#### **CURRICULUM VITAE**

#### NAME: Deodutta Roy

### **TITLE:** Professor of Environmental and Occupational Health

ADDRESS: Department of Environmental & Occupational Health Robert Stempel College of Public Health and Social Work, AHC III #353 Florida International University 11200 S.W. 8th Street, Miami, Florida 33199 Phone: 305-348-1694 Fax: 305-348-4901 E-Mail: <u>droy@fiu.edu</u>

> Miami Veterans Affairs Medical Center, 1201 N.W. 16th St., Miami, FL 33125 Deodutta.Roy@va.gov

#### **EDUCATION**

<u>Degree</u>	Institution	Year of Graduation
Ph.D.	Jawaharlal Nehru University New Delhi, India	1984
M.Phil.	Jawaharlal Nehru University, New Delhi, India	1980
MS	Bihar University, Muzafferpur, India	1978
BS (Hons)	Rajendra College, Chapra, Bihar University, India	1974

#### POST DOCTORAL TRAINING

Research Associate	Indian Institute of Technology, New Delhi, India	1984
Research Associate	Jawaharlal Nehru Univ., New Delhi, India	1984-1985
Postdoctoral Fellow	Baylor College of Medicine, Houston, Texas	1985
Postdoctoral Fellow	Univ. Texas Medical Branch, Galveston, TX	1985-1989

# ADMINISTRATVE EXPERIENCE

<u>Rank</u>	Department/College	Dates	Institution
Chair	Environmental & Occupational Health	2005 - 2011	RSCPH&SW, Florida International University
Director	Office of Academic Affairs and Research, RS College of Public Health	2004 - 2006	RSCPH, Florida International University
Program Director	Environmental & Occupational Health	2004 - 2005	Florida International University
Director	Environmental Toxicology Program	1993 – 1996	University of Alabama at Birmingham

# ACADEMIC EXPERIENCE

<u>Rank</u>	<u>Department</u>	<u>Dates</u>	Institution
Professor	Environmental & Occupational Health	2004 –	RSCPH&SW, Florida International University
Research Scientist	Miami Veterans Affairs Medical Center	2013-	Department of Veterans Affairs
Faculty member	FIU Bio-molecular Science	Institute	2015-present
Professor	Environmental Health Sciences	1998 – 2004	University of Alabama at Birmingham, AL
Senior Scientist	Sparkman Center of Global Health	1995 – 2004	University of Alabama at Birmingham, AL
Senior Scientist	Comprehensive Cancer Center	1998 – 2004	University of Alabama at Birmingham, AL
Senior Scientist	Earth Center	1995 - 2004	University of Alabama at Birmingham
Associate Professor	Environmental Health Sciences	1994 – 1998	University of Alabama at Birmingham
Scientist	Comprehensive Cancer Center	1994 –1998	University of Alabama at Birmingham
Associate Scientist	Comprehensive Cancer Center	1992 – 1994	University of Alabama at Birmingham

Assistant Professor	Environmental Health Sciences	1991 – 1994	University of Alabama at Birmingham
Assistant Professor	Pharmacology & Toxicology	1990 - 1991	UTMB, Galveston, Texas
Instructor	Pharmacology & Toxicology	1989 – 1990	University of Texas Medical Branch, Galveston, Texas
Research Scientist	Pharmacology & Toxicology	1985 – 1989	University of Texas Medical Branch, Galveston, Texas
Research Associate	Biochemistry/Life Sci	1984-1985	IIT/JNU, New Delhi, India
Research Assistant	Life Sciences	1978-1984	JNU, New Delhi, India

# TEACHING

# CLASS ROOM INSTRUCTION (Courses Developed/Revised and Directed)

UTMB	
PT 700	Medical Pharmacology (Lecturer, 1988)
UAB	
PHE 755	Research Methods in Biochemical Toxicology (Lecturer, 1991-1994)
PHE 752	Advance Toxicology I (Developed and Course Director: 1992-2000)
PHE 798	Laboratory Directed Doctoral Research (Revised and Course Director: 1991-2000)
PHE 751/551	Environmental Toxicology II (Revised and Course Director: 1991-2000)
PHE 753	Advance Toxicology II (Developed and Course Director: 1992-2000)
PHE 799	Dissertation Research (Course Director: 1991-2000)
PHE 711	Risk Assessment of Environ. Hazards (Revised and Course Director: 1991-2000)
PHE 596/796	Biochemical Toxicology Research (Revised and Course Director: 1994-2000)
PHE 791	Advance Toxicology Seminar (Revised and Course Director: 1994-2000)
PHE 705	Special Topics in Environmental Sciences (Revised and Course Director: 1994-2000)
ENH 600	Environmental Health (Lecturer, 2001, 2002)
ENV 650/750	Environmental & Occup. Toxicology (Revised and Course Director: 2000-2004)
ENH 695	Environ. Health/Toxicology Seminar (Revised and Course Director: 2000-2004)
ENV 698/798	Master/Doctoral Level Directed Laboratory Research (Revised and Course Director:2000-2004)
ENH 695	Environ. Health/Toxicology Seminar (Revised and Course Director:2000-2004)
ENV 753	Advance Toxicology II (Revised and Course Director:2000-2004)
FIU	
PHC 6310	Environmental Toxicology (Revised and Course Director: 2004-2006)
PHC 6311	Environmental Health Risk Assessment (Revised and Course Director:2004-2009, 2012)
PHC6315	Environmental Health Sciences (Online & Onsite-Revised and Course Director: 2012)
PHC 6921	Environmental and Occupational Health Seminar (Developed and Course Director 2005-2009)

PHC 6914L	Current Topics in Environmental & Occupational Health Sciences Research Lab
	(Developed and Course Director 2005-Present)
PHC 6917	Pre-doctoral Research in Environmental & Occupational Health Sciences (Developed and Course Director 2008-Present)
PHC 6358	Genomics in Public Health (Revised and Course Director: 2005-Present)
PHC 6920	Special Topics in Environmental & Occupational Health (Developed and Course
	Director 2005-Present)
PHC6907	Independent Topics in Environmental & Occupational Health
PHC7300	Biological Basis of Public Health (Developed and Course Director: 2005, 2006,
	2012-Present)
PHC 7322	Scientific Advances Influencing Environmental Health Decisions (Developed and
	Course Director: 2012-Present)
PHC 7980	Doctoral Dissertation (Course Director: 2006-Present)

# ACADEMIC SERVICE TO UNIVERSITY OF ALABAMA AT BIRMINGHAM (UAB)

# **Department of Environmental Health Sciences – UAB School of Public Health**

1996	Chair, Faculty Search Committee for Department of Environmental health Sciences
1993-2004	Director, NIH Bridges to Doctorate Training Grant, UAB Department of Environmental
	Health Sciences
1991-1994	Member, Environmental Toxicology MSPH and PHD Curricululm Committee
1994-2004	Chair, Environmental Toxicology MSPH and PHD Curricululm Committee
1991-2004	Member, Environmental Health Sciences MSPH, MPH and PHD Admission Committee
2000	Member, Search Committee for Chair of the department of Environmental Health Sciences,
	UAB School of Public Health.
2004	Member, Search Committee for Chair of the department of Environmental Health Sciences,
	UAB School of Public Health.

# University of Alabama at Birmingham School of Public Health

1992-1996	Member, Education Policy/Curriculum Committee of the SPH
2000-2004	Member, SPH Tenure and Promotion Committee

# ACADEMIC SERVICE TO FLORIDA INTERNATIONAL UNIVERSITY

#### Department of Environmental and Occupational Health at RSSPH/RSCPH&SW

2005- Present	Member, EOH Department MPH and PHD Admission Committee
2005- Present	Member, EOH Department MPH and PHD Curriculum Committee
2006- Present	Member, EOH Department Dissertation Advisor Status (DAS) Committee
2005- Present	Member, EOH Department Graduate Faculty Committee
2008 -Present	Member of the Doctoral Evidence Acquisition (DEA) Fellowship
2014- Present	Member, EOH Department Research Committee
2006- Present	Member, EOH Department Tenure and Promotion Committee

#### RSSPH/RSCPH&SW

2004-Present	Member, SSPH/RSCPH&SW	Tenure and Promotion Committee
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2004-2011	Member, Dean's Council/Executive Committee
2004-2007	Member, SSPH Strategic Planning Committee
2004-2007	Member, Academic Affairs Committee Criteria for SSPH
2004-2007	Chair, PhD Coordination Committee
2005-2007	Chair, Research Committee for SSPH
2005-2007	Chair, Faculty Search Committee for Epidemiology and Biostatistics
2006-2007	Member, Education Policy/Curriculum Committee of the SSPH
2007-2008	Chair, Research Outcome Criteria for SSPH for CEPH
2007-2008	Chairperson, Annual Faculty Assignment Guidelines Committee
2009	Chair, Search Committee for Chair of Department of Biostatistics
2009-2010	Chair, Search Committee for Faculty of Department of Biostatistics
2009-2010	Chair, Faculty Search Committee for Department of Epidemiology

#### Florida International University

2006-2011	Member, FIU Chairs Advisory Council (CAC)
2007-2011	Member, Research Advisory Committee, FIU Division of Research
2006-2007	SSPH Representative, University Graduate Committee
2006, 2008	Member of Reviewer Panel for FIU Foundation Research Awards
2015	Reviewer, FIU NSF CREST Research Training Grants

#### SERVICE TO MIAMI VA MEDICAL CENTER

2014- Member of Budget Subcommittee of Miami VA Research and Development Committee

2013- Member, Miami VA Medical Center Research and Development Committee

2013- Member of Board of Director of South Florida VA Foundation for Research and Education

#### ADVISING ACTIVITIES AND MENTORING

#### POSTDOCTORAL/RESEARCH ASSOCIATE FELLOWS

	-1992
Indian Administrative Allied Officer, Indian Government, New Delhi, India.	
2. Dr. Murali Palangat 1992-	-1995
Research Biologist, National Institutes of Health, Bethesda $\cdot$ Center for Cancer Research	
3. Dr. Zhi-Jie Yan	-1995
Pathologist, Delray Beach, Florida	
4. Dr. John Colerangle	-1997
Associate Director, Sanofi-Aventis Pharmaceuticals, Bridgewater, NJ	
5. Dr. Kamleshwar Prasad Singh 1997-	-2004
Associate Professor at Texas Teck, Lubbock	
6. Dr. Jim Dumond, 1998-	-2000
Associate Dean at TSU Houston	
7. Dr. Subhashish Sarkar 2002-	-2004

8. Dr. Quentin F	elty Associate Professor at FIU	2004-2005
9. Victor Okoh	Scientist, UM	2004-2007
10. Yong Ping Z		2005-2007
11. Ranjan Tam		2008-2009
12. Alok Deoraj		2009-2010
13. Mahesh Josh		2013-2014
14. Jayanta K D		2014-Present

#### DOCTORAL STUDENT THESIS/DISSERTATION SUPERVISION

#### University of Alabama at Birmingham

1. Ronald Thomas (PhD)	Graduated (1995)
<u>Last Position Held:</u> <b>Professor</b> , Florida A & M University, Tallahassee - Deceased <u>Title of Thesis:</u> "The role of mitochondrial redox cycling of stilbestrol in carcinogenesis.	
2. Alfonzo Atkinson (PhD)	Graduated (1995)
<u>Last Position Held:</u> <b>Dean</b> , University of Tuskegee, Tuskegee, Alabama - Deceased <u>Title of Thesis:</u> "The genotoxicity and reproductive toxicity of Bispheol A.	Graduated (1993)
3. Chiao-Wen Chen (PhD)	Graduated (1996)
Last known Position Held: Scientist, Roche Pharmaceuticals, California <u>Title of Thesis</u> : The Role of Nuclear IGF-1 receptor in stilbestrol-induced cell proliferation	on
4. Michael Holland (PhD)	Graduated (1995)
<u>Last known Position Held</u> : Owner of BioQuest <u>Title of Dissertation</u> : "Effects of Altered Endocrinology on Mammary Carcinogenesis"	
5. John C. Colerangle (PhD)	Graduated (1997)
Current Position Held: Associate Director, Toxicology & Pharmacology, Sanofi-Aventis	s Pharmaceuticals,
Bridgewater, NJ Dissertation Title: Environmental estrogens and adverse effects on the mammary	
gland.	
6. Jim Dumond (Ph.D.)	Graduated (1998)
Current Position Held: Dean, School of Science, Marist College, New York	
Donnelly 228 Dissertation Title: Estrogen and testicular cancer	

