
Robert Anthony Thomas, PhD.

2121 Biological Sciences phone: (313)577-3548 Wayne State University fax: (313) 577-6891 Detroit, MI 48202 email: aa1467@wayne.edu	Senior Lecturer (Biology), Department of Biological Sciences, Wayne State University									
EDUCATION:										
Cheyney State College, Cheyney PA York College of City University of New York, Jamaica, NY Wayne State University, Detroit, MI Wayne State University, Detroit, MI	<table border="1"><tr><td>B.S.</td><td>06/80</td><td>Biology</td></tr><tr><td>M.Sc.</td><td>05/83</td><td>Bacteriology</td></tr><tr><td>Ph.D.</td><td>05/92</td><td>Molecular Virology</td></tr></table>	B.S.	06/80	Biology	M.Sc.	05/83	Bacteriology	Ph.D.	05/92	Molecular Virology
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M.Sc.	05/83	Bacteriology								
Ph.D.	05/92	Molecular Virology								

PROFESSIONAL APPOINTMENTS:

- 1993-1995 Postdoctoral Fellowship, Wayne State University, School of Medicine, Center for Molecular Medicine and Genetics, Detroit, MI.
- 1995-2000 Assistant Professor (Research) Wayne State University School of Medicine, Center for Molecular Medicine and Genetics, Detroit, MI.
- 1998-2001 Assistant Professor (Research) Wayne State University School of Medicine, Department of Pediatrics, Division of Infectious Disease, Detroit, MI.
- 2002-2011 Research Associate, Wayne State University- College of Science, Detroit MI.
- 2011- 2017 Lecturer (Biology), Wayne State University- College of Science, Detroit MI.
- 2017- current Senior Lecturer (Biology), Wayne State University- College of Science, Detroit MI.

TEACHING APPOINTMENTS (Last 5 years)

- W013: BIO 1510 Basic Life Mechanisms Cr 4(Full semester)
- W013: BIO 1030 Biology Today Cr 3 (Full semester)
- F013: BIO 1510 Basic Life Mechanisms Cr 4 (Full semester) (two sections)
- W014: BIO 2200 Microbiology Cr 4 (Full semester)
- W014: BIO 1030 Biology Today Cr 3 (Full semester)
- S/S01: BIO 2200 Microbiology Cr 3 (Full semester)
- F014: BIO 1510 Basic Life Mechanisms Cr 4(Full semester)
- F014: BIO 1030 Biology Today Cr 3 (Full semester)
- W015: BIO1510 Basic Life Mechanisms Cr 4(Full semester)
- W015: BIO 1030 Biology Today Cr 3 (Full semester)
- F015: BIO 1510 Basic Life Mechanisms Cr 4(Full semester)
- F015: BIO 1030 Biology Today Cr 3 (Full semester)
- W016: BIO 2200 Microbiology Cr 4 (Full semester)
- W016: BIO 1030 Biology Today Cr 3 (Full semester)
- F016: BIO 1510 Biology Today Cr 4 (Full semester - two sections)
- W017: BIO 1510 Biology Today Cr 4 (Full semester)
- W017: BIO 1030 Biology Today Cr 3 (Full semester)
- S/S017: BIO 2200 Microbiology Cr 4 (Full semester)
- F017: BIO 1510 Biology Today Cr 4 (Full semester - two sections)
- W018: BIO 1510 Basic Life Mechanisms Cr 4(Full semester)
- W018: BIO 1030 Biology Today Cr 3 (Full semester)
- F018: BIO 1510 Basic Life Mechanisms Cr 4(Full semester)
- F018: BIO 1030 Biology Today Cr 3 (Full semester)

POSITIONS AND HONORS

- 1993-1995 Postdoctoral Fellowship, Wayne State University, School of Medicine, Center for Molecular Medicine and Genetics, Detroit, MI.
- 1995-2000 Assistant Professor (Research) Wayne State University School of Medicine, Center for Molecular Medicine and Genetics, Detroit, MI.
- 1998-2001 Assistant Professor (Research) Wayne State University School of Medicine, Department of Pediatrics, Division of Infectious Disease, Detroit, MI.
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- 2011-2017 Lecturer (Biology), Wayne State University- College of Science, Detroit MI.
- 2017- current Senior Lecturer (Biology), Wayne State University- College of Science, Detroit MI.

