

**Brief CV of Dr. N. Pradeep Kumar, Former Senior Consultant
and Director Grade Scientist (SCIENTIST-G) -Indian Council of
Medical Research**



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- 1 **Name:** : **Dr. N. Pradeep Kumar**
- 2 **Designation:** : Former Director Grade Scientist (**Scientist-G**)
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Indian Council of Medical Research
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Puducherry – 605 006. India
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4. **Age and Date of Birth** : 67 years, 30.05.1957

**5. Educational qualifications:
(copy of Degrees appended- Annexure 1)**

Degree	Year	Institution	Subject
B.Sc.	1977	University of Kerala	Zoology.
M.Sc.	1979	University of Kerala	Zoology
Ph.D.	1991	Pondicherry University (A Central University)	Medical Entomology
Post-Doctoral Fellow (BOYSCAST Fellow)	1993-1994	University of Toronto, Canada	Molecular Genetics

**6. Employment/affiliation and posts held previously:
(copy of service record attached – Annexure 2)**

Name of the organization served	Position held and scale of Pay	Time period From (month and Year)	Time period To (month and Year)	No. of Years of Service
Indian Council of Medical Research- Vector Control Research Centre (Dept. of Health Research, Govt. of India), Puducherry 605006 and in its field stations at Rameswaram, Cherthala and Kottayam	Senior Consultant (Rs. 100000 consolidated Remuneration)	March 2020**	March 2023	3 years
	Scientist G (Pay Level 14) 144200-218200 (Index 8) (Last Pay drawn 177200/- plus allowances)	Sept 2018	May 2019**	8 months
	Scientist F (Pay Band 4 Level 13A) Rs. 37400-67000; Grade pay 8900/-	Sept 2013	August 2018	5 years
	Scientist E (Deputy Director) (Pay Band 4; Level 13) Rs. 37400-67000 Grade pay 8700/-	March 2007	August 2013	6 years 5 months
	Scientist D (Assistant Director) Pay scale: 12000-16500/-	March 2001	March 2007	6 years
	Senior Research Officer Pay scale: 3000-4500/-	March 1996	March 2001	5 years
	Research Officer Pay scale: Rs. 2200-4000/-	March 1991	March 1996	5 years
	Asst. Research officer Pay scale Rs. 650-960/-	March 1986	March 1991	5 years
	Research Assistant (Regular ICMR service) Pay scale Rs. 425-700/-	March 1981	March 1986	5years
	Research Assistant (Project) Pay scale Rs. 425-700/-	Sept. 1980	March 1981	6 months

**June 2019 to March 2020 – part time ICMR-VCRC Consultant

7. Brief description of Research/Teaching Experience – in different capacities (total < 41 Years)

(Indian Council of Medical Research-Vector Control Research Centre (2023-1980))

i. Senior Consultant (2020-2023)

Research Guidance, advisory, mentoring and Research training to the Scientists/ Research Fellows/ Research Associates of the Indian Council of Medical Research - Vector Control Research Centre, Puducherry 605006 and on ICMR funded scientific projects. Member of Academic and Institutional Ethics committees of different biomedical institutions.

ii. SCIENTIST G (Director Grade Scientist) (2018-2019)

Research investigations on the epidemiology and management of vector borne diseases such as Zika, Dengue, Leishmaniasis etc.; Collaboration with the Dept. of Health Services, Govt. of Kerala in the management of vector-borne Diseases; organized national level collaborative research investigations/ research training programs on vector-borne Diseases to scientists and PG students of Medical Colleges; Officer in Charge of ICMR- VCRC Field station, Kottayam, looking after the administrative responsibilities of the research division of ICMR-VCRC in Kerala state; Division Head of Bioinformatics Unit, ICMR-VCRC, Member of Academic and Institutional Ethics committee member of different biomedical institutions etc.

iii. SCIENTIST F (2013-2018)

National level Research investigations in collaboration with different ICMR institutions on vector borne diseases such as Zika, Dengue, Chikungunya, West-Nile Virus, Malaria, Leishmaniasis etc; Molecular biology and Genomics of Different vector-borne Diseases and insect vectors; Collaboration with the Dept. of Health Services, Govt. of Kerala in the management of vector-borne Diseases; National level research training programs to scientists and PG students; Officer in Charge of ICMR-VCRC Field station, Kottayam looking after the administrative responsibilities of the research division of ICMR-VCRC in Kerala state; Division Head of Bioinformatics Unit, ICMR-

VCRC; Recruitment board Chairman, member towards recruitment of scientists in different ICMR institutions etc.

iv. SCIENTIST E (2007-2013)

