Dr. Eleanor A. Blakely
BIOGRAPHICAL SKETCH

EDUCATION

INSTITUTION AND LOCATION	DEGREE	YEAR CONFERRED	FIELD OF STUDY
University of San Diego, San Diego, CA	B.A.	1969	Biology (Chem. Minor)
University of Illinois, Urbana, Illinois	M.S.	1971	Biophysics
University of Illinois, Urbana, Illinois	Ph.D.	1975	Physiology

RESEARCH AND/OR PROFESSIONAL EXPERIENCE

1975-1989	Staff Biophysicist, Lawrence Berkeley Laboratory (LBL), University of California at Berkeley
1975-1988	Project Scientific Director of the Cellular and Molecular Radiobiology Program within a Program Project Grant funded by the National Cancer Institute (NCI); Deputy Scientific Director and Financial Manager of the Budgets for an NCI Program Project Grant and a DOE Grant within the Radiation Biophysics Group, Donner Laboratory, LBL
1988-1993	Principal Investigator of two DOE Grants
1988-1994	Member of the LBL-wide Technical Salary Committee
1988-present	LBL Grievance Hearing Officer
1988-1992	Deputy Leader of the Radiation Biology and DNA Repair Group within the Life Sciences Division of Cell and Molecular Biology, LBL
1989-present	Senior Staff Biophysicist, LBL, University of California
1990-1992	Cell and Molecular Biology Division Safety Coordinator, LBL Deputy Executive Secretary, Bevalac Biomedical Program Advisory Committee
1991-present	Project Director of a NASA-funded NSCORT (NASA Specialized Center of Research and Training for Radiation Health); Faculty Affiliate Appointment, Department of Radiological Health Sciences, Colorado State University, Fort Collins, CO
1993-present	Member of the LBL-wide Radioactive Drug Research Committee
1994-present	Clinical Professor of Radiation Medicine (non-tenured), Loma Linda University, School of Medicine, Loma Linda, CA
1995-2000	Principal Investigator of National Eye Institute (NEI) Research Grant
1995-present	Principal Investigator of NASA Research Grants

PROFESSIONAL ACTIVITIES

2000-2006	Elected to Council Membership, National Council on Radiation Protection and Measurements
1998	Advisory Committee Member-Radiation Quality and Radiation Biology in Hadron Therapy, IAEA (International Atomic Energy Agency)

1996-present	Appointed Member, NCRP Scientific Committee #1-7-Information Needed to Make Radiation Protection Recommendations for Travel Beyond Low-Earth Orbit
1990-present	Appointed Member, National Council on Radiation Protection and Measurements (NCRP) Scientific Committee 75 on "Guidance on Radiation Received in Space Activities"
1987-1991	Appointed Member, Diagnostic Radiology Study Section - Division of Research Grants, National Institutes of Health (NIH)
1984-1988	Associate Editor - Radiation Research
1984-1987	Elected Officer (Biology Councilor) - Radiation Research Society
1981-1991	Associate Editor - Space Power

AWARDS

1992	Lawrence Berkeley Laboratory Outstanding Performance Award
1979	Nominated for listing in American Men and Women in Science
1974	Robert Emerson Graduate Teaching Award, School of Life Sciences, University of Illinois
1969-72	U.S.A.E.C. Special Fellowship in Radiat. Sci. & Protect., Dept. of Phys. & Biophys. Univ. of Illinois

SELECTED PERTINENT PUBLICATIONS (1979-2000)

- Blakely, E.A., C.A. Tobias, T.C.H. Yang, K.C. Smith, and J.T. Lyman. Inactivation of human kidney cells by high-energy monoenergetic heavy-ion beams. Radiat. Res. 80, 122-160 (1979). Lucke-Huhle, C., E.A. Blakely, P.Y. Chang, and C.A. Tobias. Drastic G2 arrest in mammalian cells after irradiation with heavy-ion beams. Radiat. Res. 79, 97-112 (1979).
- Blakely, E.A., F.Q.H. Ngo, S.B. Curtis, and C.A. Tobias. Heavy-ion radiobiology: Cellular studies. Adv. in Radiat. Biol. 11, 295-389 (1984). Blakely, E.A., P.Y. Chang, and L. Lommel. Cell-cycle-dependent recovery from heavy-ion damage. Radiat. Res. 104, S145-S157 (1985).
- Saunders, W.M., D.H. Char, J.M. Quivey, J.R. Castro, G.T.Y. Chen, J.M. Collier, A. Cartigny, E.A. Blakely, J.T. Lyman, K.H. Woodruff and C.A. Tobias. Precision, high dose radiotherapy: helium ion treatment of uveal melanoma. Int. J. Radiat. Oncol. Biol. Phys. 11 227-233 (1985).
- Blakely, E., R. Roots, P. Chang, L. Lommel, L. Craise, E. Goodwin, and E. Yee. Cell-cycle-dependent X-ray OER: Role of endogenous glutathione. NCI Mono.: Interaction of Rad. & Chemotherapy. Vol. 6, 217-223 (1988).
- Blakely, E., P. Chang, L. Lommel, K. Bjornstad, M. Dixon, C. Tobias, K. Kumar, and W.F. Blakely. Cell-cycle radiation response: Role of intracellular factors. Adv. Space Res. 9, (10)177-(10)186 (1989).
- Chatterjee, A. and E.A. Blakely, Applications of the Bevalac in biophysical research. Nuclear Instruments and Methods in Physics Research 840/41, 1365-1371 (1989).
- Goodwin, E., E. Blakely, G. Ivery, and C. Tobias. Repair and misrepair of heavy-ion-induced chromosomal damage. Adv. Space Res. 9, (10)83-(10)89 (1989).
- Kronenberg, A. and E.A. Blakely. Locus specificity of mutation in human lymphoblastoid cells: LET effects. In Cell Transformation and Radiation-Induced Cancer in Man. (Eds. K.H. Chadwick, C. Seymour, and B. Barnhart). Adam Hilger Ltd., pp. 215-222, 1989.
- Castro, J.R., E.A. Blakely, and D.A. Linstadt. Particle therapy in treatment of urologic tumors. Adv. in Urologic Oncology Vol. II, pp. 149-160 (1990).