PUBLICATIONS: Peer-reviewed papers (26)

1. Bergh, S.T., Koziel, M.G., Huang, S.C., **Thomas, R.A.**, Gilley, D.P. Siegel, A. (1985). The nucleotide sequence of tobacco rattle virus RNA-2 (CAM strain). *Nucleic Acids Res.* 13 (23), 8507-8518
2. Lewis LA, Li K, Bharosay M, Cannella M, Jorgenson V, **Thomas R**, Pena D, Velez M, Pereira B, Sassine A. (1990). Characterization of gentamicin-resistant respiratory-deficient (res-) variant strains of *Staphylococcus aureus*. *Microbiol Immunol* 1990;34(7):587-605
3. **Thomas R.A.**, Pena, D, Siegel, A.S. (1993). Pepper ringspot virus RNA 1, complete sequence. 6828 bp ss-RNA linear. Genbank submission NC_003669. gi:20178598
4. Zachar V, **Thomas RA**, Goustin AS. (1993). Absolute quantification of target DNA: a simple competitive PCR for efficient analysis of multiple samples. *Nucleic Acids Res* Apr 25;21(8):2017-8
5. Zachar, V., **Thomas, R. A.**, Jones, T. and Goustin A. S. (1994). Vertical transmission c- HIV-detection of proviral DNA in placental trophoblast. *AIDS* 8, 129-130.
6. Zachar, V., Ebbesen, P., **Thomas, R. A.**, Zacharova, V. and Goustin, A. S. (1994). Basal and tat-transactivated expression from the human-immunodeficiency-virus type-I long terminal repeat in human placental trophoblast rules out promoter-enhancer activation as the partial block to viral replication. *Journal of General Virology.* 75, 1461-1468.
7. Zachar, V., Zacharova, V., Fink, T., **Thomas, R.A.**, King, B.R., Ebbesen, P., Jones, T.B. and Goustin, A.S. (1999). Genetic Analysis Reveals Ongoing HIV Type 1 Evolution in Infected Human Placental Trophoblast. *AIDS Research and Human Retroviruses* 15, Number 18, pp. 1673-1683.
8. Hyun, T.S., Cotter II, M.A., **Thomas R.A.** and Robertson, E.S. (2001). The Latency-Associated Nuclear Antigen Encoded by Kaposi's Sarcoma-Associated Herpesvirus Interacts with Tat and Activates the Long Terminal Repeat of Human Immunodeficiency Virus Type I. *Journal of Virology.* 75(18):8761-71.
9. Abdel-Haq, N.M., **R. A. Thomas**, et al. (2003). Increased prevalence of G1P[4] genotype among children with rotavirus-associated gastroenteritis in metropolitan Detroit. *J Clin Microbiol* 41(6):2680-2.
10. Kang, J., Chen, C., Smolinski, J., **Thomas, R.**, Tucker, J., and Auner, G., (2006) Simulation and optimization of a flow-through micro PCR chip, in *NSTI Nanotech*, Boston, MA, pp. 585-588.
11. Banda, M., Bommineni, A., **Thomas, R.A.** Luckinbill, L, Tucker, J.D. (2008) Evaluation and validation of housekeeping genes in response to ionizing radiation and chemical exposure for normalizing RNA expression in real time PCR. *Mutation Research* 649:126-134.
12. Kulkarni, R., Reither, A., **Thomas, R.A.**, Tucker J.D., (2009) Mitochondrial mutant cells are hypersensitive to ionizing radiation, phleomycin and mitomycin C. *Mutation Research – Fundamental and Molecular Mechanisms of Mutagenesis*, accepted for publication 1/23/09.
13. Asur, R.S., **Thomas, R.A.**, and Tucker, J.D. (2009) Chemical induction of the bystander effect in normal human lymphoblastoid cells. *Mutation Research – Genetic Toxicology and Environmental Mutagenesis*, accepted for publication on 2/25/09.