Research investigations on the epidemiology and control, molecular genetics and genomics of vector borne diseases such as Chikungunya, Dengue, Leishmaniasis etc; Collaboration with the Dept. of Health Services, Govt. of Kerala and Rubber Research Institute of India (Ministry of Commerce, Govt. of India) in the management of vector-borne Diseases; National level research training programs to scientists and PG students of Medical Colleges; Officer in Charge of ICMR-VCRC Field station, Kottayam looking after the administrative responsibilities of the research division of ICMR-VCRC in Kerala state; Division Head of Bioinformatics Unit, ICMR-VCRC, Faculty of M.Sc., Public Health Entomology and Doctoral studies of Pondicherry University.

v. SCIENTIST D (2001-2007)

Molecular Biological studies on malaria (both Plasmodium as well as Anopheles vectors), Molecular taxonomy of insect vectors, Genetic characterization of bancroftian filariasis parasites in India, Genomics of Chikungunya viruses, outbreak investigations on Chikungunya in Kerala, Guidance of Master's Degree Dissertation projects, Faculty of M.Sc., Medical Entomology, PG Diploma in Bioinformatics of Pondicherry University etc.

vi. SENIOR RESEARCH OFFICER (1996-2001)

Molecular Taxonomy of insect vectors, transcriptomics of malaria parasites, Outbreak investigations on Japanese encephalitis, Molecular genetics of filarial parasites, Faculty of M.Sc., Medical Entomology (Pondicherry University), transmission dynamics of Brugian filariasis.

vii. Research Officer (1991-1996)

Research studies on the epidemiological and entomological aspects of Brugian Filariasis in Kerala, Brugian Filariasis control Demonstration project in Alappuzha District, Kerala, Ecology and transmission dynamics of Mansonioides mosquitoes, the vectors of Brugian filariasis in Kerala,

viii. PDF Molecular Entomology – University of Toronto (1993-1994)

Research studies on the molecular genetics and genome mapping of *Anopheles gambiae*, the most important global vector of malaria

ix. Asst. Research Officer (1986-1991)

Research studies on the persistence of malaria in Rameswaram island, Tamil Nadu, development of diseases management strategies, Filariasis Control Demonstration project studies in Shertallai, Kerala state

x. Research Assistant (1980-1986)

Bancroftian filariasis control Demonstration project studies in Pondicherry, Ecology and Bionomics of *Culex quinquefasciatus*, the vector of filariasis in Pondicherry, India

8. **Website** <https://vcrc.academia.edu/DrNPradeepKumar>

9. Broad Research specializations:

- Biomedical research on Vector-borne Diseases in India
- Vector Biology & Control
- Implementation of Integrated vector management strategies towards control/containment of different vector borne Diseases such as filariasis, malaria, Chikungunya, Dengue, Japanese encephalitis, Zika etc.
- Molecular Taxonomy of insects of medical importance,
- Genomics and Molecular biology of vector-borne Parasites of malaria, filariasis, Leishmania, scrub typhus and different arboviruses (Chikungunya, Dengue, Japanese Encephalitis, Zika) prevalent in India.

10. Research Publications:

a. in International and National Scientific Journals

1. Arunachalam N, Dasaratha Ramaiah K, Pradeep Kumar N, Balarajan K. A note on ovoviviparity in *Culex quinquefasciatus* (Diptera: Culicidae) *Current Science*, 1982; 51:1077-1078.

2. Rajagopalan PK, Jambulingam P, Sabesan S, Krishnamoorthy K, Rajendran G, Gunasekharan K, **Pradeep Kumar, N.** Population movement and malaria persistence in Rameswaram island, *ICMR Bulletin*, 1984; 11; 125-133.
3. Rajagopalan PK, Jambulingam P, Sabesan S, Krishnamoorthy K, Rajendran S, Gunasekaran K, **Kumar NP**, Prothero RM. Population movement and malaria persistence in Rameswaram Island. *Soc Sci Med*. 1986;22(8):879-86. doi: 10.1016/0277-9536(86)90242-x.
4. Jambulingam P, Sabesan S, Krishnamoorthy K, Rajendran G, **Pradeep Kumar, N**, Rajagopalan PK. Malaria control in Rameswaram island in South India, *ICMR Bulletin*, 1986; 16: 89.
5. Sabesan S, Krishnamoorthy K, Jambulingam P, Rajendran G, **Pradeep Kumar N**, Rajagopalan PK. Breeding habitats of *Anopheles culicifacies* in Rameswaram island, *Indian J Med Res*. 1986; 84: 44-52.
6. **Pradeep Kumar N**, Sabesan S, Kuppusamy M, Balaraman K. Effect of controlled release formulation of *Bacillus sphaericus* on *Mansonia* breeding. *Indian J Med Res*, 1988; 87: 15-18.
7. **Pradeep Kumar N**, Sabesan S, Panicker KN. Biting rhythm of the vectors of Malayan filariasis, *Mansonia annulifera*, *Ma. uniformis* & *Ma. indiana* in Shertallai (Kerala state), India. *Indian J Med Res*. 1989; 89:52-55.
8. Sabesan S, **Pradeep Kumar N**, Panicker KN, Note on the utility of *Neochetina* spp. (Coleoptera: Curculionidae) in the control of water hyacinth, a host for *Mansonioides* breeding. *Entomon*, 1990: 15: 285-286.
9. **Pradeep Kumar N.** *Studies on the ecology and bionomics of adult populations of Mansonioides mosquitoes, (Diptera, Culicidae) viz. Mansonia annulifera (Theobald), 1901, M. uniformis and M. Indiana edwards, 1930 with special reference to their role in the transmission of Malayan Filariasis (Doctoral dissertation, Vector Control Research Centre, Pondicherry),*

