

CURRICULUM VITAE

Dr. T.S. KUMARAVEL

UK and Eurotox Registered Toxicologist
Toxicology and Preclinical Safety Consultant
Tel: +44-7595155375
Kumaravelts@yahoo.com

EDUCATION

2009

Postgraduate Certification in REACH management
Hull University, UK

2007-12

UK and Eurotox Registered Toxicologist

2007-12

Project Management
PRINCE2 Practitioner, UK

2007/2008

Leadership and High Performance People Skills for Leaders
London Business School
London, UK

1994-1996

Fellowship in Cancer Cytogenetics
Hiroshima University School of Medicine
Hiroshima, Japan

1992-1995

PhD in Cancer Genetics/Genetic Toxicology
Medical University
Madras, India

1988-1991

MD in Pharmacology and Toxicology
Department of Pharmacology and Environmental Toxicology
Madras University, India

1982-1988

MBBS
Stanley Medical College
Madras University, India

EMPLOYMENT

2009 – Till date

Director Preclinical Consultations UK Ltd, and
Global Lifesciences Research Pvt Ltd.
Cambridge CB245GX
UK

2008 – 2009

Head of Genetic Toxicology
Huntingdon Life Sciences
Huntingdon
UK

2006 – 2008

Toxicology Manager
Advanced technologies (Cambridge) Limited
Cambridge CB4 0WA
UK

2002 – 2006

Study Director in Cytogenetics and Molecular Toxicology
Covance Laboratories Ltd.

2001-2002

National Cancer Institute of Canada Fellow
Princess Margaret Hospital
Ontario Cancer Institute
Toronto
Canada.

1998-2001

Fogarty Fellow
Laboratory of Molecular Genetics
National Institute on Aging/National Institutes of Health
Baltimore, USA.

1994-1998

Fellowship in Cancer cytogenetics of Leukaemia
Monbusho/JSPS Fellow
Department of Cancer Cytogenetics
Hiroshima University, Japan

PUBLICATIONS

Written more than 400 confidential toxicology study reports for various pharmaceutical, cosmetics and agrochemical clients for submission to various regulatory agencies.

33 peer reviewed publications

50+ invited talks

PROFESSIONAL MEMBERSHIPS

1. US Environmental Mutagen Society
2. Indian Pharmacological Society
3. UK Environmental Mutagen Society
4. Comet Assay Interest Group

My peer-reviewed publications are given below:

1. Thorne D, Wilson J, Kumaravel TS, Massey ED, McEwan M. Measurement of oxidative DNA damage induced in cultured NCI-H292 human pulmonary carcinoma cells. *Mutat Res.* 2009 Feb 19;673(1):3-8.
2. Tanaka K, Kumaravel TS, Ihda S, Kamada N. Characterization of late-arising chromosome aberrations in human B-cell lines established from alpha-ray- or gamma-ray-irradiated lymphocytes. *Cancer Genet Cytogenet.* 2008 Dec;187(2):112-24.
3. Kumaravel TS, Vilhar B, Faux SP, Jha AN. Comet Assay measurements: a perspective. DOI: 10.1007/s10565-007-9043-9 *Cell Biol Toxicology* 2007.
4. Burlinson B, Tice RR, Speit G, Agurell E, Brendler-Schwaab SY, Collins AR, Escobar P, Honma M, Kumaravel TS, Nakajima M, Sasaki YF, Thybaud V, Uno Y, Vasquez M, Hartmann A. Fourth International Workgroup on Genotoxicity testing: Results of the in vivo Comet assay workgroup. *Mutat Res.* 2007 Feb 3;627(1):31-5.
5. Garrigue JL, Ballantyne M, Kumaravel T, Lloyd M, Nohynek GJ, Kirkland D, Toutain H. In vitro genotoxicity of para-phenylenediamine and its N-monoacetyl or N,N'-diacetyl metabolites. *Mutat Res.* 2006 Sep 19;608(1):58-71.
6. Dufour EK, Kumaravel T, Nohynek GJ, Kirkland D, Toutain H. Clastogenicity, photo-clastogenicity or pseudo-photo-clastogenicity: Genotoxic effects of zinc oxide in the dark, in pre-irradiated or simultaneously irradiated Chinese hamster ovary cells. *Mutat Res.* 2006 Sep 5;607(2):215-24.
7. Kumaravel TS, Jha AN. Reliable Comet assay measurements for detecting DNA damage induced by ionising radiation and chemicals. *Mutat Res.* 2006 Jun 16;605(1-2):7-16.

