August, 2013

**CURRICULUM VITAE**

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**EDUCATION:**

**Undergraduate:** Smith College, Northampton, MA **A.B.** 1950

**Graduate:** Brandeis University, Waltham, MA **Ph.D.** 1964

**POSTDOCTORAL TRAINING:**

Harvard Medical School, Boston, MA 1964-66, USPHS Fellow, M.B. Hoagland, M.D., Supervisor: Protein synthesis

University of Colorado Medical Center, Denver, CO 1966-67, USPHS Fellow, T.T. Puck, Ph.D., Supervisor: Mammalian cell genetics

**UNIVERSITY APPOINTMENTS:**

1967-72 Assistant Professor of Biophysics and Genetics University of Colorado School of Medicine, Denver, CO

1973-76 Associate Professor of Radiology, Section of Cancer Biology Washington University School of Medicine, St. Louis, MO

1976-81 Associate Professor of Biochemistry, Marshall University School of Medicine, Huntington, WV

1981 Professor of Biochemistry, Marshall University School of Medicine, Huntington, WV

1981- Professor of Radiology, UMDNJ-New Jersey Medical School, Newark, NJ

1981- Professor of Microbiology and Molecular Genetics, UMDNJ-New Jersey Medical School

1991- Professor of Biochemistry and Molecular Biology, UMDNJ-New Jersey Medical School

 **OTHER PROFESSIONAL POSITIONS AND MAJOR VISITING APPOINTMENTS:**

1963-64 Instructor of Biology, Brandeis University, Waltham, MA

1964-66 Fellow, Department of Microbiology and Immunology, Harvard Medical School, Boston, MA

1966-67 Instructor of Biophysics, University of Colorado School of Medicine

1972 Visiting Professor, Saigon University School of Medicine, Saigon, South Vietnam

1974-76 Adjunct Associate Professor of Biology, Washington University

1976-81 Biochemist, Huntington Veterans' Administration Medical Center, Huntington, WV

1977-81 Member of the Graduate Faculty, West Virginia University, Morgantown, WV

1981-2001 Head, Section of Cancer Biology, Department of Radiology, New Jersey Medical School

1984- Member of the faculty of the Graduate School of Biomedical Sciences, UMDNJ

1984- Research Scientist, East Orange Veterans' Administration Medical Center, East Orange, NJ

1985 Visiting Scientist, Institute of Molecular Biology, Jagiellonian University, Krakow, Poland,

1987 Visiting Scientist, Medical Research Division, Argonne National Laboratory, Argonne, IL

1988- Guest Scientist, Biology Department, Brookhaven National Laboratory, Upton, NY

1996-1997 Visiting Faculty, Department of Radiation Oncology, University of Pennsylvania, Philadelphia, PA

2011- Research Biologist, East Orange Veterans' Administration Medical Center, WRIISC, East Orange, NJ

**AWARDS AND HONORS:**

NSF Honor Roll, 1958

President, Univ. of Colorado Medical Center Women's Association, 1971-72

Chapter President, Society of the Sigma Xi, Washington Univ., 1975-76

Baccalaureate Speaker, Chatham Hall, Chatham, VA, May 1980

First recipient, Life Achievement Award, The Baldwin School, Bryn Mawr, PA, 1991

Listed in American Men and Women in Science, Who's Who in the East, Who's Who of American women, Who's Who Directory of Professionals and Resources in Cancer, Who's Who in Science and Engineering, Who’s Who in Medical Sciences Education, Who’s Who in America

Smith College Medal, February, 1997

Gallo Award for Outstanding Research, presented at the 1998 Annual Retreat on Cancer Research in New Jersey, Princeton, NJ May, 1998

**BOARDS OF DIRECTORS/TRUSTEES:** Secretary, Faculty Council, Washington Univ. School of Medicine, 1974-76; Board of Directors, South Mountain YMCA, South Orange, NJ (1992-1996); Executive Committee, NJ Academy of Science, 1995-1996; National Board of Advisors, The Baldwin School, Bryn Mawr, PA (1993-99; 2001-2007; Executive Committee Member, 1997-99); Board of Governors, NJ State Opera (2005- ); National Society of the Colonial Dames of America in the State of New Jersey Board of Directors (2007-)

**MAJOR COMMITTEE ASSIGNMENTS:**

**a. National and Regional:**

**New Jersey Institute of Technology:** Thesis research supervisor for Grace Coffey, MS, 1985

**Rutgers University and UMDNJ:** Department of Biochemistry: Thesis research supervisor for Christine Huselton,Ph.D. candidate, 1985-88

**East Orange Veterans' Administration Medical Center:** Institutional Review Board (1982-83); Research and Development Committee (1983-87)

**American Cancer Society - New Jersey Division:** Public Education Committee (1987-93); Melanoma and Skin Cancer Detection Awareness Subcommittee (1985-93); Professional Education Committee (1993-94)

**American Board of Radiology:** Radiobiology Item Writing Task Force 1993-1997

**American Society for Photobiology:** Council Member (1994-1997; 2007-2010; Executive Committee: Secretary 1999-2005)

 **NJ Academy of Science:** President-elect (1995-1996); President (1996)

**PanAmerican Society for Pigment Cell Research**: Nominating Committee 1997-1998; 1998-1999; Council, 1999-2002

**Ruth Estrin Goldberg Memorial for Cancer Research**: Scientific Advisory Board Member, 1998-

**b. Medical School:**

**UMDNJ-New Jersey Medical School**: Biohazards Committee (1981-present, Chairman, 1984-86); Faculty By-Laws Committee (1982-83, 1984-88; 1990-92); Radiation Safety Committee (1981-86); Academic Programs and Policies Committee (1984-86); Cancer Education Committee (1981-88); Faculty Committee on Appointments and Promotions (1984-87); Summer Research Program Review Committee (1983); Institutional Research Review Committee (1986); Cancer Prevention and Control Subcommittee (1988-89); Focus Group on Community-based and International Health Education (1989-90); Institutional Planning and Development Committee (1990-); Institutional Review Board (1991-2); Biomedical Research Support Committee (1994-1997); Cancer Education Program Committee (1992-1998); Campus Security Committee (1993-pres); Dean's Committee on Termination for Cause (1995); Student Affairs Committee (2000-2001); Medical School applicants interviewer (2001-present); Faculty Committee on Appointments and Promotions (2003-2005; 2007-2009); Faculty Organization By-Laws Committee (2006-2008); Task Force on Excellence in Professionalism and Humanism (2011- )

**UMDNJ-Graduate School of Biomedical Sciences**

Ph.D. Thesis Defense Committee for: Wasil Sydor, Biochemistry Department, 1982: Dwight Lee, Pathology Department, 1984; Preliminary Examination Committee and Thesis Advisory Committee for Dorothy McCabe, Ph.D. candidate, Pharmacology Department, 1982-86; Preliminary Examination Committee for Nayantara Kothari, Microbiology and Molecular Genetics Department, 1991

**c. Hospital:** University Hospital: Oncology Committee (1982-86)

**d. Department:** Departmental Tenured Faculty Committee on Appointments and Promotions

**e. Editorial Boards:** Manuscripts reviewed for Plant Physiology, Journal of Cellular Physiology, Science, Journal of the National Cancer Institute, Cancer Letters, Cancer Research, Journal of Investigative Dermatology, Radiation Research, Photochemistry and Photobiology, Pigment Cell Research, Scanning Microscopy International, British Journal of Cancer, Nature, Journal of Photochemistry and Photobiology B. Biology, Journal of Theoretical Biology, Mutation Research, Journal of Inorganic Biochemistry, International Journal of Radiation Biology, Proceedings of the National Academy of Sciences

**MEMBERSHIPS, OFFICES AND COMMITTEE ASSIGNMENTS IN PROFESSIONAL SOCIETIES:**

American Association for the Advancement of Science

American Association for Cancer Research

American Association of University Professors

American Institute of Biological Sciences (retired)

American Society for Photobiology (Council member, 1994-1997; 2007-2010; Secretary, 1999-2005)

 Publications Committee (1994-1997)

 Education Committee (1994-1997)

 Mentoring Committee (1997-2004; 2007-)

 Executive Committee (1999-2005)

 Secretariat Review Committee (1999)

 Grants and Awards Committee (2008-2010) Chairman, 2009-2010

Association of Women in Science

Environmental Mutagen Society (retired)

European Society for Pigment Cell Research

International Society for Pigment Cell Research

International Association for Women Bioscientists

NJ Academy of Science

NY Academy of Sciences (retired)

Pan-American Society for Pigment Cell Research

 Awards Committee (1996)

 Nominating Committee (1997, 1998)

 Council Member (1999-2002)

Photobiology Foundation (Founding Board member, Secretary-Treasurer, 1999-2001)

Radiation Research Society

Society of the Sigma Xi (President, Washington University Chapter, 1975-1976)

Tissue Culture Association (retired)

American Society of Therapeutic Radiologists and Oncologists (Associate Member)