1990. Pondicherry University.

- 10.** Sabesan, S., **Pradeep Kumar**, N, Kaliannagounder Krishnamoorthy, Panicker, KN. Seasonal abundance & biting behaviour of *Mansonia annulifera*, *M. uniformis* & *M. indiana* & their relative role in the transmission of Malayan filariasis in Shertallai (Kerala state). *Indian J Med Res.* 1991; 93. 253-8.
- 11.** **Kumar**, N P., Sabesan, S., Panicker, K.N. The resting and house-frequenting behavior of *Mansonia annulifera*, *Ma. uniformis* and *Ma. indiana*, the vectors of Malayan filariasis in Kerala State, India. *Southeast Asian J Trop Med Public Health*, 1992; 23: 324-327.
- 12.** P. Vanamail, P., Krishnamoorthy, K., **Pradeep Kumar**, N., Sabesan, S., Panicker, K. N. Natural Mortality of *Mansonia annulifera* with Special Reference to Mortality due to *Brugia malayi* Infection and Distribution of parasites in a Vector Population. *Journal of Applied Ecology* 1994; 31:247-252.
- 13.** Sabesan S, Rajendran G, **Kumar NP**. Bionomics of *Mansonioides* mosquitoes in relation to community structure of hydrophytes/breeding habitats in Cherthala, Kerala. *Indian J Clin Biochem.* 1997 12:36-8. Doi: 10.1007/BF02873054.
- 14.** Panicker, K.N., Arunachalam, N., **Pradeep Kumar**, N., Prathibha, J. and Sabesan, S., 1997. Efficacy of diethylcarbamazine-medicated salt for microfilaraemia of *Brugia malayi*. *National Medical Journal of India*, 10, pp.275-376.
- 15.** Dhanda, V., Thenmozhi, V., **Kumar, N.P.**, Hiriyan, J., Arunachalam, N., Balasubramanian, A., Ilango, A. and Gajanana, A., 1997. Virus isolation from wild-caught mosquitoes during a Japanese encephalitis outbreak in Kerala in 1996. *Indian J Med Res.* 1997; 106: 4-6.
- 16.** **Kumar NP**, Sabesan S, Panicker KN. Susceptibility status of *Mansonia annulifera* to *Brugia malayi* parasites in Cherthala, Alappuzha district,

Kerala. *Indian journal of experimental biology*. 1998; 36:829-31.

17. **Kumar NP**. A non-radioactive method for mapping restriction fragment length polymorphic genetic markers in *Anopheles gambiae*. *Indian J Exptl. Biol.* 1999;37:1046-1048.
18. **Kumar N.P.**, Sabesan, S., Panicker, KN. Eclosion rhythm of *Mansonioides* mosquitoes, the vectors of Brugian filariasis. *Entomon.* 1999; 24:199-201.
19. Sabesan S, **Pradeep Kumar N**, Rajendran G, Krishnamoorthy K. The Cherthala Project: Control of brugian filariasis through integrated methods. *Misc Pub VCRC*. 2000;2:1-23.
20. **Kumar NP**, Patra KP, Hoti SL, Das PK. Genetic variability of the human filarial parasite, *Wuchereria bancrofti* in South India. *Acta Tropica*. 2002 Apr;82(1):67-76. [https://doi.org/10.1016/S0001-706X\(02\)00037-2](https://doi.org/10.1016/S0001-706X(02)00037-2)
21. Thangadurai, R., Hoti, SL., **Pradeep Kumar, N.**, Das, PK. Phylogeography of human lymphatic filarial parasite, *Wuchereria bancrofti* in India. *Acta Tropica*, 2006;98:297-304.
<https://doi.org/10.1016/j.actatropica.2006.06.004>
22. **Pradeep Kumar N**. *Filariasis, Encyclopedia of Pest Management 2*: 2007; 2: 179-182. CRC Press, Taylor & Francis Group
23. **Kumar NP**, Rajavel AR, Natarajan R, Jambulingam P. DNA barcodes can distinguish species of Indian mosquitoes (Diptera: Culicidae). *Journal of Medical Entomology*. 2007 Jan 1;44(1):01-7.
24. **Kumar NP**, Mitha MM, Krishnamoorthy N, Kamaraj T, Joseph R, Jambulingam P. Genotyping of virus involved in the 2006 Chikungunya outbreak in South India (Kerala and Puducherry). *Current Science*. 2007 Nov 25:1412-6.