14. Tucker JD, Suter W, Petibone DM, **Thomas RA**, Bailey NL, Zhou Y, Zhao Y, Muniz R, Kumar V. (2009) Cytogenetic assessment of methylphenidate treatment in pediatric patients treated for attention deficit hyperactivity disorder. *Mutat Res.* 2009 Jun-Jul;677(1-2):53-8. Epub 2009 May 22. PubMed PMID: 19465145.
15. Kulkarni R, **Thomas RA**, Tucker JD. (2010) Expression of DNA repair and apoptosis genes in mitochondrial mutant and normal cells following exposure to ionizing radiation. *2010 Environ Mol Mutagen.* 2010 Aug 25. [Epub ahead of print] PubMed PMID: 20740641.
16. Kulkarni R, Marples B, Balasubramaniam M, **Thomas RA**, Tucker JD. (2010) Mitochondrial gene expression changes in normal and mitochondrial mutant cells after exposure to ionizing radiation. *Radiat Res.* 2010 May;173(5):635-44. PubMed PMID: 20426663.
17. Asur R, Balasubramaniam M, Marples B, **Thomas RA**, Tucker JD. (2010) Bystander effects induced by chemicals and ionizing radiation: evaluation of changes in gene expression of downstream MAPK targets. *Mutagenesis.* 2010 May;25(3):271-9. Epub 2010 Feb 3. PubMed PMID: 20130020.
18. Asur R, Balasubramaniam M, Marples B, **Thomas RA**, Tucker JD. (2010) Involvement of MAPK proteins in bystander effects induced by chemicals and ionizing radiation. *Mutat Res.* 2010 Apr 1;686(1-2):15-29. Epub 2009 Dec 23. PubMed PMID: 20034502.
19. Hughes-Chinkhota CN, Banda M; Smolinski JM, **Thomas RA**, Petibone DM, Tucker JD, Auner GW. (2011) Oligonucleotide immobilization using 10-(carbomethoxy)decyl-dimethylchlorosilane for mRNA isolation and cDNA synthesis on a microfluidic chip. *Sensors and Actuators B: Chemical*, Volume 155, Issue 2, 20 July 2011, Pages 437-445.
20. Joiner MC, **Thomas RA**, Grever WE, Smolinski JM, Divine GW, Konski AA, Auner GW, Tucker JD. (2011) Developing point of care and high-throughput biological assays for determining absorbed radiation dose. *Radiotherapy and Oncology* (Accepted for publication May 6, 2011).
21. Rajendran, S., Harrison, S.H., **Thomas, R.A.** and **Tucker, J.D.** (2011) The role of mitochondria in the radiation-induced bystander effect in human lymphoblastoid cells. *Radiation Research* 175:159-171.
22. Kulkarni, R, **Thomas, RA**, Tucker, JD. (2011) Expression of DNA Repair and Apoptosis Genes in Mitochondrial Mutant and Normal Cells Following Exposure to Ionizing Radiation. *Environ Mol Mutagen.* Apr;52(3):229-37.
23. Tucker JD, Grever WE, Joiner MC, Konski AA, **Thomas RA**, Smolinski JM, Divine GW and Auner GW. (2012) Gene Expression-Based Detection of Radiation Exposure in Mice after Treatment with Granulocyte Colony-Stimulating Factor and Lipopolysaccharide. *Radiat Res.* 177, 209–219
24. Tucker, JD, Divine, GW, Grever, WE, **Thomas, RA**, Joiner, MC, Smolinski, JM, Auner, GW. (2013) Gene Expression-Based Dosimetry by Dose and Time in Mice Following Acute Radiation Exposure. *Plos One.* Dec 16;8(12):E83390.
25. Tucker, JD, Joiner, MC, **Thomas, RA**, Grever, WE, Bakhmutsky, MV, Chinkhota, CN, Smolinski, JM, Divine, GW, Auner, GW. (2014) Accurate Gene Expression-based Biodosimetry Using a Minimal Set of Human Gene Transcripts. *Int J Radiat Oncol Biol Phys.* Mar 15;88(4):933-9
26. T. J. Hadden, C. Chong, **R.A. Thomas**, A. Sodja. (2017) Spatial And Developmental Expression Profile of Aaeg-Obp10, An Odorant-Binding Protein Gene, In Olfactory And Non-Olfactory Tissues of The Mosquito, *Aedes aegypti*. *Insect Biochemistry and Molecular Biology.* (submitted)

