

John R. Ford, Jr.
Associate Professor
Texas A&M University
Department of Nuclear Engineering
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Education

University of Tennessee Ph.D. 1992 Biomedical Sciences
Dissertation Title: Effects of Alpha-Particle Radiation on Rat Tracheal Epithelial Cells.

Mississippi State University M.S. 1986 Nuclear Engineering
Thesis Title: A Computer Analysis of Damage to Human Tissues by Neutrons
Using Monte Carlo Techniques.

Mississippi State University B.S. 1982 Nuclear Engineering

Appointments and Research Experience

2006-present **Associate Professor with Tenure**, Department of Nuclear Engineering, Texas A&M University.
1999-2006 **Assistant Professor**, Department of Nuclear Engineering, Texas A&M University.
1998-1999 **TEES Assistant Research Engineer**, Texas A&M University.
1997-1998 **Grade I Scientist**, Medical Research Council-Radiation and Genome Stability Unit, Harwell, United Kingdom.
1994-1997 **Postdoctoral Fellow**, American Cancer Society, Medical Research Council-Radiation and Genome Stability Unit, Harwell, United Kingdom.
1993-1994 **Research Associate**, Univ. Wisconsin-Madison Med. School, Dept. of Human Oncology.
1992-1993 **Postdoctoral Fellow**, NIH Training Grant, Oak Ridge National Laboratory.
1989-1992 **Predoctoral Fellow**, Oak Ridge Associated Universities, Oak Ridge National Laboratory.
1988-1989 **Predoctoral Fellow**, NIH Training Grant, Oak Ridge National Laboratory.
1987-1988 **Graduate Research Assistant**, University of Tennessee, Oak Ridge National Laboratory.
1986-1987 **Research Assistant**, Mississippi Agriculture and Forestry Extension Service.
1985-1986 **Graduate Research Assistant**, Mississippi State University.
1983-1985 **Graduate Teaching Assistant**, Mississippi State University.

Professional Service

NSF proposal reviewer, 2017

Advisory Council Member, University of Houston-Downtown Scholars' Academy, 2012-present.

NASA/Texas Southern University Research Center for Biotechnology and Environmental Health National Advisory Committee Member, 2006 to 2008.

American Cancer Society, Brazos Valley Chapter, Board of Directors, Education Co-Chair, 2004 to 2008.

Academy of Science and Health Professions, Conroe High School Advisory Board member, 2007 to 2008.

National Institutes of Health Oncology/Radiation Small Business Grant Review Committee Member 2004 to 2006.

Finance Committee, Member, Radiation Research Society, 2004 to 2005.

NASA, Solid Cancer Risk Workshop, Scientific Advisor, 2004.

National Institutes of Health, Resource Center Grant Site Review Member, 2004.

National Institutes of Health, Program Project Grant Site Review Member, 2003.

Department of Energy, Low Dose Radiation Research Program, Proposal Review Panel Member, 2003.

Texas A&M University, Reactor Safety Board Member, 2002 to present.

NASA, Optimization & Guidance on Experiments for Space Radiation Risk Assessment Workshop, Scientific Advisor, 1999.

Professional Affiliations

Health Physics Society

Radiation Research Society

Sigma Xi

Grants and Awards

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| 2013-14 | ARRO Educator of the Year Award |
| 2008 | Registered Student Organization Advisor of the Year |
| 2007 | BP Award for Teaching Excellence. |
| 2005 | ATMentor of the Year. |
| 2004 | TAMU Pathways to the Doctorate Research Assistantship, PI. |
| 2002 | Department of Energy/ NASA Contract, DE-FG03-02ER63438, PI. |
| 2002 | Nuclear Engineering Education & Research/DOE award, DE-FG07-021D14329. |
| 2002 | Fish Camp Namesake. |
| 2001 | TEES Special Research Fellow. |
| 2000 | TAMU PUF Equipment Award, PI. |
| 1997 | United Kingdom Coordination Committee for Cancer Grant. |
| 1994 | American Cancer Society Postdoctoral Fellowship. |
| 1993 | Student Travel Award, Radiation Research Society, Forty-First Annual Meeting. |
| 1992 | Research and Development Accomplishment, Martin Marietta, ORNL. |
| 1991 | Chancellor's Award for Exceptional Professional Promise, University of Tennessee. |
| 1989 | Oak Ridge Associated Universities Laboratory Participation Fellowship. |

Research Articles in Peer-Reviewed Journals

J. D. Northum, S. B. Guetersloh, L. A. Braby and J. R. Ford, Simulated response of a tissue-equivalent proportional counter on the surface of Mars. *Health Physics* **109(4)**: 284-295, 2015.

R. Clanton, D. Saucier, J. Ford and G. Akabani, Microbial influences on hormesis, oncogenesis and therapy: A review of the literature. *Environmental Research* **142**: 239-256, 2015.

J. W. Poston, Sr. and J. R. Ford, How do we combine science and regulations for decision making following a terrorist incident involving radioactive materials. *Health Physics* **97(5)**: 537-541, 2009.

J. K. Wagner, J. A. Dillon, E. K. Blythe and J. R. Ford, Dose characterization of the Rad Source[®] 2400 X-ray irradiator for oyster pasteurization. *Applied Radiation and Isotopes* **67**: 334-339, 2009.

A. S. Pasciak and J. R. Ford, High-speed evaluation of track-structure Monte Carlo electron transport simulations. *Physics in Medicine and Biology* **53**: 333-341, 2008.