25. Pradeep Kumar, N., Rajavel, AR., Jambulingam, P. (2008). Application of PDF417 symbology for 'DNA Barcoding'. *Computer Methods and Programs in Biomedicine*, **90**:187-189.
26. N Pradeep Kumar, R Joseph, T Kamaraj, P Jambulingam (2008). A226V mutation in virus during the 2007 chikungunya outbreak in Kerala, India. *Journal of General Virology*, **89**:1945-1948.
27. N Pradeep Kumar, R Joseph, P Jambulingam, M Kalyanasundaram (2008). An income-generating scheme for vector management of chikungunya fever in Kerala and Karnataka. *Current science*, **95**:1104-1105.
28. R Vidhyanandhini, N Pradeep Kumar (2008). Characterization of the 3-HKT gene in important malaria vectors in India, viz: *Anopheles culicifacies* and *Anopheles stephensi* (Diptera: Culicidae). *Memorias do Instituto Oswaldo Cruz*, **103**:595-597.
29. N Pradeep Kumar, A Suresh, P Vanamail, S Sabesan, KG Krishnamoorthy, J Mathew, V T Jose, P Jambulingam (2011). Chikungunya virus outbreak in Kerala, India, 2007; a seroprevalence study. *Memorias do Instituto Oswaldo Cruz*, **106**:912-916.
30. N Muruganandam, I K Chaithanya, G S Senthil, A N Shriram, D Bhattacharya, G S Jeevabharathi, A B Sudeep, N Pradeep Kumar, P Vijayachari (2011). Isolation and molecular characterization of Chikungunya virus from the Andaman and Nicobar archipelago, India; evidence of an East, Central and South African genotype. *Canadian Journal of Microbiology*, **57**:1073-1077.
31. N Pradeep Kumar, R Srinivasan, P Jambulingam (2012). DNA barcoding for identification of sand flies (Diptera: Psychodidae) in India. *Molecular Ecology Resources*, **12**:414- 420.
32. N Pradeep Kumar, S Sabesan, K Krishnamoorthy, P Jambulingam (2012). Detection of Chikungunya Virus in wild Populations of *Aedes albopictus* in Kerala State, India. *Vector-borne and Zoonotic Diseases*, **12**:907-911.

33. K P Paily, K Chandhiran, P Vanamail, **N Pradeep Kumar**, P Jambulingam (2013). Efficacy of a mermithid nematode *Romanomermis iyengari* (Welch) (Nematode: Mermithidae) in controlling tree hole-breeding mosquito *Aedes albopictus* (Skuse) (Diptera: Culicidae) in a rubber plantation area of Kerala, India. *Parasitology Research*, **112:1299-1304**.
34. **N Pradeep Kumar**, N Krishnamoorthy, S S Sahu, A R Rajavel, S Sabesan, P Jambulingam (2013). DNA Barcodes indicate members of the *Anopheles fluviatilis* (Diptera: Culicidae) species complex to be con-specific in India. *Molecular Ecology Resources*, **12:414-420**.
35. **N Pradeep Kumar**, P R Jayakumar, K George, T Kamaraj, K Krishnamoorthy, S Sabesan, P Jambulingam (2013). Genetic characterization of Dengue viruses prevalent in Kerala State, India. *Journal of Medical Microbiology*, **62:545-552**.
36. R Srinivasan, P Jambulingam, **N Pradeep Kumar** (2014). *Sergentomyia* (*Neophlebotomus*) *monticola*, a new species of sand fly (Diptera: Psychodidae) from the Western Ghats, Thiruvananthapuram District, Kerala, India. *Acta Tropica*, **137:74-79**.
37. **N Pradeep Kumar**, A Bashir, Abidha, S Sabesan, P Jambulingam (2014). Predatory potential of *Platynectes* sp. (Coleoptera: Dytiscidae) on *Aedes albopictus*, the vector of dengue/chikungunya in Kerala, India. *Tropical Biomedicine*, **31: 1-6**.
38. **N Pradeep Kumar**, R Srinivasan, T S Anish, G Nandakumar, P Jambulingam (2015). Cutaneous leishmaniasis caused by *Leishmania donovani* in the tribal population of the Agasthyamala Biosphere Reserve forest, Western Ghats, Kerala, India. *Journal of Medical Microbiology*, **64: 157-163**.
39. R Srinivasan, P Jambulingam, **N Pradeep Kumar**, M Selvakumar, B Edwin, T Dilip Kumar (2015). Temporal distribution and behaviour of sandflies (Diptera: Psychodidae) in a cutaneous leishmaniasis focus of the Kani Tribe settlements in the Western Ghats, India. *Acta Tropica*, **148: 147-155**.
40. A R Rajavel, **N Pradeep Kumar**, R Natarajan, P Vanamail, A Rathinakumar, P Jambulingam (2015). Morphological and molecular characterization of the ecological, biological and behavioral variants of the

JE vector *Culex tritaeniorhynchus*: An assessment of its taxonomic status. *Journal of Vector-borne Diseases*, 52:40-51.

