

## CURRICULUM VITA-Philip (Phil) S. Hartman

**1. Educational background:** B.S., Iowa State University, 1975  
Ph.D., University of Missouri, 1979

**2. Present rank and position:**

- Professor, Department of Biology, Texas Christian University

**3. Previous teaching and/or research appointments, other than at TCU:**

A. Part time: Graduate Teaching Assistant, 1976-77, 1978-79, University of Missouri; courses taught: General Biology, Microbiology, Genetics, Molecular Genetics.

National Institutes of Health Pre-Doctoral Fellow, 1975-76, University of Missouri; investigated near-UV photobiology of *Escherichia coli*

B. Full time: National Science Foundation Postdoctoral Fellow, 1979-80; American Cancer Society Postdoctoral Fellow, 1980-81, University of Minnesota; Isolation and characterization of radiation-sensitive mutants of *Caenorhabditis elegans*.

**4. Graduate theses and dissertations directed:**

Mason Yockey, Graduated August, 2013  
Anh Nguyen, Graduated August, 2009  
Sylvia Zuber, Graduated December, 2002  
R. Giselle Huet, Graduated August, 2002  
Larry Miller, Graduated August, 1998  
Dan Lewicki, Graduated August, 1997  
Dee Mills, Graduated August, 1993  
Clark Jones, Graduated August, 1992  
Dan DeWilde, Graduated December, 1992  
Jennifer Reddy, Graduated December, 1989  
Betty-Ann Svendsen, Graduated May, 1989  
Vangipuram Dwarakanath, Graduated December, 1987  
Julie Hevelone, Graduated May, 1987  
Katelijne Flies, Graduated Summer, 1985

**5. Publications in peer-reviewed journals** (does not include 24 publications in non-peer reviewed journals) (cited over 3000 times according to Web of Science; h-index = 22; average citations per item=37)

Hartman, Paul A., Philip S. Hartman, and Kevin T. Frey. 1975. Longevity of dehydrated violet red bile agar. *Applied Microbiol* 29:295-296.

Hartman, Paul A., and Philip S. Hartman. 1976. Coliform analysis at 30°C. *J. Milk Food Technol.* 39:763-767.

- Hartman, Paul A., Philip S. Hartman, and Wayne W. Lanz. 1975. Violet red bile 2 agar for stressed coliforms. *Applied Microbiol* 29:537-539.
- Hartman, P.S. and A. Eisenstark. 1978. Synergistic killing of *Escherichia coli* by near-UV radiation and hydrogen peroxide: distinction between RecA-repairable and RecA-nonrepairable damage. *J. Bacteriol.* 133:769-774.
- Ananthaswamy, H.N., P.S. Hartman, and A. Eisenstark. 1979. Synergistic lethality of phage T7 by near-UV radiation and hydrogen peroxide: an action spectrum. *Photochem. Photobiol* 29:53-56.
- Hartman, P.S., A. Eisenstark, and P.G. Pauw. 1979. Near-ultraviolet radiation plus H<sub>2</sub>O<sub>2</sub> inactivation of phage T7: induction of DNA-protein crosslinkage which prevents injection. *Proc. Nat. Acad. Sci. U.S.A.* 76:3228-3232.
- Wang, R.J., H.N. Ananthaswamy, B.T. Nixon, P.S. Hartman, and A. Eisenstark. 1980. Induction of single-stranded DNA breaks in human cells by H<sub>2</sub>O<sub>2</sub> formed in blacklight irradiated medium. *Radiat. Res.* 82:269-276.
- Hartman, P.S., and A. Eisenstark. 1980. Killing of *Escherichia coli* K-12 by near ultraviolet radiation plus hydrogen peroxide: role of double-strand DNA breaks in the absence of recombinational repair. *Mutat. Research* 72:31-42.
- Hartman, Philip S. 1981. A model to explain certain near-UV radiation effects. *Photochem. Photobiol* 34:39-43.
- Hartman, Philip S. and A. Eisenstark. 1982. Alternation of bacteriophage attachment capacity by near-UV irradiation. *J. Virol.* 43:529-532.
- Hartman, Philip S. and Robert K. Herman. 1982. Radiation-sensitive mutants of *Caenorhabditis elegans*. *Genetics* 102:159-178.
- Hartman, Philip S. and Robert K. Herman. 1982. Somatic damage to the X chromosome of the nematode *Caenorhabditis elegans* induced by gamma radiation. *Molec. Gen. Genet.* 187:116-119.
- Herman, Robert K., Clair, K. Kari, and Philip S. Hartman. 1982. Dominant X chromosome nondisjunction mutants of *Caenorhabditis elegans*. *Genetics* 102:379-400.
- Hartman, Philip S. 1984. UV irradiation of wild type and radiation-sensitive mutants of the nematode *Caenorhabditis elegans*: fertilities, survival, and parental effects. *Photochem. Photobiol.* 39:169-175.
- Hartman, Philip S. 1984. Effects of age and liquid holding on the UV-radiation sensitivities of wild- type and mutant *Caenorhabditis elegans* dauer larvae. *Mutat. Res.* 132:95-99.