**MAJOR RESEARCH INTERESTS:**

Cancer Biology, Radiation Biology, Photobiology: Role of melanin in prevention of solar carcinogenesis of skin, Role of autocrine factors in the therapeutic responses of melanomas; Induction of mutations in mitochondria by radiation

**GRANT HISTORY:**

**a. Principal Investigator:**

 **USPHS-NIGMS:** Gene Expression in Mammalian Cells, 1971-74

 **American Cancer Society:**

 Institutional Award, 1974

 The Role of DNA Repair in the Therapeutic Responses of Melanoma, 1981-83

 **Ruth Estrin Goldberg Memorial for Cancer Research:**

 Scheduling of Cancer Chemotherapeutic Agents Using an Intra-operative Radiation Therapy Mouse

 Melanoma Model, 1983-84

 **New Jersey Cancer Research Commission:**

Role of Oxygen Radical Damage to DNA in Carcinogenesis, 1984-89

 Novel Approaches to Melanoma Therapy, 1988-91

 **Biomedical Research Support Grant:** 1992

 **USPHS-NCI:** Photoprotection and Photosensitization of DNA by Melanin, 1992-1996

 **Foundation of the UMDNJ:**

 Preliminary characterization of a radiation resistance factor (RF) from melanoma, 1992-1993

Autocrine rescue of tumors from death by radiation, 1996-1998

 Research Support Grant for Radiation Studies, 2002-

 **Dean’s Bridging Support:** 1999-2001

**b. Co-Principal Investigator:**

 **VA Research Advisory Group Award** and **Merit Review Awards:**

 Radiation and Chemotherapy Studies in Melanomas, 1976-88, with George J. Hill, M.D.

 **Elsa U. Pardee Foundation:** Studies of a new multi-therapy resistance factor, 1993-

 with George J. Hill, M.D.

 **Department of Energy subcontract:** Mitochondrial-Derived Oxidants and Cellular Responses to Low Dose/Low LET Ionizing Radiation, 2005-2008, Douglas Spitz, Principal Investigator, Edouard Azzam,

 Principal Investigator of subcontract

**c. Co-Investigator:**

 **UHPHS:** Effects of non-uniform distributions of radioactivity, Roger W. Howell, Principal Investigator

 2000-2005

 NJ Cancer Research Commission: Effects of low-LET radiation in normal human cells and their progeny,

 Edouard I. Azzam, Principal Investigator, 2001-2003

 **USPHS:** Damage signaling from irradiated to non-irradiated cells, Edouard I. Azzam, Ph.D., Principal

 Investigator 2002-2005

**VA CSR&D Pilot Project for Research on Gulf War Veterans’ Illnesses:** Diagnostic Utility of mtDNA Content and Exercise Challenge in Veterans with Gulf War Illness  2013-2015

**d. Fellowships Sponsored:**

 **NJ Commission for Cancer Research:** Fellow: H. Colleen Silva, M.D., Chief of Surgical

 Oncology, Jersey City Medical Center, Jersey City, NJ Clinical Relevance of a

 multi-therapy resistance factor 1994-1996

 **Society for Surgical Oncology:** Summer Fellowship for Medical Students awarded

 to Mauricio Zapiach, NJMS '97 Role of a melanoma multi-therapy resistance factor

 in apoptosis inhibition

 **NJ Commission for Cancer Research:** Summer Fellowship for Midical Sutdents

 awarded to Joseph Grossman NJMS ‘98. Role of a melanoma multi-therapy

 resistance factor in apoptosis inhibition

**Cancer Education Institutional Grant: Summer Fellowship for Undergraduate Students** awarded to Cynthia Quainoo, Smith College ‘99; Summer, 1996, 1997;Fellowships for incoming Medical Students, awarded to Gayatri Rao NJMS ’02 and David Muccino NJMS ’02, 1998

**MAJOR TEACHING EXPERIENCE:**

**UMDNJ-GSBMS:** Molecular Pathobiology of Cancer (J. Cholon, Department of Pathology, Coursemaster); Biochemistry of Cancer (M.A. Lea, Dept. of Biochemistry, Coursemaster); DNA Repair (M. Lambert, Department of Pathology, Coursemaster); Radio-isotopes and Radiation Biology (Co-coursemaster with S. Gertner); Analytical Methods in Biochemistry (B.J. Wagner, Coursemaster); Current Topics in Biochemistry (MA Lea, Coursemaster)

**UMDNJ-NJMS:** Radiation Biology and Physics (B Biswal, Coursemaster)

Tutorial in Cancer Biology for surgical and medical oncology residents (H.Z.H., Coursemaster); Erythrocyte Biochemistry, Radiation Biology (lectures in Medical Biochemistry); Facilitator in Problem Based Learning in Medical Biochemistry; Biological Effects of Radiation (lecture in Introduction to Clinical Sciences); Facillitator, Core I and Core II Curriculum for Medical Students

**UMDNJ-NJDS:** Erythrocyte Biochemistry (lecture in Dental Biochemistry)

**St. Barnabas Medical Center**, Livingston, NJ: Radiation Biology for Radiation Oncology Residents

**Rutgers University:** Photobiology (W. Ward and B. Zilinskas, Departments of Biochemistry and Microbiology, Coursemasters)

**Marshall University:** Undergraduate Courses: Biochemistry, Advanced Biochemistry, Human Physiology. Graduate Courses: Cellular and Molecular Biology (Coursemaster for 2 years), Human Biochemistry, Graduate Seminar, Nucleic Acids and Protein Synthesis (Coursemaster for 1 year), Introduction to Research. Medical School Courses: Medical Biochemistry, Medical Genetics (Coursemaster for 4 years)

**Washington University:** Undergraduate Courses: Introductory Biology, Fundamentals of Cellular and Molecular Biology, Genetics Graduate Courses: Cell Biology, Radiation Biology, Laboratory in Cancer Biology, Mechanisms of Disease - Cancer Medical School Courses: Pathophysiology of Cancer, Genetics and Cancer

**University of Colorado:** Graduate Courses: Developmental Biology, Human Biochemical Genetics, Human Genetics, Medical School Courses: Medical Biophysics, Biophysics and Genetics

**Brandeis University:** Undergraduate Courses: Microbiology, General Biology, Introductory Biology

**Research Supervision**:

**Research Associates:**

 1993-94 Indu Chowdhary (Ph.D. Delhi University, Delhi, INDIA)

 1993-95 Shuangwen Zhou (M.S., M.D. Harbin Medical University, Heilongjiang; Ph.D. Tongji Medical University, Wuhan, CHINA)

**Post-doctoral Fellows:**

1973-84 Anthony T. Morrissey (Ph.D., Harvard Medical School)

 1981-82 Nancy Nolan (Ph.D., Catholic Medical School)

 1982-83 Hyranne Grimmond (Ph.D., SUNY-Albany)

 1981-83 Martha Andersen (Ph.D., SUNY-Buffalo)

 1983 Elizabeth Gerges (M.D., Cairo University School of Medicine)

 1985 Santosh Raina (M.B.B.S., Topiwala National Medical College, Bombay)

 1988 Karen Hubbard-Smith (Ph.D., Illinois Institute of Technology, Chicago, IL)

 1989-90 Denise Mammolito (M.D., NJ Medical School, Newark, NJ), Surgical Oncology Fellow; Zoltan Trizna M.D., Semmelweis Medical University, Budapest, HUNGARY); Lincoln Pranikoff (M.D., Tufts University Medical School, Boston, MA), Surgical Oncology Fellow; Uma T. Shankavraman (Ph.D., Osmania University, Hyderabad, INDIA)

 1991-92 Uwe Schlehaider (M.D., Ludwig Maximillian Universitaet, Munich, GERMANY)

 1992-93 Helina Orgacka (Ph.D., Silesia Academy of Medicine, Katowice, POLAND)

 1992-93 Indu Chowdhary (Ph.D., Delhi University, Delhi, INDIA)

 1992-96 Colleen Silva, M.D., Fellow in Surgical Oncology, Department of Surgery, NJMS 1992-1994

 1993-94 Krystyna Cieszka (Ph.D., Jagiellonian University, Krakow, POLAND)

 1993-94 Xiang Ao (M.D., Zunyi Medical College, Zunyi, CHINA)

 1993-95 Robert Goodman (Ph.D., New York Medical College, Valhalla, NY)

 1994-96 Weixiong Li ( M.D. Hunan Medical University; Ph.D. Medical Science and Beijing Union MedicalUniversity, Beijing, CHINA)

 1994 Yanhui Liu (M.D. Hunan Medical University, Beijing, CHINA)

 1996-97 Hongbing Tang (M.D. Nanjing Medical University, Nanjing, CHINA; M.S., Molecular Biology, Institute of Virology, Chinese Acadmy of Preventive Medicine, Nanjing, CHINA)

**Graduate Students:**

1980 Shariar Arasteh (M.S. candidate, Marshall University School of Medicine)

 1980-81 Rodney Hagley (Ph.D. candidate, Marshall University School of Medicine)