J. Vanamala, A. Glagolenko, P. Yang, R. J. Carroll, M. E. Murphy, R. A. Newman, J. R. Ford, L. A. Braby, R. S. Chapkin, N. D. Turner and J. R. Lupton, Dietary fish oil and pectin enhance colonocyte apoptosis in part through suppression of PPAR δ /PGE₂ and elevation of PGE₃. *Carcinogenesis* **29(4)**: 790-796, 2008.

L. A. Braby and J. R. Ford, Characterizing radiation quality for low level radiation exposure. *Radiation Measurements*, **41**: 1147– 1151, 2006.

A. S. Pasciak and J.R. Ford, An accurate approximation for the highly efficient sampling of polar scattering angle of electron elastic single-scattering events. *Scanning* **28(6)**: 333-341, 2006.

A. S. Pasciak and J. R. Ford, A new high-speed solution for the evaluation of Monte Carlo radiation transport computations. *IEEE Nuclear Science* **53(2)**: 491-499, 2006.

J. R. Ford, A. J. Maslowski, R. A. Redd and L. A. Braby, Radiation responses of perfused tracheal tissue. *Radiation Research* **163(4 Part 2)**: 487-492, 2005.

M. A. Hill, J. R. Ford, P. Clapton, S. J. Marsden, D. L. Stevens, K. M. S. Townsend and D. T. Goodhead, Bound PCNA in nuclei of primary rat tracheal epithelial cells after exposure to very low doses of plutonium-238 α -particles, *Radiation Research* **163(1)**: 36-44, 2005.

N. Medvedeva, J. R. Ford and L.A. Braby, Changes in micronuclei frequency resulting from pre-irradiation of cell-culture surfaces. *Radiation Research* **162(6)**: 660-666, 2004.

N. D. Turner, L. A. Braby, J. Ford and J. R. Lupton, Opportunities for nutritional amelioration of radiation-induced cellular damage. *Nutrition* **18**: 904-912, 2002.

M. Terzaghi-Howe, J. R. Ford and J. E. Turner, Influence of cell position relative to planar alpha-particle sources on survival and preneoplastic transformation of primary rat tracheal epithelial cells. *Radiation Research* **145(4)**: 432-441, 1996.

M. Terzaghi-Howe and J. Ford, Effects of radiation on rat respiratory epithelial cells: critical target cell

populations and the importance of cell-cell interactions. *Advances in Space Research* **14(10)**: 565-572, 1994.

J. R. Ford, and M. Terzaghi-Howe, Effects of ^{210}Po alpha particles on survival and preneoplastic transformation of primary rat tracheal epithelial cells irradiated while in suspension or in the intact tissue.

Radiation Research **136(1)**: 89-96, 1993.

J. R. Ford and M. Terzaghi-Howe, Characteristics of magnetically separated rat tracheal epithelial cell populations. *American Journal of Physiology* **263** (*Lung Cellular and Molecular Physiology* **7**): L568-L574, 1992.

J. R. Ford and M. Terzaghi-Howe, Basal cells are the progenitors of primary tracheal epithelial cell cultures. *Experimental Cell Research* **198(1)**: 69-77, 1992.

Mantovani, J. G., D. P. Allison, R. J. Warmack, T. L. Ferrell, J. R. Ford, R. E. Manos, J. R. Thompson, B. B. Reddick and K. B. Jacobson, Scanning tunneling microscopy of tobacco mosaic virus on evaporated and sputter-coated palladium/gold substrates. *Journal of Microscopy* **158**: 109-116, 1990.

Peer-Reviewed Proceedings and Extended Abstracts in Peer-Reviewed Journals

J. W. Poston and J. Ford. How do we combine science and regulations for decision making?
Health Physics **107(1 Suppl)**: S63, 2014.

G. Nelson, T. Jones, L. Ortloff, J. Ford, D. Nunez, and L. Braby, Bystander signaling in *C. elegans*; proton microbeam studies. *Journal of Radiation Research* **55 (Suppl)**: i118-i119, 2014.

N.D. Turner, L.M. Sanders, G. Wu, L.A. Davidson, L.A. Braby, J.R. Ford, R.J. Carroll, R.S. Chapkin, and J.R. Lupton. Dietary mitigation of the oxidative damage resulting from radiation exposure.
Aviat. Space Environ. Med **79**: 215-216, 2008.

L. A. Braby and J. R. Ford, Energy deposition patterns and the bystander effect.
Radiation Research **161(1)**: 113-115, 2004.

N. G. Medvedeva, J. R. Ford and L. A. Braby, Micronuclei resulting from pre-irradiation of cell-culture surface.
Health Physics **84(6 Suppl)**: S245, 2003.

L. A. Braby and J. R. Ford, Microbeam irradiation patterns to simulate dose.
Radiation Research **153(2)**: 225, 2000.

J. R. Ford and M. Terzaghi-Howe, Difference in the sensitivity to transformation in two proliferative populations of the rat trachea. *International Journal of Radiation Biology* **70(6)**: 784, 1996.

Peer-Reviewed Conference Proceedings and Extended Abstracts

J. Ford, W. Burchill, M. Adams, R. Hart, D. Suson, P. Cox, L. Hewett, H. Leckenby, M. Bryant, I. Osborne-Lee, S. Aghara, R. Wilkins and K. L. Peddicord, A Multi-Dimensional Nuclear Engineering Partnership. 2005 American Society for Engineering Education Annual Convention and Exposition, Portland, OR.

A. S. Pasciak and J. R. Ford, Ultra-High Speed Monte Carlo Computing Techniques Using Field Programmable Gate Arrays. In: *The Monte Carlo Method: Versatility Unbounded in a Dynamic Computing World*, American Nuclear Society Monte Carlo 2005 Topical Meeting, Chattanooga, TN.