41. M Thomas, N Pradeep Kumar (2015). Micro-evolutionary trends of dengue virus-3, in Kerala state, India. *Indian Journal of Experimental Biology*, 53:236-240.
42. R Srinivasan, N Pradeep Kumar, P Jambulingam (2016). Detection of natural infection of *Leishmania donovani* (Kinetoplastida: Trypanosomatidae) in *Phlebotomus argentipes* (Diptera: Psychodidae) from a forest ecosystem, in the Western Ghats, India, endemic for cutaneous leishmaniasis. *Acta Tropica*, 156: 95-99.
43. N Pradeep Kumar (2016). Detection of natural infection of *Leishmania donovani* (Kinetoplastida: Trypanosomatidae) in *Phlebotomus argentipes* (Diptera: Psychodidae) from a forest ecosystem in the Western Ghats, India, endemic for cutaneous leishmaniasis. Republished with supplement as a Featured article. *World Biomedical Frontiers Biomed* frontiers.org/inf201664/.
44. N Pradeep Kumar, R Srinivasan, P Jambulingam (2017). Development of a PCR methodology to distinguish species members of *Culex vishnui* subgroup (Diptera: Culicidae), based on DNA Barcodes. *Insect Science*, 24:336-340.
45. R J Payyappilly, U Karunakaran, N P Kumar (2017). Gender-based dimorphism in host response to viral infection: Two interesting epidemiological trends observed during Chikungunya outbreak in Kerala. *Journal of International Medicine and Dentistry*, 4:27-36.
46. A Bashir, N Pradeep Kumar, P A Khan (2017). Climatic factors influence the ecology of the *Platynectes* sp. nov. predator to the Dengue and Chikungunya vectors in the rubber plantations of Kerala, India. *International Journal of Zoology Studies*, 2:68-77.
47. P Jambulingam, N Pradeep Kumar, S Nandakumar, K P Paily, R

- Srinivasan (2017). Domestic dogs as reservoir hosts for *Leishmania donovani* in the southernmost Western Ghats in India. *Acta Tropica*, **171:64-67**.
- 48.** K Ravi, M J Valamparampil, N Pradeep Kumar, M S Resmi, K B Sreekanth, T S Anish (2018). Visceral Leishmaniasis in a non-endemic region of India – Investigation of an outbreak, *Journal of Evolution of Medical and Dental Sciences*, **7:1101-1105**.
- 49.** A Bashir, N Pradeep Kumar, P A Khan (2018). Description of a new species, *Platynectes sahyadriensis* (Coleoptera: Dytiscidae), predatory to *Stegomyia alopecia* (Diptera: Culicidae), from Western Ghats, Kerala, India. *Biomedical Journal of Scientific & Technical Research*, **2 (3) DOI: 10.26717/BJSTR.2018.02.000767**.
- 50.** C Sadanandane, P Jambulingam, K P Paily, **N Pradeep Kumar**, A Elango, K A Mary, S Agatheswaran, T Sankari, B B Mishra (2018). Occurrence of *Orientia tsutsugamushi*, the aetiological agent of scrub typhus in animal hosts and mite vectors in areas reporting human cases of acute encephalitis syndrome in Gorakhpur region, India. *Vector-borne and Zoonotic Diseases*, **18: 539-547**.
- 51.** **N Pradeep Kumar**, T S Anish, J V Mathew, AT Thomas, Abidha, J Mathew, P M Ajithlal and P Jambulingam (2019). Genotype shift of Dengue Virus (DENV1) during the unprecedented 2017 outbreak of Dengue fever in Thiruvananthapuram and Kerala State. *Indian Journal of Experimental Biology*, **57(12):961-966**
- 52.** Jeyakodi Gopal, Thulasibabu Ramamoorthy, Gunasekaran Kasinathan, **Pradeep Kumar Narendran**, Jambulingam Purushothaman, Nanda Kumar Yellapu (2020) VectorInfo: A web resource for medically important Indian arthropod disease vectors, *Acta Tropica*, **211, 105601**.
- 53.** S Chetry, SJ Patgiri, DR Bhattacharyya, P Dutta, **NP Kumar** (2020) Incrimination of *Aedes aegypti* and *Aedes albopictus* as vectors of dengue virus serotypes 1, 2 and 3 from four states of Northeast India. *Access Microbiology*, **2(4): acmi000101**.
- 54.** Kumar YN, Jeyakodi G, **Kumar NP**, Gunasekaran K, Jambulingam P.

