, TX

1992 Scientific Reviewer, International Journal of Radiation Biology.

1993-present Council Member, National Council on Radiation Protection and Measurements, Bethesda, MD.

Teaching Experience:

Fall 1985 Invited Lecture, Massachusetts Institute of Technology, Course 22.55, Radiation Biophysics, Professor A.C. Nelson

Spring 1987 Graduate Teaching Fellow, Harvard College, Gen. Ed. 190, Cancer, Science & Society, Professor John Cairns

Spring 1989 Lecturer in Biophysics, University of California, Berkeley, Biophysics 131, Radiation Biophysics

1988-1989 Research Supervisor, Resident's Training Program, Radiation Oncology Department, University of California, San Francisco

Summer 1989 Research Supervisor, LBL-Ana G. Mendez Foundation Fellowship Program, Lawrence Berkeley Laboratory

1989-1990 Research Supervisor, Honors Program in Biophysics, UC Berkeley

1991 Guest Lecturer, University of California, Berkeley, MCB 125D, Radiation Biophysics

1991 Research Supervisor, Christine Chang, University of Michigan School of Medicine

1991-present Adjunct Faculty Member, Department of Radiology & Radiation Biology, Colorado State University, Ft. Collins, CO

Summer 1992 Research Supervisor, Center for Science and Engineering Education, High School Teacher Training Program.

## Awards and Honors:

- 1973 Westinghouse Science Talent Search Finalist
- 1973-1977 International Sheet Metal Workers Union Undergraduate Scholarship
- 1973 New York State Regents Scholarship
- 1979 Summer Research Fellowship, Department of Energy, Brookhaven National Lab.
- 1982-1987 N.I.H. Traineeship in Radiation Biology, Harvard School of Public Health
- 1986 Student Travel Award, Radiation Research Soc. National Meeting, Las Vegas, NV
- 1987 Student Travel Award, Radiation Research Soc. National Meeting, Atlanta, GA
- 1987 Young Investigator Award, 8th International Congress of Radiation Research, Edinburgh, Scotland
- 1987 Invited Speaker, Third Workshop on Heavy Charged Particles in Biology and Medicine, GSI, Darmstadt, FRG
- 1987 Invited Speaker, American Nuclear Society, Cambridge, MA.
- 1988 Young Investigator Award, 14th L.H. Gray Conference, Low Dose Radiation - Biological Bases of Risk Assessment, Oxford, England
- 1988-1989 Principal Investigator, NIH BRSR Grant: Locus Specificity for Mutation Induction in Human Cells
- 1989 Invited Speaker, Dept. of Radiat. Oncol., Stanford University, Palo Alto, CA
- 1989 Program Committee, Workshop on Biomedical and Space-Related Research with Heavy Ions at the BEVALAC, Lawrence Berkeley Laboratory, March 16-17, 1989.
- 1989 Invited Speaker, Pacific Radiation Biology Symposium, Palo Alto, CA
- 1989 Invited Speaker, Memorial Sloan Kettering Cancer Institute, New York, NY
- 1989-1990 Principal Investigator, NIH BRSR Grant: Role of RNA Polymerase in the Repair of Premutagenic Damage
- 1989-1994 Principal Investigator, NIH R29 Grant: Heavy Ion Mutagenesis: LET Dependence and Locus Specificity
- 1990- Invited Speaker, NASA Workshop on Radiation Health, Houston, TX
- 1990 Invited Participant, NASA Lifesat Workshop, Pasadena, CA
- 1990 Invited Speaker, AFRRI Colloquium on Neutron Radiation Biology, Rockville, MD.
- 1991 Invited Speaker, Fox Chase Cancer Center, Philadelphia, PA
- 1991 Invited Speaker, Armed Forces Radiological Research Institute, Bethesda, MD
- 1991 Invited Speaker, National Council on Radiation Protection Annual Meeting, Washington, DC
- 1991 Invited Speaker, NASA Workshop on Radiation Health, Houston TX
- 1991 Young Investigator Award, 9th International Congress of Radiation Research, Toronto, Canada.
- 1991 Invited Symposium Speaker, 9th International Congress of Radiation Research, Toronto, Canada
- 1991-1994 Principal Investigator, NASA Radiation Health Grant: Mutagenesis in human cells with accelerated H and Fe ions.
- 1991-1996 Project Leader, Project 2 - Mutagenesis Studies-NASA Specialized Center for Research and Training Grant. Collaborative project with Dr. Charles Waldren, Colorado State University.
- 1992 Invited Speaker, Cell and Molecular Biology Training Program, Colorado State University
- 1992 Invited Workshop Speaker, 40th Annual Meeting of the Radiation Research Society, Salt Lake City, UT
- 1992 Invited Speaker, NASA Workshop on Radiation Health, Houston, TX
- 1992 Invited Speaker, Argonne National Laboratory, IL
- 1992 Invited Speaker, World Space Congress, Washington, DC
- 1992 Invited Speaker, Stanford Univ., Dept. of Radiation Oncology, Palo Alto, CA
- 1993 Invited Speaker, US-India Radiological and Chemical Physics, New Dehli, India
- 1993 Invited Speaker, Brookhaven National Laboratory, Upton, NY
- Memberships: AAAS Radiation Research Society