8. Kumaravel T.S, Bristow R. G. Detection of genetic instability at Her-2 and p53 loci in breast cancer cells using Comet-FISH, *Breast Cancer Research and Treatment*, 91(1):89-93, 2005.
9. Fan R, Kumaravel T.S, Jalali F, Marrano P, Squire J.A, Bristow R.G. Defective DNA strand Break repair in prostate cancer cells: Implications for genetic instability and prostate carcinogenesis. *Cancer Research*, 64(23):8526-33, 2004.
10. Inna I. Kruman, T. S. Kumaravel, Althaf Lohani, Ward A. Pedersen, Roy G. Cutler, Yuri Kruman, Norman Haughey, Jaewon Lee, Michele Evans, and Mark P. Mattson. Methyl donor deficiency impairs DNA repair and sensitizes hippocampal neurons to death in experimental models of Alzheimer's disease. *Journal of Neuroscience*, 2002 March 1, 2002, 22(5):1752-1762
11. Li N.J, Gorospe M, Chrest J, Kumaravel T.S, Evans M.K, Han W.F, Pizer E.S. Pharmacological inhibition of fatty acid synthesis activity is cytostatic for cells with wild type p53 and cytotoxic for p53 deficient cells. *Cancer Research* 61: (4) 1493-1499 FEB 15 2001.
12. Arrington E.d, Cadwell M.C, Kumaravel T.S, Lohnai A, Joshi A, Evans M.K, Chen H, Nissenweig A, Holbrook N.J, Gorospe M. Enhanced sensitivity and long term G2 arrest in hydrogen peroxide-treated Ku80-null cells are unrelated to DNA repair defects. *Free Radical Biology & Medicine*. Vol 29 (11), 2000, 1166-1176
13. Kudoh S, Kumaravel T.S, Kuramavel B, Eguchi M, Asaoku H, Dohy H, Fujiwara M, Sasaki N, Tanaka K, Kamada N. Protein expression of cell cycle regulator, p27Kip1, correlates with histopathological grade of non-Hodgkin's lymphoma. *Jpn J Cancer Res* 1999 Nov;90 (11): 1262-9
14. Tanaka K, Arif M, Eguchi M, Shintani T, Kumaravel T.S, Asaoku H, Kyo T, Dohy H, Kamada N. Interphase fluorescence in situ hybridisation overcomes pitfalls of G-banding analysis with special reference to underestimation of chromosomal aberration rates. *Cancer Genetics and Cytogenetics* 1999 Nov;115 (1): 32-8
15. Kumaravel T.S, Lohani A, Mambo E, Evans M.K. Adaptive response in SCID mouse model - Is DNA-PK required? *Neoplasia*, 46: 34-37, 1999
16. Kumaravel T.S, Bharathy K, Kudoh S, Tanaka K, Kamada N. Expression, localisation and functional interactions of Ku70 subunit of DNA-PK in peripheral lymphocytes and Nalm-19 cells after irradiation. *Int J Radit Biol* 1998 Oct; 74 (4):481-9
17. Sankar M, Tanaka K, Kumaravel T.S, Arif M, Shintani T, Yagi S, Kyo T, Dohy H, Kamada N. Identification of a commonly deleted region at 17p13.3 in leukemia and lymphoma associated with 17p abnormality. *Leukemia* 1998 Apr; 12 (4): 510-6.
18. Tanaka K, Eguchi M, Kumaravel T.S, Kudo S, Sankar M, Kyo T, Dohy H, Kamada N. Segmental jumping translocation and gene expressions in acute leukemia lymphoma with complex karyotype. *British Journal of Haematology*, 102: (1) 34-34, Suppl. S JUL 1998
19. Arif M, Tanaka K, Kumaravel T.S, Eguchi M, Iwato K, Dohy H, Kamada N. Detection of residual host cells in sex-mismatched bone marrow transplantation in various haematological diseases by fluorescence in situ hybridisation. *Jpn J Cancer Res* 1997 Apr; 88 (4): 420-6.