N. G. Ostrovskaia and J. R. Ford, A combined tissue kinetic and dosimetric model of an airway. *Transactions of the American Nuclear Society* **90**: 57-58, 2004.

T. W. Botting, L. A. Braby and J. R. Ford, Development of an electron microbeam for cell culture studies. *Transactions of the American Nuclear Society* **89**: 665-666, 2003.

N. G. Ostrovskaia and J. R. Ford, Modeling the radiation response of respiratory tissue. *Transactions of the American Nuclear Society* **88**: 349, 2003.

J. R. Ford, N. F. Metting, S. J. Marsden, D. L. Stevens, K. M. S. Townsend and D. T. Goodhead, Visualization of damage generated along alpha-particle tracks in irradiated rat tracheal epithelial cells. In: *Microdosimetry: An Interdisciplinary Approach* (D. T. Goodhead, P. O'Neill and H. G. Menzel, Eds.) pp. 335-338. Royal Society of Chemistry, Cambridge, 1997.

Chapters and Texts

J. R. Ford and J.W. Poston, Sr., Dosimetric Models.
In: *Advanced Applied Radiation Protection Dosimetry*, in Press.

J. W. Poston, Sr. and J. R. Ford, Internal Dosimetry.
In: *Radiological Risk Assessment and Environmental Analysis*, J. E. Till & H. A. Grogan, Eds., Oxford University Press, Oxford, U.K., 2008.

Technical Reports

L. A. Braby and J. R. Ford, Final Report on the Biological Effects of Individual Alpha-Particles, DE-FG03-96ER62281, 2002.

L. A. Braby and J. R. Ford, Final Report on the Role of the Number and Spacing of Charged Particle Tracks on the Consequences of Low Dose Irradiation, DE-FG03-99ER62858, 2005.

In Preparation and Submitted

N. D. Turner, N. Popovic, M. Y. Hong, S. S. Taddeo, L. A. Davidson, L. A. Braby, J. R. Ford, Q. Zheng, D. V. Nguyen, R. J. Carroll, R.S. Chapkin, and J. R. Lupton, Radiation enhances azoxymethane-induced colon cancer development. Submitted to *Radiation Research* (revising for resubmission).

Abstracts

Trevino, J., Marianno C., Poston, J., Ford, J. Calculation of Sealed Dose Rate Conversion Factors for Search and Rescue Dogs. 61st Annual Meeting of the Health Physics Society, July 2016.

Vierow, K., F. Best, J. Ford, Y. Hassan, S. McDeavitt, J. Ragusa, W. D. Reece, L. Shao, and P. Tsvetkov. TAMU Nuclear Safety Curriculum Development for a 21st Century Workforce, American Nuclear Society Annual Meeting, Anaheim, California, 2008.

N. D. Turner, L. M. Sanders, G. Wu, L. A. Davidson, J. R. Ford, L. A. Braby, R. J. Carroll, R. S. Chapkin and J. R. Lupton, Relationship between oxidative damage and colon carcinogenesis in irradiated rats: influence of dietary countermeasures. 37th Annual Committee on Space Research (COSPAR) Scientific Assembly, Montreal, Canada, 2008.

N. D. Turner, L. M. Sanders, G. Wu, L. A. Davidson, L. A. Braby, J. R. Ford, R. J. Carroll, R. S. Chapkin and J. R. Lupton, Dietary mitigation of the oxidative damage resulting from radiation exposure. 79th Annual Scientific Meeting of the Aerospace Medical Association, Boston, Massachusetts, 2008.

J. R. Lupton, N. D. Turner, L. A. Braby, J. R. Ford, R. J. Carroll and R. S. Chapkin, A combination of omega-3 fatty acids and a butyrate-producing fiber mitigates colon cancer development. Fifty-Seventh International Astronautics Congress, Valencia, Spain, 2006.

A. J. Maslowski, R. A. Redd, J. R. Ford and L. A. Braby, Low dose interactions with the TGF- β pathway through ECM components. Fifty-Second Annual Meeting of the Radiation Research Society, Denver, Colorado, 2005.

N. G. Ostrovskaya and J. R. Ford, Modeling of tissue kinetics and radiation response of the epithelial layer of the human bronchiole. Fifty-Second Annual Meeting of the Radiation Research Society, Denver, Colorado, 2005.

D. Perez-Nunez, J. R. Ford, and L. A. Braby, Effects in PKcs suppressed AG 1522 cells. Fifty-Second Annual Meeting of the Radiation Research Society, Denver, Colorado, 2005.

N. D. Turner, N. Popovic, J. C. Mann, M. E. Murphy, W. Fu, L. A. Davidson, R. B. Isett, R. J. Carroll, L. A. Braby, J. R. Ford, R. S. Chapkin, and J. R. Lupton. Simulated galactic cosmic radiation enhanced colon cancer in the rat is mediated by changes in gene expression that are influenced by dietary intervention. Third Annual International Conference on Frontiers in Cancer Prevention Research, Seattle, Washington, 2004.

L. A. Braby, E. A. Repnikova, D. Perez-Nunez and J. R. Ford, Bystander effects following low LET irradiation. Fifty-First Annual Meeting of the Radiation Research Society, St. Louis, Missouri, 2004.

N. G. Medvedeva, J. R. Ford and L. A. Braby, Preirradiated cell environment effects micronucleus frequency. Fifty-First Annual Meeting of the Radiation Research Society, St. Louis, Missouri, 2004.
(Student Award winner)

A. J. Maslowski, R. A. Redd, J. R. Ford and L. A. Braby, Radiation response of tracheal epithelium in perfused

cultures. Fifty-First Annual Meeting of the Radiation Research Society, St. Louis, Missouri, 2004.

