CURRICULAM VITAE

Post Applied for: Professor/Dean/Associate Professor (PSM)

Dr. Niyamat Ali Siddiqui
S/O Late Dr. Liyaquat Ali Siddiqui
Quarter No-D-2, ICMR-RMRIMS Campus
Agamkuan, Post-Gulzar-Bagh
District-Patna, Pin Code- 800007
Email: niyamatalisiddiqui@yahoo.com

Personal Information:

Date of Birth: 02nd September, 1965
Nationality: Indian
Sex: Male
Marital Status: Married
Category: OBC

Details of Educational Qualification

Degree/Subject	Institution/ University	Year	Grade/ Division
B.Sc. (Physics, Chemistry & Math's)	Kanpur university	1984	2nd Division (56%)
M.Sc. (Statistics)	Allahabad University	1986	2nd Division (59.3%)
Ph.D. (Statistics)	T.M. Bhagalpur University	2006	Awarded
PGDCA (Computer Appl.)	Marathwada University	1992	1st Division (65%)

Title of the PhD Thesis: A statistical study of drug-patients relationship of Kala-azar Patients

Major Specialization (Key words): 1.Biostatistics 2. Epidemiology

Sub Specialization (key words) :1**. R&D Planning & Management (Projects, Policies, Reports etc) 2. Research Management, 3. Statistical analysis (Applied; Statistical Inference, Sampling Theory, etc), 4. Clinical Trials**, 5. **Academic/Teaching**, 6. Operational Research, 7. Socio-Behavioral Research, 8. Health Systems Research, etc.

Software Skills: Minitab-16, SPSS & Epi-Info

Details of appointments

Position	Group/division	From	To
Research Assistant	Biostatistics	17-02-1989	28-08-2008
Scientist–B	Biostatistics	29-08-2008	31-08-2012
Scientist–C	Biostatistics	01-09-2012	31-08-2016
Scientist–D	Biostatistics	01-09-2016	31-08-2020
Scientist-E	Biostatistics	01-09-2020	Till Date

Research Experience: About 35 years

Present Position: Scientist-E **(Dy. Director), & Head**, **Department of Biostatistics & Computing**, ICMR, Govt. Of India

Basic Salary: Rs. 1, 40,000/- (GP: Rs 8700/-)
Current Organization: ICMR-RMRIMS, Patna
Website of Organization: http://www.rmrims.org.in

Papers Published in last five years

International journal: **35**,T raining Manual/SOP's Written: **6**, Ph.D. Thesis Supervision: **2**, DNB Thesis Co-Supervised: **5**, MDS Thesis Co-Supervised:**2**

Training courses/Workshop attended

Six months Course on "Executive Program in Public Health Policy, Leadership and Management" (August 2021 to January, 2022).	AIIMS, Jodhpur
National Training on Vector surveillance in KA Elimination Programme (Supported by WHO, ICMR & NVBDCP)	18-19th July, 2022
Training of trainers workshop on Data Quality Guidelines (Supported by ICMR-NIMS , NDQF, Population Council of India, New Delhi)	1-3 March 2022 at Bhubaneswar
Computational Statistics in Medicine & Biology	IIT Kharagpur
National Workshop on statistical data analysis	Institute of Management &Technology, Nagpur
Training Course on (demographic data) Analysis for Health Personnel	NIHFW, New-Delhi
Short Course on Good Health Research Practice (Sponsored by WHO)	IIPH, Bengaluru
Strategic Stakeholders Meeting (Sponsored by NVBDCP)	New Delhi
Workshop on Research Forum (ICMR)	ICMR, New Delhi
Workshop on Mathematical Modelling for Infectious Diseases	ICMR, New Delhi

- **Expert member** of "Situational assessment of kala-azar elimination programme of the country" (2021), constituted by National Vector Borne Diseases Control Program, sponsored by WHO.
- **Guide/Co-Guide:** Degree of Ph.D. (Biostatistics), DNB, MDS & M.Sc. Programme in International Health, University of Berlin.
- **Inter & Intra country workshop** for VL elimination in India, Nepal & Bangladesh
- **Host Supervisor** of Mr. Timothy Pollington, Ph.D. student, University of Warwick, United Kingdom, an applicant of Newton Bhabha Fund (DST, DBT & British Council) for 4 months placement at RMRIRMS, Patna on visceral leishmaniasis Research from July 21th to Nov 29th, 2017. The topic of placement is modeling the transmission dynamics of visceral leishmaniasis.
- **Co-organizer** of an ***international sponsored workshop entitled "Malaria-Leishmania Co-Infection"*** at National Institute for Mathematical and Biological Synthesis (NIMBioS), the University of Tennessee campus in Knoxville, Tennessee, USA from May 26-28, 2015.The aim of the workshop wasto identify challenges for the control of malaria-leishmaniasis co-infections in South Asian and the African continent
- Regular classes on Biostatistics for Ph.D. students of RMRI, Patna and M. Pharma students of NIPER, Hajipur, district- Vaishali.

- Specific/special: Teaching/demonstration of statistical software & Statistical analysis to institute scientists for data analysis.

Capacity building activities

- Training Coordinator for various training of National/State capacity building programme on Vector Borne Disease (VBD) under NVBDCP
- Selected as Trainer for WHO/TDR on VL & PKDL
- Master Trainers of training for country on VL and PKDL
- One of the Participant of National Meeting on Progress of Roadmap for Kala-azar Elimination sponsored by WHO/NVBDCP
- Participant of inter-ministerial experts for necessary policy implementation (KA & PKDL care delivery services; program evaluation)

Invited Speaker

- **Chaired a session** in the International conference on "Recent advances in mathematics, statistics and computer science" held during 29-31 May 2015 at school of mathematics, statistics and computer sciences, Central University of South Bihar, Patna.
- Invited Speaker in X joint Annual Conference of ISMOCD & IAE at Goa, organized by NIMR & Goa Medical College and Hospital on the topic "Reverse the challenge: Vector borne, emerging infectious and non communicable diseases".
- Invited as State Resource Person for "Development of Teachers Performance Indicator", sponsored by Bihar State Council for Education Research and Training, Patna.
- Invited as Resource Person/Faculty for talk on Research Methodology, by Regional Research Institute of Unani Medicine, Patna.
- Regular classes to under graduate/Post graduate students of PMCH & NMCH, Patna on Research Methodology & statistical analysis.

