

# CURRICULUM VITAE

## PERSONAL DATA

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## EDUCATION

1967-70 University of Kerala, Trivandrum, India; B.S. (chemistry major)  
1970-72 University of Kerala, Trivandrum, India; M.S. (chemistry)  
1972-76 University of Kerala, Trivandrum, India; Ph.D. (organic chemistry)

## POSTDOCTORAL TRAINING

1980-83 Postdoctoral Fellow, Department of Endocrinology, Medical College of Georgia, Augusta, GA  
1983-87 Postdoctoral Fellow, Department of Obstetrics and Gynecology, University of Michigan, Ann Arbor, MI  
1987-91 Research Associate and Research Specialist, Howard Hughes Medical Institute, University of Michigan, Ann Arbor, MI

## ACADEMIC APPOINTMENTS

1991-96 Research Investigator and Lecturer, Department of Dermatology, University of Michigan, Ann Arbor, MI  
1996- Assistant Research Scientist, Department of Dermatology, University of Michigan, Ann Arbor, MI

## AWARDS/HONORS

Eugene M. Farber Research in Psoriasis Award, Society for Investigative Dermatology, 2007

## INSTITUTIONAL ACTIVITIES

2004- Member, Institutional Review Board, University of Michigan Medical School

## CONSULTING POSITIONS

1991-94 Cytel Corporation, San Diego, CA

## SCIENTIFIC ACTIVITIES

Reviewer for the following journals:

Archives of Dermatological Research  
British Journal of Dermatology  
European Journal of Human Genetics  
Human Genetics  
Human Heredity  
Journal of Dermatological Research  
Journal of Investigative Dermatology  
Journal of Medical Genetics  
Molecular and Cellular Probes  
Tissue Antigens

Reviewer of research grants for:

Italian Telethon  
Medical Research Council, UK  
The Wellcome Trust, UK  
National Eczema Foundation  
NIAMS, NIH (Ad hoc reviewer)

## MEMBERSHIPS AND OFFICES IN PROFESSIONAL SOCIETIES

Society for Investigative Dermatology  
American Society of Human Genetics  
American Association for the Advancement of Science

## TEACHING ACTIVITIES

1993-present Mentor, Undergraduate Research Opportunities Program.

## INVITED PRESENTATIONS

- July 1993 "DNA-based Typing of HLA-Cw6, a Human Leucocyte Antigen with Increased Frequency in Type I Psoriasis". 42nd Annual Symposium on the Biology of the Skin - Genetics of Skin Disease, Snowmass Village, CO.
- March 1995 "The Hunt for Psoriasis Genes". Department of Dermatology, University of Kiel, Germany.
- Sept. 1998 "Genome scan identifies multiple susceptibility loci for psoriasis". Seventh International Psoriasis Symposium, Milan, Italy.