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9. Alan Rowan, (DrPH) <u>Current Position Held:</u> Associate Professor, FSU	Graduated (2002)
<u>Dissertation Title:</u> Prenatal Exposure to Toxic Substances and the Risk of Congenital M Florida	Ialformations in
10. Quentin Felty (PhD) <u>Current Position Held</u> : Associate Professor, FIU Dissertation Title: Estrogen-induced cell growth through an ER-independent pathway.	Graduated (2004)
Florida International University	
11. Victor Okoh (PhD) Current Position Held: Faculty, Miami Dade College <u>Dissertation Title:</u> 4-OHE2-induced oxidant- mediated signaling is involved in the development cancer	Graduated (2010)
12. Brenda Luna (PhD) Current Position Held: Florida State Laboratory, Miami <u>Dissertation Title:</u> Prenatal Environmental Exposure and Neurodevelopmentally Importan Malformed Brain Tissue from Pediatric Intractable Epilepsy Patients	Graduated (2011) t Gene Expression in
13. Rosalind penny (PhD) Current Position Held: Instructor, UAMS College of Public Health <u>Dissertation Title</u> : Thioredoxin and Jab1 control estrogen- and antiestrogen-mediated pro- cycle through p27 interactions	Graduated (2011)
<ul> <li>14. Brian Kunkle (PhD)</li> <li>Current Position Held: Postdoctoral Fellow at Univ. of Miami</li> <li><u>Dissertation Title</u>: The Potential Role of Environmental Exposures and Genomic Signalin Central Nervous System Tumors</li> </ul>	Graduated (2011) ng in Development of
15. Nana Aisha Garba (PhD) Current Position Held: Assistant Professor, Assistant Community Director at FIU Dissertation Title: The role of redox signaling in the molecular mechanism of tamoxifen cancer	
16. Marisa Morgan (PhD) Current Position Held: <b>Teacher</b> , Broward County <u>Dissertation Title</u> : Exposure to Endocrine Disrupting Compounds and Reproductive Toxi	Graduated (2014) icity in Women
17. Patrick Jenkins	2005-2007
18. Tracie L. Dickerson	2012-2013

# 8. Quiyin Cai (Ph.D.)

7. Surasak Burantrevedth (DrPH)

Graduated (2000) Current Position Held: Associate Professor, Vanderbilt University School of Medicine, Nashville, TN Dissertation Title: "Estrogen-induced gene mutations and testicular cancer"

Dissertation Title: Endocrine Disrupting chemicals and Reproductive Cancers

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17 18. 19. Mohannad Garoub Nano-targeting of breast cancer stem cells 2013-

Graduated (1999) Current Position Held: Director, Occupational Health, Thammasat University, Thailand

20. Mark Percidos	Endocrine Disruptors and Brain Health	2013-
21. Jairo Ramos	NRF1 and Breast Cancer	2014-

# **Doctoral Committee Members**

# University of Alabama at Birmingham

Michael Holland	1991-1994
Sejong Bae	1993-1997
Susan Moore	1991-1995
Thamban Valappil	1994-1997
Sharon Heber	1993-1997
Delicia Carey	1995-1999
Amal Mitra	1992-1995
Ronald Brown	1991-1993
Larry Williams	1992-1997
Alison Brown	1992-1996
Steve.M Dearwent	1998-2001
Shih-Houng Young	1998-2000
Gillian Haber, Epidemiology	2005-2010

# Florida International University

Brit Turnquest, Chemistry	2007-2013
Amy Saldana-Caboverde, Biological Sciences,	2008-2012
Amy Keneddy, EOH,	2008-2011
Nicole Porter, EOH	2007-2011
Karina Villalba, EOH	2009-2011
Prasad Kadam , EOH	2008-2011
Sandip Singh, EOH	2010-2011
Sandra Giraldo, EOH	2008-2011
Evan Nelson, EOH	2008-2011
Sk Md Sazzad Hossain, Chemistry	2014-
Mayure Doke, EOH	2014-
Vincent Avecila, EOH	2014-
Hamza Assaggaf, EOH	2014-

# Masters of Science in Public Health (MSPH)

Academic as well as Master Thesis Advisor

1. Tung Chin Chiang (MSPH)	Graduated (1994)
2. Bart Turner (MSPH)	Graduated (1997)
3. Rene Stoke (MSPH)	1995
4. Judson Moore (MSPH)	Graduated (1995)
5. Victor Okoh (MSPH)	Graduated (1997)
6. Kevin Gaylor (MSPH)	1995
7. Quintin Felty (MSPH)	Graduated (1998)
8. Young Liu (MSPH)	1996
9. Lee Armstead (MSPH)	Graduated (2000)
11. Jeffery Michael (MSPH)	Graduated (2001)

12. Matt Maynard (MSPH)	Graduated (2001)
13. Karla Simmon (MSPH)	Graduated (2002)

#### Master of Public Health (MPH)

Academic Advisor10. A. Modupe (MPH)Graduated (2000)14. Manoj Singh (MPH)Graduated (2004)15. Kellie LitovichGraduated (2012)16. Mohannad GaroubGraduated (2012)\*From 2005- present I have supervised more than 30 MPH Students at FIU (too many to list here).

#### UNDERGRADUATE STUDENTS

Adam Leisy, 2005-2006 Bernice Blanco, 2008-2009 Kathryn Perez , 2007-2008 Karin Tariff, 2006-2007 Timothy Collins, 2011-2011 Yasmin Chebbi, 2010-2011 Lazaro Mesa, 2013-2015 Juan Pablo Vargez, 2014-Nathalie Quinones, 2015-Pakrat Rasamikomen, 2015-

#### HIGH SCHOOL STUDENTS

Antra Deoraj, 2009 Raymond Mailhot, 2003-2004 Steve Yoo, 2010

#### **EXTERNAL EVALUATOR OF PhD THESIS**

- Doctoral Candidate: Ms Dr. Marion Gerschpacher Thesis Supervisor: Prof. Johannes Huber Thesis title: The Impact of Free Radicals on the Metabolism of Estrone Program - Endocrinology and Metabolism, Medical University of Vienna, Austria
- Doctoral Candidate: N. Babu Thesis Title: Influence of hypercholesterolemia on hemorheological and shape parameters of erythrocytes in hyperglycemic subjects. Mentor: Dr. K.N. Somasekharan, Ph.D Program: Sastra University, Thanjavur, Tamil Nadu, India
- Doctoral Candidate: Sajad War Thesis Title: Understanding the molecular signals in SSTR3 that contribute to apoptosis. Mentor: Dr. Ujendra Kumar Program: University of British Columbia, Vancouver, Canada

# PUBLICATIONS [ 132 (Google Scholar H-Index: 33; Scopus H-Index: 30; RG Score: 39.25)]

#### PEER REVIEWED ARTICLES (118)

- 1. Portier CJ, Armstrong B, Baguley BC, et al. Differences in the carcinogenic evaluation of glyphosate between the International Agency for Research on Cancer (IARC) and the European Food Safety Authority (EFSA). J Epidemiol Community Health 2016; 0: 1–5, doi:10.1136/jech-2015-207005.
- Roy D, Morgan M, Yoo C, Deoraj A, Roy S, Yadav VK, Garoub M, Assaggaf H, Doke M (2015). Integrated bioinformatics, environmental epidemiologic and genomic approaches to identify environmental and molecular links between endometriosis and breast cancer. Int J Mol Sci. 16(10):25285-322.
- 3. Victor Okoh, Nana Garba, Rosalind Penney, Jayanta Das, Alok Deoraj, Kamaleshwar Singh, Subhashish Sarkar, Quentin Felty, Changwon Yoo, Robert Jackson, and Deodutta Roy (2015) Redox signaling to nuclear regulatory proteins by reactive oxygen species contributes to estrogen-induced growth of breast cancer cells, British J Cancer,112(10):1687-702.
- 4. Brenda Luna, Sanjiv Bhatia, Changwon Yoo, Quentin Felty, David I. Sandberg, Michael Duchowny, Ziad Khatib, Ian Miller, John Ragheb, Jayakar Prasanna, Deodutta Roy (2014) Proteomic and mitochondrial genomic analyses of pediatric brain tumors. Mol Neurobiol 30 (11) 1-23
- 5. Brenda Luna, Sanjiv Bhatia, Changwon Yoo, Quentin Felty, David I. Sandberg, Michael Duchowny, Ziad Khatib, Ian Miller, John Ragheb, Jayakar Prasanna, Deodutta Roy (2014) Bayesian network and mechanistic hierarchical structure modeling of increased likelihood of developing intractable childhood epilepsy from the combined effect of mtDNA variants, oxidative damage, and copy number. J Mol Neurosci 54(4):752-766
- Brian Kunkle, S. Bae, K. P. Singh, Deodutta Roy (2014) Increased risk of childhood brain tumors among children whose parents had farm related pesticide exposures during pregnancy JP Journal of Biostatistics, 2014, 11, 89 - 101.
- 7. Brian Kunkle, Changwon Yoo, Deodutta Roy (2013) Reverse engineering of modified genes by Bayesian Network Analysis defines molecular determinants critical to the development of glioblastoma, PLoS ONE, 8(5): e64140.
- Okoh VO, Felty Q, Parkash J, Poppiti R, Roy D (2013) Reactive oxygen species via redox signaling to PI3K/AKT pathway contribute to the malignant growth of 4-hydroxy estradiol-transformed mammary epithelial cells. PLoS ONE 8(2): e54206
- 9. Kunkle B, Yoo C, Roy D (2013) Discovering gene–environment interactions in glioblastoma through a comprehensive data integration bioinformatics method. Neurotoxicol 35, 1-14.
- 10. Rosalind Brigham Penney and Deodutta Roy (2013), Thioredoxin-mediated redox regulation of resistance to endocrine therapy in breast cancer, Biochimica et Biophysica Acta, 1836, 60–79.
- 11. Kunkle, B, Yoo, C, Felty, Q, Roy, D: Identifying gene alterations required for the development of astrocytoma, Proc MODSIM, 2011, 19: 432-457

- 12. Okoh V, Deoraj A, Roy D: Estrogen-induced ROS mediated redox signaling contributes in the development of breast cancer. Biochem Biophys Acta, 1815:115-133, 2011.
- 13. Kunkle, B, Sandberg, D, Jayakar, P, Felty, Q, Roy, D: Environment, genetic and epigenetic alterations and pediatric central nervous system tumors. Encyclopedia of Environmental Health, 2, 559-568, 2011
- 14. Luna, B, Bhatia, B, Ragheb, B, Miller, I, Jayakar, P, Felty, Q, Roy, D. Gene-environment interactions, malformations of cortical development and epilepsy in children. Encylopedia of Environmental Health: Gene-Environment Interactions, 2, 595-602, 2011
- 15. Felty, Q., Chen, D., and Roy, D. Hierarchical clustering method identifies adaptation of mitochondrial signaling to the treatment of mitochondrial blockers that regulates the expression of cell cycle genes. Proc MODSIM, 2009, 708-714
- 16. Kunkle, B., Q. Felty, F. Trevino, D. Roy, Meta-analysis of breast cancer microarray data identifies upregulation of NRF-1 expression in human breast carcinoma. Proc MODSIM, 2009, 715-719
- 17. Kunkle, B., Felty, Q., Narasimhan, G., Trevino, F., and Roy, D. Meta-analysis of brain tumor microarray data using Oncomine identifies NRF1, Tfam and Myc co-expressed genes: its implications in the development of childhood brain tumors. Proc MODSIM, 2009, 720-726.
- 18. Singh KP, Roy D. Allelic loss and mutations in a new ETRG-1 gene are early events in diethylstilbestrol-induced renal carcinogenesis in Syrian hamsters. Gene. 408(1-2):18-26, 2008.
- 19. DuMond JW Jr, Singh KP, Roy D. Development of a self-proliferating Leydig cell line: a hypersensitive E-screening model. Oncol Rep. 2006 Jul;16(1):73-7
- 20. Singh KP and Roy D SKCG-1: A new Candidate Growth Regulatory Gene at Chromosome 11q 23.2 in Human Sporadic Wilms tumors, British Journal of Cancer, 2006 May 22;94(10):1524-32
- 21. Parkash J, Felty Q, and Roy D: Estrogen exerts a spatial and temporal influence on reactive oxygen species generation that precedes calcium uptake in high-capacity mitochondria: Implications for rapid nongenomic signaling of cell growth. Biochemistry. 2006, 45(9):2872-81.
- 22. Roy, D, S. Sarkar, and Q Felty: The level of the peptide interleukin-1 beta determines its stimulatory or inhibitory autocrine and/or paracrine signals involved in the growth of estrogen-dependent tumors. Front Biosci. 2006, 11:889-98.
- Felty Q, Xiong WC, Sun D, Sarkar S, Singh KP, Parkash J, Roy D. Estrogen-Induced Mitochondrial Reactive Oxygen Species as Signal-Transducing Messengers. Biochemistry. 2005, 44(18):6900-6909.
- 24. Felty Q, Singh KP, Roy D. Estrogen-induced G(1)/S transition of G(0)-arrested estrogen-dependent breast cancer cells is regulated by mitochondrial oxidant signaling. Oncogene. 2005, 24(31):4883-93.
- 25. Felty Q and Roy D. Mitochondrial Signals to Nucleus Regulate Estrogen-Induced Cell Growth Med Hypothesis, 64, 133-141, 2005

