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Education:

Ph.D. Chemistry 1992; Lucknow University, Lucknow, India
Title: "Studies on the co-ordination compounds containing N; N, S and N, O donor ligands as Lewis bases and oxozirconium, oxovanadium and dioxouranium ions as Lewis acids."

M.S. Chemistry 1987; Lucknow University, Lucknow, India.

B.S. Chemistry, Botany and Zoology 1985; University of Lucknow, Lucknow, India.

Certificate of Proficiency Russian Language 1990; Lucknow University, Lucknow, India.

Diploma Russian Language 1991; Lucknow University, Lucknow, India.

Project Management Certificate 2015 (2.4 CEUs) University of Wisconsin- Madison, Wisconsin, USA.

Introduction to the Principles and Practice of Clinical Research (2018) The National Institutes of Health Clinical Center, USA.

Awards/Fellowships:

M.Raman Nayar Gold Medal for securing first position in **MS** of Lucknow University, Lucknow, India.

Junior Research Fellowship from UP State Council of Science Technology (India) to work at Lucknow University, Lucknow, India, for degree of Ph.D.

Senior Research Fellowship from Council of Scientific & Industrial Research, India, to work at Industrial Toxicology Research Center, Lucknow, India.

Research Associateship from the Indian Council of Medical Research, India, to work at Industrial Toxicology Research Center, Lucknow, India.

Research Grant Award 1998-1999 from Dermatology Foundation USA to carry out research work at Case Western Reserve University, Cleveland, Ohio, USA.

Research Grant Award 2005-2007 from Dermatology Foundation USA to carry out research work at UW-Madison on chemopreventive effects of EGCG on murine model of human melanoma.

R21 2005-2008 from NIH/NCI is to define the chemopreventive effects of EGCG against melanoma using a murine model of human melanoma and its molecular mechanism.

Professional Experience:

- Sept 2005-till date** **Associate Scientist** at the Department of Dermatology, University of Wisconsin, Madison, Wisconsin, USA.
- Jan 2002-Sept 2005** **Assistant Scientist** at the Department of Dermatology, University of Wisconsin, Madison, Wisconsin, USA.
- Dec 2000-Dec 2001:** **Senior Research Associate** at the Department of Medicine, Division of Hematology/Oncology, Case Western Reserve University, Cleveland, Ohio, USA.
- July1999-Nov 2000:** **Senior Research Associate** at the Department of Dermatology, Case Western Reserve University, Cleveland, Ohio, USA.
- 1996-June 1999:** **Research Associate** at the Department of Dermatology, Case Western Reserve University, Cleveland, Ohio, USA.
- 1994-1996:** **Research Associate** at the Industrial Toxicology Research Center, Lucknow, India.
- 1992-1994:** **Senior Research Fellow** at Industrial Toxicology Research Center, Lucknow, India.
- 1990-1992:** **Lecturer** in Chemistry Department at Lucknow University, Lucknow, India.
- 1988-1990:** **Junior Research Fellow** in Chemistry Department at Lucknow University, Lucknow, India.

Current Position & Research Interests:

Working as **Associate Scientist** at the Department of Dermatology, University of Wisconsin, Madison, WI. Currently engaged in projects to study the molecular mechanism of human melanoma and cutaneous T-cell lymphoma (CTCL) and their therapeutic interventions.

The current research goals are:

- 1). To investigate the FAS abnormalities and their implications in apoptotic defects in cutaneous T-cell lymphoma (CTCL): Role of DNMT1 in regulation of FASL.

- 2). To define the involvement and therapeutic relevance of PLK4 in CTCL.
- 3). To investigate the interaction between PLK1 and B-RAF in melanocytic cells and implications on melanocytic transformation.

Memberships of Scientific Organizations:

The Society for Investigative Dermatology (SID), USA.

The American Association for Cancer Research (AACR), USA.

Teaching Experience:

Taught Chemistry, bio-Inorganic chemistry to the undergraduate and post graduate classes at Lucknow University, Lucknow, UP. India.

Trained several undergraduate, graduates, summer and medical students, and residents in research laboratory at Case Western Reserve University, Cleveland, Ohio and at the Department of Dermatology at University of Wisconsin, Madison.

Lab Experience:

GLP: Knowledge of GLP, HIPAA, OSHA, IRB etc.

Tissue Culture: Extensive experience in the handling and maintenance of various normal human and cancer cells, CTCL, CBCL, melanomas, mesenchymal stem cells, Umbilical cord cells, transient and stable transfections, production of stable clones, retroviral and lentiviral transduction.

Immunological Techniques: Expertise in immunological techniques namely ELISA, Processing, histological preparations and immunostaining of normal and tumor tissue, including cytospin preparations and Laser capture microscopy (LCM) using IHC and IFS methods.