- Molecular modelling analysis of T219A mutant envelope protein revealed novel virulence enhancing factors in Dengue virus isolated from Kerala state, India. *Comput Methods Programs Biomed.* 2020 Oct;195:105481. doi: 10.1016/j.cmpb.2020.105481
55. P Saini, **N P Kumar**, P M Ajithlal, A Joji, K Rajesh, K Reena, A Kumar (2020). Visceral Leishmaniasis caused by *Leishmania donovani* Zymodeme MON-37, Western Ghats, India. *Emerging Infectious Diseases*, **26(8):1956-1958**.
 56. Suresh Abidha, Sreedhar K, Mathew Jessu, Vijayakumar K, Ajithlal P, Saini Prasanta, **Kumar N Pradeep**, Kumar Ashwani. Seroprevalence of Dengue in Urban and Rural Settings in Kerala, India. *Current Science*. 2021, 121. 233-238. 10.18520/cs/v121/i2/233-238.
 57. Sadanandane C, Elango A, Panneer D, Mary KA, **Kumar NP**, P Paily K, Mishra BB, Sankari T, Jambulingam P. Seasonal abundance of *Leptotrombidium deliense*, the vector of scrub typhus, in areas reporting acute encephalitis syndrome in Gorakhpur district, Uttar Pradesh, India. *Exp Appl Acarol*. 2021 Aug;84(4):795-808. doi: 10.1007/s10493-021-00650-2. Epub 2021 Jul 30. PMID: 34328572.
 58. **Kumar NP**, Kumar A, Panneer D, Abidha S, Muthukumaravel S, Sankari T, Ajithlal PM, Mathew J, Koothradan S, Paramasivan R, Muniyaraj M, Singh H, Saxena R, Vijayachari P, Sunish IP, Shriram AN, Dutta P, Patgiri SJ, Bhattacharyya DR, Hoti SL, Chattopadhyay D, Roy S, Mahapatra N, Pati S, Chand G, Mishra AK, Barde P, Jambulingam P. Nation-wide vector surveillance on Zika and Dengue did not indicate transmission of the American lineage-pandemic Zika virus in India. *Int J Infect Dis*. 2021;113:119-124. doi: 10.1016/j.ijid.2021.09.074.
 59. Indu PS, Libu, GK, Chintha S, Anish TS, Tony L, Siju NS, Prajitha KC, Sudha RR, Akhil T, Sunija S, Johnson J, Vinod S, Reghu Kumar A, Sreekumar E, Saradadevi KL, Santhoshkumar A, **Pradeep Kumar N**, Mathew T, Meenakshi V, Nagpal B, Velayudhan R. Gravitrap in dengue surveillance and control: a community-based intervention, Volume 42, *Dengue Bulletin, WHO*. 2021; 42:13-30.
 60. Reshma RS, Meenu M. Suresh, Prasanta Saini, Ajithlal PM, Mahesh

Sukumaran, Chintha S, Anish TS, Ashwani Kumar, **Pradeep Kumar N**, Clinical and virological characteristics of patients during the outbreak of chikungunya in Thiruvananthapuram, Kerala, India, 2019–2020, *Journal of Clinical Virology Plus*, 1, 2021,100043, <https://doi.org/10.1016/j.jcvp.2021.100043>.

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62. PR Abraham, T Sankari, **NP Kumar**, A Kumar. Detection of recombinant dengue virus 2 NS1 protein in *Aedes aegypti* mosquitoes using commercial Dengue NS1 ELISA kit. *Journal of Vector-Borne Diseases*, 2022, 59 (1), 98
63. PR Abraham, B R, **Kumar N Pradeep**, A Kumar. Dengue NS1 antigen kit shows high sensitivity for detection of recombinant dengue virus-2 NS1 antigen spiked with *Aedes aegypti* mosquitoes. *Scientific Reports*, 2021 11 (1), 1-8.
64. Arya Rahul, Prasanta Saini, Mathew J Valampampil, Gurpreet Singh, Meenu Maheswari Suresh, Kannankottapilly Chandrasekharan Prajitha, Merin Sara Jose, Anjana Nalina Kumari Kesavan Nair, Mohan Ananth, Karthikeyan Balakrishnan Sreekanth, Chintha Sujatha, **N Pradeep Kumar**, Pillaveetil Sathyadas Indu, Thekumkara Surendrannair Anish, Epidemiological and clinical characterization of dengue virus serotypes during 2017–2019 in southern Kerala, India. *Transactions of The Royal Society of Tropical Medicine and Hygiene*, 2022, trac001, <https://doi.org/10.1093/trstmh/trac001>.
65. Natarajan R, Gopalakrishnan S, **Kumar NP**, Kumar A. A new species of the genus *Downsiomyia* Vargas (Diptera: Culicidae) from Himachal Pradesh, India. *Zootaxa*, 2022; 6: 575-584.
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b. GENBANK submissions: More than 600 DNA sequences corresponding to various gene sequences of arbo-viruses, vector-borne parasites and of insect vectors.