 1983-85 Grace Coffey (M.S., New Jersey Institute of Technology, 1985)

 1984(summer)Barbara Pilas (Ph.D. candidate, Jagiellonian University, Krakow, POLAND)

 1985-88 Research supervisor for Christine Huselton (Ph.D. candidate, Rutgers University/UMDNJ-GSBS; degree conferred 1988)

1. Research supervisor for Jaskiran Kaur (PH.D. candidate, Punjab University, Punjab, INDIA; degree conferred, Mar, 1999)

1998 Eric Kinnaert (PhD candidate, LOCE, Institut Jules Bordet, Universite Libre, Brussels, BELGIUM)

**Medical Students:**

Washington University:

 1973 Carl Hsieh

 1975 Frank Kwong

 1976 Michael Pfaller

 Marshall University:

 1978 David Otto

 1980 James Wolf

 1979-80 James Banks

 New Jersey Medical School:

 1983-85 Sharon Kurowski

 1983-84 Richard Winne

 1984 John Anton

 Philip Scarpa

 Christine Huselton

 1985 Anne Wittenberg

 1986 Michael Biunno

 Harish Patel

 1987 Michael Biunno

 1989 Kathleen Nell Cathcart

 1990 Joseph Bargellini

 1991 Patrice Lahiti

 1993 John Cosmi-2nd place – Student Cancer Research Presentations

 Diane Carlson

 1994-96 Mauricio Zapiach

 1995 Joseph Grossman

1. Valerie Gafori
2. David Muccino

 Gayatri Rao-2nd place – Student Cancer Research Presentations

 1998 Stephen Cohen

**Undergraduate Students:**

 1976 Muge Galin

 1975 Stuart Brown (Summer)

 Helen Kong

 Sarah Anscheutz (Smith College January Intern)

 1973-74 Roy Philips (Honors Project)

 1974 Mark Irwin

 1974-76 Matthew Bodner (Honors Project)

 1975-76 Kevin Weiss (Honors Project)

 1976 Rosaria Salazar

 1979 Sonya Vasiri (Summer)

 1980 Laura Hawes (Summer)

 1981 Timothy Weible

 1982 Susan Hyatt (Summer)

 1983 Susan Hyatt, Elias Najem (Summer) 1984 Jeanne Gapac, Anne Felston (Summer) 1989 David Levi (Summer)

 1990-91 Anne Wojtowicz

 Bohdan Olesnicky

 1992 Tracy Barberi

 1993 Ali Pashapour

 1994 Neeta Ginde

1995 Michelle Kim (Smith College)

 1996,97 Cynthia Quainoo (Smith College)

1. Glinys Caceres (Wellesley College)

 James Netterwald, SHRP

 George Ng, Rutgers Univ

2005-06 Enriqué Acosta (CCNY)

**High School Students:**

1984-85 Andy Chen, Frank Chen, Saroja Rao

 1990-92 Samina Ali

 1992 Elizabeth Hawkins

 1993 Priya Ramashawar

 1994 Monifa English

Katharine Hawkins

 1995 Shakira Adams

**BIBLIOGRAPHY**

**ARTICLES:**

**Doctoral Dissertation:**

HZ HILL. UV inactivation, photoreactivation and the decay of photoreactivability of the green-colony forming system of Euglena gracilis, Brandeis University, 1964.

**Articles:**

 **1. HZ HILL, JA Schiff and HT Epstein. Studies of chloroplast development in Euglena XII. Variation of** ultraviolet sensitivity with extent of chloroplast development. Biophys J 6:125-34, 1966.

 2. **HZ HILL**, JA Schiff and HT Epstein. Studies of chloroplast development in Euglena green colony formation. Biophys J 6:135-44, 1966.

 3. **HZ HILL**, HT Epstein and JA Schiff. Studies of chloroplast development in Euglena XV. Factors influencing the decay of photoreactivability of green colony formation. Biophys J 6:373-83, 1966.

 4. SH Wilson, **HZ HILL** and MB Hoagland. Physiology of rat liver polysomes III. Protein synthesis by stable polysomes. Biochem J 103:567-72, 1967.

 5. TT Puck and **HZ HILL**. Enzyme kinetics in mammalian cells I. Rate constants for galactose metabolism in erythrocytes of normal, galactosemic and heterozygous subjects. Proc Natl Acad Sci USA 57:1676-83, 1967.

 6. **HZ HILL** and DW Alling. A model for ultraviolet and photoreactivating light effect in Euglena. Biophys J 9:347-69, 1969.

 7. **HZ HILL** and TT Puck. Enzyme kinetics in mammalian cells I. Simultaneous determination of rate constants for the first three steps of galactose metabolism in red cells. J Cell Physiol 75:49-56, 1970.

 8. **HZ HILL**. Enzyme kinetics in mammalian cells III. Regulation of activities of galactokinase, galactose-1-phosphate uridyl transferase and uridine diphosphogalactose-4-epimerase in human erythrocytes. J Cell Physiol 78:419-30, 1971.

 9. **HZ HILL**, SH Wilson and MB Hoagland. Patterns of albumin and general protein synthesis in rat liver as revealed by gel electro- phoresis. Biochim Biophys Acta 269:477-84, 1972.

10. **HZ HILL** and MB Halcrow. Expression of galactose genes in mammalian cells I. Galactose enzymes in Chinese hamster ovary cell hybrids. Biochem Genet 7:117-26, 1972.

11. **HZ HILL** and TT Puck. Detection of inborn errors of metabolism: Galactosemia. Science 179:1136-39, 1973.

12. TB Friedman, RJ Yarkin, CR Merril, **HZ HILL** and C-Y Young. Galactosemia and galactonolactone: Further biochemical observations. Science 183:764-66, 1974.

13. **HZ HILL** and SI Goodman. Detection of inborn errors of metabolism II. Defects in propionic acid metabolism. Clinical Genetics 6:73-78, 1974. Front article.

14. **HZ HILL** and SI Goodman. Detection of inborn errors of metabolism III. Defects in urea cycle metabolism. Clinical Genetics 6:79-81, 1974.

15. **HZ HILL**. Detection of inborn errors of metabolism IV. Galactokinase deficiency. Int J Clinical Genetics 8:179-82, 1975.

16. TF Smith, M Grunwald, R Artwich and **HZ HILL**. A simple statistical analysis of Indian muntjac giemsa band patterns. Cytogenetics and Cell Genetics 15:153-65, 1975.

17. **HZ HILL**. The effects of pH on incorporation of galactose by a normal human cell line and cell lines from patients with defective galactose metabolism. J Cell Physiol 87:313-20, 1976.

18. GJ Hill, T Shine, **HZ HILL** and CF Miller. Failure of amygdalin to arrest B16 melanoma and BW5147 leukemia. Cancer Research 36:2102-7, 1976.

19. **HZ HILL** and CF Miller. Plating efficiency of mouse embryo cells as a function of gestational age. Experientia 32:1054-55, 1976.

20. M. Grunwald and **HZ HILL**. Characterization of the glucose-6-phosphate dehydrogenase activity in rat liver mitochondria. Biochem J 159:683-87, 1976.

21. **HZ HILL** and R Phillips. A survey of commercially available tissue culture media for the propagation of Indian muntjac cells. Tissue Culture Manual 4:831-32, 1978.

22. **HZ HILL**, GJ Hill and J Szramowski. Dacarbazine and melphalan: Enhancement by dosage scheduling of the effect of combination treatment on the Harding-Passey melanoma in C3D2F1 mice. Arch Surg 114:135-38, 1979.

23. **HZ HILL**, GJ Hill, CF Miller, M Pfaller, K Weiss and M Galin. Effects of 5-(3,3-dimethyl-1-triazeno) imidazole-4-carboxamide, 1-(2-chloroethyl)-(4-methylcyclohexyl)-1-nitrosourea and L-phenyl- alanine mustard on B16, Cloudman S91 and Harding-Passey mouse melanomas. Cancer Research 39:934-39, 1979.

24. **HZ HILL**, GJ Hill, CF Miller, F Kwong and J Purdy. Radiation and melanoma. Response of B16 mouse tumor cells and clonal lines to x-radiation. Radiation Research 80:259-76, 1979.

25. **HZ HILL**, R Backer and GJ Hill. Blood cyanide levels in mice after administration of amygdalin. Biopharmaceutics and Drug Disposition 1:211-20, 1980.

26. **HZ HILL** and RB Setlow. Post-replication repair in 3 murine melanomas, EMT6 and a normal mouse lung fibroblast line. Cancer Research 40:1867-72, 1980

27. **HZ HILL** and RB Setlow. Comparative action spectra for pyrimidine dimer formation in Cloudman S91 mouse melanoma and EMT6 mouse mammary carcinoma cells. Photochemistry and Photobiology 35:681-84, 1982.