- Vincent Cogliano; Yann Grosse; Robert Baan; Kurt Straif; Béatrice Secretan; Fatiha El Ghissassi; C. La Vecchia; P. Autier; G. Rosano; R. Stafford; L. Vatten; S. Shapiro; E. Fernández; V. Beral; J. Peto; G. Anderson; M. Bosland; S. Haslam; T. Junghans; D. Kaufman; A. Molinolo; S. Olin; P. Newcomb; F. Parl; D. Roy; et al. (2005) Carcinogenicity of combined oestrogen-progestagen contraceptives and menopausal treatment. Lancet Oncology, 6 (8) 552–553
- 27. Singh KP, Lopez-Guerrero JA, Lombert-Bosch A and Roy D. Age, sex and co-exposure to N-ethyl-N-nitrosourea influence mutations in the Alu repeat sequences in diethylstilbestrol-induced kidney tumors in Syrian hamsters, Mutagenesis, 19, 67-73, 2004
- 28. Singh KP and Roy, D. Somatic mutations in the genome of stilbene estrogen-induced Syrian hamster kidney tumors identified by DNA fingerprinting, J. Carcinogenesis, 3:4, 2004.
- 29. Roy D and Cai Q: Estrogen, immunoactivation, gene damages and development of breast, endometrial, ovary, prostate and testicular tumors. Recent Advances in Steroid Biochemistry and Molecular Biology, 3, 1-32, 2002
- 30. Satya Narayan and Deodutta Roy Role of APC and DNA mismatch repair genes in the development of colorectal cancers. Molecular Cancer, 2:41 2003
- DuMond, Jr JD and Roy D: The inhibition of DNA repair capacity by stilbene estrogen in Leydig cells: its implications in the induction of instability in the testicular genome. Mut. Res., 483,27-33, 2001
- 32. DuMond JW and Roy D: The biphasic stimulation of proliferation of Leydig cells by estrogen exposure. Int J Oncol 18, 623-628, 2001
- 33. Thomas RD and Roy D: Base sequence specific attack of stilbene estrogen metabolites on the mitochondrial DNA: Implications in the induction of instability in the mitochondrial genome of Syrian hamsters. Int J Mol Med, 7, 389-395, 2001.
- 34. Dumond J, Singh KP and Roy D: Regulation of the growth of mouse Leydig cells by the inactive stereoisomer, 17 alpha-estradiol: Lack of correlation between the elevated expression of ERalpha and difference in sensitivity to estradiol isomers. Oncol. Lett., 8, 899-902,, 2001
- 35. Singh KP and Roy D: Novel mutations in the q12.2 region of the chromosome 17 in breast tumors. Gene, 269, 33-43, 2001.
- 36. Thomas RD and Roy D: Modifications in mitochondrial DNA by stilbene estrogen and hepatocarcinogenicity. Oncol Lett 8, 1035-1038, 2001
- 37. Singh KP and Roy D. Detection of mutations or polymorphic loci in the genome of experimental animal and human cancer tissues by RAPD/AP-PCR depend on DNA polymerase. Int J Oncol 14, 753-758, 1999
- 38. Markides C, Roy D and Liehr JG. Concentration dependence of prooxidant and antioxidant properties of catecholestrogens. Arch. Biochem. Biophys. 360, 105-112, 1998.

- Liehr JG, Somasunderan A and Roy D. Natural and anthropogenic environmental estrogens: the scientific basis for risk assessment: Metabolism and fate of xeno-oestrogens in man. Pure and Appl. Chem. 70, 1747-1758, 1998
- 40. Liehr, J.G. and Roy, D. Pro-oxidant and antioxidant effects of estrogens. Methods in Molecular Biology, 108, 432-435, 1998.
- 41. Colerangle, J. and Roy, D. Exposure of rats to environmental estrogen-like chemical nonylphenol alters cell cycle kinetics of epithelial cells of the mammary gland. J. Steroid Biochem. Mol. Biol, 60, 153-160, 1997.
- 42. Roy, D. and Abul-Hajj, Y. Estrogen-nucleic acid adducts: guanine is major site for interaction between 3,4-estrone quinone and Co III gene. Carcinogenesis, 18, 1247-1249, 1997
- 43. Chen, CW and Roy, D. Insulin like growth factor-1 receptor is present on the nuclei. Cell. Mol. Endocrinol. 118, 1-8, 1996.
- 44. Colerangle, J. and Roy, D. Exposure of rats to environmental estrogen-like chemical nonylphenol alters cell cycle kinetics of epithelial cells of the mammary gland. Endocrine, 4, 115-122, 1996.
- 45. Chen, CW, Palangat, M., Oberley, TD, and Roy, D. Mechanism of antiproliferative activity of luteolin against stilbene-estrogen stimulation of proliferation of hamster renal epithelial cells. Int. J. Oncol. 9, 811-814, 1996.
- 46. Chen, CW, Oberley, TD and Roy, D. Inhibition of stilbene estrogen-induced cell proliferation of renal epithelial cells through the modulation of insulin like growth factor-1 receptor expression. Cancer Letters, 105, 51-59, 1996.
- Palangat, M and Roy, D. Stilbene estrogen-mediated enhanced tyrosine phosphorylation of the nuclear protein by p53 by nuclear matrix associated tyrosine kinases. Int. J. Oncol. 8, 1011-1016, 1996.
- Singh, SV., Scalamonga, D., Xia, H., O'Toole, S., Roy, D., Emerson, E.O., Gupta, V. and Zaren, HA. Mechanisms of resistance to mitomycin C in a human bladder cancer cell line. Int. J. Cancer, 65, 852-857, 1996.
- 49. Sekar, C. and Roy, D. Regulation of cAMP hydrolase in Syrian hamster kidney by estrogen. Biochem. Mol. Med. 56, 104-107, 1995.
- 50. Colerangle, J. and Roy, D. Perturbations of cell cycle kinetics in the mammary gland in response to exposure of stilbene estrogen, diethylstilbestrol. Cancer Letts., 94, 55-64, 1995.
- 51. Yan, Z. and Roy, D. Mutations in DNA polymerase mRNA from stilbene estrogen-induced kidney tumors. Biochem. Mol. Biol. Intl. 37, 175-183, 1995.
- 52. Colerangle, J. and Roy, D. The antiproliferative activity of luteolin against diethylstilbestrol-induced cell proliferation in the mammary gland of rat. Int. J. Oncol., 7, 1361-1366, 1995.
- 53. Thomas, R.D. and Roy, D. Redox cycling of estrogens catalyzed by mitochondrial enzymes. Carcinogenesis 16, 891-895, 1995.

- 54. Roy, D. and Pathak, D.N. Covalent modifications in nuclear histone proteins by reactive metabolites of diethylstilbestrol. J. Env. Health Toxicol. 444, 447-457,1995.
- 55. Palangat, M. and Roy, D. Organ specific inhibition of type I, II and III transcriptional activity by stilbene estrogen. Carcinogenesis, 16, 1017-1021, 1995.
- 56. Murali, P. and Roy, D. Phosphorylation of tyrosine residues of RNA polmerase II and other nuclear proteins by active chromatin tyrosine kinases. Biochem. Biophys. Res. Commun. 209, 356, 364, 1995.
- 57. Atkinson, A. and Roy, D. In vitro conversion of environmental estrogenic compound bisphenol A to DNA binding metabolites. Biochem. Biophys. Res. Commun. 210, 424-433, 1995.
- 58. Holland, M. and Roy, D. Estrone-induced cell proliferation and differentiation in the mammary gland of the female Noble rats. Carcinogenesis, 16, 1955-1961, 1995.
- 59. Chen, C.W. and Roy, D. Activation of plasma membrane IGF-I receptor tyrosine phosphorylation by stilbene estrogen exposure. Carcinogenesis, 16, 1339-1344, 1995.
- 60. Atkinson, A. and Roy, D. In vivo genotoxicity of bisphenol A. Env. Mutagen., 26, 60-66, 1995.
- 61. Roy, D. and Thomas, R.D. Catalysis of the redox cycling reactions of estrogens by nuclear enzymes. Arch. Biochem. Biophys. 315, 310-316, 1994.
- 62. Ho, S.-M. and Roy, D.. Sex hormone-induced increases in DNA strand breakage lipid peroxidation in the dorsolateral prostate of Noble rats. Cancer Letts., 84, 155-164, 1994.
- 63. Kakar, S. and Roy, D. Curcumin inhibits TPA induced expression of cfos, cmyc and cjun protooncogenes in mouse skin. Cancer Letts. 87, 85-89, 1994.
- 64. Narayan, S. and Roy, D. Characterization of insulin-like growth factor I receptors in normal and estrogen-induced neoplastic Syrian hamster kidney. Cancer Research 53, 2256-2259, 1993.
- 65. Pathak, D.N. and Roy, D. Mechanisms of genotoxicity of o-phenylphenol in vivo: phenylbenzoquinone is one of the DNA binding metabolite(s) of o-phenylphenol. Mut. Res 286, 309-319, 1993.
- 66. Roy, D. and Pathak, D.N. Modifications in the transcriptionally active chromatic low mobility group proteins by reactive metabolites of diethylstilbestrol. Biochem. Mol. Biol. Intl. 31, 923-934, 1993.
- 67. Atkinson, A., Meeks, R.G., and Roy, D. Increased oxidative stress in the liver of mice treated with trichloroethylene. Biochem. Mol. Biol. Intl. 31, 297-304, 1993.
- Bao, T.Z., Roy, D., and Liehr, J.G. The carcinogenic activity of ethinyl estrogens is determined by both their hormonal characteristics and their conversion to catechol metabolites. Endocrinol. 132: 577-583, 1993.
- 69. Narayan, Satya and Roy, D. Differential depletion of cellular protein and nonprotein thiols in various organs of mice by phenyl 2,5'-p-quinone. Biochem. Intl., 26, 191-198, 1992.

- Weisz, J., Bui, Q.D, Roy, D. and Liehr, J.G. Elevated target organ-specific 4-hydroxylation of estradiol by hamster kidney microsomes: Implications for carcinogenic action of estrogen. Endocrinology, 131, 655-661, 1992.
- 71. Roy, D. and Liehr, J.G. Target organ specific inactivation of drug metabolism enzymes in the kidney of hamsters treated with estradiol. Mol. Cell. Biochem., 110, 31-39, 1992.
- 72. Liehr, J.G., Chiappetta, C., Roy, D., and Stancel, G.M. Elevation of protooncogene messenger RNAs is estrogen-induced kidney tumors in the hamster. Carcinogenesis 13, 601-604, 1992.
- 73. Liehr, J.G., Han, W., and Roy, D. Lack of inhibition of estrogen-induced renal carcinogenesis by antiestrogens. Cancer Letters 64, 23-29, 1992.
- 74. Narayan, S. and Roy, D. Enhanced expression of protein tyrosine kinases in estrogen-induced kidney tumors in the hamster. Biochem. Biophys. Res. Commun. 186, 228-236, 1992.
- 75. Pathak, D.N. and Roy, D. Examination of microsomal cytochromes P 450-catalyzed in vitro inactivation of o-phenylphenol to DNA binding metabolite(s) by 32P-postlabeling. Carcinogenesis 13, 1593-1597, 1992.
- 76. Roy, D., Strobel, H.W., Coon, M.J., and Liehr, J.G. The oxidation of estrogens to estrogen quinones is catalyzed by beta-naphthoflavone-inducible cytochrome P 450 IA1. Arch. Biochem. Biophys. 296, 450-456, 1992.
- 77. Roy, D. and Liehr, J.G. Method to estimate estrogen 2- and 4-hydroxylase activity by gas chromatography using electron capture detector. J. Chromatography, 567, 309-318, 1991.
- 78. Roy, D., Strobel, H.M. and Liehr, J.G. Cytochrome b5 mediated redox cycling of estrogen. Arch. Biochem. Biophys. 285, 331-338, 1991.
- 79. Roy, D., Floyd, R., and Liehr, J.G. Elevated 8-hydroxyguanosine levels in DNA of diethylstilbestroltreated Syrian hamsters: Covalent DNA damage by free radicals generated by redox cycling of diethylstilbestrol. Cancer Res. 51, 3882-3886, 1991.
- 80. Roy, D., Kalyanaraman, B., and Liehr, J.G. Superoxide radical mediated reduction of estrogen quinones to estrogen semiquinones. Biochemical Pharmacol, 42, 1627-1631, 1991.
- 81. Roy, D., Weisz, J. and Liehr, J.G. 2- Hydroxyestradiol mediated inhibition of catechol O-methyl transferase catalyzed methylation of 4-hydroxyestradiol. Carcinogenesis, 11, 459-462, 1990.
- Liehr, J.G., Roy, D., Ari-Ulubelen, A., Bui, Q.D., Weisz, J. and Strobel, W.H. Target organ specific enhancement of microsomal mediated redox cycling preceding estrogen induced renal carcinogenesis. J. Steroid Biochem. 35, 555-560, 1990.
- 83. Roy, D. and Liehr, J.G. Inhibition of estrogen-induced renal carcinogenesis by modulators of estrogen metabolism. Carcinogenesis, 11, 567-570, 1990.
- 84. Roy, D. and Snodgrass, W.R. Covalent binding of phenytoin to protein and modulation of metabolism by thiols in A/J mouse liver microsomes. J. Pharm. Exp. Ther. 252, 895-900, 1990.