Reviewer/Editor

- Appointed as reviewer for various journals (BMC Public Health, Indian Journal of Medical Research, American Journal of Tropical Medicine and Hygiene, Transaction of the Royal Society of Tropical Medicine & Hygiene etc).
- Academic Editor for PLOS ONE
- Guest Editor for Frontiers in Tropical Diseases

Administrative assignment

- CPIO of RMRIMS & NIPER, Hajipur
- Head of the Audio-visual Department
- In charge officer Electricity maintenance
- In charge Officer Vehicles
- Chairman, Training & Extension Committee
- Chairman, SC/ST/OBC Committee
- Other administrative responsibilities

Membership of Professional Societies

- Life member of Indian Society for Medical Statistics
- Life Member of Indian Society of Parasitology.
- Life member of Indian association of epidemiologist.
- Annual Member of Indian Society for Social and Preventive Medicine.
- Annual member of Indian Society of malaria and other communicable diseases
- Annual member of Indian association of preventive and social medicine.

Enclosures: Two ANNEXURES (I & II)

Foreign Visits: Two (Nepal & Bangladesh)

Yours faithfully

Dated & Place: 01st August, 2025, Patna

(Dr. N.A. Siddiqui)
Scientist-E & Head
Department of Biostatistics, ICMR-RMRIMS, Patna

Major Publication in the last year

1. Alka Kumari, **Niyamat A Siddiqui**, et al. Combination Therapy for Post-Kala-Azar Dermal Leishmaniasis: A Literature Review of Current Evidence. Indian J Dermatol. 2024 Sep-Oct; 69(5):396-405. doi: 10.4103/ijd.ijd_612_22. Epub 2024 Oct 29**(Joint First Author with equal contribution).**
2. **Niyamat Ali Siddiqui**, Dhruv Kumar Pandey, et al. A clinicoepidemiological study, assessing possible predictors of mortality and health related quality of life for people living with visceral leishmaniasis– human immune virus (VL-HIV) co-infection in a high burden kala-azar endemic state of India-A descriptive cross-sectional study. BMC Infectious Diseases (2025) 25:887. **(Joint First Author with equal contribution).**
3. Sauman Singh-Phulgenda , Rishikesh Kumar, Niyamat Ali Siddiqui, et al. Post-kala-azar dermal leishmaniasis (PKDL) drug efficacy study landscape: A systematic scoping review of clinical trials and observational studies to assess the feasibility of establishing an individual participant-level data (IPD) platform. PLoS Negl. Trop Dis. 2024 Apr 16; 18(4):e0011635.doi: 10.1371/journal.pntd.0011635. e Collection 2024 Apr **(Co-author).**
4. Vaibhav Chaudhary, Niyamat Ali Siddiqui, et al. Serum Levels of Zinc and Copper in Patients with Endometrial Cancer: a Systematic Review and Meta-analysis. Biological Trace Element Research. https://doi.org/10.1007/s12011-025-04648-4. Received: 19 March 2025 / Accepted: 26 April 2025

Total Impact Factor: 12.3, Average IF: 3.1

Project assigned in the last year

Extramural projects handled as Principal Investigator

1. An innovative RBSK-NTEP collaboration module for active case finding of tuberculosis among school students **(sponsored by ICMR).** 73 school students were referred to the nearest NTEP facility as suspected cases of TB.
2. Assessing magnitude of visceral leishmaniasis relapses and its risk and predictors; a retrospective cohort study **(Sponsored: WHO/TDR)**. It may provide evidence for policies to improve VL relapses and re-infections management.
3. Comprehensive analysis of demographic epidemiological, clinical and haematological features of VL, PKDL VL-HIV patients: A hospital based longitudinal study **(Sponsored by ICMR)**.

As Co-PI

1. An RMRIMS-IDDO joint project for capacity strengthening towards VL/PKDL secondary data reuse through systematic reviews and Meta analysis **[Sponsored: BMGF/University of Oxford (IDDO)]**. A publication has already taken place as the result of this project.
2. Active screening and motivating the persons with TB suggestive symptoms by trained Youth Club members of Nehru Yuva Kendra Sangthan (NYKS) **[Sponsor: ICMR]**. Strengthening NYKS and ASHA collaboration, ensuring timely DBT payments, and improving patient follow-up will further enhance TB control efforts.
3. Persistence of malaria in Muzaffarpur and Patna, Bihar with focus on reactive interventions around index malaria cases and its transmission dynamics among construction workers and natives (Sponsor: ICMR). Active surveillance of the five vivax malaria cases recently diagnosed and treated at RMRI, Patna. GIS Mapping and Site Selection were done.

Intramural projects handled as Principal Investigator/Lead Co-PI

1. Social network analysis as a tool to improve active case finding at community level. The VL cases reported more than 31 days fever histories prior to diagnosis were either no active member in their social network or with very small network size (1-2 members).
2. Assessment of treatment outcomes of VL & HIV patients, predisposing factors for co-morbidity, factors affecting outcomes and health seeking behaviour of co morbid cases sin Bihar: a cross-sectional survey **(Phase-I & Phase-II) [Sponsor: APW; WHO; India].** A publication has already taken place as the result of this project.