Hartman, Philip S. 1985. Epistatic interactions of radiation-sensitive (*rad*) mutants of *Caenorhabditis elegans*. *Genetics* 109:81-93.

Hartman, Philip S. 1986. *In situ* hydrogen peroxide production may account for some near-UV radiation killing of *Escherichia coli*. *Photochem. Photobiol.* 43:87-89.

Eisenstark, A., R.L. Buzard, and P.S. Hartman. 1986. Effects of near-UV radiation and hydrogen peroxide on bacteriophage. *Photochem. Photobiol.* 44:603-606.

Keller, Cindy, John Calkins, Philip S. Hartman, and Claud S. Rupert. 1986. UV photobiology of the nematode *Caenorhabditis elegans*: action spectra, absence of photoreactivation and effects of caffeine. *Photochem. Photobiol.* 46:483-488.

Hartman, Philip S. 1987. Caffeine-resistant mutants of *Caenorhabditis elegans*. *Genetical Research* 49:105-110.

Hevelone, Julie and Philip S. Hartman. 1987. Isolation and characterization of a nuclease from *Caenorhabditis elegans*. *Biochemical Genetics* 26:447-461.

Johnson, Thomas and Philip S. Hartman. 1988. Radiation effects on life-span in *Caenorhabditis elegans*. *J. Gerontol* 43B:137-141.

Hartman, Philip S., Victoria J. Simpson, Thomas Johnson, and David Mitchell. 1988. Radiation sensitivity and DNA repair in *Caenorhabditis elegans* strains with different mean life spans. *Mutat. Res.* 208:77-82.

Hartman, Philip S., David L. Mitchell, Julie Hevelone, and V. Dwarakanath. 1989. Excision repair of UV radiation-induced DNA damage in wild-type *Caenorhabditis elegans*. *Genetics* 122:379-385.

Mitchell, David and Philip S. Hartman. 1990. Developmental regulation of DNA repair. *BioEssays* 12:74-79.

Hartman, Philip S., Betty-Ann Svendsen, Jennifer Reddy and David Mitchell. 1990. DNA repair in the nematode *Caenorhabditis elegans*. UCLA Symposia on Molecular and Cellular Biology, New Series 123:67-80 (C.E. Finch and T.E. Johnson, eds.).

Hartman, Philip S., Jennifer Reddy, and Betty-Ann Svendsen. 1991. Does translesion synthesis explain the UV radiation-resistance of DNA synthesis in *Caenorhabditis elegans* embryos? *Mutat. Res.* 255:163-173.

Hartman, Philip S. 1991. Transillumination can profoundly reduce transformation frequencies. *BioTechniques* 11:747-748.