## BIBLIOGRAPHY

Peer-Reviewed Publications

1. Joshua CP, Nair RP: Synthesis of amidinothioureas. *Chemistry and Industry* 1974:301.
2. Joshua CP, Nair RP: Synthesis of biguanide. *Chemistry and Industry* 1974:497-498.
3. Joshua CP, Nair RP: Interaction of dicyandiamide with thiocarbamide: formation of 2,4-diamino-6-mercapto-s-triazine and biguanide. *Indian J Chem* 12:496-497, 1974.
4. Joshua CP, Nair RP: Interaction of dicyandiamides with thioamides. *Australian J Chem* 27:2627-2634, 1974.
5. Joshua CP, Nair RP: Interaction of dicyandiamides with thioureas. *Australian J Chem* 28:427-434, 1975.
6. Joshua CP, Nair RP: Reaction of isothiocyanates with thiourea and amidinothioureas. *Australian J Chem* 29:415-425, 1976.
7. Joshua CP, Nair RP: Reaction of dicyandiamide with thiosemicarbazide and thiocarbohydrazide. *Australian J Chem* 29:1051-1058, 1976.
8. Indukumari PV, Joshua CP, Nair RP: Oxidation and eliminative cyclization of S-alkylisothiureas. *Indian J Chem* 20B:384-387, 1981.
9. Nair RP, Bannore SN, Subbarao HN, Dev S: Ligand effects in epoxidations by hydroperoxides using molybdenum catalysts: epoxidation of 3-carene. *Tetrahedron* 40:983-989, 1984.
10. Powell MM, Nair RP, Cohen JD, Bhalla VK: Gonadal receptors: upregulation in response to elevated serum gonadotropin levels. *Biol Reprod* 25:708-718, 1981.
11. Nair RP, Powell MM, Burgett AC, Bhalla VK: Ethanol-induced release of adenosine 3',5'-monophosphate into the medium by rat testis in vitro. *Endocrinology* 110:80-88, 1982.
12. Bhalla VK, Nair RP, Newman ME: Alcohol-induced luteinizing hormone receptor deficiency at the testicular level. *Alcoholism (NY)* 7:153-162, 1983.
13. Nair RP, Menon KMJ: Involvement of microtubules in lipoprotein degradation and utilization for progesterone production in cultured rat luteal cells. *Endocrinology*, 117:2408-2416, 1985.
14. Nair RP, Menon KMJ: Evidence that dissociation, not intracellular degradation, is the major pathway for removal of receptor-bound human chorionic gonadotropin in cultured rat luteal cells. *Biol Reprod*, 33:60-66, 1985.
15. Bhalla VK, Nair RP, Burgett AC, Sohal GS: Interstitial cell heterogeneity in rat testes Part I: purification of collagenase dispersed Leydig cells by unit gravity sedimentation and demonstration of binding sites for gonadotropin in light cells versus enhanced steroidogenesis in heavier cells. *J Biol Chem* 262:5313-5321, 1987.
16. Nair RP, Menon KMJ: Metabolism of high density lipoprotein in cultured rat luteal cells. *Biochim Biophys Acta* 921:25-37, 1987.
17. Nair RP, Menon KMJ: Differential uptake and metabolism of free and esterified cholesterol from high density lipoprotein in the rat ovary. *Biochim Biophys Acta*, 959:206-213, 1988.
18. Nair RP, Menon KMJ: Cholesterol flux between high density lipoproteins and cultured rat luteal cells. *Endocrinology*, 124:1857-1862, 1989.