28. **HZ HILL** and GJ Hill. Effect of scheduling of combinations of 5-(3,3-dimethyl-1-triazeno) imidazole-4-carboxamide and 1-(2-chloro- ethyl)-3-(4-methylcyclohexyl)-1-nitrosourea on the Harding-Passey and the Cloudman S91 mouse melanomas. Cancer Research 42:838-42, 1982.

29. GJ Hill and **HZ HILL**. Cyclophosphamide activity against B16 melanoma in a rapid in vitro test system. J Surg Oncol 24:73-78, 1983.

30. GJ Hill, ET Krementz and **HZ HILL**. DTIC and combination therapy for melanoma: IV. Late results after complete response to chemotherapy (COG protocols 7130, 7131 and 7131A). Cancer 53:1299-1305, 1084.

31. S. Raina, **HZ HILL**, GJ Hill and BF Rush Jr. Scheduling of combination chemotherapy for a murine melanoma with the sub-renal capsular assay. J Surg Oncol 26:51-52, 1984.

32. **HZ HILL** and GJ Hill. In vitro activation of cyclophosphamide for an in vitro assay system. J Surg Oncol 26:225-29, 1984.

33. BH Fadem and **HZ HILL**. The gray opossum (Monodelphis domestica): a marsupial model for xenogeneic neoplasms. Cancer Letters 27:233-38, 1985.

34. DV Rao, KSR Sastry, GF Govelitz, HE Grimmond and **HZ HILL**. In vivo effects of iron-55 and iron-59 on mouse testes: Biophysical dosimetry of Auger-electrons. J Nuclear Medicine 26:1456-65, 1985.

35. DV Rao, KSR Sastry, GF Govelitz, HE Grimmond and **HZ HILL**. Radiobiological effects of Auger electron emitters in vivo: Spermatogenesis in mice as an experimental model. Radiat Prot Dosimetry 13:245-49, 1985.

36. KA Zirvi, GJ Hill and **HZ HILL**. Comparative studies of chemotherapy of human tumor cells in vitro by 3HThd uptake inhibition and soft agar clonogenic assay. J Surg Oncol 31:123-26, 1986.

37. MA Lea, A Luke, O Velezquez, L Carpenter, CF Martinson, **HZ HILL** and GJ Hill. Effects of sodium cyanate in mice bearing B16 melanoma. Cancer Chemother and Pharmacol 17:231-35, 1986.

38. KS Dasmahapatra, **HZ HILL**, A Dasmahapatra and S Suarez. Evaluation of adenosine deaminase activity in patients with head and neck cancer. J Surg Research 40:368-73, 1986.

39. DV Rao, KSR Sastry, GF Govelitz, HE Grimmond and **HZ HILL**. In vivo effects of iron-55 and iron-59 on mouse testes: Efficacy of Auger electrons vs beta rays. Radiat Prot Dosimetry, 1986.

40. GJ Hill, KA Zirvi, **HZ HILL** and S Raina. Chemosensitivity testing with antineoplastic agents. J Med Soc NJ 84:437-41, 1987.

41. **HZ HILL**, M Ohanian, GJ Hill and R Winne. The use of the 90Sr applicator for intraoperative radiation therapy in a mouse tumor model. J Surg Oncol 34:264-67, 1987.

42. **HZ HILL**, CA Huselton, B Pilas and GJ Hill. The ability of melanins to protect against the radiolysis of thymine and thymidine. Pigment Cell Research 1:81-86, 1987.

43. **HZ HILL** and GJ Hill. Eumelanin causes strand breaks and kills cells. Pigment Cell Research 1:163-70, 1987.

44. BH Fadem, **HZ HILL**, CA Huselton and GJ Hill. Transplantation, growth and regression of mouse melanoma xenografts in neonatal marsupials. Cancer Investigation 6:403-8-1988.

45. **HZ HILL**, JG Peak and MJ Peak. Induction of DNA-protein crosslinks in melanotic Cloudman S91 mouse melanoma cells and EMT6 mouse mammary carcinoma cells by monochromatic 254 and 405 nm light. Pigment Cell Research 2:427-30, 1989.

46. CA Huselton and **HZ HILL**. Melanin photosensitizes UVC DNA damage in pigmented cells. Environmental and Molecular Mutagenesis 16:37-43, 1990.

47. **HZ HILL** and GJ Hill. Irradiation of cells attached or suspended by rubber-policeman or by trypsin influences the extent of ionizing radiation-induced DNA strand breaks. Radiation Research 125:343-345, 1991.

48. GP Studzinski, KB Reddy, **HZ HILL** and AK Bhandal. Potentiation of ara-C cytotoxicity to HL 60 cells by 1,25(OH)2 vitamin D3 correlates with reduced rate of maturation of DNA relication intermediates. Cancer Research 51: 3451-3455, 1991.

49. **HZ HILL**, KN Cathcart, J Bargellini, Z Trizna, GJ Hill, KU Schallreuter and JM Wood. Does melanin affect the low LET radiation response of Cloudman S91 mouse melanoma cell lines? Pigment Cell Research 4: 80-86, 1991.

50. **HZ HILL,** Z Trizna, M Ali and GJ Hill. A radiation resistance factor in cultured Cloudman mouse melanoma cells. Radiation Research 129: 43-47, 1992.

51. K Hubbard-Smith, **HZ HILL** and GJ Hill. Melanin both causes and prevents oxidative base damage in DNA: Quantitation by anti-thymine glycol antibody. Radiation Research 130: 160-165, 1992.

52. UK Schlehaider, GJ Hill and **HZ HILL**. Influence of an autocrine diffusible resistance factor on cell survival after exposure to therapeutic agents. Melanoma Research 3: 357-362, 1993.

53. U Schlehaider, **HZ HILL**, A Pashapour and GJ Hill. Influence of an autocrine multi-therapy resistance factor on radiation responses of melanoma cells. Melanoma Research 4:21-27, 1994

54. KU Schallreuter, KR Lemke, **HZ HILL** and JM Wood. Thioredoxin reductase induction coincides with melanin biosynthesis in brown and black guinea pigs and in murine melanoma cells J Invest Dermatol 103: 820-824, 1994.

55. KA Cieszka, **HZ HILL**, GJ Hill and PM Plonka. Growth and pigmentation in genetically related Cloudman S91 melanoma cell lines treated with 3-isobutyl-1-methyl-xanthine and -melanocyte stimulating hormone. Experimental Dermatology, 4: 192-198,1995

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125 GJ Hill and **HZ HILL**. Physical and demographic and behavioral observations related to the “ozone hole” in the antactic summer of 1994. J. Cancer Education 10 (Suppl.): 16, 1995.

126. S Zhou, HC Silva, W Li, F Kueppers, GJ Hill and **HZ HILL**. A novel autocrine factor from melanoma rescues cells from radiation and chemotherapy death. Abstracts of the Radiation Research Society, April, 1996, p. 147.

127. J Kaur (with **HZ HILL**). Survival of Chinese hamster ovary (CHOK1-AL) cells transfected with tyrosinase after near and far uv and γ-rays. Photochem. Photobiol 63, 110s, 1996.

128. P Xin, GJ Hill and **HZ HILL**. Induced pigment in Cloudman S91 melanoma cells is photoprotective with respect to the lethal effects of sloar UV wavelengths. The Bulletin NJ Academy of Science 41: 50, 1996.

129. J Kaur and **HZ HILL** Survival of Chinese hamster ovary (CHOK1-AL) cells transfected with tyrosinase after near and far uv and g-rays. The Bulletin NJ Academy of Science 41: 48, 1996.

130. HC Silva**, HZ HILL,** GJ Hill, W Li, S Zhou and F Kueppers. A multi-therapy resistance factor from melanoma-purification and immuno-inactivation. The Bulletin NJ Academy of Science 41: 50, 1996.

131. J Kaur and **HZ HILL**. Transfection of Chinese hamster ovary (CHOK1-AL) cells with tyrosinase gene to study survival after far and near UV rays and γ-rays. The Annual Retreat on Cancer Research in New Jersey, May, 1996, p.38.

132. P Xin, GJ Hill and **HZ HILL**. Melanin induced in Cloudman S91 melanoma cells by IBMX and melanotan-1® is photoprotective with respect to irradiation by UVC, UVB, UVA and FS20 lamps. . The Annual Retreat on Cancer Research in New Jersey, May, 1996, p.39.

133. HC Silva, **HZ HILL**, GJ Hill, W Li, S Zhou and F Kueppers Purification and immunological inactivation of a multi-therapy resistance factor from melanoma. The Annual Retreat on Cancer Research in New Jersey, May, 1996, p.54.

134. H CSilva, **HZ HILL,** GJ Hill, W Li, S Zhou and F Kueppers. Purification and immunological neutralization of a multi-therapy resistance factor from melanoma. Oncology Society of New Jersey, Mar, 1996.

135. P Xin, GJ Hill and **HZ HILL**. Melanin induced in cloudman s91 melanoma cells by ibmx and melanotan-1® is photoprotective with respect to irradiation by UVC, UVB, UVA and FS20 lamps. Photochem. Photobiol. 63: 41s, 1996.