New Initiative taken

- A Literature Review of Current Evidence on Combination Therapy for Post Kala Azar Dermal Leishmaniasis was conducted.
- Apharmaco-epidemiological study documented that the treatment success rate of SDA at the 6 months follows up was excellent (95%). However, the prevalence of PKDL among SDA treated VL cases were 7.3%. A clinico-epidemiological study amongst
- VL-HIV co-infection in a high burden kala-azar endemic state of India showed that regular adherence to ART may have a significant impact on reducing mortality and relapses.
- We developed VL/PKDL individual patient's data plate form for reuse through systematic reviews and meta-analysis. A mathematical study about Generalization of Renyi's Entropy and its Application in Source Coding was also conducted and published in the international journal.
- Produced evidence about barriers to the effective management and prevention of post kala-azar dermal leishmaniasis (PKDL) in the Indian subcontinent and documented the Challenges in the Treatment of Co-Infection of Visceral Leishmaniasis and Hepatitis B/C Viruses.

The other important studies most relevant to nation program are;-

• A feasibility study for implementation of innovative RBSK-NTEP collaboration module for active case finding of tuberculosis among school students.

• Evaluation of diagnostics facilities available for Post Kala-azar Dermal Leishmaniasis (PKDL) at grass root level in a highly endemic district of Bihar revealed that only 5% (significantly lower) of facilities were doing skin smear examination/biopsy for the PKDL detection.

• Conducted a social network analysis of kala-azar, which revealed that altogether, 462 suspected patients were screened (VL; 339 & PKDL; 123). Out of that, 87 (26%) patients were confirmed VL cases and 34 (28%) as PKDL cases. The mean network size was 22. Overall, 46% of network members were family.

• Active screening and motivating the persons with TB suggestive symptoms by trained Youth Club members of Nehru Yuva Kendra Sangthan (NYKS).

• Persistence of malaria in Muzaffarpur and Patna, Bihar with focus on reactive interventions around index malaria cases and its transmission dynamics among construction workers and natives.
• A study entitled "Comprehensive analysis of demographic epidemiological, clinical and hematological features of VL, PKDL VL-HIV patients: A hospital based longitudinal study" has been developed as mentor/supervisor by the undersigned.
• Another study entitled "Assessing magnitude of visceral leishmaniasis relapses and PKDL (Post Kala-azar Dermal Leishmaniasis) occurrence in VL treated patients and their risks/predictors; a retrospective cohort study has already been accepted for grant.
The other vital new initiative undertaken are time series analysis and forecasting of VL & PKDL data and quality of life using WHOQOL-BREF Score.

- Written two book chapters " Title: An analysis of 2001-2017 time series data of kala-azar for Bihar, India and its prediction for the year 2018-2020" and "Count Data Statistical Models for Predicting Visceral Leishmaniasis.
- Member of National Joint Outbreak Response Team and delivered invited talks.
- Organized a three days Workshop on Biostatistics as organizing secretary
- Expert of biostatistics for Joint ICMR-NAMS National Biostatistics Helpline.
- Reviewer of Investigator-Initiated Research Proposals (ICMR) of the Project Selection Committee (PSC-1).
- Appointed as academic editor/editor of various journals.

Innovation content of the work done

- Developed successful Vaishali Model, using an interrupted time-series analysis (a spatiotemporal model) estimated cases averted by the pilot, which strengthen control strategies.
- A publication (A pharmaco-epidemiological study) documented that the treatment success rate of SDA at the 6 months follows up was excellent (95%). However, the prevalence of PKDL among SDA treated VL cases were 7.3%.
- A publication (A clinico-epidemiological study amongst VL-HIV co-infection in a high burden kala-azar endemic state of India) showed that regular adherence to ART may have a significant impact on reducing mortality and relapses.
- Other publications contributed significantly towards establishment of "an individual participant-level data (IPD) platform" for VL & PKDL under Infectious Diseases Data Observatory (IDDO)
- A mathematical study about Generalization of Renyi's Entropy and its Application in Source Coding.
- Another publication provided a literature review of current evidence on Combination Therapy for Post Kala Azar Dermal Leishmaniasis.
- We have produced the evidence about barriers to the effective management and prevention of post kala-azar dermal leishmaniasis (PKDL) in the Indian subcontinent.
- We have documented the Post-kala-azar dermal leishmaniasis (PKDL) drug efficacy study landscape: A systematic scoping review of clinical trials and observational studies to assess the feasibility of establishing an individual participant-level data (IPD) platform.
- We have documented the Challenges in the Treatment of Co-Infection of Visceral Leishmaniasis and Hepatitis B/C Viruses.

- Member of National Joint Outbreak Response Team constituted by Ministry of Health and Family Welfare, Govt. of India
- Esteemed expert, to the hybrid Project Selection Committee (PSC) to evaluate the Investigator Initiated Research Proposal (Intermediate Grant—2 to 8 Cr.) in the area of nutrition under the Division of Descriptive Research, ICMR.
- Associate Professor in the Faculty of Medical Research in Academy of Scientific and Innovative Research (AcSIR).
- Expert (biostatistics) for Joint ICMR-NAMS National Biostatistics Helpline.
- Organizing Secretary of three days hands-on workshop in Biostatistics, organized at ICMR-RMRIMS, Patna.
- Invited talk on "Empowering Health Care Professional" (CME activity) at AIIMS, Patna on 3rd July, 2023.
- Online Review of ICMR Short Time Studentship (STS) 2023 & 2024.
- Invited talk for PG students & Faculties (PMCH & NMCH) [Topic: Research Methodology and statistical analysis]
- Reviewer for Investigator-Initiated Research Proposals for Small Grants under ICMR's extramural research programme (April 2025)
- Reviewer of Investigator-Initiated Research Proposals (ICMR; May 2024)

The other important studies most relevant to nation program are;-

- Social network analysis as a tool to improve active case finding at community level in Bihar.
- Active screening and motivating the persons with TB suggestive symptoms by trained Youth Club members of Nehru Yuva Kendra Sangthan (NYKS) [Sponsor; ICMR].
- Persistence of malaria in Muzaffarpur and Patna, Bihar with focus on reactive Interventions around index malaria cases and its transmission dynamics among construction workers and natives [Sponsor; ICMR].
- A study documented that the public health facilities (available in the districts) of the Bihar were poorly ready to provide quality diagnostic services for PKDL.