- Hartman, Philip S. and Anne Marshall. 1992. Inactivation of wild-type and rad mutant *Caenorhabditis elegans* by near-UV radiation and 8-methoxypsoralen. *Photochem. Photobiol* 55:103-112.
- Ishii, Naoki, Norio Suzuki, Philip S. Hartman and Kenshi Suzuki. 1993. The radiation-sensitive mutant *rad-8* of *Caenorhabditis elegans* is hypersensitive to the effects of oxygen on aging and development. *Mechanisms of Ageing and Development*. 69:1-10.
- Ishii, Naoki, Norio Suzuki, Philip S. Hartman, and Kenshi Suzuki. 1994. The effects of temperature and oxygen on aging of the *rad-8* mutant of *Caenorhabditis elegans*. *Journal of Gerontology* 49, B117-B120.
- Hartman, Phil S., Daniel DeWilde, and Vangipuram Dwarakanath. 1995. Genetic and molecular analyses of UV radiation-induced mutations in the *fem-3* gene of *Caenorhabditis elegans*. *Photochemistry and Photobiology*, 61, 607-614.
- Hartman, Phil, Evelyn Childress, and Todd Beyer. 1995. Nematode development is inhibited by methyl viologen and high oxygen concentrations at rates inversely proportional to life span. *J. Gerontol.* 50A, B322-B326.
- Jones, Clark and Philip S. Hartman, 1996. Replicon sizes in UV irradiated *Caenorhabditis elegans* embryos. *Photochemistry and Photobiology* 63(2): 187-192.
- Hartman, Philip S. Paul Goldstein, Marcella Algarra, Darren Hubbard, and Jared Mabery, 1996. The nematode *Caenorhabditis elegans* is up to 39 times more sensitive to gamma radiation generated from <sup>127</sup>Cs than from <sup>60</sup>Co. *Mutation Research* 363: 201-209.
- Ishii, Naoaki, Michihiko Fujii, Philip S. Hartman, Michio Tsuda, Kayo Yasuda, Nanami Senoo-Matsuda, Sumino Yanase, Dai Ayusawa, and Kenshi Suzuki. 1998. A mutation in succinate dehydrogenase cytochrome b causes oxidative stress and aging in nematodes. *Nature* 394; 694-697.
- Mills, DeEtta and Philip S. Hartman. 1998. Lethal Consequence of Simulated Solar Radiation on the Nematode *Caenorhabditis elegans* in the presence and absence of Photosensitizers. *Photochem. Photobiol.* 68, 816-823.
- Hartman, Philip S. and Greg Nelson. 1998. Processing of DNA damage in the nematode *Caenorhabditis elegans*. *DNA damage and repair – Biochemistry, genetics and cell biology* (M. Hoekstra and J.A. Nickoloff, eds). Vol 1, pp. 557-576, Humana Press, New Jersey.
- Nelson, G.A., P.S. Hartman, W.W. Schubert, R.G. Kern, G.A. Karahians, D. Schranck, A. Hlavacek, E.V. Benton and E.R. Benton. 1999. Modification of Radiogenic damage by microgravity. In: *BioRack on Shuttle to Mir*. European Space Agency Special Publication ESA-SP-1222. E.S.A. Noordwijk, Netherlands, pp. 183-194.

Hartman, Phil and Naoaki Ishii. 1999. Isolating mutants of the nematode *Caenorhabditis elegans* that are hypersensitive to DNA-damaging agents. *Methods in Molecular Biology*, Vol. 113. DNA Repair Protocols: Eukaryotic Systems, Humana Press, New Jersey, pp. 11-16.

Yamase, Sumino, Philip S. Hartman, Atsushi Ito and Naoaki Ishii. 1999. Oxidative stress pretreatment increases the X-radiation resistance of the nematode *Caenorhabditis elegans*. *Mutation Res.* 426, 31-39.

Ishii, Naoaki and Philip S. Hartman. 2000. Oxidative stress and aging in *Caenorhabditis elegans* Results and Problems in Cell Differentiation. Vol. 29. The Molecular Genetics of Aging. Pp. 150-163.

Hartman, Phil. S., Anthony Hlavacek, Honor Wilde, Dan Lewicki, Wayne Schubert, Roger G. Kern, Gayane, A. Kazarinas, Eugene V. Benton, Eric R. Benton and Gregory A. Nelson. 2001. A comparison of mutations induced by accelerated iron particles versus those induced by low earth orbit space radiation in the *fem-3* gene of *Caenorhabditis elegans*. *Mutation Res.* 474, 47-55.

Hartman, Phil S., Naoaki Ishii, Ernst-Bernhard Kayser, Phil G. Morgan and Margaret M. Sedensky. 2001. Mitochondrial mutations differentially affect aging, mutability and anesthetic sensitivity in *Caenorhabditis elegans*. *Mechanisms of Ageing and Development* 122,1187-1201.