11. Recent Research Grants/ Projects (for the last 15 years)

01. Vector Surveillance for ZIKA in selected high-risk areas of India – A MULTICENTRIC PROJECT WITH 8 ICMR INSTITUTES (**Principal Investigator**), ICMR Extra Mural, **275.34 Lakhs**, 2017-2019
02. Vector Surveillance for ZIKA/JEV in selected high risk areas of India (**Principal Investigator**), ICMR Extra-Mural,**38.23 Lakhs**,2016-2017
03. Bio Medical Informatics Centre of ICMR-VCRC-2013-2018-Genomics of DENV (**Principal Investigator**), ICMR, **120.00 Lakhs**, 2013-18- 5 years
04. Ecology and distribution of *Ae. albopictus* and *Ae. aegypti* with special reference to albopictus sub-group species of the subgenus Stegomyia in Kerala, India.,ICMR Extra mural,**15.00 Lakhs**,2015-2018 – 3 years (**Principal Investigator**)
05. Faunistic studies on the diversity and distribution of mosquitoes of the high-altitude Himalayan regions of Himachal Pradesh and Jammu & Kashmir – EM-1505 (**Principal Investigator**), ICMR Extra mural,**15.00 Lakhs**,2015-2018- 3 years
06. Prevalence of scrub typhus vectors/rodent hosts and the pathogen, *Orientia tsutsugumushi* in areas reported or human cases in Gorakhpur, Uttar Pradesh (**Co-Investigator**), ICMR Extra Mural,**30.00 Lakhs**,2016-2017 2 years
07. Ecology and Population dynamics of dengue/chikungunya vectors for development and demonstration of integrated vector management strategy in Kerala. **Co-Investigator and OIC of the field Unit, Kottayam**, where the project is being undertaken, VCRC-ICMR Intramural, **Rs.112.23 Lakhs**, 2008-2013 – 5 years
08. Investigations on the reasons for the emergence and spread of leishmaniasis among forest tribal settlements of Thiruvananthapuram district, Kerala – **Co-Investigator**, ICMR **Rs.30.0 Lakhs**, 2011-2014 – 3 years
09. Studies on the transmission dynamics and control of Dengue in forest fringe area of Kerala (IM 1303) – **Principal Investigator**, ICMR, **Rs. 12.0 Lakhs**,2013-2015
10. “DNA Bar-coding of mosquito species (Diptera: Culicidae), a molecular approach to the mosquito bio-diversity in India-**Principal Investigator** VCRC (ICMR), **Rs. 30 Lakhs**.

12. Research Guidance/ Training offered:

- 1) For about 30 students for Ph. D., M. Tech, M. Sc, M. Sc (PHE) programs of Pondicherry University and other different universities.
- 2) Training on xeno-monitoring of ZIKA virus to National Centers for Disease Control (Govt. of India) and to different ICMR centers in India
- 3) Training on DNA Barcoding to faculties from different universities in India
- 4) Training for MD (Community Medicine) students of different Medical Colleges in Kerala, offered at Govt. MC, Thiruvananthapuram and Amrita Institute of Medical Sciences, Kochi.
- 5) State level Trainings offered to District Vector Control Unit officers/staff on aspects of Vector-borne Disease Management in Kerala State
- 6) Mentoring and Guidance offered to Scientists of ICMR- Vector Control Research Centre (2020-2023).

13. Administrative experience:

- i) Officer-in Charge of ICMR- VCRC Field Station, Shertallai (1996-1997)
- ii) Officer-in-Charge of ICMR-VCRC Field station, Kottayam (2008-2019)

14. Membership in Scientific Societies:

- 1) Society for Zoonotic Ecology and Epidemiology
- 2) National Academy of Biological Sciences – Life Member
- 3) Global Consortium for the Barcodes of Life, Smithsonian Institution, USA
- 4) American Association for Advancement of Science
- 5) Academia
- 6) Scientific Advisory Committee Member of ICMR-Vector Control Research Centre (2021-2022), India
- 7) Academic Committee Member of Inter University Consortium of Biomedical Research, Govt. of Kerala, Kottayam (2016-2019), India
- 8) Member of Human Ethics Committee, IUCBR &SSH, Kottayam, India.

15. Teaching Experience:

- 1) Approved Ph. D. Research Guide Faculty of Pondicherry University **since 1996 (copy of Pondicherry University approval attached – Annexure 3).**

- 2) Ph.D. students registered Three; Degree awarded – One (Adil Bashir Shah)
- 3) Teaching Faculty for M.Sc. Medical Entomology/ M.Sc. Public Health Entomology offered by Vector Control Research Centre. Puducherry (affiliated to Pondicherry University) - **1990-2019**
- 4) Guest faculty for PG. Diploma in Bioinformatics offered by Pondicherry University **2000-2002.**