L. A. Braby, J. R. Ford, D. Perez-Nunez, E. Repnikova, Mechanistic Modeling of Bystander Effects An Integrated Theoretical & Experimental Approach: Effects in PKCs suppressed AG 1522 cells. DOE Low Dose Effects Investigators Workshop, Washington, D.C., 2003.

J. R. Ford, A. J. Maslowski, A. Redd and L. A. Braby, Low Dose Response of Respiratory Cells in Intact Tissues and Reconstituted Tissue Constructs, DOE Low Dose Effects Investigators Workshop, Washington, D.C., 2003.

N. D. Turner, N. Popovic, S. S. Taddeo, L. M. Sanders, K. J. Paulhill, J. C. Mann, L. A. Braby, J. R. Ford, R. S. Chapkin, L. A. Davidson, Q. Zheng, R. J. Carroll, and J. R. Lupton, High energy LET radiation as a risk modifier in colon carcinogenesis. American Association of Cancer Research, Second Annual Frontiers in Cancer Prevention Research, Phoenix, 2003.

J. R. Ford, A. J. Houck and L. A. Braby, Radiation response of perfused tracheal sections, Twelfth International Congress of Radiation Research, Brisbane, Australia, 2003.

N. G. Medvedeva, J. R. Ford and L. A. Braby, Fate of micronuclei after irradiation. National American Nuclear Society Student Conference, Berkeley, California, 2003.

J. R. Lupton, N. D. Turner, N. Popovic, R. S. Chapkin, L. A. Braby, R. J. Carroll, Nutrition as a possible countermeasure to radiation exposure. Bioastronautics Investigators Workshop, Galveston, Texas, 2003.

L. A. Braby, J. R. Ford and T. W. Botting, Electron microbeam for investigation of bystander cell effects. Forty-Ninth Annual Meeting of the Radiation Research Society, Reno, Nevada, 2002.

N. G. Medvedeva, J. R. Ford and L. A. Braby, Fate of micronuclei after irradiation. National American Nuclear Society Student Conference, College Station, Texas, 2001.

J. R. Ford, S. J. Marsden, D. L. Stevens, K. M. S. Townsend, P. Clapham and D. T. Goodhead, Nuclear localization of PCNA in tracheal epithelial cells after alpha-particle irradiation. Forty-Sixth Annual Meeting of the Radiation Research Society, Louisville, Kentucky, 1998.

P. Clapham, J. R. Ford, S. J. Marsden, D. L. Stevens, K. M. S. Townsend and D. T. Goodhead, A “bystander” effect in tracheal epithelial cells after plutonium-248 alpha-particle irradiation. Annual Meeting of the Association for Radiation Research, Birmingham, U.K., 1997.

J. R. Ford, S. J. Marsden, D. L. Stevens, K.M.S. Townsend and D. T. Goodhead, The “bystander” effect of p53 in irradiated rat tracheal epithelial cells. Forty-Fifth Annual Meeting of the Radiation Research Society, Providence, Rhode Island, 1997.

Invited lectures/seminars

J. Ford, Cell Culture/ *In vivo* models for Radiobiology, Medical Physiology Seminar, Texas A&M University Health Science Center, Temple, Texas, 2014.

J. Ford, Cell Culture/ *In vivo* models for Radiobiology, Scholars Academy, University of Houston-Downtown, Houston, Texas, 2014.

J. Ford, Radiation cytogenetics and stochastic effects, Scholars Academy, University of Houston-Downtown, Houston, Texas, 2013.

J. R. Lupton, N. D. Turner, L. A. Braby, J. R. Ford, R. J. Carroll and R. S. Chapkin, A combination of omega-3 fatty acids and a butyrate-producing fiber mitigates colon cancer development. Fifty-Seventh International Astronautics Congress, Valencia, Spain, 2006

N. G. Ostrovskaya and J. R. Ford, Modeling of tissue kinetics and radiation response of the epithelial layer of the human bronchiole. Fifty-Second Annual Meeting of the Radiation Research Society, Denver, Colorado, 2005.

J. R. Ford, Health Physics: Where Biology Meets Physics. Department of Chemical Engineering, Prairie View A&M University, Prairie View, Texas, 2005.

J. R. Ford, Health Physics: Where Physics and Biology Meet. Department of Physics, Texas State University-San Marcos, Texas, 2005.

J. R. Ford, A. J. Maslowski, R. A. Redd and L. A. Braby, Radiation responses of perfused tracheal tissue. Third International Workshop on Space Radiation Research and Fifteenth Space Radiation Health Investigators' Workshop, Port Jefferson, New York, 2004.

J. R. Ford, Radiobiology in cancer research. American Cancer Society of Brazos Valley, College Station, Texas, 2004.

J. R. Ford, Cell culture/*In vivo* models for radiation research. Biomedical Engineering Graduate Seminar Texas A&M University, College Station, Texas, 2004.

J. R. Ford, A. J. Houck and L. A. Braby, Radiation effects in respiratory tissues, Fourteenth Space Radiation Health Investigators' Workshop, League City, Texas, 2003.

K. R. DePriest, J. R. Ford and L. A. Braby, Communication rates of mammalian cells unchanged by low LET or high LET radiation. Eleventh International Conference of Radiation Research, San Juan, Puerto Rico, 2001.