Senoo-Matsuda, Nanami, Kayo Yasuda, Michio Tsudua, Tomoichi Ohkubo, Shinichi Yoshimura, Hiroe Nakazawa, Phil S. Hartman and Naoaki Ishii. 2001. A defect in the cytochrome b large subunit in Complex II causes both superoxide anion overproduction and abnormal energy metabolism in *Caenorhabditis elegans*. *J. Biol. Chem.* 276, 41553-41558.

Ishiguro H, Yasuda K, Ishii N, Ihara K, Ohkubo T, Hiyoshi M, Ono K, Senoo-Matsuda N, Shinohara O, Yosshii F et al. 2001. Enhancement of oxidative damage to cultured cells and *Caenorhabditis elegans* by mitochondrial electron transport inhibitors. *IUBMB Life.* 51(4):263-268.

Ishii, Naoaki, K. Kita and Phil S. Hartman. 2002. Mitochondrial contributions to aging in the nematode *Caenorhabditis elegans*. *Current Genomics* 2:349-355.

Ishii, Naoaki, Sataro Goto and Philip S. Hartman. 2002. Protein oxidation during aging of the nematode *Caenorhabditis elegans*. *Free Radical Biology & Medicine* 33, 1021-1025.

Ichimiya, Harumi, R. Giselle Huet, Phil Hartman, Hisake Amino, Kiyoshi Kita and Naoaki Ishii. 2002. Complex II inactivation is lethal in the nematode *Caenorhabditis elegans*. *Mitochondrion* 2, 191-198.

Hartman, Philip S. Naoaki Ishii and Thomas E. Johnson. 2003. Genetic of Aging in the Nematode *Caenorhabditis elegans*. In: "Chromosomal Instability and Aging. Basic

Science and Clinical Implications" (edited by F.M. Hisama, S.M. Weissman and G.M. Martin), Marcell Dekker, Inc. New York, pp. 493-507.

Senoo-Matsuda, Nanami, Philip S. Hartman, Akira Akatsuka, Shinichi Yoshimura, and Naoaki Ishii. 2003. A Complex II Defect Affects Mitochondrial Structure, Leading to *ced-3*- and *ced-4*-dependent Apoptosis and Aging. *J. Biol. Chem.* 278, 22031-22036.

Hartman, Phil, Patrick Belmont, Sylvia Zuber, Naoaki Ishii, and Julie Anderson. 2003. Relationship between catalase and life span in recombinant inbred strains of *Caenorhabditis elegans*. *Journal of Nematology* 45, 325-331.

Ishii, N., N. Senoo-Matsuda, K. Miyake, K. Yasuda, Phil Hartman and S. Furukawa. 2004. Coenzyme Q can prolong *C. elegans* lifespan by lowering oxidative stress. *Mech. Ageing Develop.* 125, 41-46.

Ishii, N. and Phil Hartman. 2004. Electron transport and life span in *C. elegans*. *Energy metabolism and Life Span Determination. Advances in Cell Aging and Gerontology*. (Mark Mattson, ed). Pp. 177-195. (Elsevier Press).

Hartman, Phil, Rebecca Ponder, Heng-Hsiang Lo and Naoaki Ishii. 2004. Mitochondrial oxidative stress can lead to nuclear hypermutability. *Mech. Ageing Develop.* 125, 417-420.

Maski Kondo, Sumino Yanase, Takamasa Ishii, Philip S. Hartman, Kunihiro Matsumoto, Naoaki Ishii. 2005. The p38 signal transduction pathway participates in the oxidative stress-mediated translocation of DAF-16 to *Caenorhabditis elegans* nuclei. *Mech. Ageing. Develop.* 126: 642-647.

Kondo, Masaki, Nanami Senoo-Matsuda, Sumino Yanase, Takamasa Ishii, Philip S. Hartman and Naoaki Ishii. 2005. Effect of oxidative stress on translocation of DAF-16 in oxygen-sensitive mutants *mev-1* and *gas-1* of *Caenorhabditis elegans*. *Mech Ageing Develop.* 126: 637-641.