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137. S Zhou, F Kueppers, **HZ HILL** and G Hill. Studies of a multi-therapy resistance factor (MTRF). Presented by HC Silva, Soc. Surg. Oncol. 49th Cancer Symp. Abstract Book, Mar, 1996.

138. **HZ HILL** Melanin - the Two-Edged Sword? Pigment Cell Research Suppl. 5: 19, 1996.

139. HC Silva, **HZ HILL**, GJ Hill, W Li, S Zhou and F Kueppers Purification and immunological neutralization of a multitherapy resistance factor family from melanoma. Pigment Cell Research Suppl. 5: 43, 1996.

140. **HZ HILL**, GJ Hill and P Xin Role of melanin pigments in the response of melanocytes to solar irradiation. Pigment Cell Research Suppl. 5: 62, 1996.

141. **HZ HILL**, GJ Hill, P Xin and W Li Induced eumelanin protects Cloudman S91 mouse melanoma cells from solar radiation killing and mutations. Pigment Cell Research Suppl. 5: 63, 1996.

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143. **HZ HILL**, S Zhou, F Kueppers and H Tang. A multi-therapy resistance factor from melanoma. Abstracts of an International Workshop on the Tumor Microenvironment: An important paradigm in cancer etiology and treatment, Edgartown, MA, April, 1997.

144. **HZ HILL**, H Tang, S Zhou, HC Silva, W Li and F Kueppers. Immunological inactivation of an autocrine multitherapy resistance factor (MTRF) from melanoma. Abstracts of the 45th Annual Meeting of the Radiation Research Society, p 204, Providence, RI, May, 1997.

145. **HZ HILL**, W. Li and J. Kaur. Role of intracellular pigment in responses to solar radiation: Are we barking up the wrong tree? Pigment Cell Research 10: 116, 1997

146. J. Kaur and **HZ HILL**. Photobiology of tyrosinase-transfected Chinese hamster ovary cells. Photochemistry and Photobiology 65: 104s, 1997.

147. **HZ HILL** and H Tang. Western blot analysis of serum-free conditioned medium (SFCM) that rescues cultured melanoma cells from radiation and chemotherapy. 46th Ann Meeting Radiation Research Soc., p 170, Louisville, KY, April, 1998

148. **HZ HILL**. Purification of a multi-therapy resistance factor from melanoma. Abstracts of the 1998 Annual Retreat on Cancer Research in New Jersey, Princeton, NJ. May, 1998

149. **HZ HILL**, H. Tang, H.C. Silva and L.J. Wolansky. Purification of a complex protein that rescues melanoma cells from radiation and chemotherapy death. Photochemistry and Photobiology 67: 44S (1998)

150. G. Ghanem, E. Kinnaert and **HZ HILL**. Induction of both phaeomelanin and eumelanin decreases killing of melanoma cells by reactive oxygen species. Photochemistry and Photobiology 67: 3S-4S (1998)

151. **HZ HILL**, WG McKenna and RJ Muschel. Western blot analysis of serum-free conditioned medium (SFCM) that rescues cultured melanoma cells from radiation and chemotherapy. Pigment Cell Research 11: 238 (1998)

152. GJ Hill and **HZ HILL**. Edison and Cancer: Relationships between the great inventor and his companies with X-rays, radium, and other carcinogens. In *Clinical Cancer Research in New Jersey*, West Orange, NJ, March, 1999.

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154. **HZ HILL**, WG McKenna and RJ Muschel. Analysis of a protein from serum-free conditioned medium (SFCM) that rescues cultured melanoma cells from radiation and chemotherapy. Keystone Symposium on the Molecular Basis of Cancer, Taos, NM, March, 1999.

155. GJ Hill and **HZ HILL**. Illuminating cancer education with history and literature: for example, *Edison and Cancer*. Abstracts of the American Association for Cancer Education, Cleveland, OH, October, 1999.

156. **HZ HILL** and GJ Hill. Defining the role of melanins in photoprotection. Pigment Cell Research Suppl 7: 37, 1999.

157. **HZ HILL** and GJ Hill. Increased eumelanin is photoprotective for survival of Cloudman S91 mouse melanoma cells in UVB and photosensitizing in UVA. Pigment Cell Research 13: 206, 2000.

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166. **HZ HILL**, J Locitzer, N Eslamdoust, A Ogbonnaya, K Hubbard. Solar Radiation and mitochondrial DNA damage. 12th International Congress Of Radiation Research, Brisbane, Queensland, AUSTRALIA: 191, 2003.

167. **HZHILL**, K Hubbard, M Steinberg and D Oulianov. The common deletion in human mitochondria is induced by low doses of -rays, 12th International Congress of Radiation Research, Brisbane, Queensland, AUSTRALIA: P08/1702, 2003.

168. N Eslamdoust, K Hubbard, M Steinberg, A Ogbonnaya, **HZ HILL**. Studies of the mitochondrial common deletion induced by radiation and reactive oxygen species. Radiation Research Society 2004 Annual Meeting, April, 2004.

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170. Steinberg, M, F Ji, S Liu, K Hubbard and **HZ HILL**. Sequence analysis of mitochondrial deletions induced by solar simulated light (FS20) and glutathione in the region of the common deletion. Annual Meeting of the American Society for Photobiology, 126, 2004.

171.K Hubbard, M Steinberg, I Orlow, J Dermody, WK Pogozelski, D Yoo, **HZ HILL**. Quantification of total mitochondria and the common deletion in 40 human skin samples. The 2005 Annual Retreat on Cancer Research in New Jersey, Princeton, NJ 4/27/2005, p 105

172.WK Pogozelski, ML Steinberg, K Hubbard, I Orlow, J Dermody and HZ HILL (presenter) Radiation and mitochondrial DNA deletions. Invited talk presented at Symposium on Mitochondria and Radiation Damage Annual Meeting of the Radiation Research Society, Denver, CO October, 2005

173.K Hubbard, WK Pogozelski, ML Steinberg, I Orlow, J Dermody and HZ HILL Enumeration of total and deleted mitochondria in DNA from skin samples adjacent to human melanomas. Annual Meeting of the Radiation Research Society, Denver, CO October, 2005

174.ML Steinberg, Z Pierre, S Liu, B-J Hwang, HZ HILL, K Hubbard, FJi A novel mitochondrial deletion induced by UV and glutathione in keratinocytes. Annual Meeting of the Radiation Research Society, Denver, CO October, 2005

175.Steinberg M, Pierre Z, Liu S, Hwang B-J, Hill HZ, Hubbard H, Ji F. Mitochondrial deletions induced by FS20 irradiation of human epithelial cells Pigment Cell Research 18, suppl 1: 38, 2005

176.Hill HZ, Hubbard K, Steinberg M, Orlow I, Yoo D, Dermody J, Pogozelski W Enumeration of total and deleted mitochondria in dna from skin samples adjacent to human melanomas. Pigment Cell Research 18: 76, 2005

177.W.K.Pogozelski, H.Z. HILL, W.F.Blakely, J.Patel, N.Arpaia, S.O.Rummel, J.J.Senfield, M.P.Bernard, R.O’Donnell, Radiation-induced increase in the 4977-bp ‘common deletion’ in human mitochondrial DNA in lymphoblast and fibroblast cells, Meeting of the Radiation Research Society, Denver, CO, October, 2005

178. HZ Hill, J Dermody, M Steinberg, K Hubbard. Induction of deletions in mitochondrial DNA by reactive oxygen species. The 2006 Annual Retreat on Cancer Research in New Jersey, UMDNJ-RWJMS. Piscataway, NJ 5/25/2006

179. HZ Hill, K Hubbard, M Steinberg, JJ Dermody, W Pogozelski, DR Spitz, EI Azzam, SM de Toledo, Alterations induced in mitochondrial DNA of human cells by UV and ionizing radiation. Abstracts of the 33rd Meeting of the American Society for Photobiology, Rio Grande, PR July, 2006 Platform presentation

180. HZ Hill, SM de Toledo, EI Azzam, WK Pogozelski, JJ Dermody, DR Spitz, Low doses of ionizing radiation cause an increase in copy-number of mitochondrial DNA genomes in a dose-dependent manner. Abstracts of the 53rd Annual Meeting of the Radiation Research Society, Philadelphia, PA November, 2006, p 64

181. HZ Hill, K Hubbard, M Steinberg, JJ Dermody, induction of novel deletions in mitochondrial DNA by reactive oxygen species. Abstracts of the 53rd Annual Meeting of the Radiation Research Society, Philadelphia, PA November, 2006, p 38 Mini-Symposium presentation

182. HZ Hill, K Owens, D Dayal, DR Spitz, H2O2 produces a ‘Common Deletion’ in Mitochondrial DNA of Chinese Hamster Cells Defective in Electron Transport. NY Academy of Sciences Symposium Mitochondrial and Oxidative Stress in Neurodegenerative Disorders, New York, NY Sept, 2007

183. HZ Hill, JJ Dermody, RJ Donnelly, DR Spitz, K Johnson, D Dayal, H2O2 produces a ‘common deletion’ in mitochondrial DNA of Chinese Hamster cells defective in electron transport Annual Meeting of the Society for Free Radical Biology and Medicine, Washington, DC Nov, 2007

184. Mariann Galdass, Amutha Boominathan, Min Li, Donna Gordon, Douglas Spitz, Helene Z. Hill, Debkumar Pain and Edouard Azzam (2007) Succinate Dehydrogenase Regulates Mitochondrial Responses to Low dose Ionizing Radiation and Modulates Radiation Sensitivity. New Jersey Medical School, Graduate School of Biomedical Sciences Cancer Program Meeting, November 15, 2007.