## **Publications:**

### **Original Reports**

- Ettinger, K.V., Vartsky, D., Kronenberg, A., and Cohn, S.H. Nuclear magnetic resonance method for observation of ferromagnetic pulmonary contaminants. 4th Intl. Conference on Nuclear Methods in Environmental and Energy Research, Columbia, Missouri, CONF 800433, 415-23 (1980).
- Kronenberg, A. Mutagenic properties of fast neutrons and heavy ions in human cells. Sc.D. Thesis, Harvard University, School of Public Health, Boston, MA (1988).
- Kronenberg, A. and Little, J.B. Molecular characterization of thymidine kinase mutants of human cells induced by densely ionizing radiation. Mutation Research 211: 215-224 (1989).
- Kronenberg, A. and Little, J.B. Locus specificity for mutation induction in human cells exposed to accelerated heavy ions. Int. J. Radiat. Biol. 55: 913-924 (1989).
- Kronenberg, A. and Little, J.B. Mutagenic properties of low doses of x-rays, fast neutrons, and selected heavy ions in human cells. In Low Dose Radiation - Biological Bases of Risk Assessment (eds. K.F. Baverstock and J.W. Stather), Taylor and Francis, pp 554-559 (1989).
- Kronenberg, A. and Blakely, E.A. Locus specificity of mutation in human lymphoblastoid cells: LET effects. Cell Transformation and Radiation-Induced Cancer in Man (eds. K.H. Chadwick, C. Seymour, and B. Barnhart), Adam Hilger Ltd., pp 215-222 (1989).
- Kronenberg, A. Molecular characterization of radiation-induced specific locus mutations *in vitro*. Proceedings of the Annual Meeting of the National Council on Radiation Protection (in press, 1991).
- Kronenberg, A. Perspectives on Fast Neutron Mutagenesis in Human Cells. Radiation Research, 128: S87-S93 (1991).
- Adelstein, S.J., Becker, B.B., Brooks, A.L., Kase, K.R., Kronenberg, A., McNeil, B.J., Shore, R.E., and Templeton, W.L. Identification of Research Needs For Radiation Protection. Recommendations of the National Council on Radiation Protection and Measurements. NCRP Reports (submitted, 1992).
- Kronenberg, A. Mutation induction in human lymphoid cells by energetic heavy ions. Advances in Space Research, in press (1992).
- Kronenberg, A. and Chang, C.Y. Interlocus comparison of mutational spectra produced at a heterozygous locus and a hemizygous locus in human cells by densely ionizing radiation (submitted, Radiation Research 1993).
- Kronenberg, A. Unique mutational spectra are produced in human cells by different low fluence exposures to charged particles differing in ionization density (submitted, Mutation Research, 1993)
- Kronenberg, A., Criddle, K., Gauny, S., Vannais, D., Ueno, A., Kraemer, S. and Waldren, C. A. Comparative analysis of mutations induced by densely ionizing particles in human and hamster/human hybrid cells. (submitted for publication in Molecular Mechanisms of Ionizing Radiation-Induced Mutations, eds. K. Chadwick and H. Leenhouts, 1993).
- Kraemer, S., Ueno, A., Vannais, D., Hanks, T., Tavakolian, M., Craven, P., Hei, T., Kronenberg, A. and Waldren, C. A. Molecular analysis of mutant spectra induced in A<sub>L</sub> cells by high and low dose rates of <sup>137</sup>Cs gamma rays. (submitted for publication in Molecular Mechanisms of Ionizing Radiation-Induced Mutations, eds. K. Chadwick and H. Leenhouts, 1993).

### **Abstracts:**

- Kronenberg, A. and Little, J.B. Cytotoxic and mutagenic effects of low doses of fast neutrons in a human B-lymphoblastoid cell line. Radiation Research Society, 34th Annual Meeting, Las Vegas, Nevada (1986).
- Kronenberg, A. and Little, J.B. Molecular characteristics of neutron-induced thymidine kinase mutants of human B-lymphoblastoid cells. Radiation Research Society, 35th Annual Meeting, Atlanta, Georgia (1987).
- Kelsey, K.T., Kronenberg, A., Little, J.B., and Wiencke, J.K. Differential effects of very low doses of fast neutrons, X-rays, and tritiated thymidine on the adaptive response of human lymphocytes. Radiation Research Society, 35th Annual Meeting, Atlanta, Georgia (1987).
- Kronenberg, A. and Little, J.B. Mutation induction by low doses of fast neutrons, X-rays, or selected heavy ions in a human B-lymphoblastoid cell line. Third Workshop on Heavy Charged Particles in Biology and Medicine, GSI, Darmstadt, FRG (1987).