Ishii, Takamasa, Kayo Yausda, Akino Akatsuka, Ome Hino, Phil Hartman and Naoaki Ishii. 2005. A mutation in the SDHC gene of complex II increases oxidative stress, resulting in apoptosis and tumorigenesis. *Cancer Research* 65: 203-209.

Yasuda, K., T. Ishii, H. Suda, A. Akatsuka, Phil Hartman, S. Goto, M. Miyazawa, N. Ishii. 2006. Age-related changes in Mitochondrial structure and function in *Caenorhabditis elegans*. *Mechanisms of Ageing and Development* 127:763-770.

Ishii, Naoaki, Takamasa Ishii and Philip S. Hartman. 2006. The role of the electron transport gene SDHC on lifespan and cancer. *Experimental Gerontology* 41:952-956.

Hartman, Phil S., Naoaki Ishii. 2007. Chromosome dosage as a life span determinant in *Caenorhabditis elegans*. *Mechanisms of Ageing and Development* 128: 437-441.

Yamaguchi, T., A. Onodera, K. Yasuda, Y. Nishio, M. Arai, M. Tsuda, M. Miyazawa, Phil Hartman and N. Ishii. 2008. A low cost and quick assay system using the free-living nematode *Caenorhabditis elegans*. *Alternative Animal Testing & Experimentation* 13:1-10.

- Galbadage, Thushara and Phil S. Hartman. 2008. Repeated temperature fluctuation extends the life span of *Caenorhabditis elegans* in a *daf-16*-dependent fashion. *Mech. Ageing Develop.* 129: 507-514.
- Miyazawa, M, T. Ishii, M. Kirinashizawa, K. Yasuda, O. Hino, Phil S. Hartman and N. Ishii. 2008. Cell growth of mouse SDHC mutant cells was suppressed by apoptosis via a mitochondrial pathway. *BioScience Trends* 2:22-30.
- Miyazawa, M., T. Ishii, K. Yasuda, S. Noda, H. Onouchi, Phil S. Hartman and N. Ishii. 2009. The role of mitochondrial superoxide anion on physiological aging in C57BL/6J Mice. *J. Radiat. Res.* 54:213-218.
- Onodera, A., S. Yanase, T. Ishii, K. Yasuda, M. Miyazawa, Phil S. Hartman, and N. Ishii. 2010. Post-dauer life span of *Caenorhabditis elegans* dauer larvae can be modified by X-irradiation. *J. Radiat. Res.* 51: 67-71.
- Wang, Mengjia; Coffey, Jeffery; Dorraj, Katrina; Hartman, Phil; Loni, Armando; Canham, Leigh. 2010. Sustained Antibacterial Activity from Triclosan-Loaded Nanostructured Mesoporous Silicon. *Molecular Pharmaceutics* 7:2232-2239.
- T. Ishii, M. Miyazawa, A. Onodera, K. Yasuda, N. Kawabe, M. Kirinashizawa, S. Yoshimure, N. Maruyama, Philip. S. Hartman, and N. Ishii. 2011. Mitochondrial superoxide anion generation by the SDHC V69E mutation causes low birth weight and neonatal growth retardation. *Mitochondrion* 11:155-165.
- Fujii, Michihiko, Kayo Yasuda, Phil. S. Hartman, Dai Ayusawa and Naoaki Ishii. 2011. A mutation in a mitochondrial dehydrogenase/reductase gene causes an increased sensitivity to oxidative stress and mitochondrial defects in the nematode *Caenorhabditis elegans*. *Genes to Cells* 16: 1022-1034.
- Yasuda, Yayo, Phil S. Hartman, Takamasa Ishii, Hitoshi Suda, Akira Akatsuka, Tetsuji Shoyama, Masaki Miyazawa, and Naoaki Ishii. 2011. Interrelationships between mitochondrial fusion, energy metabolism and oxidative stress during development in *C. elegans*. *Biochem Biophys. Research Communications* 404:751-755.
- Ishii, T., T.M. Masaski, P. S. Hartman and N. Hishii. 2011. Mitochondrial superoxide anion: inducible “mev-1” animal models for aging research. *BMB Reports* 44: 298-305.
- Onouchi, H., T. Ishii, M. Miyazawa, P.S. Hartman and N. Ishii. 2012. Mitochondrial superoxide anion overproduction in Tet-mev-1 transgenic mice accelerates age-dependent corneal cell dysfunctions. *Invest. Ophthalmol. & Visual Sci.* 53, 5780-5787.
- Tang, Lynda, Arun Saharay, William Fleischer, P.S. Hartman, Armando Loni, L.T. Canham and J.L. Coffey. 2013. Sustained antifungal activity from a ketoconazole-loaded nanostructured mesoporous silicon. *Silicon* 5, 213-217.