- Goodwin, E.H. and E.A. Blakely. Heavy-ion-induced chromosomal damage and repair. Adv. Space Res. 12, (2)81-(2)89 (1992).
- Chang, P.Y., C.A. Tobias, and E.A. Blakely. Protein synthesis modulates the biological effectiveness of the combined action of hyperthermia and high-LET radiation. Radiat. Res. 129, 272-280 (1992).
- Blakely, E.A. Cell inactivation by heavy-charged particles. Radiat. and Environ. Biophys. 31,181-196 (1992).
- Castro, J.R., P.L.Petti, I.K. Daftari, J.M. Collier, T. Renner, B. Ludewigt, W. Chu, S. Pitluck, T. Fleming, J. Alonso, and E. Blakely. Clinical gain from improved beam delivery systems. Radiat. Environ. Biophys. 31, 233-240 (1992).
- Blakely, E.A., I.K. Daftari, W.J. Meecham, L.C. Alonso, et al. Helium-ion-induced human cataractogenesis. Adv. Space Res. Vol. 14, No. 10 pp. (10) 501-(10)505 (1994).
- Meecham, W.J., S.M. Kroll, D.H. Char, J.R. Castro, and E.A. Blakely. Anterior segment complications after helium ion radiation therapy for uveal melanoma, I. Radiation cataract.Arch.Ophthalmol.112:197-203 (1994).
- Goodwin, E.H., E.A. Blakely, and C.A. Tobias. Chromosomal damage and repair in G1-phase CHO cells exposed to charged particle beams. Radiat. Res, 138:343-351 (1994).
- Blakely, E.A., Current Issues in Low- and High-LET Medical Radiobiology in Hadrontherapy in Oncol., p. 693-701 (Eds. U.Amaldi and B.Larsson), Excerpta Medica, Intern. Congress Series 1077, Elsevier, N.Y., 1994.
- Blakely, E. A. and R.J.M.Fry, Radiation protection in space, Radiat. Environ. Biophys 34:129-131 (1995).
- Blakely, E. A., Biological Beam Characterization, pgs. 63-72 in Ion Beams in Tumor Therapy, Ed. U. Linz, Chapman & Hall, New York, 1995.
- Daftari, I., Char, D.,Verhey, L.,Castro, J., Petti, P., Meecham, W., Kroll, S. Blakely,E.A. Anterior normal tissue sparing as a means of reducing complications of charged particle radiotherapy in uveal melanoma Int. J. Radiat. Oncol., Biol., Physics 39:989-996, 1997.
- Castro, J.,Char, D.,Petti, P., Daftari, I.,Quivey, J., Singh,R.P., Blakely, E. and Phillips, T. 15 years experience with helium ion radiotherapy for uveal melanoma, Int. J. Radiat. Oncol, Biol., Physics 39:997-1010, 1997.
- Blakely, E.A., and Kronenberg, A. Heavy-ion radiobiology: New approaches to delineate mechanisms underlying enhanced biological effectiveness. Radiat. Res. 150:S126-S145, 1998.
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- Callahan, D.E., Forte, T. M., Afzal, S.M.J., Deen, D.F., Kahl, S.B., Bjornstad, K.A., Bauer, W. F., and Blakely, E. A. Boronated protoporphyrin (BOPP): Localization in lysosomes of the human glioma cell line SF-767 with uptake modulated by lipoprotein levels, Int. J. Radiat. Oncol. Biol. Physics 45:761-771, 1999.
- Maletinska, L., Blakely, E.A., Bjornstad, K.A., Deen, D.F., Knoff, L.J. and Forte, T.M. Human glioblastoma cell lines: Levels of low density lipoprotein receptor and low density lipoprotein receptor-related protein, Cancer Research 60:2300-2303, 2000.
- Holman, H.-Y.N., Martin, M.C., Blakely, E.A., Bjornstad, K., and McKinney, W.R. Infrared spectroscopic characteristics of cell cycle and cell death probed by synchroton-based FTIR spectromicroscopy, Biospectroscopy, 57:329-335, 2000.
- Chang, P.Y., Bjornstad, K.A., Chang, E., McNamara, M., Barcellos-Hoff, M.H, and Blakely, E.A. Particle irradiation induces FGF-2 expression in normal human lens cells. Radiat. Res. 154:477-484, 2000.
- Blakely, E.A., Bjornstad, K.A., Chang, P.Y., McNamara, M.P., Chang, E., Aragon, G., Lin, S.P. Lui, G.M. and Polansky, J.R. Growth and differentiation of human lens epithelial cells in vitro on matrix. Investigative Ophthalmology & Visual Science 41:3898-3907, 2000.
- Blakely, E.A. Biological Effects of Cosmic Radiation: Deterministic & Stochastic Health Phys.79:495-505, 2000.