Biochemical Techniques: Agarose Gel Electrophoresis, Polyacrylamide Gel Electrophoresis (PAGE), Silver staining, Immunoprecipitation, Western Immunoblotting, MTT assay, Luciferase assay, DNA methylation assay.

Pharmacology: Evaluating the therapeutic potential of drugs used against cancer treatment, evaluating the therapeutic efficacy and role of various pharmacological agents like vorinostat, Interferon, methotrexate etc.

Molecular Techniques: DNA and RNA isolation, Northern and Southern Blotting, Primer designing for PCR, sequencing, RT-PCR, QRT-PCR, Cloning and Sub-Cloning, sequencing and Pyrosequencing.

Animal Handling: Efficient handling of rodents, inoculation procedures, collection of blood, biopsy and tumor collection and minor surgical procedures,

Flow Cytometry: Acquisition and Analysis on FacScan, LSR II and Attune for Cell cycle analysis for DNA, Apoptotic assays-Annexin V-PI/ Phosphatidyl serine staining, Intracellular staining for BrdU incorporation surface and intracellular staining including Fas, Ki-67, DCFDA, DHE, TUNEL, BCl₂, Sirt1, Plk1, 4, Sirt3 and cleaved Caspases 3/8/9.

Instruments: UV-Vis Spectrophotometer, micro and ultra-centrifuges, ABI cycler, ABI 7000 cycler, ABI Step One real time, Evos-xl AMG microscope (visible), Ti-Eclipse microscope (visible and

fluorescence), flow cytometry-Facs Calibur, LSRII, Biotech Synergy plate reader, Kodak Imager, Victor Luminometer, Nuance Imaging and analysis.

Lab Management: Ordering consumable and equipment, budgeting, listing and cataloging, inventory, maintenance of equipment, quality control, troubleshooting etc. Grant application writing; grant reviewing for NIH and other agencies, Planning and execution of projects, writing and reviewing of project reports, manuscripts and presentations.

List of Research Publications:

I have 47 peer-reviewed research publications and 60 published abstracts.

PUBLISHED PAPERS:

1. Denu RA, Shabbir M, Nihal M, Singh CK, Longley BJ, Burkard ME, Ahmad N. Centriole overduplication is the predominant mechanism leading to centrosome amplification in melanoma. *Mol Cancer Res.* 16, 517-527, 2018. PMID: 29330283.
2. Singh CK, **Nihal M**, Ahmad N. Histone deacetylase Inhibitory approaches for the management of osteoarthritis. *Am J Pathol.* 6, 10335-48 2016. PMID 27560709.
3. **Nihal M**, Wood GS. C-CBL regulates melanoma proliferation, migration, invasion and the FAK-SRC-GRB2 nexus. *Oncotarget.* 7, 53869-53880, 2016. PMID 27472394.
4. George J, **Nihal M**, Singh CK, Zhong W, Liu X, Ahmad N. Pro-proliferative function of mitochondrial sirtuin deacetylase SIRT3 in human melanoma. *JID*, 136, 809-18, 2016. PMID 26743598.
5. Singh CK, Kaur S, George J, **Nihal M**, Pellitteri Hahn MC, Scarlett CO, Ahmad N. Molecular signatures of sanguinarine in human pancreatic cancer cells: A large scale label-free comparative proteomics approach. *Oncotarget.* 6, 10335-48, 2015. PMID: 25929337
6. Wilking MJ, Singh CK, **Nihal M**, Ndiaye MA, Ahmad N. Sirtuin deacetylases: A new target for melanoma management. *Cell Cycle.* 13, 2821-6, 2014. PMID 25486469.
7. **Nihal M**, Wu J, Wood GS. Methotrexate inhibits the viability of human melanoma cell lines and enhances Fas/Fas-ligand expression, apoptosis and response to interferon-alpha: rationale for its use in combination therapy. *Arch Biochem Biophys.* 563, 101-07, 2014. PMID 24862567.
8. Wilking M, Singh CK, **Nihal M**, Zhong W, Ahmad A. SIRT1 deacetylase is overexpressed in human melanoma and its small molecule inhibition imparts anti-proliferative response via p53 activation. Submitted *Arch Biochem Biophys.* 563, 94-100, 2014. PMID 24751483.
9. Siddiqui IA, Bharali DJ, **Nihal M**, Adhami VM, Khan N, Chamcheu JC, Khan MI, Shabana S, Mousa SA, Mukhtar H. Excellent anti-proliferative and pro-apoptotic effects of (-)-epigallocatechin-3-gallate encapsulated in chitosan nanoparticles on human melanoma cell growth both in vitro and in vivo. *Nanomedicine.* 10, 1619-26, 2014. PMID 24965756.
10. Ndiaye MA, **Nihal M**, Wood GS, Ahmad N. Skin, Reactive Oxygen Species, and Circadian Clocks. *Antioxid Redox Signal.* 20, 2982-96, 2014. PMID 24111846.
11. Singh CK, Ndiaye MA, Siddiqui IA, **Nihal M**, Havighurs T, Zhong W, Ahmad N. Methaneseleninic acid and α -tocopherol combination inhibits prostate tumor growth in-vivo in a xenograft mouse model. *Oncotarget.* 5, 3651-61, 2014. PMID 25004451.
12. Singh CK, George J, **Nihal M**, Sabat G, Kumar R, Ahmad N. Novel downstream molecular targets of SIRT1 in melanoma: A quantitative proteomics approach. *Oncotargets* 5, 1987-99, 2014. PMID 24743044.
13. **Nihal M**, Ahmad N, Wood GS. SIRT1 is upregulated in cutaneous T-cell lymphoma, and its inhibition induces growth arrest and apoptosis *Cell Cycle.* 13, 632-40, 2014. PMID 24343700.
14. Xu W, Siddiqui IA, **Nihal M**, Pilla S, Rosenthal K, Mukhtar H, Gong S. Aptamer-conjugated and doxorubicin-loaded unimolecular micelles for targeted therapy of prostate cancer. *Biomaterials.* 34, 5244-53, 2013. PMID 23582862.