Brief Details

Publication details

Sr. No.	Details of publication in AMA style	Impact factor of journal
1.	**NA Siddiqui**, K Pandey, VNR Das, SK Sinha, RB Verma, CS Lal, V Ali, RK Topno, MR Dikhit and P Das. A preliminary study assessing magnitude of unreported kala-azar cases in a highly endemic district of Bihar, India: A positive impact of Indian elimination programme. *J Vector Borne Dis 56*, December 2020, pp. 315–322. **[First & Corresponding Author]**	**1.1**
2.	Das VNR, Bimal S, **Siddiqui NA,** Kumar A, Pandey K, Sinha SK, Topno RK, Mahentesh V, Singh AK, Lal CS, Singh SK, Das P. Conversion of asymptomatic infection to symptomatic visceral leishmaniasis: A study of possible immunological markers. *PLOS Negl Trop Dis*. 2020 Jun 18; 14(6):e0008272.doi:10.1371/journal.pntd.0008272. **[Co-author]**	**4.4**
3.	Das VNR, **Siddiqui NA**, Bhunia GS, Pandey K, Sinha SK, Ansari MZ, Topno RK, Lal CS, Ranjan A, Singh VP, Das P. Improved kala-azar case management through implementation of health facility-based sentinel sites surveillance system in Bihar, India. *PLOS Negl Trop Dis*. 2021 Aug 24; 15(8):e0009598. doi:10.1371/journal.pntd.0009598. **[Joint First Author with equal contribution]**	**4.4**
4.	Vijay Kumar, **Niyamat A. Siddiqui**, Timothy M. Pollington, Rakesh Mandal, Sushmita Das, Shreekant Kesari, Vidyanand R. Das, Krishna Pandey, T. Déirdre Hollingsworth c, Lloyd A.C. Chapman, Pradeep Das. Impact of intensified control on visceral leishmaniasis in a highly-endemic district of Bihar, India: an interrupted time series analysis. *Epidemics*. 2022 Jun: 39:100562. doi: 10.1016/j.epidem.2022.100562. **[Joint First Author with equal contribution]**	**5.3**
5.	**Niyamat Ali Siddiqui,** Mohd. Zahid Ansari, Sanjay Kumar Sinha, Biplab Pal, Ashish Kumar Singh, Subhankar Kumar Singh, Roshan Kamal Topno, Vidya Nand Rabi Das & Krishna Pandey. Treatment outcomes of single-dose liposomal amphotericin B treated visceral leishmaniasis patients and factors affecting outcome in Bihar, India. *Am J Trop Med Hyg.* 2024 Oct 8: tpmd230640. doi: 10.4269/ajtmh.23-0640.	**3.7**

	[First & Corresponding Author]	
6.	Ashiq Hussain Bhat, **Niyamat Ali Siddiqui**, Ismail A Mageed,Shawkat Alkhazaleh, Vidyanand Rabi Das and M.A.K Baig. Generalization of Renyi's entropy and its application in source coding. *Appl. Math. Inf. Sci*. 17, No. 5, 1-8 (2023). **[Joint First Author with equal contribution]**	**1.3**
7.	Alka Kumari, **Niyamat A. Siddiqui**, Sweta Kumari, Krishna Murti, Rishikesh Kumar, Krishna Pandey, Somanaboina Padmakar, Biplab Pal. Combination Therapy for Post-Kala-Azar Dermal Leishmaniasis: A Literature Review of Current Evidence. *Indian Journal of Dermatology* | Volume 69 | Issue 5 | September-October 2024. **[Joint First Author with equal contribution]**	**1.1**
8.	**Niyamat Ali Siddiqui**, Dhruv Kumar Pandey, Ashish Kumar Singh, Sanjay Kumar Sinha, Mohd. Zahid Ansari, Rishikesh Kumar, Biplab Pal, Vidya Nand Rabi Das, Dr Rajatashuvra Adhikary, Saurabh Jain & Krishna Pandey. A clinico-epidemiological study, assessing possible predictors of mortality and health related quality of life for people living with visceral leishmaniasis – human immune virus (VL-HIV) co-infection in a high burden kala-azar endemic state of India-A descriptive cross-sectional study. *BMC Infectious Diseases:* 2025. **(Accepted for publication; ahead of print)** **[Joint First Author with equal contribution]**	**3.4**
9.	Sauman Singh-Phulgenda, Rishikesh Kumar, Prabin Dahal, Abdalla Munir, Sumayyah Rashan, Rutuja Chhajed, Caitlin Naylor, Brittany J. Maguire, **Niyamat Ali Siddiqui**, Eli Harriss, Manju Rahi, Fabiana Alves, Shyam Sundar, Kasia Stepniewska, Ahmed Musa, Philippe J. Guerin, Krishna Pandey. Post-kala-azar dermal leishmaniasis (PKDL) drug efficacy study landscape: A systematic scoping review of clinical trials and observational studies to assess the feasibility of establishing an individual participant-level data (IPD) platform. *PLOS Neglected Tropical Diseases* | https://doi.org/10.1371/journal.pntd.0011635 April 16, 2024 1 / 27 **[Co-author]**	**4.4**
10.	Topno RK, Rabi Das VN, Kumar M, Madhukar M, Pandey K, Verma N, Agrawal K, Lal CS, **Siddiqui NA**, Bimal S, Das P. Advanced case of PKDL due to delayed treatment: A rare case report. *PLOS Negl Trop Dis*. 2020 Mar 23; 14(3):e0008052. doi: 10.1371/journal.pntd.0008052.	**4.4**