- 85. Roy, D. Cytochromes P450-catalyzed redox cycling of o-phenylphenol. Biochem. Intl. 22, 849-858, 1990.
- 86. Roy, D. and Snodgrass, W.R. Separation of phenytoin metabolites by high performance liquid chromatography from human and animal urine. Ther. Drug. Monitr. 11, 57-62, 1989
- 87. Roy, D. and Liehr, J.G. Changes in activities of free radical scavenging enzymes in kidney and liver of estradiol treated hamsters. Cancer Research, 49, 1475-1480, 1989
- Roy, D., Bui, Q.D., Weisz, J. and Liehr, J.G. Comparison of assays of catecholestrogen synthetase: product isolation vs radioenzymatic catechol-O-methyltransferase-coupled procedures. J. Steroid Biochem. 33, 243-249, 1989
- 89. Roy. D. and Liehr, J.G. Inhibition by vitamin C of in vivo conversion of diethylstilbestrol to diethylstilbestrol 4,4"-quinone in hamsters. Carcinogenesis, 10, 1241-1245,1989.
- 90. Liehr, J.G., Roy, D. and Gladek, A. Mechanism of inhibition of estrogen-induced renal carcinogenesis in male Syrian hamsters by vitamin C. Carcinogenesis, 10, 1983-1988, 1989.
- 91. Roy, D. and Singh, R. Age-related changes in multiunit activity in rat brain and effect of centrophenoxine. Exp. Gerontol. 23, 161-174, 1988.
- 92. Roy, D. and Snodgrass, W.R. Phenytoin metabolic activation: Role of cytochrome P-450, glutathione, age and sex in rat and mice. Res. Comm. Chem. Pathol. Phar. 59, 173-190, 1988
- 93. Moslen, M.T., Harper, B.L. and Roy, D. Effects of a cysteine precursor, L-oxothiazolidine carboxylate, nutritional status and sex on tissue glutathione and hepatic GSH utilizing enzymes of CD-1 mice. Res. Commun. Chem. Pathol. Pharmacol. 61, 49-63, 1988
- 94. Roy, D. and Liehr, J.G. Temporary decrease in renal quinone reductase activity induced by chronic administration of estradiol to male Syrian hamsters: increased superoxide radical formation by redox cycling of estrogen. J. Biol. Chem. 263, 3646-3651, 1988
- 95. Roy, D. and Liehr, J.G. Characterization of drug metabolizing enzymes in estrogen induced kidney tumors in male Syrian hamsters. Cancer Res. 48, 5726-5729, 1988
- 96. Maurya, A.K., Rout, U.K., and Roy, D. Lack of potential of anticonvulsant drugs to induce sister chromatid exchanges in epileptics. Cell. Mol. Biol. 33, 237-247, 1987.
- 97. Pathak, D.N., Roy, D., and Singh, R. Changes in GABA-T and SSA-DH in experimental cobalt and ferric chloride-induced epileptic rat brain. Biochem. Intl. 9, 59-66, 1984.
- 98. Roy, D., Pathak, D.N., and Singh, R. Effect of chlorpromazine on antioxidant enzymes and lipid peroxidation in rat brain. J. Neurochem. 42, 641-651, 1984.

99. Roy, D. and Singh, R. Changes in glucose-6-phosphate dehydrogenase and 6-phosphogluconate dehydrogenase activity in subcellular fractions from rat brain and effect of dimethylaminoethanol. Biochem Intl. 7, 43-53, 1983.

100. Roy, D., Pathak, D.N., and Singh, R. Effect of centrophenoxine on antioxidative enzymes in different regions of ageing rat brain. Exp. Geront. 18, 185-197, 1983.

#### **INVITED REVIEW ARTICLES**

- 105. Roy D, Felty Q, Narayan S and Jayakar P, Signature of mitochondria of steroidal hormonesdependent normal and cancer cells: potential molecular targets for cancer therapy. Encyclopedia of Bioscience, 2007 Jan 1;12:154-73.
- 106. Roy D, Q Cai, Q Felty and S Narayan: Estrogen-induced generation of reactive oxygen and nitrogen species, gene damage and estrogen-dependent cancers. J Toxicol Env Health, 2007 Jan 1;12:154-73
- 107. Felty Q, Roy D. Estrogen, mitochondria, and growth of cancer and non-cancer cells. J Carcinog. 2005 Jan 15;4(1):1
- 108. Roy D, Parkash J, and Narayan S: Genetics and bioenergetics of mitochondria influencing the etiology and pharmacology of steroidal hormones, Current Pharmacogenomics, 2 (4) 379-390, 2004.
- 109. Roy, D., and Singh, K. P. (2004) Estrogen-induced genetic alterations and their role in carcinogenicity, Curr. Genomics 5, 245-257.
- 110. Roy D and Singh KP. Estrogen-induced genetic alterations and breast, endometrial, testicular and prostate cancers, Current Genomics, 5 (3), 245-253, 2004
- 111. Satya Narayan and Deodutta Roy Role of APCand DNA mismatch repair genes in the development of colorectal cancers. Molecular Cancer, 2:41 2003
- 112. Roy D and Cai Q: Estrogen, immunoactivation, gene damages and development of breast, endometrial, ovary, prostate and testicular tumors. Recent Advances in Steroid Biochemistry and Molecular Biology, 3, 1-32, 2002
- 113. Surasak Burantrevedh and Deodutta Roy: Occupational exposure to endocrine disrupting pesticides and the potential of developing hormonal cancers. J Env Health, 64, 17-30, 2001
- 114. Cavalieri E, Frenkel, K, Rogan E, Roy D and Liehr JG. Estrogens as endogenous genotoxic agents: DNA adducts and mutations. JNCI Mongr, 27, 75-94, 2000
- 115. Roy, D. and Liehr, J.G. Estrogens, DNA damages and mutations. Mut. Res., 424, 107-115, 1999.
- 116. Roy, D, Colerangle, J. and Singh, K.P. Is exposure of environmental or industrial endocrine disrupting estrogen-like chemicals able to cause genomic instability? Front. Biosci., 3, d913-921, 1998.
- 117. Roy, D., Palangat, M., Chen, CW, Thomas, RT, Colerangle, JC, Atkinson, A., Yan, ZJ. Biochemical and molecular changes at the cellular levels in response to exposure of environmental estrogen-like chemicals. J. Toxicol. Environ. Health, 49, 101-129, 1997.

118. Liehr, J.G. and Roy, D. Free radical generation by redox cycling of estrogens. Free Radical Biol. Med. 8, 415-423, 1990.

#### **BOOK CHAPTERS, MONOGRAPHS and PROCEEDINGS**

#### **Book Chapters**

119. Alok Deoraj, Changwon Yoo and Deodutta Roy, Integrative Biostatistic, Bioinformatic and Molecular Approaches to Study the Link Between the Environment and Health in Transdisciplinary Molecular Epidemiology and Genomic Studies for Understanding the Susceptibility and Development of Complex Chronic Diseases and The Variation in Treatment Responses to Chronic Diseases, In: Sumiko Anno (Ed) Gene-Environment Interaction Analysis: Methods in Bioinformatics and Computational Biology, Pan Stanford Publishing Pte. Ltd., In Press, 2016

120. MT Dorak and Deodutta Roy: Introduction, In: Roy D and Dorak, MT (Eds) Environmental Factors, Genes, and the Development of Human Cancers, 2010, Part 2, 3-9

121. MT Dorak and Deodutta Roy: Preface, In: Roy D and Dorak, MT (Eds) Environmental Factors, Genes, and the Development of Human Cancers, 2010, Part 2, 3-9

122. Brian Kunkle, David Sandberg, Prasanna Jayakar, Quentin Felty and Deodutta Roy: Gene– Environment Interaction and Susceptibility to Pediatric Brain Tumors, In: Roy D and Dorak, MT (Eds) Environmental Factors, Genes, and the Development of Human Cancers, 2010, Part 2, 223-252

123. Alok Deoraj and Deodutta Roy: Approaches to Identify Environmental and Epigenomic Components or Covariates of Cancer and Disease Susceptibility, In: Roy D and Dorak, MT (Eds) Environmental Factors, Genes, and the Development of Human Cancers, 2010, Part 2, 179-219

124. Singh K, López-Guerrero JA, Llombart-Bosch A and Roy D Estrogen-induced mutations and its role in the development of tumorigenesis, In: Li, Jonathan J.; Li, Sara A.; Llombart-Bosch, Antonio (Eds.), Hormonal Carcinogenesis IV, Springer-Verlag, New York, pp 475-479, 2005

125. Roy, D., Chen, C.W. and Yan, Z.J. Increased IGF-I receptor level coupled with attenuation in DNA repair play an important role in the induction of estrogen-induced carcinogenesis. Hormonal Carcinogen II, Springer Verlag, NY, 463-466, 1995.

126. Holland, M. and Roy, D. Antiproliferative activity of naturally occurring edible plant flavoneinduced cell proliferation in the mammary gland of Noble rats. Hormonal Carcinogenesis II, (eds. J.J. Li, et al.), Springer Verlag, NY, pp 471-474, 1995.

#### Proceedings

127. Kunkle, B., Singh, K.P. and Roy, D: Increased risk of childhood brain tumors among children whose parents had farm-related pesticide exposures during pregnancy. MODSIM 2013, 20, 2012-2017.

128. Purewal, M. and Roy, D. Estrogen enhanced cell proliferation in the target organ of carcinogenesis. Proc. XVI Intl. Cancer Congress, 602-604, 1994.

129. Palangat, M. and Roy, D. Diethylstilbestrol induced modulation of nuclear protein tyrosine phosphorylation in kidney, target organ of cancer: Transcriptional implications. Proc. XVI Intl. Cancer Congress, 103-107, 1994.

130. Roy, D. and Palangat, M. Active chromatin-associated protein tyrosine kinases: Their probable role in hormonal carcinogenesis. Proc. XVI Intl. Cancer Congress, 633-637, 1994.

131. Roy, D. Reactive potential of diethylstilbestrol reactive metabolites towards cellular nuclear proteins. Biol. Reactive Intermed. IV, Plenum Press, NY, PP-809-812, 1990.

132. Roy, D., Kumar, U., Pathak, D.N., Anthony, M.I., Jussal, R.L., Dua, R.D., and Singh, R. Pharmacological basis and perspective of micronutrient interactions on central nervous system. Proc. Natl. Develop. Alt. Saf. Therapeut. 1, 67-75, 1984.

# **IARC Monographs**

- 1. Roy, D and Members, of Panel WHO Organized IARC Panel, Some Organochlorine Insecticides and Some Chlorphenoxy Herbicides, IARC Monographs on the evaluation of carcinogenic risks to humans, Volume 113, 2015.
- 2. Anderson GL; Autier P; Beral V; Bosland M; Fernández E; Haslam SJ; Kaufman DG; Vecchia CL; Molinolo AA; Roy D, other IARC Panel Members. IARC monographs programme on the evaluation of carcinogenic risks to humans. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. 2007;91:9-31.
- 3. Anderson GL; Autier P; Beral V; Bosland M; Fernández E; Haslam SJ; Kaufman DG; Vecchia CL; Molinolo AA; Roy D, other IARC Panel Members. General remarks. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. 2007;91:33-35.
- 4. Anderson GL; Autier P; Beral V; Bosland M; Fernández E; Haslam SJ; Kaufman DG; Vecchia CL; Molinolo AA; Roy D, other IARC Panel Members.Combined estrogen-progestogen contraceptives. IARC monographs on the evaluation of carcinogenic risks to humans, Volume 91:41-202, 2007 <u>http://monographs.iarc.fr/ENG/Monographs/vol91/mono91.pdf</u>
- Anderson GL; Autier P; Beral V; Bosland M; Fernández E; Haslam SJ; Kaufman DG; Vecchia CL; Molinolo AA; Roy D, other IARC Panel Members. Combined estrogen-progestogen menopausal therapy. IARC monographs on the evaluation of carcinogenic risks to humans, Volume 91: :205-372, 2007 <u>http://monographs.iarc.fr/ENG/Monographs/vol91/mono91.pdf</u>
- Baan R, Barrett-Connor E, Beral V, Bosland M, Cook L, Franceschi S, Hirvonen E, Jordan A, Kaufman DG, Key T, King R, La Vecchia C, Molinolo AA, Lumbiganon P, Luoto R, Roy, D and other Members of IARC Working Group. Hormonal Contraception and Post-Menopausal Hormonal Therapy, IARC monographs on the evaluation of carcinogenic risks to humans Volume 72: 1-629, 1999 <u>http://monographs.iarc.fr/ENG/Monographs/vol72/mono72.pdf</u>

#### EDITOR OF BOOK/ENCYCLOPEDIA/SPECIAL ISSUE OF JOURNAL

Editor: Environmental Factors, Genes, and the Development of Human Cancers, Springer Press, New York, USA, 2010.