15. Schmit TL, **Nihal M**, Ndiaye MA, Setaluri V, Spiegelman VS, Ahmad N. Numb regulates stability and localization of the mitotic kinase PLK1 and is required for transit through mitosis. *Cancer Res.* 72, 3864-72, 2012. PMID 22593191.
16. Johnson JJ, **Nihal M**, Siddiqui IA, Scarlett CO, Bailey HH, Mukhtar H, Ahmad N. Enhancing the bioavailability of resveratrol by combining it with piperine. *Mol Nutr Food Res.* 55, 1169-76, 2012. PMID 21714124.
17. **Nihal M**, Stutz N, Schmit T, Ahmad N, Wood GS. Polo-like kinase 1 (Plk1) is expressed by cutaneous T-cell lymphomas (CTCLs), and its downregulation promotes cell cycle arrest and apoptosis. *Cell Cycle.* 10, 1303-11, 2011. PMID 21436619.
18. Wu J, Siddiqui J, **Nihal M**, Vonderheid EC, Wood GS. Structural alterations of the FAS gene in cutaneous T-cell lymphoma (CTCL). *Arch Biochem Biophys.* 508, 185-91, 2011. PMID 21036138.
19. Stutz N, **Nihal M**, Wood GS. Polo-like kinase 1 (Plk1) in cutaneous T-cell lymphoma. *Br J Dermatol.* 164, 814-21, 2011. PMID 21070201.
20. **Nihal M**, Roelke CT, Wood GS. Anti-melanoma effects of vorinostat in combination with polyphenolic antioxidant (-)-epigallocatechin-3-gallate (EGCG). *Pharma Res.* 27, 1103-14, 2010. PMID 20232120.
21. Schmit TL, Zhong W, **Nihal M**, Ahmad N. Polo-like kinase 1 (Plk1) in non-melanoma skin cancers. *Cell Cycle.* 8, 2697-702, 2009. PMID 19502799.
22. **Nihal M**, Ahsan H, Siddiqui IA, Mukhtar H, Ahmad N and Wood GS. (-)-Epigallocatechin-3-gallate (EGCG) sensitizes melanoma cells to interferon induced growth inhibition in a mouse model of human melanoma. *Cell Cycle.* 8, 2057-63, 2009. PMID 19502799.
23. Wu J, **Nihal M**, Siddiqui J, Wood GS. Low FAS/CD95 expression by CTCL correlates with reduced sensitivity to apoptosis that can be restored by FAS up-regulation. *J Invest Dermatol.* 129, 1165-73, 2009. PMID 18923451.
24. Jung-Hynes B, **Nihal M**, Zhong W, Ahmad N. Role of sirtuin histone deacetylase Sirt1 in prostate cancer: A target for prostate cancer management via its inhibition? *J Biol Chem.* 284, 3823-32, 2009. PMID 19075016.
25. Reagan-Shaw S, **Nihal M**, Ahsan H, Mukhtar H, Ahmad N. Combination of vitamin E and selenium causes an induction of apoptosis of human prostate cancer cells by enhancing Bax/Bcl-2 ratio. *Prostate.* 68, 1624-35, 2008. PMID 18668529.
26. Reagan-Shaw S, **Nihal M**, Ahmad N. Dose Translation from Animal to Human Studies Revisited. *Faseb J.* 22, 659-62, 2008. PMID 17942826.
27. Yang B, O'Herrin S, Wu J, Reagan-Shaw S, Ma Y, **Nihal M** and Longley BJ. Select cancer testes antigens of the MAGE-A, -B, and -C families are expressed in mast cell lines and promote cell viability in vitro and in vivo. *J Invest Dermatol.* 127, 267-75, 2007. PMID 16960553.
28. Aziz MH, **Nihal M**, Fu VX, Jarrard DF, Ahmad N. Resveratrol-caused apoptosis of human prostate carcinoma LNCaP cells is mediated via modulation of phosphatidylinositol 3'-kinase/Akt pathway and Bcl-2 family proteins. *Mol Cancer Ther.* 5, 1335-41, 2006. PMID 16731767.
29. **Nihal M**, Ahmad N, Mukhtar H, Wood GS. Anti-proliferative and proapoptotic effects of (-)-epigallocatechin-3-gallate on human melanoma: Possible implications for the chemoprevention of melanoma. *Int J Cancer.* 114, 513-21, 2005. PMID 15609335.
30. Adhami VM, Aziz MH, Reagan-Shaw SR, **Nihal M**, Mukhtar H, Ahmad N. Sanguinarine causes cell cycle blockade and apoptosis of human prostate carcinoma cells via modulation of cyclin kinase inhibitor-cyclin-cyclin-dependent kinase machinery. *Mol Cancer Ther.* 3, 933-40, 2004. PMID 15299076.
31. **Nihal M**, Mikkola D, Horvath N, Gilliam AC, Stevens SR, Spiro TP, Cooper KD, Wood GS. Cutaneous lymphoid hyperplasia (CLH): A lymphoproliferative continuum with lymphoid potential. *Human Pathol.* 34, 617-22, 2003. PMID 12827617.
32. Ke MS, Kamath NV, **Nihal M**, Mikkola DL, Koc ON, Stevens SR, Gilliam AC, Cooper KD, Wood GS. Folliculotropic mycosis fungoides with central nervous system involvement: demonstration of tumor clonality in intrafollicular T cells using laser capture microdissection. *J Am Acad Dermatol.* 48, 238-43, 2003. PMID 12852395.