	[Co-author]	
11.	Somanaboina Padmakar, Krishna Murti, Krishna Pandey, Sweta Kumari, Rishikesh Kumar, **Niyamat Ali Siddiqui**, Biplab Pal. Suicidal ideation associated with vitiligo - A systematic review of prevalence and assessment. *Clinical Epidemiology and Global Health* 17 (2022) 101140. https://doi.org/10.1016/j.cegh.2022.101140. **[Co-author]**	**2.1**
12.	Biplab Pal, Sweta Kumari, Manpreet Kaur, Pankaj Wadhwa, Krishna Murti, Rishikesh Kumar, Krishna Pandey, **Niyamat Ali Siddiqui**, Sameer Dhingra, Somanaboina Padmakar. Barriers to the effective management and prevention of post kala-azar dermal leishmaniasis (PKDL) in the Indian subcontinent. *Med J Armed Forces India*. 2023 Sep-Oct;79(5):500-505. doi: 10.1016/j.mjafi.2023.03.010. **[Co-author]**	**1.9**
13.	Rishikesh Kumar, Prabin Dahal, Sauman Singh-Phulgenda, **Niyamat Ali Siddiqui**, Abdalla Munir, Caitlin Naylor, James Wilson, Gemma Buck, Manju Rahi, Paritosh Malaviya, Fabiana Alves, Shyam Sundar, Koert Ritmeijer, Kasia Stepniewska, Philippe J Guérin, Krishna Pandey. Host, parasite and drug determinants of clinical outcomes following treatment of visceral leishmaniasis: a protocol for individual participant data meta-analysis. *BMJ Open*. 2023 Oct 28; 13(10):e074679. doi: 10.1136/bmjopen-2023-074679. **[Co-author]**	**3.0**
14.	Abdalla Munir, Prabin Dahal, Rishikesh Kumar, Sauman Singh-Phulgenda, **Niyamat Ali Siddiqui**, Caitlin Naylor, James Wilson, Gemma Buck, Manju Rahi, Fabiana Alves, Paritosh Malaviya, Shyam Sundar, Koert Ritmeijer, Kasia Stepniewska, Krishna Pandey, Philippe J Guérin, Ahmed Musa. Ahmed Musa. Hematological dynamics following treatment of visceral leishmaniasis: a protocol for systematic review and individual participant data (IPD) meta-analysis. *BMJ Open*, volume 13, issue 12, pages e074841 DOI: 10.1136/bmjopen-2023-074841. **[Co-author]**	**3.0**
15.	Roshan Kamal Topno, Maneesh Kumar, Major Madhukar, Niyamat Ali Siddiqui, Vidyanand Rabi Das, Manas Ranjan Dikhit, Diwakar Singh Dinesh, Devendra Prasad Yadav, Krishna Pandey. Diagnostic value of 15 days fever history for screening of kala-azar with rk39	**2.6**

	test kit: A hospital-based observational study. *Journal of Clinical Images and Medical Case Reports*; Volume 4; Archived: www.jcimcr.org doi: www.doi.org/10.52768/2766-7820/2458. **[Co-author]**	
16.	Pandey K, Pal B, **Siddiqui NA**, Lal CS, Ali V, Bimal S, Kumar A, Verma N, Das VNR, Singh SK, Topno RK, Das P. A randomized, open-label study to evaluate the efficacy and safety of liposomal amphotericin B (AmBisome) versus miltefosine in patients with post-kala-azar dermal leishmaniasis. *Indian J Dermatol Venereol Leprol*. 2021 Jan-Feb; 87(1):34-41. doi: 10.25259/IJDVL_410_19. PMID: 33580944. **[Co-author]**	**2.7**
17.	Topno RK, Madhukar M, Pandey K, Kumar R, Rabidas VN, Kumar M, Agrawal K, Verma N, Yadav DP, Bimal S, **Siddiqui NA**, Das P. False Positivity of rK39 Test in Five Chronic Myeloid Leukemia Cases from Bihar, India: A Possible Challenge to Leishmaniasis Diagnosis. *Am J Trop Med Hyg*. 2020 Dec; 103 (6): 2257-2259. doi: 10.4269/ajtmh.20-0301. **[Co-author]**	**2.3**
18.	Mehar Darukhshan Kalim, Sachidananda Behera, **Niyamat Ali Siddiqui**, Krishna Pandey, Vahab Ali Association of Vitamin D receptor gene polymorphism 1 and Vitamin D status explore as a risk factor among Visceleral Leishmaniasis and Post Kala Azar Dermal Leishmaniasis patients in endemic region of Bihar. Submitted on September, 2024 *Microbial Pathogenesis* Ref: YMPAT-D-24-03014 **Second revision has already been submitted** **[Co-author]**	**3.3**
19.	Serum levels of zinc and copper in patients with endometrial cancer: a systematic review and meta-analysis Biplab Pal, **N.A. Siddiqui**, et al Submitted on 19th March 2025 *Biological Trace Element Research* Ref: Submission ID 9fbe629c-7a35-42f7-8f44-56db9a4509be **Revision has already been submitted** **[Co-author]**	**3.4**
20.	Association of Post Kala-Azar Dermal Leishmaniasis pathogenesis with prolonged sunlight (ultraviolet radiation) exposure in VL endemic population of Bihar Vahab Ali, **N.A. Siddiqui**, et al.	**3.8**

	Submitted on 18th February, 2025 *Scientific Reports* Ref: Submission ID 9a48ac9e-c4c3-4e2b-97ed-6c8e00c951f5 **Revision has already been submitted** **[Co-author]**	

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Usefulness of publications as evidenced by being included in policy, guidelines, programme or led to patents or commercialization.