P. Clapham, J. R. Ford, D. L. Stevens, K. M. S. Townsend and D. T. Goodhead, Bystander effects in alpha-particle irradiated epithelial cells. Forty-Seventh Annual Meeting of the Radiation Research Society, Albuquerque, New Mexico, 2000.

J. R. Ford, Bystander effects in primary epithelial cells. Graduate Seminar Series, Dept. of Human Oncology, University of Wisconsin-Madison, Madison, Wisconsin, 1998.

J. R. Ford, Propagation of damage in the wake of an α -particle traversal. Annual Meeting of the European Society of Radiation Research, Oxford, United Kingdom, 1997.

J. R. Ford and M. Terzaghi-Howe, Effects of low-LET radiation combined with alpha-particle radiation on the survival and transformation of rat tracheal epithelial cells. Forty-First Annual Meeting of the Radiation Research Society, Dallas, Texas, 1993.

Teaching

Graduate

Radiation Carcinogenesis, **NUEN 674**, lecture, 3 hours, Spring 2007, 2009, 2011.

Special Topics in Radiation Carcinogenesis, **NUEN 689**, lecture, 3 hours, Fall 2004.

Radiation Biology, **NUEN/BMEN 673**, lecture, 3 hours, Fall or Spring 2001, 2003, 2006, 2008, 2010, 2012-17.

Internal Dose Techniques, **NUEN 675**, lecture, 3 hours, Spring 2000-2011, 2013, 2014.

Worker Physiology, **SENG 644**, lecture co-taught with Dr. Moore, 3 hours, Fall 1999 & 2000.

Special Topics in Radiation Biology, **NUEN 689**, lecture, 3 hours, Spring 1999.

Health Physics Instrumentation, **NUEN 676**, lecture & laboratory, 3 hours, Fall 1998.

Radiation Waste Management, **NUEN 678**, lecture, 3 hours, Spring 2010, 2012.

Fundamentals of Space Life Sciences, **NUEN/KNE/NUTR 646**, lecture, 3 hours, Fall 2011-2016.

Seminar, **NUEN/KINE/NUTR 681**, lecture, 3 hours, Spring 2014.

Radiological Safety & Health Evaluation, **NUEN 612**, lecture, 3 hours, Spring 2015.

Reactor Analysis and Experimentation, **NUEN 606**, lecture & laboratory, 3 hours, Spring 2016-17.

Undergraduate

Introduction to Nuclear Engineering I, **NUEN 201**, lecture, 3 hours, Fall 1999-2001.

Foundations of Engineering I (Track A), **ENGR 111**, lecture & laboratory, 2 hours, Fall 2005.

Nuclear Detection & Isotope Laboratory, **NUEN 402**, lecture & laboratory, 3 hours, Spring 2006.

Nuclear Detection & Isotope Laboratory, **NUEN 303**, lecture & laboratory, 3 hours, Spring 2007.

Radiological Safety, **NUEN 309**, lecture, 3 hours, Fall 2011-2016.

Nuclear Engineering Experiments, **NUEN 405**, lecture & laboratory, 3 hours, Fall 2007, 2011, 2012, 2014-16.

Operational Health Physics for Advanced Reactors, **NUEN 489**, lecture, 1 hour, Spring 2008.

Subcritical Experimentation and Modeling, **NUEN 489**, lecture and laboratory, 2 hours, Fall 2008.

Undergraduate Honors

Modern Techniques in Cancer Research, **LBAR 489**, seminar, 1 hour, Fall & Spring 2002-03.

Applications of Radiation to Modern Problems, **LBAR 489**, seminar, 1 hour, Fall & Spring 2003-04.

Engineering People, **LBAR 489**, seminar, 1 hour, Fall & Spring 2004-06.