33. Kamath NV, Gilliam AC, **Nihal M**, Spiro TP, Wood GS. Primary cutaneous large B-cell lymphoma of the leg relapsing as cutaneous intravascular large B-cell lymphoma. *Archives of Dermatol.* 137, 1657-58, 2001. PMID 11735727.
34. **Nihal M**, Mikkola D, Qain Z, Remick SC, Wood GS. The clonality of tumor-infiltrating lymphocytes in African Kaposi's sarcoma. *J Cutaneous Pathol.* 28, 200-05, 2001. PMID 11426827.
35. Kasper RC, Wood GS, **Nihal M**, LeBoit PE. Anetoderma arising in cutaneous B cell lymphoproliferative disease. *Am J Dermatopathol.* 23, 124-132, 2001. PMID 11285407.
36. **Nihal M**, Mikkola D, Wood GS. Detection of clonally restricted immunoglobulin heavy chain gene rearrangements in normal and lesional skin: Analysis of the B-Cell component of the skin-associated lymphoid tissue and implications for the molecular diagnosis of cutaneous B-cell lymphomas. *J Mol Diagn.* 1, 5-10, 2000. PMID 11272902.
37. Behari JR and **Nihal M**. Galactosylated liposomes as carriers for targeting meso-2, 3 dimercaptosuccinic acid to cadmium storage sites in cadmium exposed mice. *Ind Health.* 38, 408-12, 2000.
38. **Misra M**, Behari JR. Effect of liposome-encapsulated meso-2, 3-dimercaptosuccinic acid on mice exposed to lead through drinking water. *Boll Chim Farm.* 136, 611-14, 1997. PMID 9528168.
39. Ahmad N, **Misra M**, Husain MM, Srivastava RC. Metal independent putative superoxide dismutase mimics in chemistry, biology and medicine. *J Ecotox Environ Safety.* 34, 141-44, 1996. PMID 8812179.
40. Srivastava RC, Farookh A, Ahmad N, **Misra M**, Hasan SK, Husain MM. Evidence of the involvement of nitric oxide in cisplatin-induced toxicity in rats. *Biometal.* 9, 139-42, 1996. PMID 8744896.
41. Srivastava RC, Farookh A, Ahmad A, **Misra M**, Hasan SK, Husain MM. Reduction of cis-platinum induced nephrotoxicity following administration of zinc histidine: the possible implication of nitric oxide. *Biochem Mol Bio Int.* 36, 855-862, 1995. PMID 8528148.
42. Behari JR, Srivastava S, Gupta S, **Misra M**, Srivastava RC. Influence of 2, 3-dimercaptosuccinic acid esters administered via liposome on biochemical alterations and cadmium levels in cadmium pre-exposed rats. *J Sci Ind Res.* 3, 27-31, 1995.
43. Gupta S, Behari JR, Srivastava S, **Misra M**, Srivastava RC. Efficiency of liposome encapsulated triethylenetetraamine hexaacetic acid (TTHA) against cadmium intoxication: Role of lipid composition. *Ind Health.* 33, 83-88, 1995. PMID 7493825.
44. Ahmad N, **Misra M**, Shukla PR. Studies on Mn (II), Co (II), Ni (II), and Cu (II) complexes of a macrocyclic Schiff base ligand viz. Tribenzo (b,e,h)1,4, 7,10-tetraaza 11,13-dimethylcyclotrideca 1,10-diene. *Synth React Inorg Met Org Chem.* 22, 1455-58, 1992.
45. Shukla PR, **Misra M**. Studies on some oxozirconium (IV) and dioxouranium (VI) complexes of 2,2'-dithiodianiline. *Asian J Chem.* 4, 661, 1992.
46. Shukla PR, Bhatt M, **Misra M**, Pathak AK. Synthesis and characterization of some di- and tri-organotin (IV) derivatives of Schiff base. *Asian J Chem.* 3, 175, 1991.
47. Shukla PR, **Misra M**, Pathak AK. Studies on some oxozirconium (IV) and dioxouranium (VI) Schiff base complexes. *J Ind Chem Soc.* 67, 678-69, 1990.