Ishii, Takamasa, M. Masaki, H. Onouchi, K. Yasuda, P.S.Hartman, and N. Ishii. 2013. Model animals for the study of oxidative stress from complex II. *Biochimica Biophysica Acta-Bioenergetics* 1827, 588-597.

Hartman, Phil S., Barry, James, Finstad, Whitney, Khan, Numan, Tanaka, Masayuki, Yasuda, Kayo, Ishii, Naoaki. 2014. Ethyl methanesulfonate induces mutations in *Caenorhabditis elegans* embryos at a high frequency. *Mutation Res.-Fundamental and Molecular Mechanisms of Mutagenesis*. 766, 44-48.

Arribere, Joshua A., Bell, Ryan T., Fu, Becky X. H., Artiles, Karen L. Hartman, Phil S., Fire, Andrew Z. 2014. Efficient Marker-Free Recovery of Custom Genetic Modifications with CRISPR/Cas9 in *Caenorhabditis elegans*. *Genetics* 198, 837-842.

Wang, MJ, Hartman, P.S., Loni, A., Canham, L.A., Bodiford, N., Coffey, J.L. 2015. Influence of surface chemistry on the release of an antibacterial drug from nanostructured porous silicon. *Langmuir* 31, 6179-6185.

Kalluri, Jhansi R.; Gonzalez-Rodriguez, Roberto; Hartman, Phil S.; Loni, Armando, Canham, Leigh T., Coffey, Jeffery, L., 2016. Single Plant Derived Nanotechnology for Synergistic Antibacterial Therapies. *PLOS ONE* 11(Article Number: e0163270).

Wang, Mengjia; Hartman, Philip S.; Loni, Armando; Canham, Leigh T., Coffey, Jeffery L. 2016. Stain Etched Nanostructured Porous Silicon: The Role of Morphology on Antibacterial Drug Loading and Release *SILICON* 8: 525-531

Ishii, Takamasa; Takanashi, Yumi; Sugita, Koichi; Miyazawa, Masaki, Yanagihara, Rintaro, Yasuda, Kayo, Onouchi, Hiromi, Kawabe, Nobur, Nakata, Minehiro, Yamamoto, Yorihiro, Hartman, Phil S., Ishii, Naoaki. 2017. Endogenous reactive oxygen species cause astrocyte defects and neuronal dysfunctions in the hippocampus: a new model for aging brain. *AGING CELL* 16: 39-51

Dennis, Emily J; Dobosiewicz, May; Jin, Xin; Duval, Laura; Hartman, Philip S., Bargmann, C.I.; Vosshall, Leslie. 2018. A natural variant and engineered mutation in a GPCR promote DEET resistance in *C. elegans*. *Nature* 562:119-123.

**6. Invited Seminars** (does not include over 100 presentations at scientific meetings):

October 23, 1981 - Department of Biology, Texas Christian University, Title: Radiation sensitivity in the nematode *Caenorhabditis elegans*.

December 14, 1981 - Department of Radiology, University of Texas - Health Science Center, Dallas, TX. Title: Radiation sensitivity in the nematode *Caenorhabditis elegans*.

October 8, 1982 - Department of Biology, University of Texas-Arlington, Title: Radiation sensitive mutants of the nematode *Caenorhabditis elegans*.



June 7, 1983 - Department of Microbiology, Iowa State University, Ames, IA, Title: Genetics of radiation in *Caenorhabditis elegans*.

September 28, 1983 - Department of Microbiology, Texas College of Osteopathic Medicine, Fort Worth, TX. Title: Biochemistry of radiation resistance in the nematode *Caenorhabditis elegans*.