Graduate Students

Chair or Co-Chair

Arnulfo Gonzalez, Ph.D., Dept. of Nuclear Engineering, TAMU, 2015-2016, **degree awarded.**
Sarah Over, Ph.D., Dept. of Nuclear Engineering, TAMU, 2015-2017, **degree awarded.**
Yesenia Gonzalez, M.S., Dept. of Nuclear Engineering, TAMU, 2015-2016, **degree awarded.**
David Saucier, M.S., Dept. of Nuclear Engineering, TAMU, 2015-2016, **degree awarded.**
Ashley Booth, M.S., Dept. of Nuclear Engineering, TAMU, 2014-2016, **degree awarded.**
Matthew Sumrall, M.S., Dept. of Nuclear Engineering, TAMU, 2013-present
James Uhlemeyer, Ph.D. Dept. of Nuclear Engineering, TAMU, **Chair**, 2013- present.
James Uhlemeyer, M.S. Dept. of Nuclear Engineering, TAMU, **Chair**, 2011- 13, **degree awarded.**
Aundry Blanchard, M.S. Dept. of Nuclear Engineering, TAMU, **Chair**, 2011- 12, withdrew.
Ruoming Bi, M.S., Dept. of Nuclear Engineering, TAMU, **Chair**, 2009-11, **degree awarded.**
John Flores-McLaughlin, Ph.D., Dept. of Nuclear Engineering, TAMU, 2008-15, **degree awarded.**
Zachary Bailey, M.S. Dept. of Nuclear Engineering, TAMU, **Chair**, 2007- 2013, withdrew.
Jennifer Koop, M.S. Dept. of Nuclear Engineering, TAMU, **Chair**, 2007- 08, **degree awarded.**
Dan Kesack, Ph.D. Dept. of Nuclear Engineering, TAMU, **Chair**, 2009-10, withdrew.
Julian Partouche, Ph.D., Dept. of Nuclear Engineering, TAMU, **Chair**, 2006-12, **degree awarded.**
Hope Alvarez, M.S. Dept. of Nuclear Engineering, TAMU, **Chair**, 2006- 2016, **degree awarded.**
Alexis Lazarine, Ph.D., Dept. of Nuclear Engineering, TAMU, **Chair**, 2006- 08, **degree awarded.**
Alex Pasciak, Ph.D. Dept. of Nuclear Engineering, TAMU, **Chair**, 2006- 07, **degree awarded.**
Brian Massingill, M.S., Dept. of Nuclear Engineering, TAMU, **Chair**, 2006-07, **degree awarded.**
David Oertli M.S., Dept. of Nuclear Engineering, TAMU, **Chair**, 2005-06, **degree awarded.**
Christian Almanza M.S., Dept. of Nuclear Engineering, TAMU, **Chair**, 2004-08, **degree awarded.**
Alexis Lazarine, M.S., Dept. of Nuclear Engineering, TAMU, **Chair**, 2004-06, **degree awarded.**
Alex Pasciak, M.S., Dept. of Nuclear Engineering, TAMU, **Chair**, 2004-05, **degree awarded.**
Delia Perez-Nuñez, Ph.D., Dept. of Nuclear Engineering, TAMU, 2003-08, **degree awarded.**
Alex Redd, Ph.D., Dept. of Nuclear Engineering, TAMU, **Chair**, 2003-present.
Anna Glagolenko, M.S., Dept. of Nuclear Engineering, TAMU, **Co-Chair**, 2002-05, **degree awarded.**
Amy Maslowski, Ph.D., Dept. of Nuclear Engineering, TAMU, **Chair**, 2002-07, **degree awarded.**
Marissa Reynolds, M.S., Dept. of Nuclear Engineering, TAMU, **Chair**, 2002-03, **degree awarded.**
Ilya Pavlenko, M.S., Dept. of Nuclear Engineering, TAMU, **Co-Chair**, 2001-03, **degree awarded.**
Dmitri Medvedev, Ph.D., Dept. of Nuclear Engineering, TAMU, **Co-Chair**, 2001-04, **degree awarded.**
Benton Pahlka, M.S., Dept. of Nuclear Engineering, TAMU, **Chair**, 2001-02, **degree awarded.**
Natela Ostrovskaya, Ph.D., Dept. of Nuclear Engineering, TAMU, **Chair**, 2001-05, **degree awarded.**
Natalia Medvedeva, Ph.D., Dept. of Nuclear Engineering, TAMU, **Chair**, 2001-04, **degree awarded.**
Russell DePriest, Ph.D., Dept. of Nuclear Engineering, TAMU, **Co-Chair**, 1998-01, **degree awarded.**

Committee Member

Ricardo DeJesus, Ph.D., Dept. of Nuclear Engineering, TAMU, 2016-present.
Kimberly Wahl, Ph.D., Dept. of Pathobiology, TAMU, 2016-present.
Danielle Redhouse, M.S., Dept. of Nuclear Engineering, TAMU, 2015-present.
Ryan Clanton, Ph.D., Dept. of Nuclear Engineering, TAMU, 2015-present.
Zaher Hamoui, M.S., Dept. of Nuclear Engineering, TAMU, 2015-present.
Jeff Chancellor, Ph.D., Dept. of Physics and Astronomy, TAMU, 2015-present.
Gleb Kuzmin, Ph.D., Dept. of Nuclear Engineering, TAMU, 2014-present.
Jordan Douglas, Ph.D., Dept. of Nuclear Engineering, TAMU, 2014-present.
Matthew Fitzmaurice, Ph.D., Dept. of Nuclear Engineering, TAMU, 2014-present.
Lou Jijie, M.S., Dept. of Nuclear Engineering, TAMU, 2014-2015, **degree awarded.**
Marina Pulley, M.S., Dept. of Nuclear Engineering, TAMU, 2014-2015, **degree awarded.**
Jose Trevino, Ph.D., Dept. of Nuclear Engineering, TAMU, 2013-present.
Trevor Lancon, M.S., Dept. of Nuclear Engineering, TAMU, 2013-2014, **degree awarded.**
Jonathan Madsen, M.S., Dept. of Nuclear Engineering, TAMU, 2013, **degree awarded.**
Derek Phillips, M.S., Dept. of Nuclear Engineering, TAMU, 2012-present.
Shaoyong Feng, Ph.D., Dept. of Nuclear Engineering, TAMU, 2012-2013, **degree awarded.**
Stephanie Brown, M.S., Dept. of Nuclear Engineering, TAMU, 2011-present.
Fada Guan, Ph.D., Dept. of Nuclear Engineering, TAMU, 2010-2012, **degree awarded.**
Matthew Grypp, Ph.D., Dept. of Nuclear Engineering, TAMU, 2011-2013, **degree awarded.**
Jeremy Northum, Ph.D., Dept. of Nuclear Engineering, TAMU, 2011-2013, **degree awarded.**
William Duncan, M.S., Dept. of Nuclear Engineering, TAMU, 2010-present.
James Miller, Ph.D., Dept. of Nuclear Engineering, TAMU, 2010-2013, **degree awarded.**
Laura Rodriguez, M.S., Dept. of Nuclear Engineering, TAMU, 2010-2011, withdrew.
Brandon Macias, Ph.D., Dept. of Kinesiology, TAMU, 2010-2012, **degree awarded.**
Alice Dale, M.S., Dept. of Nuclear Engineering, TAMU, 2010-2014, **degree awarded.**
Gentry Hearn, M.S., Dept. of Nuclear Engineering, TAMU, 2010-12, **degree awarded.**
Shaoyong Feng, M.S., Dept. of Nuclear Engineering, TAMU, 2010-2011, **degree awarded.**
Brian Hrycushko, Ph.D., Medical Physics, UTHSC-San Antonio, 2008-11, **degree awarded.**
Vihar Bhakta, M.S. Dept., of Nuclear Engineering, TAMU, 2010-11, **degree awarded.**
Michael Butkus, M.S., Dept. of Nuclear Engineering, TAMU, 2009-11, **degree awarded.**
Gary Chen, M.S., Dept. of Nuclear Engineering, TAMU, 2008-11, **degree awarded.**
Keel Curtis, M.S., Dept. of Nuclear Engineering, TAMU, 2005-11, **degree awarded.**
Marcus Hill, M.S., Dept. of Nuclear Engineering, TAMU, 2008-09, **degree awarded.**
Matt Sumrall, M.S., Dept. of Nuclear Engineering, TAMU, 2007-present, **degree awarded.**
Jeff Kowalchik, M.S., Dept. of Nuclear Engineering, TAMU, 2007-08, **degree awarded.**
Pete Hernandez, M.S., Dept. of Nuclear Engineering, TAMU, 2007-08, **degree awarded.**
Holly Phillips, M.S., Dept. of Nuclear Engineering, TAMU, 2007-08, **degree awarded.**
Lillian Marie Cronholm, M.S., Dept. of Nuclear Engineering, TAMU, 2007-11, **degree awarded.**
John Flores-McLaughlin, M.S., Dept. of Nuclear Engineering, TAMU, 2007-08, **degree awarded.**
Zhenghua Xia, Ph.D., Dept. of Nuclear Engineering, TAMU, 2005-08, **degree awarded.**
Kiwhan Chang, Ph.D., Dept. of Nuclear Engineering, TAMU, 2005-08, **degree awarded.**
Jinkai Wang, Ph.D., Dept. of Nuclear Engineering, TAMU, 2003-08, **degree awarded.**
Nont Ekpanyaskun, Ph.D., Dept. of Bio.&Ag. Engr., TAMU, 2004-08, **degree awarded.**
Cynthia Munoz, Ph.D., Medical Physics, UTHSC-San Antonio, 2005-08, **degree awarded.**
Steven Todd, Ph.D., Dept. of Soil and Crop Sciences, TAMU, 2004-06, **degree awarded.**
Andrei Bosko, Ph.D., Dept. of Nuclear Engineering, TAMU, member, 2002-05, **degree awarded.**