PUBLISHED ABSTRACTS:

1. **Nihal M**, Wood GS. FAS-ligand (FASL) expression in cutaneous T-cell lymphoma (CTCL) is regulated by promoter methylation and can be derepressed by methotrexate (MTX). *J Invest Dermatol.* 138, 440, 2018.
2. Singh CK., Chhabra G, **Nihal M**, Iczkowski KA, N Ahmad. Sirtuin-3 overexpression in prostate cancer is associated with its pro-proliferative function. In: *Proceedings of Am Assoc Can Res.* 2018.
3. **Nihal M**, Singh CK, Wood GS, Ahmad N. Potential pro-proliferative role of polo-like kinase 4 in cutaneous T-cell lymphoma. *J Invest Dermatol.* 137, S21, 126, 2017.
4. **Nihal M**, Wood GS. C-CBL regulates melanoma proliferation, migration and invasion via Fak-Src-Grb2 nexus. *J Invest Dermatol.* 136, S107, 600, 2016.
5. Shabbir M, **Nihal M**, Singh CK, Longley JB, Ahmad N. Potential pro-proliferative function of Polo-like kinase 4 in human melanoma. *J Invest Dermatol.* 136, S107, 631, 2016.

6. George J, **Nihal M**, Ndiaye MA, Ahmad N. SIRT3 manipulation affects tumor growth *in vivo* in NU/NU immunodeficient mice. *J Invest Dermatol.* 136, S107, 635, 2016.
7. Shabbir M, **Nihal M**, Singh CK, Longley JB, Ahmad N. A pro-proliferative function of centriole duplication regulator, polo-like kinase-4 in human melanoma. In: *Proceedings of Am Assoc Can Res.* 2016.
8. George J, **Nihal M**, Ndiaye MA, Ahmad N. Pro-proliferative function of SIRT3 in a human melanoma xenograft mouse model. In: *Proceedings of Am Assoc Can Res.* 2016.
9. Singh CK, George J, **Nihal M**, Ahmad N. Potential role of DUSP4 as a tumor suppressor in pancreatic cancer. In: *Proceedings of Am Assoc Can Res.* 2016.
10. George J, **Nihal M**, Singh CK, Ahmad N. Small molecule SIRT3 inhibitor 4'-bromo-resveratrol inhibits proliferation, promotes apoptosis and causes metabolic reprogramming of human melanoma cells. *J Invest Dermatol.* 135, S113, 654, 2015.
11. George J, **Nihal M**, Singh CK, Ahmad N. Small molecule SIRT3 inhibitor 4'-bromo-resveratrol inhibits proliferation, promotes apoptosis and causes metabolic reprogramming of human melanoma cells. In: *Proceedings of Am Assoc Can Res.* 2015
12. Singh CK, **Nihal M**, George J, Siddiqui IA, Mukhtar H. Effect of resveratrol-zinc combination on prostate tumor growth in transgenic adenocarcinoma of mouse prostate (TRAMP) model. In: *Proceedings of Am Assoc Can Res.* 2015
13. George J, **Nihal M**, Singh CK, Zhong W, Ahmad N. Overexpression of mitochondrial sirtuin deacetylase SIRT3 promotes the survival of human melanoma cells. *J Invest Dermatol.* 134, S122, 697, 2014.
14. Salva K.A, **Nihal M**, Wu J, Wood G.S. Epigenetically enhanced photodynamic therapy (ePDT) is superior to conventional PDT for inducing apoptosis in CTCL. *J Invest Dermatol.* 134, S122, 668, 2014.
15. **Nihal M**, Wood GS Methotrexate upregulates death receptors/ligands and enhances apoptosis of human melanoma cell lines. *J Invest Dermatol.* 134, S122, 699, 2014.
16. George J, **Nihal M**, Singh CK, Zhong W, Ahmad N. The mitochondrial sirtuin SIRT3 promotes survival of human melanoma cells *in vitro*. *AACR* 2014.
17. Siddiqui IA, Dhruva J. Bharali DJ, **Nihal M**, Adhmi VM, Jashari R, Mousa SA, Mukhtar H. Aptamer conjugated prostate specific membrane antigen (PSMA) targeting EGCG nanobioconjugate for prostate cancer prevention and treatment. *AACR* 2014.
18. Singh CK, George J, **Nihal M**, Sabat G, Kumar R and Ahmad N. Mechanism of sirtuins inhibition mediated anti-proliferative response in human melanoma: A proteomics approach. *J Invest Dermatol.* S240, 1411, 2013.
19. Salva K, Sundram U, Krathen M, Wu J, **Nihal M**, Kim K, Wood GS. Analysis of protein expression in-situ using multi-spectral imaging is superior to conventional immunohistochemistry (IHC): a new paradigm for patient selection for targeted therapy. *J Invest Dermatol.* S240, 992, 2013.
20. Singh CK, Wilking MJ, **Nihal M** and Ahmad N. Tenovin-1, a small-molecule inhibitor of SIRT1, imparts anti-proliferative response in human melanoma cells via p53 activation *J Invest Dermatol.* 2012.
21. **Nihal M**, Ahmad N, Wood GS. Genetic and chemical knockdown of histone deacetylase (HDAC) Sirt1 decreases cellular growth and induces apoptosis in cutaneous T-cell lymphoma (CTCL). *J Invest Dermatol.* 2012.
22. Singh CK, Wilking MJ, **Nihal M** and Ahmad N. Targeted inhibition of Sirt1 histone deacetylase by small-molecule inhibitor Tenovin-1 imparts significant anti-proliferative effects in human melanoma cells. In: *Proceedings of Am Assoc Can Res.* 2012.
23. Singh CK., **Nihal M** and Ahmad N. Resveratrol enhances the anti-proliferative response of zinc by increasing zinc-transporter protein ZIP1 in prostate cancer cells: A Novel Combinatorial Approach for Prostate Cancer Management. In: *Proceedings of Am Assoc Can Res.* 2012.
24. **Nihal M**, Ndiaye M, Wood GS, Ahmad N. Role of Sirt1 histone deacetylase in melanoma: A target for melanoma management via its inhibition? *J Invest Dermatol.* 131, 758, 2011.
25. **Nihal M**, Ahmad N, Wood GS. Sirt1 histone deacetylase (HDAC) is increased in cutaneous t-cell lymphoma (CTCL) and its inhibition induces apoptosis. *J Invest Dermatol.* 131, 137, 2011.