20. Tanaka K, Arif M, Eguchi M, Kumaravel T.S, Ueda R, Ohno R, Iwato K, Kyo T, Dohy H, Kamada N. Application of fluorescence in situ hybridisation to detect residual leukaemia cells with 9;22 and 15;17 translocations. *Leukemia* 1997 Mar; 11 (3): 436-40.
21. Kumaravel T.S, Tanaka K, Arif M, Ohshima K, Ohgami A, Takeshita M, Kikuch M, Kamada N. Clonal identification of trisomies 3, 5 and X in angioimmunoblastic lymphadenopathy with dysptoteinemia by fluorescence in situ hybridisation. *Leuk Lymphoma* 1997 Feb; 24 (5-6): 523-32.
22. Kumaravel Bharathy, Kumaravel T.S, Gajendiran N, Mohankumar Mary N, Arif Mansyur. Molecular genetic markers predict development of drug-induced leukemias in patients undergoing cytotoxic therapy. *Indian Journal of Pharmacology*. 29 (6). Dec. 1997. 405-410.
23. Tanaka K, Eguchi M, Kumaravel T.S, Kudo S, Sankar M, Kyo T, Dohy H, Kamada N, Fujimoto T. Segmental jumping translocation and expression of MYC and cyclin D1 expression in leukaemia and lymphoma with a highly complex karyotype. *Blood*, 90: (10) 3581-3581, Part 2, Suppl. 1 NOV 15 1997.
24. Kudoh S, Kumaravel T.S, Kumaravel B, Sankar M, IshimaeEguchi M, Nakanishi M, Asaoku H, Kyo T, Dohy H, Tanaka K, Kamada N, Fujimoto T. Prognostic implications of p27 (kip1) in non-Hodgkin's lymphomas. *Blood*, 90: (10) 3917-3917, Part 2, Suppl.1 NOV 15 1997.
25. Kumaravel T.S, Chendil D, Arif M, Asou H, Bharadwaj T.P, Sethuraman S, Susheela M, Raina V, Bhargava M, Pant G.S, Tanaka K, Murthy P.B, Kamada N. Cytogenetic and molecular genetic studies on Indian patients with chronic lymphocytic leukemia. *Int J Hematol* 1996 Jul;64 (1): 31-7.
26. Kumaravel T.S, Lakshmi Karthika, Balakrishnamurthy P. Lack of genotoxicity of omeprazole in chromosomal aberration and sister chromatid exchange assays using cultured human lymphocytes in vitro. *Indian Journal of Pharmacology*. 26 (4). 1994. 304-306.
27. Krishnamoorthy M.S, Parthiban N, Muthu P, Paul V, Balagopal G, Kumaravel T.S. Effect of acute pretreatment of lead on picrotoxin-induced convulsions in rats. *J Appl Toxicol* 1993 May-Jun; 13(3): 155-9.
28. Krishnamoorthy M.S, Muthu P, Kumaravel T.S. Effect of pre-perfusion of lead and aminophylline on digoxin cardiotoxicity. *Drug Chem Toxicol* 1992; 15 (3): 259-67.
29. Muthu P, Krishnamoorthy MS, Kumaravel T.S. Effect of aminophylline pre-perfusion on digoxin-induced cardiac in isolated frog heart. *Indian J Exp Biol* 1991 Sep; 29 (9): 870-1.
30. Parthiban N, Muthu P, Paul V, Balagopal G, Kumaravel T.S, Krishnamoorthy M.S. An experimental study on the effects of acute lead pre-treatment on picrotoxin induced convulsive seizures. *Trends in Ecotoxicology* 1990 327-330.
31. Muthu P, Kumaravel T.S, Krishnamoorthy M.S. An experimental study on cardiotoxicity of interaction of lead and two common cardioactive drugs - digoxin and aminophylline. *Trends in Ecotoxicology* 1990 337-343.
32. Balagopal G, Muthu P, Paul V, Parthiban N, Kumaravel T.S, Krishnamoorthy M.S. An experimental study of picrotoxin induced convulsions in a rat model of acute cadmium toxicity. *Trends in Ecotoxicology* 1990 309-312.

33. Kumaravel T.S, Muthu P, Krishnamoorthy M.S. Effect of lead and aminophylline exposure on digoxin cardiotoxicity on dogs. Environmental Impacts in Biosystems 1990 259-265.