Tamra Tagliabue, M.S., Dept. of Nuclear Engineering, TAMU, 2002-04, **degree awarded.**
Si Young Jang, Ph.D., Dept. of Nuclear Engineering, TAMU, 2002-04, **degree awarded.**
Sung Woo Lee, Ph.D., Dept. of Nuclear Engineering, TAMU, 2001-03, **degree awarded.**
Nasir Bhuiyan, Ph.D., Dept. of Nuclear Engineering, TAMU, 2001-03, **degree awarded.**
Alex Redd, M.S., Dept. of Nuclear Engineering, TAMU, Member, 2001-03, **degree awarded.**
Michael Charlton, Ph.D., Dept. of Nuclear Engineering, TAMU, Member, 2000-01, **degree awarded.**
Lucile Dauffy, Ph.D., Dept. of Nuclear Engineering, TAMU, Member, 2000-03, **degree awarded.**
Donald Halter, Ph.D., Dept. of Nuclear Engineering, TAMU, Member, 1999-present.
Chris Forbes, M.S., Dept. of Nuclear Engineering, TAMU, Member, 1998-00, **degree awarded.**

Graduate Council Representative

Shannon Weatherholt, Ph.D., Dept. of Educ, Curricul. & Inst., TAMU, 1999-03, **degree awarded.**
Kristen Barnhart, Ph.D., Dept. of Veterinary Pathobiology, TAMU, 2001-03, program ended.

Undergraduate Research Students

Cailin O'Connell, Undergraduate Summer Research Fellow, ENGR 491, 2016
Holly Van Dyke, Undergraduate Summer Research Fellow, TAMU, 2005
Celestino Abrego, Undergraduate Summer Research Fellow, TAMU-Kingsville, 2004
Jennifer Hubbard, Visiting undergraduate research participant, Prairie View AMU, 2003-2004
Hope Alvarez, Undergraduate Summer Research Fellow, TAMU-Kingsville, 2003
Matthew Van Der Voort, Undergraduate Summer Research Fellow, TAMU-Kingsville, 2003
Gabrielle Lugo, Undergraduate Summer Research Fellow, TAMU, NUEN 485, 2000