26. **Nihal M**, Stutz N, Schmit T, Ahmad N, Wood GS. Polo-like kinase 1 (Plk1) is expressed by CTCL and its down-regulation promotes cell cycle arrest and apoptosis. *J Invest Dermatol.* 130, 184, 2010.
27. **Nihal M** and Wood GS. In-vitro effects of EGCG and vorinostat on human melanoma. *J Invest Dermatol.* 129, 861, 2009.
28. Wu J, **Nihal M**, Siddiqui J, Wood GS. Low FAS/CD95 expression in CTCL correlates with reduced sensitivity to apoptosis that can be restored by FAS up-regulation. *J Invest Dermatol.* 128, 156, 2008.
29. **Nihal M**, Wood GS. Antiproliferative and proapoptotic effects of histone deacetylase inhibitor vorinostat in human melanoma. *J Invest Dermatol.* 128, 1348, 2008.
30. Jung B, **Nihal M**, Ahmad N. A targeted knockdown of sirtuin histone deacetylase Sirt1 imparts significant growth inhibitory effects in human prostate cancer cells. In: *Proceedings of Am Assoc Can Res.* 2008.
31. **Nihal M**, Creswell C, Wood GS. Anti-proliferative and pro-apoptotic effects of EGCG and EGCG/IFNa in human melanoma and CTCL lines. *J Invest Dermatol.* 127, 297, 2007.
32. Schmit TL, **Nihal M**, Ahmad N. Polo-like kinase 1 is overexpressed in skin cancer cells and human skin cancers: A new target for the management of skin cancer. *J Invest Dermatol.* 127, 167, 2007.
33. Wu J, Siddiqui J, **Nihal M**, Wood GS. Transcriptional regulation of FAS expression by CTCL cells determines sensitivity to FAS-ligand mediated apoptosis and can be altered by enhancer region mutations. *J Invest Dermatol.* 127, 126, 2007.
34. Schmit TL, **Nihal M**, Ahmad N. Polo-like kinase 1: A new target for the management of skin cancers. In: *Proceedings of Am Assoc Can Res.* 2007.
35. Siddiqui, J, Wu, J, **Nihal, M**, Wood GS. FAS apoptotic pathway abnormalities in CTCL. *J Invest Dermatol.* 126, 129, 2006.
36. **Nihal M**, Ahsan H, Ahmad N, Mukhtar H, Wood GS. Combination of (-)-epigallocatechin-3-gallate (EGCG) and interferon-alpha (IFNa) exerts synergistic inhibitory effects against melanoma xenografts in athymic nude mice. *J Invest Dermatol.* 126, 931, 2006.
37. **Nihal M**, Wu J, Wood GS. (-)-Epigallocatechin-3-gallate (EGCG) modulates FAS (APO-1/CD95) expression in CTCL derived lines. *J Invest Dermatol.* 126, 261, 2006.
38. **Nihal M**, Ahmad N, Mukhtar H, Wood GS. Green tea polyphenol (-)-epigallocatechin-3-gallate causes growth inhibition, induction of apoptosis and cell cycle arrest in cutaneous T-cell lymphoma cell lines. In: *Proceedings of Am Assoc Can Res.* 2006.
39. **Nihal M**, Siddiqui IA, Siddiqui S, Mukhtar H, Wood GS. Epigallocatechin-3-gallate (EGCG) induces apoptosis and inhibits proliferation of human melanoma cells in a murine xenograft model. *J Invest Dermatol.* 124, 4, A26, 2005.
40. **Nihal M**, Mukhtar H, GS Wood. Epigallocatechin-3-gallate (EGCG) causes cell cycle arrest and apoptosis in human melanoma cells via modulation of the cyclin kinase inhibitor (cki)-cyclin dependent kinase (cdk) network and Bcl2 family proteins. *J Invest Dermatol.* 122, A-157, 941, 2004.
41. **Nihal M**, Mukhtar H, Wood GS. Differential anti-proliferative effects of (-)-epigallocatechin-3-gallate on human melanoma cells versus normal human melanocytes: Possible implications for the chemoprevention of melanoma. In: *Proceedings of Am. Assoc.Can. Res.* 2003.
42. **Nihal M**, Mukhtar H, Wood GS. (-)-Epigallocatechin-3-gallate (EGCG) directly induces apoptosis and inhibits proliferation of human melanoma cell lines. *Inter. Invest.Dermatol.* 016, 2003.
43. Maitra B, Dennis JE, **Nihal M**, Laughlin M, Haynesworth SE, Koc ON. Human bone marrow derived mesenchymal stem cells (MSCs) contain highly proliferative small cells with tri-lineage mesenchymal differentiation potential. *Blood.* 98, 4249, Part 2, 2001.
44. Bauman B. **Nihal M**, Maitra B, Roth J, Koc ON. CXCR-4 transduced human mesenchymal stem cells (MSCs) migrate in response to SDF-1 α . *Blood.* 98, 362, Part 1, 2001.
45. Ke MS, Kamath NV, **Nihal M**, Mikkola DL, Koc ON, Stevens SR, Gilliam AC, Cooper KD, Wood GS. Folliculotropic mycosis fungoides with central nervous system involvement. *J. Invest Dermatol.* 117, 598, 2001.