Section Editor: Gene-Environment Interactions, Encyclopedia of Environmental Health, Elsevier, 2011

Special Issue Editor, Austin Journal of Bioinformatics and Comparative Genomics "Application of Computational Biology and Bioinformatics in Understanding the Etiopathogenesis of Chronic Human Diseases", 2015.

# **ONLINE RESOURCES**

S Giraldo, J Sanchez, Q Felty, D Roy (2009) IL1B (interleukin 1, beta) Atlas Genet Cytogenet Oncol Haematol. <u>http://atlasgeneticsoncology.org/Genes/GC\_IL1B.html</u> <u>http://documents.irevues.inist.fr/bitstream/handle/2042/45327/vol\_13\_4\_2009.pdf?sequence=4&isAll</u> <u>owed=y#page=31</u>

Roy D, Tamuli R . NRF1 (nuclear respiratory factor 1). Atlas Genet Cytogenet Oncol Haematol. December 2008 . URL : <u>http://AtlasGeneticsOncology.org/Genes/NRF1ID44233ch7q32.html</u> <u>http://documents.irevues.inist.fr/bitstream/handle/2042/45619/vol\_13\_11\_2009.pdf?sequence=1&isA</u> <u>llowed=y#page=89</u>

# PAPERS PRESENTED IN NATIONAL SYMPOSIUMS/CONGRESS

- 1. Das J and Roy D. NRF-1 contributes to the development of estrogen-induced pre-malignant phenotype of normal breast cells through the generation of tumor initiating stem-like cells (abstract). Miami VA Research Day, May 18, 2015
- 2. Mesa, L, Das J, Deoraj A and Roy D. Phosphodeficient NRF1 mutant suppresses the susceptibility of the breast epithelial cells to develop tumors when exposed to estrogen a major breast cancer risk factor. Cancer Research 75 (15 Supplement), 4559.
- 3. Garoub M, Das J, Wnuk S and Roy D. Influence of mitochondrial bioenergetics on the development of estrogen dependent breast cancer. In: Proceedings of the 106th Annual Meeting of the American Association for Cancer Research, Philadelphia, 2015.
- 4. Das J and Roy D. Overexpression of NRF1 leads to the generation of cancer stem-like cells and resistance to anoikis-pathways to anchorage-independent growth during estrogen-induced malignant transformation. Cancer Research 75 (15 Supplement), 803.
- Deoraj A and Roy D. Converging bioinformatics evidence implicates endocrine-disrupting pesticide mixture exposure on epigenetic regulation of KISS1-GnRH control on precocious or delayed puberty. In: Proceeding of 55th Annual Meeting of Society of Toxicology, 477, 2015
- Roy D, Felty Q, Okoh V. Redox signaling to nuclear respiratory factor-1 proteins by reactive oxygen species contributes to the estrogen-induced breast tumor development. Cancer Research 74 (19 Supplement): 3179-3179, 2014

- Morgan M, Yoo C, Roy D. Adverse Human Reproductive Outcomes and Body Burdens of Endocrine Disrupting Compound—Polychlorinated Biphenyls. 53<sup>rd</sup> Annual Meeting of Society of Toxicology. 1087j, 2014
- 8. Pulido J, Sobczak AJ, Ortiz H, Van Dervort A, Theard P, Roy D, Wnuk S. Novel 4-N-modified gemcitabine analogs, 243rd ACS National Meeting & Exposition, March 25- 29 2012, San Diego, California.
- 9. Garba, N.A., Parkash, J., Felty, Q., Slingerland, J., and Roy, D. Reactive oxygen species-mediated redox signaling may contribute to the development of antiestrogen resistance in breast cancer. In: Proceedings of the *Era of Hope, Orlando, FL, 2011*.
- 10. Okoh, V., Felty, Q., Slingerland, J., and Roy, D. Estrogen-induced reactive oxygen species are involved in the development of breast cancer. In: Proceedings of the *Era of Hope, Orlando, FL, 2011*.
- 11. Okoh V., Felty, Q., Roy, D. (2011). Estrogen-induced redox signaling via NRF-1 is involved in the development of breast cancer. *Cancer Research 71 (8 Supplement): LB-12-LB-12*.
- B Kunkle, Q Felty, A Deoraj, C Yoo, F Trevino, D Roy. (2010) Differential role of estrogen receptor positive NRF1 High and NRF1 Low cells in breast cancer development and progression, New Biotechnology 27, S25
- Penney R., Felty, Q., Slingerland, J., and Roy, D. (<u>2010</u>). Erucin treatment through induction of thioredoxin reductase may alter tamoxifen resistance in LCC2 cells. *Cancer Research* 70 (8 *Supplement*), 604-604
- Kamaleshwar P. Singh, Shubhashish Sarkar, and Deodutta Roy. Functional characterization of a newly identified growth regulatory gene SKCG-1 in human kidney cancer. Cancer Res April 15, 2010; 70(8 Supplement): 5050
- 15. Penney R., **Felty**, **Q.**, Slingerland, J., and Roy, D. (<u>2010</u>) Modulation of thioredoxin reductase by sulforaphane may restore tamoxifen sensitivity in resistant LCC2 cells. *March SOT Meeting, Salt Lake City, UT*.
- 16. Okoh V and Roy, D. (2009) NRF-1 signaling participates in the estrogen-mediated growth of breast cancer cells. Proceeding of SOT PPTOXII, Miami, FL
- 17. Penny, R., Felty, Q., Slingerland, J., and Roy, D. (2009) Erucin co-treatment counteracts the effects of antiestrogen on estrogen-induced growth of breast cancer cells as well as restores the growth inhibitory effects of antiestrogen in resistant cells. Cancer Research 70(8 Supplement):604-604, 2010.
- 18. Penney, R., Felty, Q., Slingerland, J, and Roy, D. 2009. Modulation of thioredoxin reductase by sulforaphane may restore tamoxifen sensitivity in resistant LCC2 cells. Poster presentation, SOT PPTOXII, Miami, FL.
- 19. Penney, R., Felty, Q., Slingerland, J, and Roy, D. 2009. Redox status contributes to tamoxifenresistant growth of breast cancer cells. Cancer Research 69 (24 Supplement), 5134-5134

- 20. Penney, R., Felty, Q., Slingerland, J, and Roy, D. 2009. Redox state, thioredoxin-Jab1 interaction and tamoxifen resistance in breast cancer cells. FIU Breast Cancer Symposium, Miami, FL.
- 21. Okoh, V., Felty, Q., and Roy, D. (2009) NRF-1 signaling participates in the estrogen-mediated growth of breast cancer cells *Cancer Research* 69 (9 Supplement), 3360-3360
- 22. Penny, R., Felty, Q., Slingerland, J., and Roy, D. (2008) Ebselen co-treatment counteracts the effects of antiestrogen on estrogen-induced growth of breast cancer cells as well as restores the growth inhibitory effects of antiestrogen in resistant cells. In: Proceeding of the *Era of Hope, Baltimore, MD*, 2008.
- 23. Okoh, V., Garba, N.A., Felty, Q., and Roy, D. (2008) Inhibition of estrogen-induced growth of breast cancer cells by modulating in situ oxidant levels. In: Proceeding of the *Era of Hope, Baltimore, MD*, 008.
- 24. Garba, N.A., Penny, R., Okoh, V., Felty, Q., Slingerland, J., and Roy, D. (2008) Reversible inactivation of cdc25A by estrogen and antiestrogen-induced reactive oxygen species may be involved in the phosphorylation of p27. In: Proceeding of the *Era of Hope, Baltimore, MD*, 2008.
- 25. Kunkle, B, and Roy D (2007) Is *in utero* imprinting of the brain by pesticides involved in childhood brain cancer development. Epidemiology 18 (5), S169-S170
- 26. Roy D and Felty Q (2007) 4-OH-E2-induced oxidants through NRF-1 controls transcription of G1-S and G2-M phase cell cycle genes. FEBS Journal 274, 179-179
- 27. Triff, K., Felty, Q., and Roy, D. (2007) 4-hydroxyestradiol-induced ROS mediated activation of cell cycle genes, cdc2 and its regulators cdc25c and prc1, controls cell transformation, *The Toxicologist, Volume 96, Number 1, p. 381*
- 28. Garba, N.A., Felty, Q., and Roy, D. (2007) Environmental estrogenic compound bisphenol A-induced ROS signaling molecules and their adverse role in brain development, *The Toxicologist, Volume 96, Number 1, p. 24.*
- 29. Okoh, V., Felty, Q., and Roy, D. (2007) Activation of PI3K/AKT signaling pathway is involved in 4-hydroxyestradiol-induced cell transformation, *The Toxicologist, Volume 96, Number 1, p. 381.*
- 30. Felty, Q. and Roy, D. (2006) Estrogen-induced ROS signaling molecules and their role in brain cancer, *Cancer Research 66 (8 Supplement), 835-836.*
- Felty, Q., Triff, K., and Roy, D. (2006) Estrogen-Mediated Gene Expression Of Redox Sensitive Cell Signaling Proteins, *The Toxicologist, Volume 90, Number 1, [1933], p. 395.*
- 32. Felty, Q., Okoh, V., Narayan, S., and Roy, D. (2006) 4-Hydroxycatechol Estradiol Is Carcinogenic In Human Breast Epithelial Cells, *The Toxicologist, Volume 90, Number 1, [949], p. 193.*
- 33. Felty, Q., Zou, Y., and Roy, D. (2006) Rapid Estrogen-Induced Serine Phosphorylation Of Nrf-1 And Its Implications In The Growth Of Breast Cancer Cells, *The Toxicologist, Volume 90, Number 1, [1335], p. 272.*

- 34. Thacker, S., Singh, S., Gardinali, P., Felty, Q., and Roy, D. (2005) Natural and synthetic estrogen exposure through drinking water and its sources is a potential health concern for the fetus and infants, *Florida Public Health Association Annual Meeting*, 2005.
- 35. Sharma, S., Thacker, S., Gardinali, P., Felty, Q., and Roy, D. (2005) Health concerns to humans from natural and medicinal estrogens in ocean water through sewage waste water effluents, *Florida Public Health Association Annual Meeting*, 2005.
- 36. Thacker, S., Singh, S., Gardinali, P., Felty, Q., and Roy, D. (2005) Potential hazard of exposure to natural and medicinal estrogens from drinking surface water to children under two years of age. *American Public Health Association 133rd Annual Meeting*.
- 37. Sharma, S., Thacker, S., Gardinali, P., Felty, Q., and Roy, D. (2005) Hazard to human health from natural and medicinal estrogens in ocean water through sewage waste water effluents. *American Public Health Association 133rd Annual Meeting*.
- 38. Felty, Q. and Roy, D. (2005) Estrogen influences the growth of cells through modulating the intracellular redox state, *The Toxicologist, Volume 84, Number S-1, [1774], p. 362.*
- 39. KP Singh, D Roy. The activity of mitochondrial transcription factor A (mtTFA) is regulated by estrogen and its silencing inhibits the growth of cancer cells. Cancer Research 65 (9 Supplement), 1143-1143
- 40. Felty, Q. and Roy, D. (2005) Estrogen-induced signaling through mitochondrial ROS, *Cancer Research 65 (9 Supplement)*, 874-874.
- 41. Singh, M.K., Felty, Q., and Roy, D. (<u>2004</u>) 4-Hydroxyestradiol-induced proliferation of breast cancer cells is in part mediated through an increase in intracellular reactive oxygen species (ROS), *Proc Am Soc Cell Biol, 43rd Annual Meeting*.
- 42. Felty, Q. and Roy, D. (2004) Estrogen-induced upregulation of CRE containing genes in breast cancer cells, *The Toxicologist, Volume 78, Number S-1, p. 339*.
- 43. Felty, Q. and Roy, D. (2004) Mitochondria are pharmacological target of estrogen-independent cell growth, *Cancer Research* 64 (7 Supplement), 478-478.
- 44. Singh K and Roy D. Estrogen-induced cell Proliferation of human kidney epithelial cells, The Toxicologist 78, [440] 90, 2004.
- 45. Singh K and Roy D (2004). Identification of an estrogen-responsive novel gene in human breast cancer. Cancer Research, 64 (7 Supplement), 231.
- 46. Manoj K Singh, Deodutta Roy (2004) Cigarette smoke condensates increase the growth of estrogendependent breast cancer cells, Cancer Research 64 (7 Supplement), 175-176.
- 47. Venkat, S., Felty, Q., and Roy, D. (2003) Estrogen-induced stimulation of macrophages leading to the generation of reactive oxygen species in the target organ of cancer. *The Toxicologist, Volume, Number 1-S, [1143], p. 235.*