19. Ernst LK, Nair RP, Larsen RD, Ruff MM, Lowe JB: Stable expression of blood group H determinants and GDP-L-fucose: $\beta$ -D-galactoside 2- $\alpha$ -L-fucosyltransferase in mouse cells after transfection with human DNA. *J Biol Chem*, 264:3436-3447, 1989.
20. Larsen RD, Nair RP, Ruff MM, Kukowska-Latallo J, Cummings RD, Lowe JB: Isolation of a cDNA encoding murine UDP-galactose:  $\beta$ -D-galactosyl-1,4-N-acetyl-D-glucosaminide  $\alpha$ -1,3-galactosyl-transferase: Expression cloning by gene transfer. *Proc Natl Acad Sci USA*, 86:8227-8231, 1989.
21. Nair RP, Larsen RD, Ajmera S, Ernst LK, Lowe JB: A cloned human DNA restriction fragment determines expression of a GDP-L-fucose: $\beta$ -D-galactoside 2- $\alpha$ -L-fucosyltransferase in transfected cells. *J Biol Chem*, 264:11158-11167, 1989.
22. Larsen RD, Ernst LK, Nair RP, Lowe JB: Molecular cloning, sequence, and expression of a human GDP-L-fucose: $\beta$ -D-galactoside 2- $\alpha$ -L-fucosyltransferase cDNA that can form the H blood group antigen. *Proc Natl Acad Sci USA*, 87:6674-6678, 1990.
23. Kukowska-Latallo J, Larsen RD, Nair RP, Lowe JB: A cloned human cDNA determines expression of a mouse stage-specific embryonic antigen and the Lewis blood group  $\alpha$ (1,3/1,4)fucosyltransferase. *Genes and Development*, 4:1288-1303, 1990.
24. Lowe JB, Stoolman LM, Nair RP, Larsen RD, Berhendt T, Marks RM: ELAM-1-dependent cell adhesion to vascular endothelium determined by a transfected human fucosyltransferase cDNA. *Cell*, 63:475-484, 1990.
25. Lowe JB, Kukowska-Latallo J, Nair RP, Larsen RD, Marks RM, Macher BA, Kelly RJ, Ernst LK: Molecular cloning of a human fucosyltransferase gene that determines expression of the Lewis x and VIM-2 epitopes but not ELAM-1-dependent cell adhesion. *J Biol Chem*, 266:17467-17477, 1991.
26. Dumas DP, Ichikawa Y, Wong C-H, Lowe JB, Nair RP: Enzymatic synthesis of sialyl Le<sup>x</sup> and derivatives based on a recombinant fucosyltransferase. *Biorganic & Medicinal Chemistry Letters*, 1:425-431, 1991.
27. Lowe JB, Stoolman LM, Nair RP, Larsen RD, Behrend TL, Marks RM: A transfected human fucosyltransferase cDNA determines biosynthesis of oligosaccharide ligand(s) for endothelial-leucocyte adhesion molecule I. *Biochem Soc Trans*, 19:649-653, 1991.
28. Weston BW, Nair RP, Larsen RD, Lowe JB: Isolation of a novel human  $\alpha$ (1,3)fucosyltransferase gene and molecular comparison to the human Lewis blood group  $\alpha$ (1,3/1,4)fucosyltransferase gene: syntenic, homologous, non-allelic genes encoding enzymes with distinct acceptor substrate specificities. *J Biol Chem*, 267:4152-4160, 1992.
29. Elder JT, Hammerberg C, Cooper KD, Kojima T, Nair RP, Ellis CN, Voorhees JJ: Cyclosporin A rapidly inhibits epidermal cytokine expression in psoriasis lesions, but not in cytokine-stimulated cultured keratinocytes. *J Invest Dermatol* 101:761-6, 1993.
30. Elder JT, Nair RP, Guo SW, Henseler T, Christophers E, Voorhees JJ: The genetics of psoriasis. *Arch Dermatol* 130:216-224, 1994.
31. Elder JT, Nair RP, Voorhees JJ: Epidemiology and the genetics of psoriasis. *J Invest Dermatol* 102:24S-27S, 1994.
32. Elder JT, Henseler T, Christophers E, Voorhees JJ, Nair RP: Of genes and antigens: the inheritance of psoriasis. *J Invest Dermatol* 103:150S-153S, 1994.
33. Nair RP, Guo S-W, Jenisch S, Henseler T, Lange EM, Terhune M, Westphal E, Christophers E, Voorhees JJ, Elder JT: Scanning chromosome 17 for psoriasis susceptibility: lack of evidence for a distal 17q locus. *Hum Hered* 45:219-230, 1995.