46. **Nihal M**, Mikkola D, Horvath N, Gilliam AC, Stevens SR, Spiro TP, Cooper KD, Wood GS. Cutaneous lymphoid hyperplasia (CLH): A lymphoproliferative continuum with malignant potential. *J Invest Dermatol.* 114, 817, 2000.
47. **Nihal M**, Mikkola D, Wood GS. Normal skin and cutaneous T-cell infiltrates often harbor clonally restricted B cells: Implications for the molecular biological diagnosis of cutaneous B-cell lymphoma. *J Invest Dermatol.* 112, 628, 1999.
48. Wood GS, **Nihal M**. African patients with Kaposi's sarcoma (KS) exhibit restricted B-cell clones within lesional skin. *J Cutaneous Path.* 25, 9, 1998.
49. Siddiqui J, Hardman DL, **Misra M**, Wood GS. Clonal dermatitis: A potential precursor of CTCL with varied clinical manifestations. *J Invest Dermatol.* 108, 584, 1997.
50. **Misra M**, Hardman DL, Siddiqui J, Wood GS. PCR assays for clonality and immunoglobulin gene repertoire in cutaneous B-Cell infiltrates. *J Invest Dermatol.* 108, 609, 1997.
51. **Misra M**, Behari JR and Srivastava RC. Effect of liposome encapsulated meso 2, 3-dimercaptosuccinic acid on mice exposed to lead through drinking water. *Ind J Toxicol.* 1, 85, 1994.