- 48. Felty, Q., Singh, K.P., and Roy, D. (2003) Inhibition of human breast tumor cell growth by controlling mitochondrial biogenesis. *The Toxicologist, Volume, Number 1-S, [1023], p. 211.*
- 49. Sharga, A., Felty, Q., and Roy, D. (<u>2003</u>) The influence of alcohol on estrogen-induced stimulation of cells in part occurs through reactive oxygen species. *Proceed American Assoc Cancer Res, Volume 44, p. 1200,.*
- 50. Felty, Q., Singh, K.P. ,and Roy, D. (2003) Modulation of nuclear cell cycle gene expression by arresting mitochondrial function. *Proceed American Assoc Cancer Res, Volume 44, p. 21.*
- 51. Parkash, J., Felty, Q., and Roy, D. (2003) Differential regulation of high and low capacity mitochondrial calcium in breast cancer MCF-7 cells by estrogen. *Proceed American Assoc Cancer Res, Volume 44, 715.*
- Raymond Mailhot, Kamleshwar P Singh, Satya Narayan, and Deodutta Roy. Identification of Drug Resistant Loci in Breast Cancer Cells by RAPD-PCR Fingerprinting, 1In Vitro Cell. Dev. Biol. 39, 2003.
- 53. Sharga, A., Felty, Q., DuMond, J., and Roy, D. (2003) Biphasic influence of alcohol on estrogenmediated perturbation of the cell cycle in breast cancer cells, *The Toxicologist, Volume, Number 1-S, p7.*
- 54. Felty, Q. and Roy, D. (2002) Identification of environmental estrogen-like chemicals in industrial wastewater by GC/MS, *The Toxicologist, Volume 66, Number 1-S, p.69.*
- 55. Singh K and Roy D. Regulation of growth of human embryonic kidney cells through a novel Alu sequence repeat containing gene, Proc In Vitro Society, 2002.
- 56. Singh K and Roy D. Elevated expression of a novel mutated gene localized on the chromosome 17q11.2 in human breast cancer cells, AACR, 2002
- 57. Kamaleshwar Singh and Deodutta Roy, The screening of target candidate regions susceptible to mutations in the genome of hamster kidney tumors induced by stilbene estrogen The Toxicologist, 66, 2002.
- 58. Kamaleshwar P. Singh, James W. Dumond and Deodutta Roy Detection of environmental and occupational estrogenic chemicals- induced mutations in mouse Leydig cells by RAPD/ AP-PCR fingerprinting. In Vitro Soc., 2001
- 59. Kamaleshwar P. Singh, Deodutta Roy, Screening of mutations and polymorphism in the genome of human breast cancers by AP-PCR fingerprinting. AACR, 2001
- 60. DuMond JW, Armistead L, and Roy D "The Effect of Natural, Synthetic, and Mycotic Estrogens on the Proliferation of Leydig Cells" AACR, 2001
- 61. DuMond JW, and Roy D. "The Temporal Loss of DNA Repair Capacity by Estrogens Exposure" International Conference of the Society of Toxicology, Philadelphia, 2000
- 62. DuMond JW, and Roy D. "A possible role of Inhibin A or Activin AB in the proliferation of Leydig cells". Proc American Assoc Cancer Research, 2000

- 63. DuMond JW, and Roy D. "The Perturbation of DNA Repair Capacity by Estrogen Exposures" University of Alabama at Birmingham's Cancer Retreat, 2000
- 64. Cai, Q and Roy D. Multiplex PCR coupled with random amplified polymorphic DNA as a novel method to detect mitochondrial DNA polymorphisms in human. Toxicol. Sci. 48, 162, 1999.
- 65. Singh KP and Roy D. Mutational analysis of ALU sequences in DES-induced hamster kidney tumors. Toxicol Sci. 48, 161, 1999.
- 66. DuMond J and Roy D. Perturbation of mouse Leydig cell proliferation by estrogen. Toxicol. Sci. 48, 281, 1999.
- 67. Cai Q and Roy D. Oxidative and antioxidative effects of an estrogenic chemical o-phenylphenol. Proc. Am. Assoc. Cancer Res. 40, 687, 1999.
- 68. Singh KP and Roy D. Mutation in a novel gene in Wilm's tumor. Proc. Am. Assoc. Cancer Res. 40, 31, 1999.
- 69. DuMond J and Roy D. Inhibition of estrogen-mediated stimulation of Leydig cell proliferation by antiestrogen. Proc. Am. Assoc. Cancer Res. 40, 618, 1999
- 70. Roy, D. Induction of genomic instability in the human blood cells as a result of exposure to environmental estrogen like chemical phenylphenol. Free Rad Res Biol. Med. 32, 00-00, 1998.
- 71. Colerangle, J. and Roy, D. Attenuation of telomerase activity in the mammary gland by short exposure to diethylstilbestrol. The Toxicologist, 17, In Press, 1997.
- 72. Thomas, R.D. and Roy, D. Base sequence specific attack of DES metabolites to mitochondrial genome. The Toxicologist, 17, In Press, 1997.
- 73. Colerangle, J. and Roy, D. Differential expression of telomerase in the mammary gland of rats exposed to diethylstilbestrol. Proc. Am. Assoc. Cancer Res. 38, In Press, 1997
- 74. Banerjee, SK and Roy, D. Is exposure of cells to environmental estrogen-like chemicals able to induce telomeric associations. Proc. Am. Assoc. Cancer Res. 37, 547, 1996
- 75. Palangat, M and Roy, D. Stilbene estrogen-enhanced tyrosine phosphorylation of p53 by nuclear matrix tyrosine kinases. Proc. Am. Assoc. Cancer Res. 37, 547, 1996
- 76. Colerangle, J. and Roy, D. Alterations in telomere length in mammary tissue of Noble rats exposed ro environmental estrogens. Proc. Am. Assoc. Cancer Res. 37, 521, 1996
- 77. Colerangle, J. and Roy, D. Genomic instabilities as biomarkers to predict the development of mammary cancer by exposure to estrogens. Annual Research Retreat, UAB, 1996
- 78. Colerangle, J. and Roy, D. Exposure of rats to diethylstilbestrol alters cell cycle kinetics in the mammary gland. Proc. Am. Assoc. Cancer Res. 36, 256, 1995
- 79. Chen, C.W. and Roy, D. Up-regulation of nuclear IGF-I receptor by short term exposure of stilbene estrogen. Proc. Am. Assoc. Cancer Res. 36, 258, 1995
- 80. Colerangle, J. and Roy, D. Exposure of rats to environmental estrogenic compound nonylphenol diethylstilbestrol alters cell cycle kinetics in the mammary gland. The Toxicologist, 15, 233, 1995
- 81. Chen, C.W. and Roy, D. Up-regulation of nuclear IGF-I receptor coupled with enhanced cell proliferation: Its implication in estrogen-induced cancer. Ann. Meeting of UAB Chapter of Sigma Xi, 1995
- 82. Atkinson, A. and Roy, D. In vivo genotoxicity of an environmental estrogenic compound, bisphenol A. The Toxicologist 14, 327, 1994. (A. Atkinson is a graduate student.)
- Thomas, R. and Roy, D. In vivo mitochondrial genotoxicity of diethylstilbestrol. The Toxicologist 14, 327, 1994. (R.D. Thomas is a graduate student)
- 84. Chen, C.-W. and Roy, D. Up-regulation of kidney insulin like growth factor-I (IGF-I) receptors by estrogen. The Toxicologist 14, 135, 1994. (C.-W. Chen is a graduate student.)
- 85. Palangat, M. and Roy, D. Nuclear protein tyrosine kinases: Isolation, characterization and their probable role as markers in carcinogenesis/toxicity. The Toxicologist 14, 361, 1994
- 86. Yan, Z. and Roy, D. Attenuation of DNA polymerase gene expression in estrogen-induced kidney tumor. Proc. Am. Assoc. Cancer Res. 35, 260, 1994

- 87. Atkinson, A. and Roy, D. In vivo conversion of an environmental estrogenic compound, Bisphenol A, to DNA binding metabolites. Proc. Am. Assoc. Cancer Res. 35, 260, 1994. (A. Atkinson is a graduate student.)
- 88. Chen, C.-W. and Roy, D. Over expression of membrane tyrosine containing phosphoproteins in the target organ of cancer by estrogen. Proc. Am. Assoc. Cancer Res. 35, 260, 1994. (C.-W. Chen is a graduate student.)
- 89. Thomas, R. and Roy, D. Mitochondrial DNA is a major target of attack by diethylstilbestrol metabolites in vivo. Proc. Am. Assoc. Cancer Res. 35, 260, 1994. (R.D. Thomas is a graduate student).
- 90. Kakar, S. and Roy, D. Curcumin inhibits TPA induced expression of c-fos, c-myc and c-jun protooncogenes in mouse skin. Proc. Am. Assoc. Cancer Res. 35, 385, 1994
- Palangat, M. and Roy, D. Estrogen mediated differential modulation of protein phosphorylation in the nuclear matrix and membrane of the target organ of cancer. Proc. Am. Assoc. Cancer Res. 35, 260, 1994
- 92. Roy, D. and Pathak, D.N. Covalent modifications in transcriptionally active chromatin low mobility group non-histone proteins by reactive metabolites of diethylstilbestrol. The Toxicologist 13, 364, 1993
- 93. Thomas, R.D. and Roy, D. Redox cycling of diethylstilbestrol by mitochondrial enzymes. The Toxicologist 13, 306, 1993. (R.D. Thomas is a graduate student)
- 94. Atkinson, A. and Roy, D. Metabolic conversion of bisphenol A to genotoxic metabolites. The Toxicologist 13, 351, 1993. (A. Atkinson is a graduate student.)
- 95. Palangat, M. and Roy, D. Inhibition of in organelle nuclear transcription by diethylstilbestrol (DES) through modulation of phosphorylation. Proc. Am. Assoc. Cancer Res. 34, 530, 1993
- 96. Chen, C.-W. and Roy, D. Attenuation of diethylstilbestrol metabolism by thiol. Proc. Am. Assoc. Cancer Res. 34, 157, 1993. (C.-W. Chen is a graduate student.)
- 97. Roy, D., Palangat, M. and Pathak, D.N. Target organ-specific modifications in transcriptionally active chromatin nonhistone proteins (NHP) by diethylstilbestrol (DES) metabolites. Proc. Am. Assoc. Cancer Res. 34, 254, 1993.
- 98. Atkinson, A. and Roy, D. Microsomal P-450 catalyzed conversion of bisphenol A to nonbinding metabolites. Proc. Am. Assoc. Cancer Res. 34, 136, 1993
- 99. Thomas, R. and Roy, D. Modifications in mitochondrial (mt) DNA by diethylstilbestrol (DES) metabolite(s) generated during mitochondrial redox cycling. Proc. Am. Assoc. Cancer Res. 34, 136, 1993. (R.D. Thomas is a graduate student)
- 100. Roy, D. and S. Narayan. Alteration of insulin like growth factor I (IGF-1) receptor binding sites in estrogen-induced kidney tumor. Proc. Am. Assoc. Cancer Res. 33, 1992
- 101. Pathak, D.N. and Roy, D. Mechanism of genotoxicity of o-phenylphenol (OPP) in vivo. Proc. Am. Assoc. Cancer Res. 33, 141, 1992
- 102. Narayan, S. and Roy, D. Role of covalent modifications in membrane proteins via phosphorylation in estrogen-induced renal neoplasm. Proc. Am. Assoc. Cancer Res. 33, 270, 1992
- 103. Roy, D., Bernhard, A., Strobel, H.W., and Liehr, J.G. The microsomal oxidation of estrogen to estrogen quinone is catalyzed by cytochrome P450 IA1. Proc. Am. Assoc. Cancer Res. 31, 120, 1991
- 104. Roy, D. Histone-diethylstilbestrol adducts: implication for estrogen-induced carcinogenesis. Am. Assoc. Cancer Res. 31, 92, 1991
- 105. Zhu, B., Roy, D., and Liehr, J.G. The inhibition by bioflavonoids of catechol-o-methyl transferase mediated methylation of catecholestrogens. Proc Am Ass Cancer Res 32, 145, 1991
- 106. Roy, D., Strobel, H.W., and Liehr, J.G. Role of cytochrome b5 in biological oxidation/reduction reactions. Free Rad. Biol. and Med. 29, 33, 1990
- 107. Roy, D. Reactive potential of diethylstilbestrol reactive metabolites towards cellular nuclear proteins. Proc. IV Biol. Reactive Intermed., 1990
- 108. Roy, D. Genotoxicity of o-phenylphenol. Ann. Meet. of Texas Pharmacol. Assoc. 1990