16. List of Journals in which acted as a reviewer

- 1) International Journal of Infectious Diseases
- 2) Scientific Reports
- 3) Parasites and Vectors
- 4) Biomedicines
- 5) Journal of Parasitic Diseases
- 6) Vector-borne and Zoonotic Diseases
- 7) Tropical medicine
- 8) Qeios
- 9) Vaccines
- 10) Life
- 11) American Journal of tropical Medicine and Hygiene
- 12) Indian Journal of Communicable Diseases
- 13) Indian Journal of experimental Biology
- 14) Current Science
- 15) The Open Public Health Journal
- 16) Microorganisms
- 17) Journal of Tropical Medicine
- 18) Children
- 19) Tropical Biomedicine
- 20) PLOS ONE
- 21) PLOS Neglected Tropical Diseases
- 22) Eclinical Medicine
- 23) Children
- 24) Journal of Medical Virology
- 25) Tropical Medicine and Infectious Diseases
- 26) Zoonoses and Public Health

- 27) Viruses
- 28) BMC – Infectious Diseases
- 29) International Journal of Environmental Research and Public Health
- 30) Emerging Infectious Diseases etc.,

17. Editorial role of scientific journals:

**Springer & Nature Journal “Parasites & Vectors”
Associate Editor - since 2023**

18. My Salient scientific contributions / significant achievements:

- a). **DNA Barcoding – a simple and innovative methodology towards the description of Biodiversity (taxonomical characterization) of medically important insects (mosquitoes (Kumar *et al.*, 2007) and sandflies (Kumar *et al.*, 2012) was described, the former for the first time, globally.**
- b). **Two different strains of the filarial parasite, *Wuchereria bancrofti*, was reported for the first time globally, using molecular tools (Kumar *et al.*, 2002; Thangadurai,, Kumar *et al.*, 2016))**
- c). **A crucial mutation in the Envelope gene of Chikungunya virus, which contributed to the widespread outbreak of Chikungunya (Kumar *et al.*, 2008) infection in Southern states of Kerala and Karnataka, reported from India.**
- d). **The role of *Aedes albopictus* in transmission of Chikungunya virus in India was described from Kerala for the first time (Kumar *et al.*, 2012).**
- e). **Molecular genetic characterization of Dengue virus serotypes and the first record of DENVserotype IV in Kerala state reported (Kumar *et al.*, 2013).**
- f). **Elimination of *Brugia malayi* foci from Kerala state, India (in-charge of the entomological component of the institutional project of ICMR-VCRC) (Sabesan, Kumar *et al.*, 2000)**
- g). **Indicated the role *Mansonia* species, as the vectors of Japanese encephalitis in Kerala (Dhanda, Thenmozhi, Kumar *et al.*, 1997)**
- h). **An emerging focus of *Leishmania donovani* (atypical strain) causing Cutaneous Lishmaniasis reported among the tribal population in the**

Western Ghats region of Kerala (Kumar *et al.*, 2015). Also, the vector species involved (*Phlebotomus argentipes*) (Srinivasan, Kumar *et al.*, 2016) as well as the reservoir host (domestic dogs) (Jambulingam, Kumar *et al.*, 2017) were described.

- i). Genotype shift on Dengue virus causing an outbreak was described in Kerala, which enabled an effective management of the outbreak (Kumar *et al.*, 2019)
- j). Country wide Xeno-monitoring carried out in high risk zones of 14 states/UTs, did not indicate the pandemic American strain of ZIKV, invaded India (Kumar *et al.*, 2021).
- k). Re-emergence of Zika virus as an Indian strain reported based on the recent Zika virus infection in India (Kumar *et al.*, 2023; 2025 -under publication).
- l). Role of *Aedes albopictus* in the transmission of Dengue reported from the Country (Chetry,, Kumar, 2020)
- m). Natural infection of Wolbachia symbiont reported from both *Aedes aegypti* and *Aedes albopictus* from the Country (Vinayagam,, Kumar *et al.*, 2022).
- n). A new species of Dyticid beetle, *Platynectes sahyadriensis* predatory to *Aedes* vectors reported from Western Ghats region of the Country (Kumar *et al.*, 2017; Bashir, Kumar *et al.*, 2021).
- o). Studies on Biodiversity of mosquitoes in the Himalayan region recorded several new records of species in the Country (Natrajan,, Kumar *et al.*, 2022, 2023)
- p). Recorded scrub typhus (*Orientia tsutsugamushi*) transmission in Gorakhpur, where huge mortality was recorded among children, owing to unknown etiology (Sadanadane, Kumar *et al.*, 2018).
- q). DNA Barcodes developed for about 170 species mosquitoes prevalent in the Country, as a part of Genomic Biodiversity investigations in the Country (Kumar *et al.*, 2019).

19. Major research interests:

- Studies on the Biodiversity of India, using integrated modern approaches.

- **Studies on metagenomics and the role of microbiome diversity in human ailments.**
- **Development and adoption of molecular diagnostic tools in detection of pathogenic infections of humans into medical services in India.**