185. HZ Hill, JJ Dermody, RJ Donnelly, DR Spitz, D Dayal, K Owens Quantification of total and deleted mitochondrial DNA copies in Chinese hamster fibroblasts expressing mutations in the nuclear genes coding for succinate dehydrogenase (SDH) 2008 Annual Retreat on Cancer Research in NJ, Piscataway, NJ May, 2008

186. HZ Hill, DR Spitz, JJ Dermody, RJ Donnelly, D Dayal, K Owens Quantification of total and deleted mitochondrial DNA copies in Chinese hamster fibroblasts expressing mutations in the nuclear genes coding for succinate dehydrogenase (SDH). Biennial Meeting of the American society for Photobiology, Burlingame, CA June, 2008

187. HZ Hill Quantification of reactive oxygen species damage to mitochondrial DNA after radiation and H2O2. Biennial Meeting of the American society for Photobiology, Burlingame, CA June, 2008

188 HZ Hill, D Dayal, K Owens, JJ Dermody, RJ Donnelly, DR Spitz Quantification of total and deleted mitochondrial DNA copies in Chinese hamster fibroblasts expressing mutations in the nuclear genes coding for succinate dehydrogenase (SDH) Platform and Mini-Symposium presentation Annual Meeting Radiation Research Society, Boston, MA September, 2008

189 HZ Hill, EI Azzam, Z Yang, M Galdass, S de Toledo, D Spitz, J Dermody Effect of ionizing radiation and serum concentration on mitochondrial DNA copies of Chinese hamster cells deficient in electron transport. Abstracts 55th Annual Meeting of the Radiation Research society, Savannah, GA October, 2009

190 Böhm, M., A Kokot, TA Luger, J Dermody, HZ Hill. Mitochondrial metabolism and DNA integrity – novel targets for -MSH and UVB in human keratinocytes and melanocytes Munster, GERMANY September 2009

191 HZ Hill Solar Radiation and Melanin TriPrinceton Networking Event Princeton, NJ May, 2010

192 M Böhm, TA Luger, J Dermody, HZ Hill. Mitochondrial metabolism and DNA integrity – novel targets for MSH on human keratinocytes and melanocytes after UVB radiation. Experimental Dermatology **19**:174, Feb, 2010

193 HZ Hill. Solar Radiation and Melanin: Photo-Damage in human keratinocytes and melanocytes modulated by incubation with alpha-MSH. Abstract 35th Meeting of the American Society for Photobiology Providence, RI June 2010

194 BW Lee (NJMS 2013), D Herzog, J Pirak, H Shafi (NJMS 2012), M Barry, HZ Hill, SC Feldman. BOLD FMRI as a Novel Biomarker for Characterizing Plaque in Multiple Sclerosis Poster presented at The Advances in Imaging and Genomics Innovative Research Technologies to Bridge Bench to Bedside. 3rd Annual UMDNJ Inter-School Technology Symposium, RWJMS Piscataway, NJ April, 2011

195 BW Lee (NJMS 2013), D Herzog, J Pirak, H Shafi (NJMS 2012), M Barry, HZ Hill, SC Feldman. BOLD FMRI as a Novel Biomarker for Characterizing Plaque in Multiple Sclerosis Poster presented at The Consortium of Multiple Sclerosis Centers Annual Meeting, Montreal, Quebec June, 2011

196 HZ Hill and J Pitt. The need for access to raw data used in reports and publications ~ *Qui tam*, a radiobiology case in point. Abstract 36th Meeting of the American Society for Photobiology, Montreal, Quebec, CANADA June 2012

197 J Pitt and HZ Hill. Statistical Identification of Fabricated Data. Abstract Statistics: Practice and Pedagogy Special Session of the MAA New Jersey Section Meeting, Felician College, Lodi, NJ April 2013

**REVIEWS**

1. **HZ HILL**. Book review of Short-term interactions between cell surfaces by L Weiss and JP Jarlos in Progress in Surface Science 1:355-405, 1972, J Colloid and Interface Science 41:394, 1972.

2. **HZ HILL**. "Peer review: preventing 'nepotism'". Letter: Science 194:894 1976.

3. **HZ HILL**. Book review of Cell Cycle Regulation (Cell Biology Monograph Series), edited by JR Jeter, IL Cameron, GM Padilla and AM Zimmerman, BioScience 29:46, 1979.

4. **HZHILL**, Editorial Comments re: Detection of X-ray damage repair by the immediate versus delayed plating technique is dependent on cell shape and cell concentration by NMS Reddy, M Kapiszewska and CS Lange. Scanning Microscopy 6: 543-559, 1992.

5. As Anonymous reviewer.[Review of the article 'Euthanasia ' by Najimudeen M].WebmedCentral Medical Ethics

 2013;4(2):WMCRW002501

**INVITED TALKS:**

NIH, NIAID, Bethesda, MD: "A model for UV and photoreactivation effects in Euglena", February 1963

Colorado Medical Society Annual Meeting, Colorado Springs: "Porphyria", September 1968

National Jewish Hospital, Denver, CO: "Galactose metabolism and its relation to human genetic disease", April 1971

University of Colorado Medical Center, Denver, CO: "Galactose gene action in mammalian cells", May 1971, Faculty Seminar

Saigon University School of Medicine, Saigon, South Vietnam: "Galactosemia - Antenatal diagnosis", April 1972

Mallinkrodt Institute of Radiology, St. Louis, MO: "A model system for the pre-natal diagnosis of inherited biochemical diseases:galactosemia, September 1974

Washington University, Department of Biology, St. Louis, MO: "Ante-natal diagnosis and human molecular disease", September 1973

Washington University School of Medicine, Department of Obstetrics and Gynecology: "Detection of inborn errors of metabolism, March 1975

Washington University, Department of Biology, Plant Seminar, St. Louis, MO: "UV and photoreactivation effects in Euglena", January 1976

Southern Illinois University, Chemistry Department, Edwardsville, IL: "Radiation response in melanoma", April 1976

Society of the Sigma Xi, Marshall University Club, Huntington, WV: "Amygdalin and cancer", March 1978

Association of VA Surgeons, St. Louis, MO: "Synergistic effect of DTIC and L-PAM combination treatment on the Harding-Passey melanoma in C3D2F1 mice", May 1978

Tumor Registrars' Workshop, Huntington, WV: "Update on research in malignant melanoma", September 1979

Marshall University School of Medicine, Biochemistry Department, Huntington, WV: "Radiation and melanoma", October 1979

Society of the Sigma Xi, Marshall University Club, Huntington, WV: "Melanoma: A biologist looks at the black cancer", February 1981

New Jersey Society of Radiation Technologists, Radiation Therapy District, Fall Seminar, Clark, NJ: "Radiation research and the technologist", September 1981

New Jersey Medical School, Biochemistry Department: "Does replicon joining use the same enzymatic machinery as post-replication repair? December, 1981

New Jersey Medical School, Anatomy Department: "Combination chemotherapy studies using a mouse melanoma model", February 1982

American Cancer Society, New Jersey Division, 1983 Volunteer Conference, New Brunswick, NJ: "What can professional education do for you?" February 1983

American Cancer Society, New Jersey Division, 1983 Staff Conference, Spring Lake, NJ: "Of mice and men", June 1983

American Cancer Society, Mercer County Annual Meeting, Trenton, NJ: "Of mice and men", October 1983

Ruth Estrin Goldberg Memorial for Cancer Research Annual Meeting: "An intra-operative radiation therapy mouse model", April 1984

Department of Biophysics, Institute of Molecular Biology, Jagiellonian University, Krakow, Poland: "Radiation and chemotherapy effects in melanoma", January 1985

VIth European Workshop on Melanin Pigmentation, Murcia, Spain: "Melanins as free-radical scavengers", September 1985

Continuing Seminars in Education, sponsored by Tumor Registrars Association of NJ: "Cancer in the Family? Preventive Measures", American Cancer Society, North Brunswick, NJ, October 1985

Gelb Foundation Symposium on Melanin: "Exogenous Melanin Causes DNA Strand Breaks and is Synergistic with Ionizing Radiation", Stamford, CT, September 1986