- Publication provided the evidence that sentinel surveillance of visceral leishmaniasis in endemic areas of Bihar" may provide a model for improving kala-azar case management in Bihar, India, which is of public importance activity.
- Developed successful Vaishali Model, using an interrupted time-series analysis, a spatiotemporal model estimated cases averted by the pilot. Thus strengthening control strategies may have led to a faster decline in VL case numbers in Vaishali. This model has already been replicated in Saran and Siwan district of Bihar by National Program.
- Publication provided the evidence that despite the implementation of single-dose liposomal amphotericin B (10mg/kg) for the treatment of VL in the country, and assessment of VL treatment outcomes is lacking. Hence a better understanding of treatment outcomes is essential for policymakers, clinicians, and funding organizations to develop further treatment strategies for VL in the country. On the other hand, emergence of PKDL after treatment with new anti-leishmanial drugs, particularly single-dose liposomal amphotericin B (10mg/kg), and miltefosine, is a significant concern for the kala-azar elimination program. Conducted a pharmaco-epidemiological study of Single-Dose Liposomal Amphotericin B; a translational research for the national kala-azar program. Publication findings and recommendations have also been shared with National Center for Vector Borne Diseases Control (NCVBDC), Ministry of Health & Family Welfare, and Government of India. Probably not in the health guidelines at the moment but should be under discussion to national programme with experts, because published recently. The present study concluded that current treatment strategy necessitates continuous close monitoring and reviews to ensure consistent and improved outcomes. The WHO has also advocated for routine monitoring of treatment outcomes to assess the efficacy of single-dose liposomal amphotericin B. Therefore, treatment outcomes hold paramount importance for the national kala-azar elimination program to formulate effective treatment strategies.
- Another publication documented the magnitude of unreported kala-azar cases in a highly endemic district of Bihar, India, again vital concern for program.
- Other publications contributed significantly towards establishment of "an individual participant-level data (IPD) platform" for VL & PKDL under Infectious Diseases Data Observatory (IDDO)
- Generalization of Renyi's Entropy and its Application in Source Coding.
- Another publication provided a literature review of current evidence on Combination Therapy for Post-Kala-Azar Dermal Leishmaniasis: A Literature Review of Current Evidence.
- We have produced the evidence about barriers to the effective management and prevention of post kala-azar dermal leishmaniasis (PKDL) in the Indian subcontinent.

- We have documented the Post-kala-azar dermal leishmaniasis (PKDL) drug efficacy study landscape: A systematic scoping review of clinical trials and observational studies to assess the feasibility of establishing an individual participant-level data (IPD) platform.
- We have documented the Challenges in the Treatment of Co-Infection of Visceral Leishmaniasis and Hepatitis B/C Viruses.
- A clinico-epidemiological study, assessing possible predictors of mortality and health related quality of life for people living with visceral leishmaniasis – human immune virus (VL-HIV) co-infection in a high burden kala-azar endemic state of India. An important study for program perspective as Hematological dynamics following treatment of visceral leishmaniasis: a protocol for systematic review and individual participant data (IPD) meta-analysis. Another study as Host, parasite and drug determinants of clinical outcomes following treatment of visceral leishmaniasis: a protocol for individual participant data meta-analysis; a translational research for national program. Another study as a systematic scoping review of clinical trials and observational studies to assess the feasibility of establishing an individual participant-level data (IPD) platform, an important study for national program.
- Multi-centric randomized controlled trials to verify the efficacy, safety, and other advantages of combination therapies for PKDL.
- We demonstrated that a time gap between the initiation and cessation of ART, as well as the duration from VL treatment to death. It suggests that regular adherence to ART may have a significant impact on reducing mortality and relapses. Therefore, a comprehensive people-centric approach for specific groups needs to be adopted for VL-HIV patients.

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Overview of intra or extramural research projects (completed/ongoing) as Principal/Co-investigator.

Short title of the project	**Primary objective (in brief)**	**Type of study (e.g. RCT/Prevalence/Lab-based)**	**Sample size**	**Grant amount (INR)**
A feasibility study for implementation of innovative RBSK-NTEP collaboration module **(A multicentre Study, s*ponsored by ICMR)***	Active case finding of tuberculosis among school students	Prevalence/Incidence	131196	**19,53,000/-**
Evaluation of diagnostics facilities available for Post Kala-azar Dermal Leishmaniasis (PKDL) at grass root level in a highly endemic district of Bihar, India	To assess the availability and preparedness of heath facilities to provide quality diagnostic services for PKDL, using SARA	Health facility assessment	Four districts (Gopalganj, Sitamarhi, Araria & Saharsa) Total 57 PHF's	**9,15,000/-**
Social network analysis as a tool to improve active case finding.	To study the social network of KA patients in relation to early diagnosis/treat/OD	Epidemiological study (Community based study)	Gopalganj (In available all PHF's	**11,00,000/-**

	RP.			
Assessment of treatment outcomes of VL & HIV patients, predisposing factors for co-morbidity, factors affecting outcomes and health seeking behaviour of co morbid cases sin Bihar: a cross-sectional survey **(Phase-I) [Sponsor: APW; WHO; India].**	Study described the characteristics and long-term VL treatment outcomes for the HIV-VL co-infected patients and assessment of Quality of life	Epidemiological study (Community based study)	Four highly endemic districts of Bihar. (Total 64 VL-HIV cases)	**12,73,000/-**
Assessment of treatment outcomes of VL & HIV patients, predisposing factors for co-morbidity, factors affecting outcomes and health seeking behaviour of co morbid cases sin Bihar: a cross-sectional survey **(Phase-II) [Sponsor: APW; WHO; India].**	Study described the characteristics and long-term VL treatment outcomes for the HIV-VL co-infected patients and assessment of Quality of life	Epidemiological study (Community based study)	Eighteen districts in Bihar (Total 158 VL-HIV cases)	**10,10,000/-**
An RMRIMS-IDDO joint project for capacity strengthening and knowledge transfer towards VL/PKDL secondary data reuse. [**Sponsor: BMGF/University of Oxford (IDDO)].**	1.Train young ICMR researchers to become proficient in identified aspects of data standards, data management and data analysis with a focus on systematic reviews and individual participant data (IPD) meta-analysis 2.Provide technical support, tools and resources to researchers from India, so that they can take a lead role in delivering secondary research outcomes through the efficient use of scientific data	Systematic reviews and Individual patient data Meta-analyses	Clinical trials on VL & PKDL conducted in Indian sub-continent	**67,63,570/-**
Treatment outcome of visceral leishmaniasis patients under single dose AmBisome treatment and	Assessment of the treatment outcomes of single-	Epidemiological study (Community based study)	District; Muzaffarpur (527 VL &	**13,08,450/-**