- Kronenberg, A. and Little, J.B. Enhancement of neutron-induced mutation frequency in human B-lymphoblastoid cells by continuous low dose rate exposure. 8th International Congress of Radiation Research, Edinburgh, Scotland (1987).
- Wiencke, J.K., Shadley, J.D., Kelsey, K.T., Kronenberg, A., and Little, J.B. Failure of high intensity X-ray treatments or densely ionizing fast neutrons to induce the adaptive response in human lymphocytes. 8th International Congress of Radiation Research, Edinburgh, Scotland (1987).
- Kronenberg, A. and Little, J.B. Molecular analysis of thymidine kinase mutants of human B-lymphoblastoid cells induced by argon ion irradiation. Radiation Research Society, 36th Annual Meeting, Philadelphia, PA (1988).
- Kronenberg, A. and Blakely, E.A. LET dependence and locus specificity for mutation induction in hemizygous and heterozygous human genes. Radiation Research Society, 37th Annual Meeting, Seattle, WA (1989).
- Blakely, E.A., Chang, P.Y., Bjornstad, K.A., Dixon, M.L., Kronenberg, A., Goodwin, E.H., and Tobias, C.A. Low-dose high-LET oxygen effects. Radiation Research Society, 37th Annual Meeting, Seattle, WA (1989).
- Kronenberg, A., LET dependence for cell killing and mutation induction in human lymphoblastoid cells is independent of the means by which you vary the LET. Radiation Research Society, 38th Annual Meeting, New Orleans, LA (1990).
- Kronenberg, A., Track structure effects and mutational yields at an autosomal locus and an X-linked locus in human cells. J. Cellular Biochem. Supplement 14A, p.55 (1990). UCLA Symposium on Ionizing Radiation Damage to DNA.
- Kronenberg, A. Is mutation induction in human cells due primarily to the direct ionization of the DNA molecule? 9th International Congress of Radiation Research, Toronto, Canada (1991).
- Kronenberg, A., and Chang, C.Y. Effect of genetic locus on the spectrum of DNA structural alterations observed in human lymphoblastoid cells exposed to densely ionizing radiation. 9th International Congress of Radiation Research, Toronto, Canada (1991).
- Nowakowski, V.N., Castro, J.R., and Kronenberg, A. Combined cytotoxicity of doxorubicin and ionizing radiation in human B-lymphoblastoid cells: effects of sequence of administration and radiation quality, Annual Meeting of the American Society of Therapeutic Radiologists and Oncologists, Washington D.C. (1991).
- Kronenberg, A. and Chang, C.Y. Interlocus comparison of mutational spectra produced at a heterozygous locus and a hemizygous locus in human cells by densely ionizing radiation. Radiation Research Society 40th Annual Meeting, Salt Lake City, UT (1992).
- Kronenberg, A., Gauny, S., Criddle, K., Dupree, E., and Chang, C. Unique mutational spectra are produced in human cells by defined low fluence exposures to charged particles differing in ionization density. Radiation Research Society 41st Annual Meeting, Dallas, TX (1993).
- Waldren, C., Ueno, A., Vannais, D., Craven, P., Robinson, J., Hanks, T., Costigan, S., Kronenberg, A., and Hei, T. Molecular analysis of the spectrum of deletions in mammalian AL hybrid cells exposed to high and low dose rate irradiations. Radiation Research Society 41st Annual Meeting, Dallas, TX (1993).
- Kronenberg, A., Criddle, K., Gauny, S., Vannais, D., Ueno, A., Kraemer, S. and Waldren, C. A. Comparative analysis of mutations induced by densely ionizing particles in human and hamster/human hybrid cells. CEC conference on Molecular Mechanisms of Ionizing Radiation-Induced Mutations, Doorwerth, Netherlands, 1993.
- Kraemer, S., Ueno, A., Vannais, D., Hanks, T., Tavakolian, M., Craven, P., Hei, T., Kronenberg, A. and Waldren, C. A. Molecular analysis of mutant spectra induced in AL cells by high and low dose rates of <sup>137</sup>Cs gamma rays. CEC conference on Molecular Mechanisms of Ionizing Radiation-Induced Mutations, Doorwerth, Netherlands, 1993.