December 8, 1983 - University of Texas at Dallas. Department of Biology. Title: Genetics and biochemistry of radiation resistance in *Caenorhabditis elegans*.

November 9, 1984 - Department of Biology, Southern Methodist University. Title: Genetics and biochemistry of DNA repair in *Caenorhabditis elegans*.

January 16, 1985 - University of Texas Health Science Center, Dallas Department of Radiology. Title: Genetics and biochemistry of DNA repair in *Caenorhabditis elegans*.

February 19, 1986 - North Texas State University, Department of Biology. Title: Radiation biology of a nematode.

September 25, 1987 - Department of Biology, Texas Christian University. Title: DNA repair in the nematode *Caenorhabditis elegans*.

February 22, 1988 - Biochemistry Department. Texas College of Osteopathic Medicine. Title: Biochemistry of DNA repair in the nematode *Caenorhabditis elegans*.

March 11, 1989 - Plenary Session entitled DNA Repair and Aging at the UCLA Symposium on the Molecular Biology of Aging, Santa Fe, N.M. Title: DNA repair in the nematode *Caenorhabditis elegans*.

March 3, 1990 - MRC Group in Radiation Sciences, University of Sherbrooke, Quebec, Canada. Title: DNA repair in the nematode *Caenorhabditis elegans*.

October 31, 1991 - Department of Biology, University of Texas at El Paso. Title: DNA repair and mutagenesis in *Caenorhabditis elegans*.

May 12, 1992 - Tokai University School of Medicine, Isehara, Kanagawa (Sponsored by the Tokai Medical Association), Japan. Title: DNA repair and mutagenesis in the nematode *Caenorhabditis elegans*.

May 19, 1992 - National Cancer Center, Tokyo, Japan. Title: DNA repair and mutagenesis in the nematode *Caenorhabditis elegans*.

February 5, 1993. Gordon Conference on Mammalian DNA repair, Ventura, CA. Title: Two tales of a worm: UV mutagenesis and damage - resistant DNA synthesis.

July 22, 1993. Department of Biology, Kansas State University, Manhattan, KS. Title: UV radiation mutagenesis in the nematode *Caenorhabditis elegans*.

February 23, 1995. Department of Biology, University of Texas-Arlington. Title: Mutagenesis and DNA repair in the nematode *Caenorhabditis elegans*.

March 16, 1999. Tokai University, School of Medicine, Isehara, Kanagawa, Japan. Title: Aging and DNA repair in *C. elegans*.

April 8, 2000, Department of Pharmacology, Texas College of Osteopathic Medicine, Fort Worth, TX. Title: Three tales of aging and DNA repair in the nematode *Caenorhabditis elegans*.

April 23, 2001. Tokai University, School of Medicine, Isehara, Kanagawa, Japan. Title: Oxidative stress and mitochondrial function in *C. elegans*.

October 4, 2004. Department of Molecular Biology and Immunology. Texas College of Osteopathic Medicine, Fort Worth, TX. Title: Twenty-five years of worm tales.

March 12, 2006, Department of Biology, Baylor University, Waco, TX. Title: Twenty five years of worm tales.

February 14, 2008, Department of Biology, University of Texas-Arlington. Title: Oxidative stress and life span in the nematode *Caenorhabditis elegans*.

April 12, 2010. Biology Department, SMU, Title: Thirty years of worm tales: oxidative stress, aging and DEET resistance

April 23, 2010. Tokai University College of Medicine (Japan), Title: DEET resistance in the nematode *C. elegans*

## **7. Extramural grant support** (does not include 12 funded TCU/RCAF proposals):

Agency: National Institutes of Health

Proposal: Radiation sensitive mutants of the nematode *C. elegans*.