Brookhaven National Laboratories, Biology Department: "Melanin, Solar Carcinogenesis and Radiation Therapy", Upton, NY, March 1987

Dermatology Grand Rounds, NJ Medical School, "Radiobiology of Skin", Newark, NJ, March 1987

Argonne National Laboratories, Division of Biological and Medical Research: "Photo- and Radiobiology of Melanin", Argonne, IL, September 1987

European Society for Pigment Cell Research, participant in Symposium on "Chemistry and Photobiology of Melanin", Sorrento, Italy, October 1987

American Cancer Society, NJ Division, Conference on Major Currents in Breast and Gynecological Cancers: "Research - What the future holds", with GJ Hill, West Orange, NJ, November 1987

Marshall University School of Medicine, Biomedical Sciences Seminar: "Melanin, Photoprotector or Photosensitizer?" Huntington, WV, October 1988

NJ Medical School, Cancer Research Colloquium: "Melanin, Photoprotector or Photosensitizer?" Newark, NJ, October 1988

UMDNJ-University Hospital Blood Bank lecture series: "Application of Radiation Biology to Blood Banking", Newark, NJ, February 1989

National Institutes of Health, National Cancer Institute: "Melanin: Photoprotector or Photosensitizer?" Bethesda, MD, February 1989

American Cancer Society, NJ Division, Cancer Survivors Day speaker: "Cancer research", North Brunswick, NJ, April 1989

Cambridge University: "Photobiology of melanin and the radiation biology of melanoma", Cambridge, UK, June 1989

Eleanor Roosevelt Institute for Cancer Research: "Melanin in the photobiology of skin cancer and the radiobiology of melanoma", Denver, CO, January 1990

Participant, Mini-symposium: "DNA Damage Repair, Mutation and Disease: Molecular and Cellular Aspects", Colorado State University, January 1990, Fort Collins, CO

Rutgers University College of Pharmacy, Department of Chemical Biology and Pharmaconosy: "Melanin in the photobiology of skin cancer and the radiobiology of melanoma", Piscataway, NJ, June 1990

Rutgers University, Department of Biological Sciences: "Melanin, skin cancer and melanoma", Newark, NJ, September 1990

Participant, 2nd annual Mini-symposium: "DNA Damage Repair, Mutation and Disease: Molecular and Cellular Aspects", Colorado State University, February, 1991, Fort Collins, CO

Temple University School of Medicine, "The Resurrection Factor: Transfer of Radioresistance in melanoma", Philadelphia, PA, June, 1991

Plenary session speaker, IIIrd Meeting PanAmer Soc Pigment Cell Research, July 11, 1991, Edmonton, Alberta, CANADA

Plenary session speaker, 3rd annual meeting, European Society for Pigment Cell Research, Amsterdam, NETHERLANDS, Sept, 1991

Participant, 4nd annual Mini-symposium: "DNA Damage Repair, Mutation and Disease: Molecular and Cellular Aspects", Colorado State University, February, 1993, Fort Collins, CO

State University of New York Health Science Center at Brooklyn, "Interesting findings in melanoma" Nov 18, 1991

Plenary session speaker, AACR Special Conference on Cellular Responses to Environmental DNA damage, Banff, Alberta, CANADA, Dec, 1991: "The role of melanin in the photo- and radiobiology of malignant melanoma"

Univ Massachusetts Dept of Biochemistry and Molecular Biology "Photo- and Radiobiology of melanin and melanoma" Feb 18, 1992

Brookhaven National Laboratory Dept of Biology "Is tanning carcinogenic?" Aug 3, 1992

National Cancer Institute, NIH, Laboratory of Cellular Biology "Is tanning carcinogenic?" Sep 11, 1992

Participant, 4nd annual Mini-symposium: "DNA Damage Repair, Mutation and Disease: Molecular and Cellular Aspects", Colorado State University, February, 1993, Fort Collins, CO

Lecture series sponsored by the American Cancer Society, the NCI, Bolivian Cancer Society and the Cancer Institute of Eastern Bolivia on "Current Aspects of Surgical Oncology and Cancer Biology" presented at the Departments of Medicine and Surgery, Faculty of Medicine, La Paz and the Cancer Institute of Eastern Bolivia, Santa Cruz, BOLIVIA. Lectures on 8/12, 8/13, 8/14 (La Paz) and 8/16, 8/17 (Santa Cruz) 1993

Plenary presentation: **HZ HILL**, GJ Hill, I Chowdhary, U Schlehaider. Split dose recovery (SDR) and double strand break (DSB) repair of radiation sensitive and resistant melanoma cells after gamma ray exposure. XVth International Pigment Cell Conference, London, ENGLAND, 29 Sep 93

'Role of Melanin in the Photobiology of Melanoma', Rutgers University School of Pharmacy, Mar 1994

'Is melanin photoprotective or is it photosensitizing? Lunch time debate, Melanin Symposium, Washington, DC, Mar 1994

‘A multi-therapy resistance factor from melanoma’ Biochemistry Department Faculty Seminar, NJ Medical School, Jan 1996

‘A multi-therapy resistance factor from melanoma’. Department of Surgery, NJ Medical School, Mar, 1996.

‘A multi-therapy resistance factor from melanoma’. Centers for Laboratory Investigation and Continuing Education, NJ Medical School, Mar, 1996.

‘A multi-therapy resistance factor from melanoma’. Program of Molecular and Cellular Biology, Wistar Institute, Phila., PA May, 1996.

‘Melanins and photoprotection’. Fondation Rene Touraine, Scientific Meeting, Paris, France, Oct, 1996.

‘Melanin -- the two-edged sword?’ Workshop on Extracutaneous Melanin, Melanocytes and Melanogenesis, XVIth International Pigment Cell Conference, Anaheim, CA, Oct, 1996

‘A novel mechanism for radiation and chemotherapy resistance in melanoma’ Department of Radiation Oncology, University of Pennsylvania Medical Center, Philadelphia, PA Jan, 1997

‘Radiation resistance in melanoma’ Colorado State University, Cell and Molecular Biology Graduate Program, Ft. Collins, CO, Mar, 1997.

’A factor that rescues tumor cells from radiation death’ Seminar Series: Current Topics in Cancer Research – Student Summer Research Program, July,1997

 ‘A Radiation and Chemotherapy Resistance Factor from Melanoma’ Department of Medicine, UMDNJ-NJ Medical School, March, 1998

‘Purification of a multi-therapy resistance factor from melanoma’. Focus Session of the Annual Retreat on Cancer Research in New Jersey, Princeton, NJ. May, 1998

‘Purification of a complex protein that rescues melanoma cells from radiation and chemotherapy death. Symposium on the Mechanism f Radiation Resistance. Annual Meeting of the American Society for Photocbiology, Snowbird, UT, July, 1998

 ‘Induction of both phaeomelanin and eumelanin decreases killing of melanoma cells by reactive oxygen species. ’ Workshop on UV, Accessory to Melanoma – If So, How? Annual Meeting of the American Society for Photocbiology, Snowbird, UT, July, 1998

’A factor that rescues tumor cells from radiation death’ Seminar Series: Current Topics in Cancer Research – Student Summer Research Program, 1998

‘A radiation and chemotherapy rescue factor from melanoma’ Coriell Institute for Medical Research, Camden, NJ, Dec 8, 1998

‘Radiation resistance factor from melanoma’ Thomas Jefferson University, Philadelphia, PA, Feb 1, 1999.

‘Defining the role of melanins in photoprotection.’ XVIIth International Pigment Cell Conference, Nagoya, JAPAN, Nov 2, 1999

‘Review of the radiobiology of pigment cells.’ 9th Eur Soc Pigment Cell Research Meeting, Ulm, GERMANY, Sept 29, 2000

‘Induction of the Common Deletion in Mitochondrial DNA by Ionizing Radiation and Solar Simulated UV’ Cancer Research Colloquium, New Jersey Medical School, Newark, NJ October 2004

‘Sunlight and Skin Cancer’ lecture in course on Cancer and the Environment for CCNY/MSK Partnership and City College High School for Math, Science and Engineering, February 12, 2007

‘Chemical and Radiation Carcinogenesis’ in course on Smoking and Lung Cancer for CCNY/MSK Partnership and City College High School for Math, Science and Engineering, January 31, 2008

**Invited Speaker, ASP/RRS Symposium on Mitochondrial ROS, American Society for Photobiology, Burlingame, CA June 25, 2008**

**‘Skin Cancer’** lecture in course on Cancer and the Environment for CCNY/MSK Partnership and City College High School for Math, Science and Engineering, March 5, 2009; February 9, 2011

Invited Speaker. “Importance of Open Access to Research Data” East Orange VAMC, East Orange, NJ July 18, 2012.