PRESENTATIONS AND INVITED TALKS

1. December 1988
21st Annual Meeting of Indian Pharmacological Society
Regional Research Laboratory, Hyderabad, India
2. September 1989
10th Annual Conference of Indian Association of Biomedical Scientists
Madras Medical College, Madras, India
3. December 1989
35th Annual Conference of Association of Physiologist and Pharmacologists of India
Aligarh Muslim University, Aligarh, India
4. December 1989
22nd Annual Meeting of Indian Pharmacological Society
Calcutta University, Calcutta, India
5. December 1989
10th Annual Session of the Academy of Environmental Biology
Loyola College, Madras, India
6. December 1990
23rd Annual Meeting of Indian Pharmacological Society
KEM Medical College, Bombay, India
7. December 1990
11th Annual Conference of Indian Association of Biomedical Scientists
Bombay, India
8. November 1993
26th Annual Meeting of Indian Pharmacological Society
Haryana Agricultural University, Hisar, India
9. April 1994
PCR Methodology Workshop
Labindia and National Chemical Institute, Pune, India
10. February 1995
Radiation Biology Conference
Radiation Effects Research Foundation, Hiroshima, Japan
11. January 1996
Fluorescent in situ Hybridization Workshop
Radiation Effects Research Foundation, Hiroshima, Japan

12. June 1996
Tamil Nadu Hospitals 1996. Cytogenetics of Bone Marrow Transplantation
Chennai
India
13. June 1996
Department of Genetics, Apollo Hospitals, Cytogenetic Diagnosis of Leukemias
Chennai
India
14. June 1996
Cancer Research Institute, Tata Memorial Hospital, Fluorescence in situ hybridisation (FISH) studies
on Leukemias.
Bombay
India
15. August 1996
26th Congress of International Society of Hematology
National University of Singapore, Singapore
16. September 1996
Indira Gandhi Institute for Radiation Research, Material Sciences Department 1997, Fluorescence
in situ hybridisation (FISH).
Kalpakkam
India
17. October 1997
American Association of Cancer Research meeting on Molecular Genetics of Cancers
Oxford University
Oxford
UK
18. October 1999
Comet Assay Training
Research Triangle Park
North Carolina
USA
19. April 1999
Environmental Mutagen Society Annual Conference
Washington DC
USA
20. May 1999
Workshop on Biological Effects of Low Doses of Radiation
National Institutes of Health, Bethesda
USA
21. June 1999
Comet Assay Workshop

Slomenice
Republic of Slovakia

22. November 2000
Invited Talk on Fluorescence in situ Hybridization and Adaptive response
University of Ancona and University of Camerino,
Italy
23. February 2000
Common Frontiers in Cancer Research
National Institutes of Health, Bethesda
USA
24. March 2001
EMS Conference
San Diego
USA
25. June 2001
International Comet Assay Workshop
Ulm
Germany
26. July 2002
UK EMS
Plymouth
UK
27. September 2002
European EMS
Warsaw, Poland
28. September 2002
Presentation on Comet-FISH.
'Era of Hope', US Department of Defence Breast Cancer Meeting,
Orlando
USA
29. September 2003
UK EMS Annual Meeting
Aberdeen
UK
30. October 2003
Seminar on Molecular Epidemiology, Comet assay and cytogenetics
Lucknow
India
31. October 2004
US EMS Annual Meeting

Pittsburgh
USA

32. October 2005
ICEM and US EMS
San Francisco
USA

33. October 2005
IWGT Comet Assay Workshop
San Francisco
USA

34. January 2006
EMS India
Hyderabad
India

35. March 2006
GLP Seminar
Chennai
India

36. October 2006
US EMS
Vancouver
Canada

37. November 2006
Industrial Genotoxicity Group Meeting
London
UK

38. January 2007
EMS India, International conference on Biomarkers in Health and Environmental management
Coimbatore
India

39. July 2007
UKEMS
Cardiff, UK

40. October 2007
USEMS
Atlanta, US

41. January 2008
NEERI
Nagpur, India

42. April 2008
Recent advances in Genetic Toxicology
Chennai, India
43. Feb 2009
UKEMS MSc course
University of Surrey
44. September 2009
National Institute of Occupational Health
Bangalore, India
45. September 2009
NEERI
Nagpur, India
46. October 2009
RCC India
Hyderabad, India
47. October 2009
IIBAT
Chennai, India
48. November 2009
Vivotecnia
Madrid, Spain