34. Nair RP, Henseler T, Jenisch S, Stuart P, Bichakjian CK, Lenk W, Westphal E, Guo SW, Christophers E, Voorhees JJ, Elder JT: Evidence for two psoriasis susceptibility loci (HLA and 17q) and two novel candidate regions (16q and 20p) by genome-wide scan. *Human Mol. Genetics*, 6:1349-1356, 1997.
35. Bichakjian CK, Nair RP, Wu WW, Goldberg S, Elder JT: Prenatal exclusion of lamellar ichthyosis based on identification of two new mutations in the transglutaminase1 gene. *J Invest Dermatol* 110:104-107, 1998.
36. Jenisch S, Henseler T, Nair RP, Guo SW, Westphal E, Stuart S, Kronke M, Voorhees JJ, Christophers E, Elder JT: Linkage analysis of human leucocyte antigen (HLA) markers in familial psoriasis: strong disequilibrium effects provide evidence for a major determinant in the HLA-B-C region. *Am. J. Hum. Genet.* 63:191-199, 1998.
37. Jenisch S, Westphal E, Nair RP, Stuart P, Voorhees JJ, Christophers E, Krönke M, Elder JT, Henseler T: Linkage disequilibrium analysis of familial psoriasis: identification of multiple disease-associated MHC haplotypes. *Tissue Antigens* 53:135-146, 1999.
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39. Nair RP, Stuart P, Henseler T, Jenisch S, Chia NVC, Schork NJ, Kim J, Lim HW, Christophers E, Voorhees JJ, Elder JT: Fine mapping of psoriasis susceptibility locus PSORS1 to a 60 kilobase interval telomeric to HLA-C. *Am J Hum Genet* 66:1833-44, 2000.
40. Stoll SW, Chia NC, Nair RP, Woods TL, Stuart P, Henseler T, Jenisch S, Christophers E, Voorhees JJ, Elder JT: S100A2 coding sequence polymorphism: characterization and lack of association with psoriasis. *Clin Exp Dermatol.* 26:79-83, 2001.
41. Chia NV, Stuart P, Nair RP, Henseler T, Jenisch S, Lim HW, Christophers E, Voorhees JJ, Elder JT: Variations in the HCR (Pg8) gene are unlikely to be causal for familial psoriasis. *J Invest Dermatol.* 116:823-4, 2001.
42. Nair RP, Stuart P, Ogura Y, Inohara N, Henseler T, Jenisch S, Christophers E, Voorhees JJ, Nuñez G, Elder JT: Lack of association between NOD2 3020InsC frameshift mutation and psoriasis. *J Invest Dermatol* 117:1671-1672, 2001.
43. Elder JT, Nair RP, Henseler T, Jenisch S, Stuart P, Chia N, Christophers E, Voorhees JJ: The genetics of psoriasis 2001: The odyssey continues. *Arch Dermatol* 137:1447-1454, 2001.
44. Stuart P, Malick F, Nair RP, Henseler T, Lim HW, Jenisch S, Voorhees JJ, Christophers E, Elder JT: Analysis of phenotypic variation in psoriasis as a function of age at onset and family history. *Arch Dermatol Res* 294:207-213, 2002.
45. Graham RR, Ortmann WA, Langefeld CD, Jawaheer D, Selby SA, Rodine PR, Baechler EC, Rohlf KE, Shark KB, Espe KJ, Green LE, Nair RP, Stuart PE, Elder PE, King RA, Moser KL, Gaffney PM, Bugawan TL, Erlich HA, Rich SS, Gregersen PK, Behrens TW: Visualizing Human Leukocyte Antigen Class II Risk Haplotypes in Human Systemic Lupus Erythematosus. *Am J Hum Genet* 71:543-553, 2002.
46. Guo SW, Jenisch S, Stuart P, Lange EM, Kukuruga D, Nair R, Henseler T, Voorhees J, Christophers E, Elder JT: Combined segregation and linkage analysis of HLA markers in familial psoriasis. *Eur J Hum Genet* 10:327-33, 2002.
47. International Psoriasis Genetics Consortium (Allen M, Barker JNWN, Bowcock AM, Burden AD, Chia N, Capon F, Christophers E, Daly MJ, Elder JT, Helms C, Henseler T, Jenisch S, Menter A, Mistry R, Nair RP, Stuart PE, Tillman D, Trembath RC, Veal C, Voorhees JJ): The international psoriasis genetics study: assessing linkage to 14 candidate susceptibility loci in a 942 affected-sib-pair cohort. *Am J Hum Genet*