**OTHER ACTIVITIES:**

Discussion of genetic engineering and superbabies on Station KSD, Huntington, WV, March 1980

Discussion of Interferon for the American Cancer Society, West Virginia Division, WSAZ-TV, April 1980

Discussion leader at Smith College Alumnae College, Northampton, MA, May 1980

Poster presentation: "Is post-replication repair a unique process in mammalian cells?" Gordon Conference on Mutagenesis, Biological and Chemical Mechanisms, Andover, NH, July 1980

Organizer and panel discussion Chairman, Continuing Medical Education Symposium on "Genetic Programs in West Virginia Today", December 1980

Television interview to discuss the basic biology of cancer therapy, WOWK-TV, Huntington, WV, January 1981

Guest expert for the Essex County Medical Society on the Weekly Health Hour, Station WNJR, May 1982

Poster presentation: "Effects of caffeine on DNA replication in mouse melanoma cells", Gordon Conference on Chemotherapy of Experimental and Clinical Cancer, New London, NH, July 1982

Interviewed for radio station WRVM, Haslett, NJ, to discuss skin cancer, November 1984

Consultant to the American Cancer Society, New Jersey Division, on Cancer of the Skin, 1984-present

Television discussion on "Skin Cancer", Health Information Network, sponsored by the American Cancer Society, July 31, 1985

Chairman, poster session on Radiosensitizers and Radioprotectors, 14th International Cancer Congress, Budapest, HUNGARY, August 25, 1986

Chairman, platform session, New Jersey Commission on Cancer Research Workshop on Cancer Research in New Jersey, 1986

Poster presentation, Johns Hopkins University School of Hygiene and Public Health: **HZ HILL**, CA Huselton and GJ Hill, "Melanin protects against direct effect and enhances indirect effect photodamage in DNA of Cloudman S91 mouse melanoma cells{", Laurel, MD, June 1987

Member, American Cancer Society, New Jersey Division, Public Education Committee, 1987- ; Subcommittee on Melanoma and Skin Cancer Detection, 1986-

Co-chairman, mini-symposium, **Ultraviolet Effects**, Radiation Research Society, Annual Meeting, April 1988, Philadelphia, PA

Co-chairman, mini-symposium, **Structure and function of melanins**, PanAmerican Society for Pigment Cell Research, Annual Meeting, April 1989, Bethesda, MD

Co-chairman, platform session, **Photobiology of melanin pigmentation**, European Society for Pigment Cell Research, Meeting, June 1989, Uppsala, SWEDEN

Poster Presentation: **HZ HILL,** J Bargellini, Z Trizna and GJ Hill. "Induction of double strand breaks by low LET ionizing radiation in DNA of mouse melanoma cells varying in intracellular melanin." NJ Commission on Cancer Research 4th Annual Workshop on Cancer Research in New Jersey, October 1990, Princeton. NJ

Poster Presentation: GJ Hill, M Ali, U Schlehaider, **HZ HILL**. "Characteristics of a radiation rescue factor (RF) produced by S91 mouse melanoma cells in vitro". Society of Surgical Oncology Annual Meeting New York, NY, Mar 17, 1992

UMDNJ Presenter for June 8, 1993 Cancer Briefing for media representatives

Ad hoc grant reviewer for NSF (2 grants); Veterans' Administration Merit Review, 1993

Reviewer for promotion to tenure of Dr. Thomas Hei, Department of Radiobiology, Columbia University, 1993

Reviewer for promotion to tenure of Dr. Patricia Gallagher, Department of Biochemistry, West Virginia University, 1993

Poster Presentation: J Cosmi, GJ Hill, **HZ Hill**, K Cieszka. "Solar induced DNA-protein cross-links in pigmented melanoma cells". Annual Workshop on Cancer Research in New Jersey, November, 1993, Piscataway, NJ.

Co-Chairman platform session, Annual Meeting American Society for Photobiology 'Photobiology of the dermis' June 1994

Ad hoc member of the American Cancer Society Advisory Committee on Cell Biology, Jan 22-23, 1995.

Member of the Task Force for New Item Development (Board questions on Radiation Biology) for the American Board of Radiology, 1994-1996.

Captain of judges for medical science projects at the North Jersey Science Fair, Morristown, NJ March, 1995.

Co-Chairman Contributed Papers Session ‘UV Photobiology’, Annual Meeting American Society for Photobiology June, 1995

Organizer and Co-Chairman ‘Melanin’ Symposium Annual Meeting American Society for Photobiology June, 1996

Co-Chairman, afternoon session. ‘The Melanocyte’ Fondation Rene Touraine, Scientific Meeting, Paris, France, Oct, 1996.

Co-Chairman, Workshop on Extracutaneous Melanin, Melanocytes and Melanogenesis, XVIth International Pigment Cell Conference, Anaheim, CA, Oct, 1996

Poster Presentation, HZ Hill, H Tang, S Zhou, HC Silva, W Li and F Kueppers. Immunological inactivation of an autocrine multitherapy resistance factor (MTRF) from melanoma. 45th Annual Meeting of the Radiation Research Society, Providence, RI, May, 1997.

Co-Chairman, Minisymposium on Photobiology and biophsyics of melanin and melanocytes, 7th Annual Meeting of the PanAmerican Society for Pigment Cell Research, Providence, RI, June, 1997

Co-Chairman, Platform Session on Environmental Photobiology and UVR Effects, 25th Annual Meeting of the American Society for Photobiology, St. Louis, MO, July, 1997.

Poster Presentation, HZ HILL and H Tang. Western blot analysis of serum-free conditioned medium (SFCM) that rescues cultured melanoma cells from radiation and chemotherapy. 46th Ann Meeting Radiation Research Soc. Louisville, KY, April, 1998

Representative for Brandeis University at the inauguration of Stuart D. Cook, M.D. as President of the University of Medicine and Dentistry of New Jersey, April 9, 1999.

Co-Chairman, Platform Session on Environmental Photobiology/Sunscreens, 29th Annual Meeting of the American Society for Photobiology, Chicago, IL July 10, 2001.

Co-Chairman, Platform Session of Contributed Papers, American Society for Photobiology, Baltimore, MD July 9, 2003.

Co-Chairman, Platform Session of Contributed Papers, American Society for Photobiology, Seattle, WA July 14, 2004.

Oral Presentation, ‘Induction of the common deletion in mitochondrial DNA by ionizing radiation and solar simulated UV’ Cancer Center Community (CCC)**Cancer Research Colloquium, Oct 29, 2004**

**Co-Chairman, Platform Session on Photobiology, 19th International Pigment Cell Conference, Reston, VA, September, 2005**

**Speaker on Sunlight and Skin Cancer, High School at CCNY, New York, NY, March, 2007**

**Speaker on Cigaret Smoking and Lung Cancer, High School at CCNY, New York, NY, March, 2008**

**Co-Chairman, Platform Session of Contributed Papers, American Society for Photobiology, Burlingame, CA June 23, 2008**

**Co-Chairman, Platform Session on DNA Damage and Repair, Radiation Research Society, Boston, MA September 21, 2008**

**WORKSHOPS AND GRADUATE EDUCATION:**

Tumor Biology, Harvard Medical School, November 15-19, 1976

ICN-UCLA Symposia: DNA Repair Mechanisms, 1978; DNA Replication and Recombination, 1980; Mechanisms of Chemical Carcinogenesis, 1981; Rational Basis for Chemotherapy, 1982, Cellular Responses to DNA Damage, 1983

UCLA Symposium: Mechanisms and Consequences of DNA Damage Processing, 1988; Genetic Mechanisms in Carcinogenesis and Tumor Progression, 1989

Gordon Conferences: Mutagenesis: Biological and Chemical Mechanisms, 1980, 1982; Chemotherapy of Experimental and Clinical Cancer, 1980, 1982, 1983, 1986

Waters Associates LC Short Course, January 1984

New Jersey Commission on Cancer Research Workshop on Cancer Research in New Jersey, 1986, 1987, 1989

UCLA Symposium: Mechanisms and consequences of DNA damage processing, Taos, NM, January 1988; Genetic mechanisms in carcinogenesis and tumor progression, Keystone, CO, January 1989

NIH Consensus Conference: Sunlight, UV and skin, Bethesda, MD, May 1989

UMDNJ-University Libraries: Medical Literature Searching Using Grateful Med Software, Newark, NJ, June 1990

Rutgers University: Recombinant DNA Techniques: An Introductory Laboratory Course, New Brunswick, NJ, June 1990

Waters Associates: Essentials in Bioresearch, Seminar, June 14, 1991

Sepracor Inc: Purification of Protein Biologics, One Day Workshop, June 14, 1991

Keystone Symposium: Melanoma and Diseases of the Neural Crest, Taos, NM, Feb 1-8, 1992

Keystone Symposium on the Molecular Biology of Aging, Lake Tahoe, CA, March, 1993

Annual Workshop on Cancer Research in New Jersey, November 1993-96

International Workshop on the Tumor Microenvironment: An important paradigm in cancer etiology and treatment, Edgartown, MA, April, 1997.

Pharmacia Biotech: Electrophoresis Seminar, Somerville, NJ, May, 1997.

Photoshop Seminar, Freehold, NJ, July, 2003.