Total Funds Received: \$121,063

Funding Period: March 1, 1982, February 28, 1985

Agency: National Institutes of Health

Proposal: DNA repair in the nematode *C. elegans*

Total Funds Received: \$201,072

Funding Period: September 1, 1985 - November 31, 1988

Agency: National Institutes of Health  
 Proposal: UV Radiation Mutagenesis in *C. elegans*.  
 Total Funds Received: \$241,230  
 Funding Period: June 1, 1991 - May 31, 1994

Agency: Japanese Foundation for Aging and Health  
 Proposal: Genetic and Molecular Analysis of *rad-8*  
 Total Funds Received: \$5,131  
 Funding Period: May 8 - May 21, 1992

Agency: Jet Propulsion Laboratory  
 Proposal: Cosmic radiation-included mutagenesis on Space Shuttle Mission STS-76  
 Total Funds Received: \$10,000  
 Funding Period: October 1, 1995 – May 31, 1998

Agency: Japanese Society for the Promotion of Science  
 Proposal: Mitochondrial genetics of *C. elegans*  
 Total Funds Received: \$2,367  
 Funding Period: April 15, 2001-May 4, 2001

Agency: National Institutes of Health  
 Proposal: The Genetics of Dauer Longevity  
 Total Funds Received: \$59,775  
 Funding Period: August 1, 2003-July 31, 2005

Company: LI-COR  
 Proposal: Purchase of DNA sequencing instrumentation  
 Total Funds Received: \$100,000  
 Funding Period: November 1, 2005-July 1, 2006

Agency: Tokai University College of Medicine  
 Proposal: Travel funds  
 Total Funds Received: \$2,150  
 Funding Period: January 7- 12, 2008

Agency: Tokai University College of Medicine  
 Title: Travel lectureship  
 Requested amount: \$1360  
 Funding Period: April 15-28, 2010

## **8. Professional-related Honors and Awards:**

- University Graduate Student Teaching Award; University of Missouri, 1979
- Student House of Representatives Teaching Excellence Award; TCU, 1986.
- Student Foundation's Outstanding Faculty Award; TCU, 1989.
- Golden Key National Honorary Society; Honorary Member, TCU, 1990.

- Faculty Recognition Award (“Honors Professor of the Year”); Honor's Program, TCU, 1991.
- Faculty Appreciation Month Recognition, Panhellenic, TCU, 1991.
- Mortar Board "Top Prof" Award, TCU, 1991.
- Faculty Award for Outstanding Involvement in Student Development (given by Student Activities), TCU, 1992.
- Alpha Lambda Delta (freshman honors society); Honorary Member, TCU, 1993.
- Professor of the Year, selected by Student Body; award presented April 26, 1994, at House of Student Representative Meeting.
- Lamba Chi Alpha Fraternity, Outstanding Faculty Member Award, May 4, 1994.
- Faculty Appreciation Award, Student Foundation, April 28, 1994.
- Professor of the Year, selected by Student Body; Award presented April 11, 1995.
- Outstanding Advisor Award, presented at Leadership Award Ceremony (May, 1996)
- Wassenich Award for Mentoring in the TCU Community (September 2000)
- Dean’s Award for Research/Creative Activities, TCU, December 2004.
- Chancellor’s Award for Distinguished Achievement as a Creative Teacher and Scholar, 2006
- 2007 EECU Inspirational Professor Award (presented at halftime of football game)
- “Health Care Hero” by the Fort Worth Business Press; February 2008
- Elizabeth Proffer Youngblood Award for Outstanding Contributions to Student Affairs; May, 2009

### **9. Professional Service:**

- Chair, TCU’s Health Professions Advisory Committee and Director of TCU’s Pre-Health Professions Program (1991-2013)
- Interim Dean, TCU College of Science & Engineering (2012-2013)
- Dean, TCU College of Science & Engineering (2013-2021)
- Chair, Texas Association for Advisors to the Health Professions (1997-1998)
- Executive Committee, Texas Association for Advisors to the Health Professions (1995-2000)
- Board of Directors and Chair, Programming Committee, Child Study Center (2005-2010; 2012-2018)
- Regional Director, Alpha Epsilon Delta (2008-2012)
- Secretary Board of Directors, Alpha Epsilon Delta (2012-2016)
- Liaison to the National Office, Alpha Epsilon Delta (2016-2021)
- Associate Editor, *Mechanisms of Ageing and Development* (2010-2012)
- Advisory Board, UNTHSC College of Pharmacy (2015-2019)
- Dean Search Committees (Harris College, 2015; Fort Worth Medical School, 2016; UNTHSC College of Pharmacy, 2017; Provost, 2018; Harris College, 2019; Graduate Studies & Research, 2019)