- 109. Roy, D., Weisz, J. and Joachim J.G. Inhibition of catechol O-methyltransferase catalyzed methylation of 4-hydroxyestradiol by 2-hydroxyestradiol. Proc. Am. Assoc. Cancer Res. 30, 156,1989
- 110. Weisz, J., Bui, Q.D., Roy, D. and Liehr, J.G. The enzymology of catecholestrogen formation in hamster kidney: Implications for carcinogenesis. Proc. Am. Assoc. Cancer Res. 30, 165, 1989
- 111. Roy, D., Strobel, H.W., and Liehr, J.G. Cytochrome b5-mediated redox cycling of estrogens. Proc. Am. Assoc. Cancer Res. 30, 165, 1989
- 112. Snodgrass, W.R. and Roy, D. Phenytoin in vitro metabolic activation and the role of glutathione in human fetal tissue. Pediatr. Res. 23, 264A, 1988
- 113. Roy, D. and Liehr, J.G. In vivo demonstration of diethylstilbestrol quinone as a metabolite of DES. Proc. Am. Assoc. Cancer Res. 29, 126, 1988
- 114. Macatee, T.L., Roy, D. and Liehr, J.G. Possible mechanism of protection of hamsters from estrogen induced carcinogenesis by vitamin C. Proc. Am. Assoc. Cancer Res. 29, 149, 1988
- 115. Snodgrass, W.R. and Roy, D. Shunting of phenytoin in vitro metabolic activation by glutathione to less reactive metabolites: animal and human fetal tissue. Pediatr. Res. 21, 242A, 1987
- 116. Roy, D. and Snodgrass, W.R. Role of thiols (protein and nonprotein) in metabolic activation of phenytoin. Fed. Proc. 46, 1139, 1987
- 117. Roy, D. and Joachim J.G. Detoxification by quinone reductase of reactive intermediates generated during redox cycling of estrogen. Proc. Am. Assoc. Cancer Res. 28, 123, 1987
- 118. Roy, D. and Snodgrass, W.R. Glutathione modulation of phenytoin cytochrome P-450 mediated in vitro covalent binding and metabolism in A/J mice. Texas Pharmacol. Annual meeting, Galveston, 1986
- 119. Hadrzynski, C.L., Morgan, D.P., Roy, D. and Snodgrass, W.R. Mobilization of a halogenated hydrocarbon pesticide from body fat in man. Vet. Human Toxicol. 28, 471, 1986
- 120. Hadrzynski, C.L., Casta, A., James, G., Roy, D., Dodge, W.I. and Snodgrass, W.R.Propranolol serum pharmacokinetics in infants under one year of age: Inadequate assessment without tracer isotope methodology or prolonged terminal elimination phase sampling. Pediatr. Res. 20, 204A, 1986
- 121. Hadrzynski, C.L., Roy, D. and Snodgrass, W.R. Phenytoin metabolic activation: mouse strain differences in liver glutathione decrease in vivo. Texas Pharmacol. Ann. Fed., Galveston, 1986
- 122. Winter, M.L., Hope, W.G., Leggitt, J.L., Ellis, M.D., Roy, D., and Snodgradss, W.R.: Urine Fluorescence using a wood's lamp to detect fluorescein : A qualitative adjunct test in suspected ethylene glycol ingestion. Vet. Human Toxicol. 28, 492, 1986
- 123. Hunter, S.F., Roy, D. and Snodgrass, W.R. Isoretinoin (or 13-cis-retinoic acid) cytochrome P-450 dependent metabolic activation: In vitro covalent binding of a teratogen. Texas Pharmacol. Annual Meeting, Galveston, 1986
- 124. Mishra, L.K., Egan, T.F., Bearden, D.W., Roy, D., Kim, S.H. and Hazlewood, C.F. Elevated Nuclear magnetic resonance relaxation times in cardiomyopathy. American Physiol. Soc. Meet., New York, 1985
- 125. Singh, R. and Roy, D. On the mechanism underlying reduction of age pigment. Assoc. Geront., India, 1984
- 126. Roy, D., Kumar, U. and Singh, R. In vivo and in vitro effects of centrophenoxine on acetylcholinesterase and monoamine oxidase in rat brain. Proc. Soc. Biol. Chemists, India, 1984
- 127. Singh, R. and Roy, D. Physiology and pharmacology of the neuronal age pigment in man and animals. VII All India Symp. Comp. Physiol., 1983
- 128. Roy, D. and Singh, R. Effects of geriatric drug on oxidative enzymes of pentose phosphate pathway in ageing rat brain. Proc. Soc. Biol. Chemists, India, 1982.
- 129. Singh, R. and Roy, D. Effects of anti-ageing drugs on biochemical and electrophysiological changes in ageing rat brain. Proc. Assoc. of Geront. 1, 49-50, 1982.

#### **INVITED TALKS**

Estrogen, NRF-1, Breast Cancer, Univ of Miami, 2009 Understanding of the mechanism of breast cancer, Univ of Miami 2007 ROS and Breast Cancer, Department of Biology, FIU, 2007 Environment and Cancer, FIU, 2004 Estrogen and Urogenital Cancer, UNT, 2001 Estrogen, ROS, NRF1 Stem Cell Aging and Cancer, Miami VA 2015

#### INVITED FOR TALKS IN NATIONAL & INTER-NATIONAL SYMPOSIUM/CONGRESS/ CONFERENCES

Deodutta Roy- Invited talk on Influence of Dietary Bioactive Compounds on Redox Signaling: Implications for Breast Cancer Prevention - International Conference on Bioflavonoids at NIFTEM, 2013

Identifying Gene Alterations Required for the Development of Astrocytoma, MODSIM11, Perth, Australia

Estrogen-induced reactive oxygen species are involved in the development of breast cancer Era of Hope, Orlando, 2011

Generation of Breast Cancer Stem Cells through Modulating NRF1-mediated Redox Signaling by Subchronic Treatment with Estrogen , Cancer Stem Cells, Pune, India, 2010

Roy D. NRF-1 signaling is involved in estrogen-induced carcinogenesis, FEBS, Austria, 2007

Mutations in a novel tumor suppressor gene and Wilms's tumor. 6th World Congress on Advances in Oncology, Crete, Greece, 2001.

Roy, D. Estrogen, immunoactivation and genetic instability. 5th World Congress on Advances in Oncology, 2000

Roy, D. Estrogen-induced gene mutations. Symposium on Estrogens as Initiators and Promoter of Breast and Prostate Carcinogenesis, West Virginia, 1998.

Roy, D. Estrogen and Genomic Instability, 3rd World Congress on Advances in Oncology, 1998

Roy, D. Estrogen, DNA damage and Mutations, Ist Int Symp Mol Med, 1998

Roy, D. Micronutrients and their health effects. Symposium on Alternative Safer Therapeutics, 1984

#### PRESENTATIONS IN INTERNATIONAL SYMPOSIUM/CONGRESS/CONFERENCES

 Changwon Yoo and Deodutta Roy. Dynamic Stochastic and Mechanistic Model Incorporating Interplay of Multi-hits of Multiple Genetic and Epigenetic Factors and Environmental and Stochastic Factors Influencing Biological Pathways and Networks Contributing to the Susceptibility and Development of Cancer. Statisctics 2013-International Conference on Socio-Economic Challenges and Sustainable Solutions, 2013.

- 2. Kunkle, B., Singh, K.P. and Roy, D: Increased risk of brain tumors among children whose parents had farm-related pesticide exposures during pregnancy. MODSIM 2013
- 1. Roy, D. and Felty, Q. (2008) 4-Hydroxy-estradiol-induced oxidants through NRF-1 controls transcription of G1-S and G2-M Phase cell cycle genes and its implications in the development of breast cancer, 8<sup>th</sup> World Cancer Congress, Shanghai, China
- 2. Roy, D. and Felty, Q. (2007) Estrogen-induced Signal Transduction by Reactive Oxygen and Nitrogen Species (RO/NS) and its Implications in the Development of Breast Cancer, 95<sup>th</sup> Indian Science Congress.
- 3. Roy, D and Au, William Exposure of environmental estrogen-like chemical phenylphenol to human lymphocytes induced sister chromatid exchanges through DNA aducts. International Symposium on Free Radical Biology and Medicine, Rajasthan, India, 1997
- 4. Roy, D. Oxidant action of environmental estrogen like chemicals lead to genomic instability. SFRR-ASIA, Malaysia, 1997.
- Palangat, M. and Roy, D. Diethylstilbestrol induced modulation of nuclear protein tyrosine phosphorylation in kidney, target organ of cancer: Transcriptional implications. XVI Intl. Cancer Congress, New Delhi, India, 1994
- 6. Roy, D. and Palangat, M. Active chromatin-associated protein tyrosine kinases: Their probable role in hormonal carcinogenesis. XVI Intl. Cancer Congress, New Delhi, India, 1994
- 7. Purewal, M. and Roy, D. Estrogen enhanced cell proliferation in the target organ of carcinogenesis. XVI Intl. Cancer Congress, New Delhi, India, 1994
- 8. Roy, D., Chen, C.W., and Yan, Z.J. Attenuation of DNA repair system coupled with increased cell proliferation lead to enhanced genetic instability. International Congress of Pharmacology, Toronto, Canada, 1994
- Roy, D., Chen, C.W. and Yan, Z.J. Increased nuclear IGF-I receptor level coupled with attenuation in DNA repair system play an important role in the induction of estrogen-induced carcinogenesis. International Hormonal Carcinogenesis I, Sweden, 1994
- Holland, M. and Roy, D. Antiproliferative activity of naturally occurring edible plant flavoneinduced cell proliferation in the mammary gland of Noble rats. International Homonal Carcinogenesis II, Sweden, 1994
- Winter, M.L., Roy, D., Liehr, J.G., Randerath, E. and Randerath, K. Covalent DNA modifications and oxidative damage to proteins in estrogen induced hamster kidney tumors. Int. Congress of Endocrinol., Kyoto, Japan, 1988
- 12. Kumar, U., Roy, D. and Singh, R. Psychogeriatric drugs induced changes in oxidative enzymes of pentose phosphate pathway in the rat brain. Asian Congress of Pharmacology, 1985
- 13. Roy, D. and Singh, R. Dimethylaminoethanol-induced changes in glutathione shuttle enzymes in different age group of rat. Int. Congress Geront., New York, 1985

14. Roy, D and Singh R. Mechanisms of formation of age-pigments. NATO Symposium on Bioenergetics, Spatsai, Greece, 1984

#### AWARDS/HONORS/RECOGNITIONS:

Scholar Awards in Cancer Research, AACR 2014

International Advisory Committee Member of International Conference and XI Convention of The Biotech Research Society, India, on Emerging Trends in Biotechnology (ICETB-2014)

Plenary Session Organizer and Chair; Modeling of Gene-Environment Interactions to Analyze the Susceptibility and Progression of Chronic Human Diseases for the International Congress on Modeling and Simulation (MODSIM 2009), Caine, Australia.

Plenary Session Organizer and Chair; Modeling of Gene-Environment Interactions to Analyze the Susceptibility and Progression of Chronic Human Diseases for the International Congress on Modeling and Simulation (MODSIM 2011), Perth, Australia.

Excellence in Faculty Scholarship 2008, Recognized by FIU President

Featured in the 2008 May issue of the International Journal of Oncology http://www.spandidos-publications.com/ISSUE\_IMAGES/ijo\_32\_5\_cover\_legend.pdf

Permanent member, Frontiers in Bioscience Society of Scientists

Marquis Who's Who in South and Southwest and

Marquis Who's Who in the World

Academic Keys Who's Who in Health Sciences Education (WWHSE)

Member, WHO Organized IARC Working Group Panel, Monograph - Some Organochlorine Insecticides and Some Chlorphenoxy Herbicides, Volume 113, 2015

Member, WHO Organized IARC Panel, Monograph No 1-Combined Oral Contraceptives and No 2-Oestrogen-progestogen Replacement Therapy, Volume 91, 2007 http://monographs.iarc.fr/ENG/Monographs/vol91/mono91.pdf

Member, WHO Organized IARC Panel, IARC Monographs On The Evaluation Of Carcinogenic Risks To Humans: Hormonal Contraception And Post-Menopausal Hormonal Therapy, Volume 72, 1999 http://monographs.iarc.fr/ENG/Monographs/vol72/mono72.pdf

Member of Endocrinology US Army Review Panel

Member of NCI Cancer Cube

Member of Endocrinology US Army Review Panel

Invited to Chair Ovarian Carcinogenesis Panel, 2003, US Army Review Panel Adhoc member of NIH SEP for Program Project Study Section, 2004 Adhoc member of NIH Metabolic Pathology Study Section, 1997 Adhoc member of NIH SEP Chemical Pathology Study Section, 1998 Adhoc member of NIH SBIR Study Section, 2000 Junior Faculty Development Award from American Cancer Society Research Associate Fellowship from Council of Scientific Industrial Research (CSIR) and Department of Science and Technology (DST), New Delhi, India Vice President, International Symposium on Alternative Safer Therapeutics Senior Research Fellowship from University Grant Commission (UGC), New Delhi, India. Junior Research Fellowship from University Grant Commission (UGC), New Delhi, India.