PAPERS PRESENTED AT NATIONAL AND INTERNATIONAL MEETINGS:

1. Behari JR, **Misra M**. Effect of nickel chloride on liposomal membrane. In: National seminar on "Biological conservations: Insight of chemistry and biology." 02-04 Feb'1994 at National Chemical Laboratory, Pune, India.
2. **Misra M**, Ahmad N, Shukla PR. Studies on macrocyclic complexes of oxozirconium (IV), oxovanadium (IV) and dioxouranium (VI) resulting from template and nontemplate condensation of triethylenetetraamine with glyoxal or acetylacetone. In: National symposium on "Current trend in coordination chemistry". 23-25 March'1995 at Cochin University of Science and Technology, Cochin, India.
3. Behari JR, **Misra M**, Srivastava RC. Use of glycosylated liposomes as carriers of meso 2, 3-dimercaptosuccinic acid (DMSA) in the treatment of cadmium intoxicated mice. In: 3rd Congress of toxicology in developing countries. 19-23 Nov '1995. Cairo, Egypt.
4. Behari JR, **Misra M**. Galactosylated liposomes as carrier of DMSA in cadmium detoxification. In: Recent advances in drug delivery: Technique and Testing. 11-12 Dec' 1995 at S.G.S. Medical College and K.E.M. Hospital, Bombay, India.
5. Wood GS, Siddiqui J, Hardman DL, **Misra M**. Clonal Dermatitis: A potential precursor of CTCL with varied clinical manifestations. In: 1st consensus conference on classification, prognostic factors, staging, therapy, epidemiology and registry. 14 June'1997 at Sydney, Australia.
6. **Nihal M**, Stutz N, Wood GS. Down regulation of polo-like kinase-1 in cutaneous T-cell lymphomas causes mitotic irregularities and apoptosis. First CTCL World Congress. 22-25 Sept'2010 at Chicago, IL. USA.
7. Singh CK, George J, **Nihal M**, Sabat G, Kumar R and Ahmad N. Novel downstream molecular targets of sirtuins in human melanoma cells. In: The PanAmerican Society for Pigment Cell Research (PASPCR). 8-12 Sep' 2013 at Madison, WI. USA.
8. George J, **Nihal M**, Singh CK, Zhong W and Ahmad N. Mammalian Sir2 homolog SIRT3 promotes melanoma growth and survival. In: The PanAmerican Society for Pigment Cell Research (PASPCR). 8-12 Sep' 2013 at Madison, WI. USA.
9. **Nihal M**, Stutz N, Wood GS. Methotrexate in malignant melanoma. In: The PanAmerican Society for Pigment Cell Research (PASPCR). 8-12 Sep' 2013 at Madison, WI. USA.

REVIEWER OF SCIENTIFIC JOURNALS

Journal of Chemical Biology
International Journal of Cancer
Cancer Letters

ADDITIONAL COURSES/TRAININGS

The Responsible Care and Use of Laboratory Animals Certificate, University of Wisconsin-Madison, Research Animal Resources Center

AALAS Lab Animal Science Learning Library, University of Wisconsin, Medical School and Public Health

Hazardous Materials and Waste Management

Principles of Radiation Safety

Human Subject tutorials, University of Wisconsin, Medical School Public Health

Human Subject Research Curriculum

VHA privacy policy training

VA human subjects training

VA Privacy and HIPAA

Cyber privacy

Chemical Safety

Biological Safety

COMPUTER SKILLS

Proficient in using window based operating systems and its application programs like MS Word, MS Excel, MS Access, MS power point, Adobe Photoshop, Adobe Illustrator, Prism etc.

RESEARCH SUPPORT

Ongoing Research Support

2R01AR059130-06

(Ahmad, N., P.I.)

07/15/15–06/30/20

NIH/NIAAMS

Role of Polo-like Kinase-1 in Melanocytic Transformation.

The objective of this study is to determine the interaction between Plk1 and B-Raf in melanocytic cells with the idea that this interaction plays a critical role in melanocytic transformation.

1R01AR059130-01A1

(Ahmad, N., P.I.)

07/01/10–06/30/15

NIH/NIAAMS

Role of Polo-like Kinase-1 in Melanocytic Transformation.

The goal of this project is to define the downstream effectors of polo-like kinase during melanocytic transformation. Experiments are proposed to determine the downstream targets of Plk1 and ability of Plk1 to phosphorylate the potential target sites via site directed mutagenesis approaches.

Completed Research Support

R21 CA116163-01

(Nihal, M., P.I.)

07/01/5-06/30/08

NIH/NCI

Epigallocatechin-3-gallate in melanoma management.

The major goal of this proposal is to define the chemopreventive effects of EGCG against melanoma using a murine model of human melanoma and its molecular mechanism.

Research Grant

(Nihal, M., P.I.)

07/01/05-12/31/06

Dermatology Foundation

Epigallocatechin-3-gallate (EGCG) in melanoma management.

The major goal of this proposal is to define the chemopreventive effects of EGCG against melanoma using a murine model of human melanoma and its molecular mechanism.

Research Grant

(Nihal, M., P.I.)

07/1/98-06/30/99

Dermatology Foundation

Dominant B-cell clonality in African Kaposi's Sarcoma (KS).

The major goal of this proposal is to determine the actual prevalence of dominant B cell clonality in African KS in lesional skin and PBMCs, its correlation to HIV status.