- 73:430-437, 2003.
48. Sagoo GS, Tazi-Ahnini R, Barker JW, Elder JT, Nair RP, Samuelsson L, Traupe H, Trembath RC, Robinson DA, Iles MM: Meta-Analysis of Genome-Wide Studies of Psoriasis Susceptibility Reveals Linkage to Chromosomes 6p21 and 4q28-q31 in Caucasian and Chinese Hans Population. *J Invest Dermatol.* 122:1401-405, 2004.
  49. Elder JT, Nair RP, Weichenthal M, Stuart P, Voorhees JJ, Christophers E, Jenisch S: The MHC genes in psoriasis. *Current Genomics* 6:39-43, 2005.
  50. The Cluster 17 Collaboration (Abecasis G, Allen M, Barker JNWN, Burden D, Capon F, Christophers E, Elder JT, Fischer J, Giardina E, Gudjonsson JE, Hüffmeier U, Jenisch S, Karason A, Kere J, Nair RP, Novelli G, Prud'homme J-F, Qin ZS, Samuelsson L, Sanchez F, Saarialho-Kere U, Stähle M, Stuart P, Tilman D, Traupe H, Trembath R, Valdimarsson H, Veal C, Voorhees JJ, Weichenthal M): Fine mapping of the psoriasis susceptibility gene PSORS1: A reassessment of risk associated with a putative risk haplotype lacking HLA-Cw6). *J Invest Dermatol* 124:921-930, 2005.
  51. Nistor I, Nair RP, Stuart PE, Hiremagalore R, Thompson RA, Jenisch S, Weichenthal M, Abecasis GR, Qin S, Christophers E, Lim HW, Voorhees JJ, and Elder JT: Protein tyrosine phosphatase gene PTPN22 polymorphisms in psoriasis: lack of evidence for association. *J Invest Dermatol* 125:395-396, 2005.
  52. Stuart PE, Nair RP, Abecasis GR, Nistor I, Hiremagalore R, Chia NV, Qin ZS, Thompson RA, Jenisch S, Weichenthal M, Janiga J, Lim HW, Christophers E, Voorhees JJ, and Elder JT: Analysis of RUNX1 binding site and Raptor polymorphisms in psoriasis: no evidence for association despite adequate power and evidence for linkage. *J Med Genet* 43:12-17, 2006.
  53. Jenisch S, Hampe J, Elder JT, Nair R, Stuart P, Voorhees JJ, Schreiber S, Kabelitz D, Christophers E, Weichenthal M: CARD15 mutations in patients with plaque-type psoriasis and psoriatic arthritis: lack of association. *Arch Dermatol Res* 297:409-411, 2006.
  54. Nair RP, Stuart P, Nistor I, Hiremagalore R, Chia NVC, Jenisch S, Weichenthal M, Abecasis G, Lim HW, Christophers E, Voorhees JJ, Elder JT: Sequence and haplotype analysis supports HLA-C as the psoriasis susceptibility gene. *Am J Hum Genet* 78:827-851, 2006.
  55. Poynter JN, Elder JT, Fullen DR, Nair RP, Soengas MS, Johnson TM, Redman B, Thomas NE, Gruber SB: BRAF and NRAS mutations in melanoma and melanocytic nevi. *Melanoma Res* 16:267-73, 2006.
  56. Fullen DR, Poynter JN, Lowe L, Su LD, Elder JT, Nair RP, Johnson TM, Gruber SB: BRAF and NRAS mutations in spitzoid melanocytic lesions. *Mod Pathol* 19:1324-32, 2006.
  57. Kia KF, Nair RP, Ike RW, Hiremagalore R, Elder JT, Ellis CN: Prevalence of antigliadin antibodies in patients with psoriasis is not elevated compared with controls. *Am J Clin Dermatol* 8:301-5, 2007.
  58. Nair RP, Ruether A, Stuart PE, Jenisch S, Tejasvi T, Hiremagalore R, Schreiber S, Kabelitz D, Lim HW, Voorhees JJ, Christophers E, Elder JT, Weichenthal M: Polymorphisms of the IL12B and IL23R Genes Are Associated with Psoriasis. *J Invest Dermatol.* 2008 Jan 24; [Epub ahead of print].

#### Non-Peer-Reviewed Publications

1. Bhalla VK, Powell MM, Rojas FJ, Nair RP. Gonadotropin binding model: comparison of the binding characteristics of cAMP to protein kinase holoenzyme and gonadotropin to particulate receptors in rat testis. In: *Function correlates of hormone receptors in reproduction*, Mahesh VB, Muldoon TG (Ed), Elsevier North-Holland, p. 419, 1981.

2. Nair RP, Menon KMJ Role of microtubules in lipoprotein transport in cultured rat luteal cells In: Lipoprotein and cholesterol metabolism in steroidogenic tissues. Strauss JF, Menon KMJ (Ed), George F Stickley Press, p 197, 1985.
3. Elder JT, Nair RP, Voorhees JJ. Epidemiology and the genetics of psoriasis. J Invest Dermatol 102:24S-27S, 1994.
4. Elder JT, Henseler T, Christophers E, Voorhees JJ, Nair RP. Of genes and antigens: the inheritance of psoriasis . J Invest Dermatol 103:150S-153S, 1994.
5. Jenisch S, Nair RP, Henseler T, Elder JT, Marxen B, Kronke M, Westphal W: Association of Type I psoriasis with the Cw\*0802-DRB1\*0102-DQB1\*0501 haplotype in North American multiplex families. In: 12th International Histocompatibility Workshop and Conference Proceedings: Genetic diversity of HLA: functional and medical implication. Charron, D(Ed), Serves: EDK, p 712-71, 1997.

### Patents

1. Nair RP, Upadhyay VK, Bannore SN, Subbarao HN, Dev S. Mixture of *cis* pinanol and 3- $\alpha$ -4- $\alpha$ -epoxycarene. Indian Patent No. 79/B0338. 120379, 1982.