#### **EDITORIAL BOARD OF JOURNALS**

International Journal of Oncology, 2000-Present

Journal of Ovarian Cancer Research, 2010-Present

PLoS One, 2011-Present

Journal of Carcinogenesis and Mutagenesis, 2011-Present

Molecular Cancer Biology, 2012 – Present

Science Postprint, 2013- Present

Occupational Diseases and Environmental Medicine, 2013-Present

Journal of Bioinformatics and Comparative Genomics, 2013- Present

Austin Journal of Bioinformatics and Comparative Genomics, 2014 - Present

Guest editor on thematic supplement"Cell Signaling in Breast Cancer Progression and Metastasis" in "Breast Cancer: Basic and Clinical Research" -2016

Section Issue Editor of "Gene-Environment Interactions", Encyclopedia of Environmental Health 2011

#### **RESEARCH PROGRAMS**

I have active research programs focused on investigating the application of human genomics to population sciences for molecular prevention and elucidating the role of redox signaling in the development of chronic complex chronic human diseases, including breast and brain cancers with the goal of identifying suitable drug targets and potential therapeutics.

I have been engaged in collaboration with Miami Children's Hospital, University of Miami, and Miami Veterans Affairs Healthcare System on discovery of human DNA variants and epigenetic, stochastic and environmental factors that modify responses to exposure to endocrine disrupting stressors and how these factors affect the susceptibility to complex chronic diseases, such as cancer, neurodegenerative lesions in exposed people. These collaborative efforts may prove useful in developing therapeutic targets for the molecular prevention and treatment of complex chronic diseases and discovery of valuable novel biomarkers for identifying at-risk individuals and devising chronic human disease-molecular prevention strategies.

A second major focus of our research is to investigate the role of reactive oxygen species (ROS) and redox sensitive transcription facor - nuclear respiratory factor (NRF1) that contribute to cancer stem development, and accelerate the progression of the disease. Our group is engaged in identifying the genetic and epigenetic mechanisms of up-regulation NRF1 target genes and their impact on cancer progression.

A third major focus of our research is to investigate the potential use of natural products for targeted stem cell nano therapy of cancer and other environmental chronic complex human diseases. These agents not only kill tumor cells selectively, but also reverse malignant progression of newly transformed epithelial cells by inhibiting epithelial to mesenchymal transition (EMT).

Furthermore, other projects include: Development of new markers for breast and brain cancers that may help us non-invasively detect these cancers or help us in disease prognosis; Evaluation of pathoepigenetic/genetic mechanisms of glioblastoma and role of gene-endocrine disruptor interactions in brain health; Integrative stochastic modelling to identify biological pathways and networks contributing to the susceptibility of cancer and neurodegenerative diseases.

Our research is transdisciplinary and we use bioinformatics, epidemiologic, molecular and biological integrated approaches to understand the role of environment in the pathogenesis of complex chronic diseases and devise strategies to mitigate environmentally-induced complex chronic human diseases. We use different molecular and biological methods, such as RNA interference, conditional over-expression, site directed mutagenesis, CHIP arrays, quantitative mRNA and protein analysis, cell cycle analysis, fluorescence confocal microscopy, genomic editing and CRISPR/Cas9, DNA methylation and the use of 3-D spheroid and experimental models.

# **GRANT SUPPORT**

#### CURRENT

VA-ORD Merit Review Award: Role of NRF-1 in Estrogen-Induced Breast Cancer Pathogenesis, 2012-2016, Role: Principal Investigator

#### PAST/COMPLETED

NIH R01 Alcohol, ART, mitochondrial dysfunction and hepatotoxicity

2009 - 2015, Role: Co-Investigator

DoD BC060125 "Identification of the mechanisms underlying antiestrogen resistance: Breast cancer research partnership between FIU-UM Braman Family Breast Cancer Institute" The major goals of this grant are to identify a molecular mechanism underlying antiestrogen resistance and to strengthen the intellectual research environment that fosters breast cancer research and offers substantive training to FIU faculty. 2007- 2012, Role: Principal Investigator

DoD Department of Defense Breast Cancer Research Program Idea Award (BC051907) Inhibition of estrogen-induced growth of breast cancer cells by targeting mitochondrial oxidants,

The major goal of this grant is to define the role of estrogen-induced mitochondrial oxidants in the growth of estrogen-dependent breast tumors. 2006- 2010, Role: Principal Investigator

NIEHS R01: Perinatal estrogen, oxidative damage and uterine lesions, 2001 - 2006, Principal Investigator

- NIH: Bridges to the Future: MS to PhD, 1996 2004, Principal Investigator
- CDC/NIOSH: Occupational Health and Safety ERC Hazardous Substance Training Program 2000-2004, Co-Investigator

CDC/ASPH: Wash-Durable and Pyrethrin Treated Malaria Bednets, 2002-2004, Principal Investigator

- NIH R01: Role of nonhistone proteins in hormonal carcinogenesis 1996 - 2002, Principal Investigator
- NIH R29: Role of nonhistone proteins in hormonal carcinogenesis 1990 - 1996, Principal Investigator
- NIH funded BRSG grant : Genotoxicity of Na-o-phenylphenol 1992-1993, Principal Investigator
- NCI funded CNRU grant : Inhibition of estrogen-induced carcinogenesis by turmeric Principal Investigator, 1992-1993
- NIH funded BRSG grant : Determination of Mutagenic potential of Na-o-phenylphenol Principal Investigator, 1993- 1994
- American Cancer Society: Mechanism of o-phenylphenol-induced bladder cancer 1993 - 1995, Principal Investigator
- NIH: Small Instrumentation grant, Principal Investigator, \$50,000, 1993-1994.
- CDC/NIOSH: Occupational Health and Safety ERC Hazardous Substance Training program 1993-2000, Co-Investigator
- NIGMS: Initiative for Minority Students: Bridges to the future Program, Co-Investigator, 1992-1995

Phase I Clinical Trials of New Chemopreventive Agents - contract from NCI

Phase II Clinical Trials of New Chemopreventive Agents - contract from NCI

Women's Health Trial: Effect of Low Fat Dietary Intake of Smoke-Related Genotoxicity

# **GRANT/FELLOWSHIP SUPPORT SPONSOR TO LABORATORY GROUP:**

1993-1996	NIH Minority Fellowship - Ronald D. Thomas, \$50,000
1993-1995	NIH MARC Award - Alfonzo Atkinson, \$100,000
1995-1996	NCI Cancer Prevention and Control Training Postdoctoral Fellowship – Alfonzo Atkinson
1995-1998	NCI Cancer Prevention and Control Training Postdoctoral Fellowship – John Colerangle
1997	NCI Research Cancer Prevention and Control Intern - Quentin Felty
1997-2000	NCI Cancer Prevention and Control Training Pre-doctoral Fellowship –Qui-yin Cai
2002-2004	NCI Cancer Prevention and Control Training Postdoctoral Fellowship – KP Singh
2000-2004	NCI Cancer Prevention and Control Training Pre-doctoral Fellowship –Quentin Felty
2014-2015	NIH-MBRS Fellowship – Lazaro Mesa
2014	NIH-RISE Summer Grant – Lazaro Mesa, \$4,000
2015	McNair Summer Fellowship, Juan Vergaq

# National and International Awards to mentored students/post doctoral fellows (during their stay at the Roy lab):

1993 Ronald Thomas	Society of Toxicology Travel Award
1994 Chio-wen Chen	Society of Toxicology Travel Award
1996 John Colerangle	Society of Toxicology Travel Award
1999 Qui-yin Cai	Society of Toxicology Travel Award
2004 Quentin Felty	Society of Toxicology Travel Award
2014 Lazaro Mesa	1st Place Winner – Oral Presentation at FIU MARC U*STAR & MBRS RISE Student Mini-Symposium
2015 Lazaro Mesa	Thomas J. Bardos Science Education Awards for Undergraduate Students travel award
Lazaro Mesa	First Place Winner – Oral Presentation at 2015 Biomedical & Comparative Immunology (BCI) Symposium
Lazaro Mesa	3rd place Winner - Oral Presentation Life Science South Florida STEM Symposium

#### PROFESSIONAL ASSOCIATIONS AND SCIENTIFIC SOCIETY MEMBERSHIPS:

- 1. Society of Biochemists, India, 1982
- 2. Association of Ageing, India, 1983
- 3. American Association for the Advancement of Science, 1991-1996
- 4. American Association for Cancer Research, 1986-Present
- 5. International Society of Free Radical Research, 1987-1990
- 6. Oxygen Society, 1987
- 7. Society of Toxicology, 1991-Present
- 8. South-Eastern Society of Toxicology 1991-1997
- 9. International Society of Coumerin Investigators
- 10. Member, Sterling Who's Who
- 11. Permanent Member of Frontiers in Bioscience Society of scientists
- 12. American Public Health Association (APHA), 2005-2007

# PROFESSIONAL ORGANIZATIONAL SERVICE

2014, 2015	Judge of undergraduate research posters at AACR
2014	Mentor for high school students at AACR
2015	Judge of Research Posters at Miami VA Research Day

#### CONSULTANT OF NIH/ARMY/VETERAN AFFAIRS/UAB/FIU GRANT REVIEW PANEL

1990	Reviewer, Sealey Foundation Grants, Galveston, TX
1995-2002	Member of Endocrinology US Army Review Panel
1995	External Reviewer, Veterans Administration Medical Center, Kansas City
1996- 2004	Member of Cancer Cube, NCI, Bethesda, MD.
1997	External Reviewer, Veterans Administration medical Center, Wisconsin
1997	Adhoc member, NIH Metabolic Pathology Study Section.
1998	Member, NIH SEP Chemical Pathology Study Section
1998	Reviewer of Proposals from UAB Earth Center
2000	Adhoc member, NIH SBIR Study Section
2000-2001	Massachusetts State of Public Health Department
1999-2004	Member of Reviewer Panel for University Wide Center Proposals
2003, 2008	Member, Susan G. Komen Breast Cancer Cure Review Panel
2003	Member, US Army Ovarian Carcinogenesis Review Panel
2004	Member of NIEHS SEP Program Project Study Section
2006	SRA, NIOSH Intramural Grant
2006	Reviewer, Academy of Sciences of the Czech Republic's Proposal
2007	Reviewer, EPA's Endocrine Disruptor Screening Assay, Female Pubertal Assay Report
2007	Reviewer, EPA's Endocrine Disruptor Screening Assay, Androgen Receptor (AR) Binding
	Report
2008-2010	Member, TDRP Review Panel, University of California
2008, 2011	Reviewer, Austrian Science Fund (FWF)'s Proposal

2008	Reviewer, Canadian Environmental Health Science and Research Bureau: Health Canada's
	Chemicals Management for Bisphenol A Research
2011-Present	Reviewer, Alzeimer's Association
2105	Reviewer, Ontario's Ministry of Labour - Research Opportunities Program
2015	Reviewer, EPA Star  Fellowship
2015	Reviewer, Natural Sciences and Engineering Research Council of Canada (NSERC)

#### **Reviewer for Professional Journals**

Peer Review Activities (peer-reviewed journals): Multiple reviews for many of the journals listed below

Analytical Biochemistry Asian Journal of Andrology Breast Cancer Research and Treatment **Brain Research Biochemistry** Biochemica Biophysca Acta **Biochem Biopys Res Communication** British Journal of Cancer Cancer Letter Cancer Research Carcinogenesis Chemical Research in Toxicology Endocrine **Environmental Health Perspectives** Environmental Toxicology Fundamental and Applied Toxicology Gene Free Radical Biol & Medicine Int J Env Res and Public Health International Journal of Cancer Journal of Neuroendocrinology Journal of Hepatology Journal of Biological Chemistry Journal of Steroid Biochemistry & Mol Biology Journal of Toxicology and Environmental health Journal of Ovarian Cancer Research Cellular and Molecular Neurobiology **PLoS Comupational Biolgy** 

Journal of Oncology J Pharmacol Exp Therapeutics Journal of Neurochemistry Journal of Neuroscience Neurochemistry International Life Sciences Molecular and Cellular Endocrinology Molecular Cancer Molecular Pharmacology Mutation Research **Biomed Central Journals** Molecular Neuroscience Neurotoxicology Neuroscience Neurotoxicology and Teratology Neurochemistry Neurotoxicity Research Oncogene Proceeding of National Science Academy PLoS One Prostate Steroids Toxicology Toxicological Sciences Toxicology and Applied Pharmacology Toxicology Letters Journal of Molecular Science Scinece Reports