Thuy Pham, NUEN 485, 2016
Begona Aranguren, NUEN 491, 2016
Holly Parenica, NUEN 491, 2015
Kingsley Franklin, NUEN 485, 2014
James Spencer, NUEN 485, 2013
Mauricio Perez, NUEN 485, 2013
Luke Yeager, NUEN 491, 2011
Matt Lee, NUEN 491, 2011
Sai Yan Cheng, NUEN 491, 2010-11
Alice Dale NUEN 491, 2009
Matthew Gidden, NUEN 485, 2007
Jonah Morgan, NUEN 485, 2007
Kim Kaminski, NUEN 485, 2006, 2007
Marie Cronholm, TAMU, NUEN 485, 2005
Tara Pandya, TAMU, NUEN 485, 2005
Karen Koop, TAMU, NUEN 485, 2005
Whitney Bivens, TAMU, NUEN 485, 2005
McLean Sanborn, TAMU, NUEN 485, 2005
Paige Nitsch, TAMU, NUEN 485, 2004
Chris Briggs, TAMU, 2004
Kim Kaminski, TAMU, 2004-2007
Kathryn Wright, TAMU 2004-2005
Sandy Thang, TAMU, 2003-2004
Katie Graebner TAMU, NUEN 485 2003
Lucas Redd, TAMU, 2003-2004 NUEN 485, 2003
Neil Parham TAMU, 2002-2004
Matt Doyle TAMU, 2002
Sandra Jimenez, TAMU, 2002-2003
Cynthia Muñoz, TAMU, 2002-2003
Rodrigo De La Garza, TAMU, 2002-2003, NUEN 485 2004
Kristen Brines, TAMU, GENE 485, 2001
Vanessa Reece, TAMU, 1999-2002
Reva Kinra, TAMU, 1999-2001
Laura Stoicescu, TAMU, 1998-2003, NUEN 485 2003

Magarita Tabouryanskaya, visiting student from Ural State Technical University, Russia, 2002
Sabine Ravourdin, visiting student from Grenoble, France, 2000
Christel Staudt, visiting student from EPF, France, 1999

Christelle Charles, visiting student from EPF, France, 1998

K-12 Teachers
E3- Enrichment Experiences in Engineering Program

Joshua Johnson, Foster High School, 2016
Christopher Page, Palacios High School, 2015
Wendy Thompson, Glen Rose High School, 2014
Leanne Sliva, Van Vleck High School, 2014
Adrian Canales, El Campo High School, 2013
Darlene Jones, Columbia High School, 2011
Debra Setzer, Sweeny High School, 2010
Colleen Knight, Bay City High School, 2010
Cynthia Johnson, Palacios High School, 2008
Kristofer Breitenkamp, Van Vleck High School, 2008
Nikki Robinson, Navasota High School, 2001
Virginia Heilman, Rock Prairie Middle School, 2000

FUNDED RESEARCH PROJECTS

External:

PI

A Combined Tissue Kinetics and Dosimetric Model of Respiratory Tissue Exposed to Radiation, Nuclear Engineering Education and Research/DOE, Ford, 6/1/02 to 5/30/05, \$289,261.

Low Dose Response of Respiratory Cells in Intact tissues and Reconstituted Tissue Constructs, DOE/NASA, Ford and Braby, 8/1/02 to 1/31/06, \$1,050,000.

Texas Partnership, Minority-Majority University Partnership Program/DOE, Ford, Burchill, Peddicord, and Adams, 10/1/05 to 9/30/08, \$325,000.

Co-PI

The role of the number and spacing of charged particle tracks on the consequences of low dose irradiation, DOE, Braby and Ford, 9/1/99 to 8/31/02, \$1,043,000.

Nutritional Countermeasures to Space Radiation, National Space Biomedical Research Institute, Lupton, Turner, Ford (Co-investigator), 10/1/00-9/30/03, \$399,486.

Collaborative Linkage Grant with Obninsk, NATO, Peddicord, Ford (Co-participant), 2/1/01 to 1/24/03, \$14,538,

Texas A&M Electron Microbeam Facility/Usage to Irradiate Mammalian Cells, DOE, Braby and Ford, 11/1/01 to 10/31/04, \$471,451.

Gene Expression in Radiation-Enhanced Colon Cancer, Lupton, Turner, Chapkin, Ford and Braby, NASA, 6/1/03 to 9/30/04, \$ 399,981.

Nutritional Countermeasures to Space Radiation, National Space Biomedical Research Institute, Lupton, Turner, Chapkin, Braby and Ford, 1/1/04-12/30/06, \$399,486.

A graduate educational program focusing on the space life sciences, National Space Biomedical Research Institute, Lupton and others, planning grant for training grant submission, 1/1/05 to 12/31/07, \$116,025.

PhD training program in critical areas of space life sciences. NSBRI, Lupton and others, competitive and peer reviewed, 7/1/06 to 6/30/12, \$1,031,630.

Microbeam Irradiation of *C. Elegans*, NASA through Loma Linda, Braby & Ford, 10/1/07 - 9/30/11, competitive and peer reviewed, \$127,443.

Safety Curriculum Development to Facilitate Nuclear Energy in the 21st Century, NRC, Vierow and others, competitive and peer reviewed, 10/1/07- 9/30/08, \$131,047.

Small Active Dosimetry System for Lunar Extravehicular Activity Missions: Spacesuit and toolbox applications, NSBRI, Braby and others, competitive and peer reviewed, 10/1/07 - 9/30/11, \$131,986/y.

Center for Bio-nanotechnology and environmental research, NASA, Jejelowo and others, competitive and peer reviewed, 10/1/08-9/30/13, \$25,000/y.

Iron overload and oxidative damage; regulators of bone homeostasis in the space environment. NASA, Bloomfield and others, competitive and peer reviewed, 10/1/13-9/30/16, \$248,998/y.

Radiation-induced apoptosis avoidance and colon tumorigenesis: Epigenetic regulation in adult stem cells. NASA, Turner and others, competitive and peer reviewed, 1/01/15-12/31/18, \$296,072/y

Internal:

PI

Microinjection Workstation, PUF Funds, Ford, Good, Pishko, and Hamilton, equipment only, 2001, \$124,000.

Pathways to the Doctorate Research Assistantship, Ford, graduate student stipend and tuition, 2004, \$25,000.

Co-PI

Pathways to Doctorate Fellowship, Bloomfield, Turner and Ford, graduate stipend and tuition, 2012-2015, \$25,000/y

REFERENCES

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