factors affecting outcome in a highly endemic district of Bihar, India **[Sponsor; WHO Small Grant]**:	dose liposomal amphotericin B		PKDL cases)	
Assessing magnitude of visceral leishmaniasis relapses and its risk and predictors; a retrospective cohort study **[Financial support received from in WHO/TDR]**	General objective of the study is to assess the rate of VL relapse (recurrence) and its possible risks/predictors.	Hospital based study assessing treatment outcomes	The study will utilize VL patients list of indoor ward of RMRIMS, Patna of last seven years between 01/01/2017 and 31/12/2023 (Total patients: 1750)	**15,13,640/-**
Comprehensive analysis of demographic epidemiological, clinical and hematological features of VL, PKDL VL-HIV patients: A hospital based longitudinal study. **[Financial support under Ignition Grant Research Proposals for Intramural Grants 2023 of ICMR; Already accepted]**	The primary objective of this study is to develop a robust database of VL/PKDL/VL-HIV patients for the institute.	observational and descriptive in nature	The institutional database focuses on the patient's diagnosed with VL/PKDL/VL-HIV, and are admitted in ICMR-RMRIMS for medical care	**30,99,200/**
Active screening and motivating the persons with TB suggestive symptoms by trained Youth Club members of Nehru Yuva Kendra Sangthan (NYKS). **[*Sponsor; ICMR]***	1.To explore the feasibility of active screening & motivating the presumptive TB cases for seeking medical consultancy by "Youth Club" members of NYKS. 2.To assess the consequent effect of this active screening & motivation on the notification rate of TB cases in study population by health system.	Qualitative and quantitative design following a phase wise approach (Prevalence/Incidence based on lab investigation)	District-Patna Situational analysis **Phase- 1**: Formative Phase **Phase – 2**: Qualitative study **Key Informant Interviews** (KII) (N=12 per site) **In-depth interviews** (IDI) with End user (n=10 per site) **Focus Group Discussions** (FGDs)(n=10)	**17,30,200/-**

			Phase – 3: Quantitative study The sample size calculated was 59660 (60000 rounded figure) individuals for control group and 59660 (60000 rounded figure) individuals for test group with total study participants of 119320 (120000 rounded figure).	
An integrated data-driven model to accelerate leprosy eradication from high-burden states and Union territories in India **[Sponsor; ICMR].**	1.To estimate number of new cases of leprosy in select ten states/Union territories 2.To estimate percentage of leprosy-related disabilities among new cases in these states/UTs 3.To assess readiness of the NLEP, map processes involved and conduct rapid review of relevant literature for analysis of challenges and gaps in the current NLEP implementation 4.To use information synthesized from the survey and gap analysis for refining	Cross-sectional community-based house-to-house survey design. Additionally, organizational readiness is also crucial factor for successful implementation of a leprosy health intervention (Prevalence/Incidence)	In areas/districts with very low incidence of the disease, where the required 28 new leprosy cases may not be detected, a sample size of 2,50,000 population.	**4,38,28,240/-**

	an intervention strategy which can accelerate eradication of leprosy in high-burden districts			
Persistence of malaria in Muzaffarpur and Patna, Bihar with focus on reactive interventions around index malaria cases and its transmission dynamics among construction workers and natives **[Sponsor; ICMR].**	1. To estimate the prevalence of asymptomatic and symptomatic malaria among construction workers and natives in Muzaffarpur and Patna. 2. To compare the prevalence of asymptomatic and symptomatic malaria between local residents around construction vicinity and residents of non-construction areas in Muzaffarpur and Patna. 3. To investigate the association of seasonal asymptomatic and symptomatic malaria prevalence with seasonal entomological and parasitological parameters in Muzaffarpur and Patna. 4. To evaluate the impact of reactive intervention (reactive case detection, treatment and vector mitigation) in and around index asymptomatic and/or symptomatic malaria case households on seasonal malariometric	Cross-sectional study design across three different seasons of a year, followed with longitudinal follow-up.	Two districts: Muzaffarpur and Patna	**27,00,000/-**

	indices. 5. To determine the occurrence of anti-malarial drug resistance alleles in asymptomatic/symptomatic cases among local and migrant human populations.			
Systematic pulmonary TB case finding among severely malnourished children admitted to nutritional rehabilitation centers **[Sponsor; ICMR Task Force]**	1.To evaluate the current implementation of PTB screening and diagnostic efficiency in selected NRCs. 2.To find out the prevalence of pulmonary TB among children admitted to select NRCs. 3.To compare results of CBNAAT and TRUNAAT on gastric aspirates in children admitted in NRCs.	Assessment of prevailing practices for identification of tuberculosis in children admitted in nutritional rehabilitation centres: A multicentre study	The study was conducted between March 2019 to March 2021, at 41 NRC sites, namely NRCs in and around major cities (Bhopal, Jodhpur, Patna, Kolkata, Lucknow and Ratlam).	**1,44,99,120/-**
Time series analysis and forecasting of kala-azar (visceral leishmaniasis) incidence in Bihar, India.	To evolve spatio-temporal profile of kala-azar incidence for Bihar state, using time series data for the period 2000-2017 and to develop statistical model to forecast VL incidence for the period 2020- 2022.	Time series analysis and forecasting of kala-azar (Prevalence/Incidence)	The present study is based on the secondary data on kala-azar incidence for the period 2001–2017, received from Chief Malaria Office, Patna.	**6,00,000/-**
A Study on association of polymorphism in TLR2 and TLR4 with susceptibility to Visceral Leishmaniasis and PKDL in Indian population.	1.To study the genetic association of TLR2 and TLR4 polymorphism in susceptibility or resistance to asymptomatic, VL and PKDL cases in comparison to endemic healthy control. 2.To understand	Lab-based study	1150 individuals were tested with rK39 antibody test in the household and neighboring area of known VL and PKDL cases and a total of 192 cases	**28,30,000/-**