ABSTRACTS: not peer-reviewed (13 of 31)

1. Najib A, Kulkarni R, Bailey N, Bommineni A, **Thomas RA**, Petibone DM, Tucker JD. DNA Repair Gene Expression Changes Following Ionizing Radiation. 7th Midwest DNA Repair Symposium 2005, Detroit, MI
2. Kulkarni R, **Thomas RA**, Bailey N, Bommineni A, Najib A, Tucker JD Transcriptional Changes in Human B-cells Exposed to Low-Dose Ionizing Radiation, 52nd Radiation Research Society Annual Meeting, October 16-19 2005, Denver, CO

3. Kulkarni R.M., Bailey N., Najib A., **Thomas R.A.**, Tucker J.D. Identification of Low-Dose Ionizing Radiation Biosignatures for Acute Exposures, 9th International Conference on Environmental Mutagens and the 36th Annual Meeting of the Environmental Mutagen Society 2005, San Francisco, CA
4. Tucker, J.D., **Thomas, R.A.**, Auner, G.W., Smolinski, J., Banda, M., Kulkarni, R., Najib, A., Bailey, N., Kang, J., Chen, C-C. (2006). Radiation detection technologies applicable to mitigation of the impact of a dirty bomb. *Environmental and Molecular Mutagenesis* 47:409.
5. Banda, M., Bommineni, A., **Thomas, R.**, Tucker, J. (2006). Evaluation and validation of housekeeping genes in response to ionizing radiation and chemical exposure for normalizing RNA expression in real time PCR. *Environmental and Molecular Mutagenesis* 47:456.
6. C. Hughes, M. Banda, J. Smolinski, **R. Thomas**, J. Tucker, and G. Auner, "Immobilization and Isolation of Nucleic Acids for a Real-Time Genetic Analysis Device," in ENATBIO, Wayne State University, Detroit, MI 48202, 2007, p. TN/P40.
7. Banda, M., **Thomas, R.**, Tucker, J. (2007) Relative expression of BAX splice variants upon radiation exposure in human lymphoblastoid cells. *Environmental and Molecular Mutagenesis* 48:596.
8. Asur, R., **Thomas, R.A.**, Tucker, J.D. (2007) Chemical induced bystander effect: evidence and significance. *Environmental and Molecular Mutagenesis* 48:608.
9. Kulkarni, R., **Thomas, R.A.**, Tucker, J.D. (2007) Identification of persistent gene expression biosignatures for acute radiation exposure. *Environmental and Molecular Mutagenesis* 48:628.
10. Banda, M., **Thomas, R.A.**, Tucker, J.D. (2008) Splice variant expression following radiation exposure in human lymphoblastoid cells. *Environmental and Molecular Mutagenesis* 49:546.
11. Kulkarni, R.M., Reither, A., **Thomas, R.A.**, Tucker, J.D. (2008) Hypersensitivity of mitochondrial mutant cells to ionizing radiation. *Environmental and Molecular Mutagenesis* 49:549.
12. Asur, R., **Thomas, R.A.**, Tucker, J.D. (2008) Bystander responses induced by mitomycin C, phleomycin and ionizing radiation in normal human lymphoblastoid cells. *Environmental and Molecular Mutagenesis* 49:560.
13. Chantelle N. Hughes, Malathi Banda, Joseph M. Smolinski, **Robert A. Thomas**, James D. Tucker, Gregory W. Auner, (2008) "Oligonucleotides Immobilization and Messenger Ribonucleic Acid (mRNA) Isolation for a Real-Time Genetic Analysis Device", in Materials Research Science (MRS) Conference. p 303/FF5.2.

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