	the genetic basis of immune response in VL and PKDL cases.		comprising 72 VL cases, 50 PKDL cases, 10 asymptomatic VL cases and 60 healthy controls were included under study and blood samples of these cases were collected.	
RNA profile analysis of plasma exosomes derived from patients of visceral leishmaniasis and PKDL.	To explore RNA profile of plasma derived exosomes isolated from peripheral blood of visceral leishmaniasis cases, Post kala azar dermal leishmaniasis (PKDL) cases and healthy control.	Lab-based study	The enrolment of study subjects and sample collection is ongoing on as per the inclusion and exclusion criteria after getting informed consent of patients from the indoor wards of the Institute.	**38,05,520/-**
Assessment of Vitamin D Concentration and parameters linked to disease progression in patients infected with *Leishmania donovani.*	• To assess vitamin D in confirmed VL and clinically healthy subjects • To assess Leishmania specific immune response and its correlation with vitamin D • To assess vitamin D deficiency with clinico-pathological scores and assessment in disease progression	Lab-based study	Parasitologically confirmed VL cases: 30 Asymp. VL cases: 13 Symptomatic VL cases:45	**Not Known**
Hospital based study to assess prevalence of the visceral leishmaniasis (VL)co-infection with	• To assess the prevalence of VL with Hepatitis B ,	Prevalence/Incidence	Total 601 visceral leishmaniasis (VL) patients,	**Not Known**

Hepatitis B and Hepatitis C Virus.	Hepatitis C or Both • To assess the relapse of VL with Hepatitis B and Hepatitis C treated patient		admitted in RMRIMS, between the year 2012 and 2019.	
A study to explore markers for conversion of asymptomatic into VL and its role in disease transmission: A multidisciplinary approach.	• To estimate the proportion of asymptomatic VL cases in the community • To determine the possible markers for conversion of asymptomatic infection to symptomatic visceral leishmaniasis	Prevalence/Incidence	5794 healthy individuals from VL endemic region.	**16,25,000/-**

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Service rendered in national interest to ICMR/other agencies

- **The DG, ICMR**, has invited as one of the scientist to work with the Implementation Research teams of ICMR.
- **Member of National Joint Outbreak Response Team** constituted by Ministry of Health and Family Welfare, Govt. of India
- **Financial support received from** ICMR,WHO/TDR (Small Grant Scheme), NVBDCP and State VBD Program
- **Esteemed expert,** to the hybrid Project Selection Committee (PSC) to evaluate the Investigator Initiated Research Proposal (Intermediate Grant—2 to 8 Cr.) in the area of nutrition under the Division of Descriptive Research, ICMR.
- **Associate Professor** in the Faculty of Medical Research in Academy of Scientific and Innovative Research (AcSIR).
- **Expert (biostatistics)** for Joint ICMR-NAMS National Biostatistics Helpline.
- **Organizing Secretary of three days hands-on workshop in Biostatistics**, organized at ICMR-RMRIMS, Patna.
- **Invited talk on "**Empowering Health Care Professional" (CME activity) at AIIMS, Patna on 3rd July, 2023.
- **Principal Supervisor/Guide** to the thesis for the Degree of Ph.D. (Biostatistics) at RMRIMS, Patna
- **Co-Supervisor for DNB degree** (IGIMS/PMCH, Patna)
- **Faculty for Biostatistics** for of M.Sc. Public Health Entomology under Pondicherry University.

- **Online Review of ICMR Short Time Studentship (STS)** 2023 & 2024.
- **Regular classes on Biostatistics**, preparation of question paper and evaluation for PhD course work and Pre-PhD entrance test conducted by institute.
- **Invited talk** for PG students & Faculties (PMCH & NMCH) [**Topic:** Research Methodology and statistical analysis]
- **Preparation of draft of syllabus** for affiliation of ICMR institutes for Ph.D. programme from **JNU, New Delhi**.
- **Clinical Training** for Parasitological Examination of Kala-azar and PKDL Cases; 21st July, 2022 ICMR-RMRIMS, Patna Sponsored by WHO Country Office, India & NCVBDC, Govt. of Bihar.
- **Reviewer** for Investigator-Initiated Research Proposals for Small Grants under ICMR's extramural research programme (April 2025)
- **Reviewer of** Investigator-Initiated Research Proposals (ICMR; May 2024)

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Any other achievements or activities you want to highlight

- Inputs were presented in various organization (stakeholders meeting) viz NCVBDC, ICMR, State VBD Program, WHO/TDR, BMGF, University of Oxford, LSHTM, Piramal Foundation, etc. Findings were presented in National as well as International meeting conducted on KA & PKDL. The strategic knowledge generated from us, was reviewed and discussed in inter ministerial experts for necessary policy implementation (KA & PKDL care delivery services; Programme evaluation).

- **BOOK CHAPTER**

  Title: An analysis of 2001-2017 time series data of kala-azar for Bihar, India and its prediction for the year 2018-2020

  Title: Count Data Statistical Models for Predicting Visceral Leishmaniasis (VL)

- **Academic Editor** for PLOS ONE
- **Guest Editor** for Frontiers in Tropical Diseases
- **Reviewer for** Journal of Vector Borne Diseases