

# Resume

## Dr. Narotam Sharma (Scientist and Head)

### DNA Labs- A Centre for Applied Sciences, Dehradun, Uttarakhand

**Laboratory-1:** Main Kargi Road, Near Vidya Vihar Phase 1, Pathri Bagh Chowk, Dehradun-248001, Uttarakhand.

**Laboratory-2:** CRIS- A Center for Research and Innovative Studies, Laxmipur, Behind Vigyan Dham-248007, Uttarakhand. +91-9557650069, [sharmanarotam5@gmail.com](mailto:sharmanarotam5@gmail.com), website: dnalabscas.com

*(Former Scientist at Shri Guru Ram Rai University, Central Molecular Research Laboratory, and In-Charge; Swine Flu (H1N1) Lab, Shri Guru Ram Rai University, Dehradun, U.K.*

#### Professional Career:

Designation	University/Institute	Year
Senior Research Fellow (SRF)	DUVASU (Veterinary University) Mathura	2008-2009
Jr. Scientist cum Training Coordinator	Auroprobe Laboratories (Department of Biotechnology and BCIL sponsored Institute)	2009-2011
Scientist	Shri Guru Ram Rai University, Central Molecular Research Laboratory, Dehradun- Uttarakhand	November, 2011- to November, 2019
Scientist and Head Laboratories And Laboratory Director, Molecular Testing (NABL)	DNA Labs -A Centre for Applied Sciences (DLCAS), Dehradun, Uttarakhand LABORATORY- 1: Main Kargi Road, Near Vidya Vihar Phase 1, Pathri Bagh Chowk, Dehradun-248001, Uttarakhand. LABORATORY- 2: CRIS- A Center for Research and Innovative Studies, Laxmipur, Behind Vigyan Dham - 248007, Uttarakhand.	December, 2019 to till date

#### Professional Training taken:

##### Projects Done

- |   |  |
|---|--|
| 1. Molecular Biology & Genetic Engineering        | Sangene Institute of Bioscience, Bangalore |
| 2. Diagnostic Analysis                            | Shreedhar Bhat's Laboratory, Bangalore     |
| 3. Vaccines (Internal Project)                    | Capital College, Bangalore                 |
| 4. Microbial Limit Test of Water & Sterility Test | Ultra Drugs Pvt. Ltd. Baddi.               |

##### Name of the Institute

#### Principal Investigator/Co-PI/ Supervisor for Govt funded projects and Scientific Meets

Sr. No.	Title of the Project	Funding agency	Duration	Role
1	Isolation and Screening of Novel Isolates of Bifidobacteria from Human Milk as Potential Probiotic with Antidiarrheal Activity	Department of Biotechnology	02 years	PI
2	A documentary approach to cover the whole scenario pre and post (cultural & Biodiversity) of the fishing festival of Jaunpuri community in Garhwal region	Uttarakhand Science Education Research Centre (USERC), Department of Science and Technology, Govt. of UK	0.3 years	Chief-PI
3	Study of Blood lead (Pb) levels, haemoglobin levels and urinary iodine as developmental indicators in children < 12 years residing nearby areas of Rispana river of Dehradun.	Uttarakhand Science Education Research Centre (USERC), Department of Science and Technology, Govt. of UK	03 years	Co-PI

4	National Conference cum Workshop on Innovations in Cellular and Molecular Diagnosis-A New Era of Prognosis (2-3, December, 2016), Supported and Sponsored by Uttarakhand Council for State Science and Technology (UCOST), Medical Council of India (MCI), Indian Council for Medical Research (ICMR), Uttarakhand Council for Biotechnology (UCB), Accreditation by Uttarakhand Medical Council.	1) Uttarakhand Council for State Science and Technology (UCOST). 2) Medical Council of India (MCI). 3) Indian Council for Medical Research (ICMR). 4) Uttarakhand Council for Biotechnology (UCB)	02 days	<b>Organizing Secretary</b>
5	National Conference by Central Molecular Research Laboratory, Biochemistry Department, Shri Guru Ram Rai Institute of Medical & Health Sciences on topic, "Current Challenges for Tuberculosis Management", in Collaboration with Uttarakhand Science Education Research Centre (USERC), Dehradun, Deptt. Of Science & Technology, Government of Uttarakhand, on 24.03.2018.	Uttarakhand Science Education Research Centre (USERC), Dehradun, Deptt. Of Science & Technology, Government of Uttarakhand		<b>Organizing Secretary</b>
6	Assessment of socio-economic and health status of primitive Raji tribe through bio cultural approach in Uttarakhand: A holistic study for sustainable development	Department of Science and Technology, Govt. of India	03 years	<b>Co-PI Submitted</b>
7	Unfolded Protein Response: Achilles Heels of Fungal Pathogenesis	Department of Science and Technology (DST), Science and Engineering Research Board (SERB)	02 years	<b>Co-PI</b>
8	Dengue: its Prevention, Precautions & Management and the role of Academic Institutions Uttarakhand Area	Uttarakhand Science Education And research Centre (USERC), Department of Science, Govt. Of Uttarakhand	06 Months	<b>Co-PI</b>
9	Malaria & Swine flu: its Prevention, Precautions & Management and the role of Academic Institutions Dehradun Area including schools and colleges	Uttarakhand Science Education And research Centre (USERC), DST, Govt. Of Uttarakhand	06 Months	<b>Co-PI</b>
10	Training Manual Cum Book	Uttarakhand Science Education And research Centre (USERC), DST, Govt. Of Uttarakhand	-	<b>PI</b>
11	Good Laboratory Practices in the era of Pandemics: Skilling and strengthening Biomedical Professionals for the Current and future Scenario	Uttarakhand Science Education Research Centre (USERC), Department of Information and Science and Technology, Dehradun, Govt. of UK	02 Days workshop	<b>PI</b>
12	Workshop cum Training Program on <b>SCIENCE ON WHEELS</b>	Uttarakhand Science Education Research Centre (USERC), Department of Information and Science and Technology, Dehradun, Govt. of UK	Pilot Activities in 02 remote areas Workshops cum training programs	<b>PI</b>
13	International Immunology Day -2022	IIS, New Delhi	01 Day Program	<b>Organizing Secretary</b>

14	Biotechnology and its applications for the Characterization of Bacterial and Viral diseases; Diagnosis, Prevention, Cure with Special Emphasize on Biosafety Practices: Preparedness to combat the Viral Outbreaks	Uttarakhand Council for Biotechnology, Biotech Bhavan, P.O. Haldi -263 146, Dist. U.S. Nagar, Uttarakhand	02 days	<b>Organizing Secretary</b>
15	Workshop cum Training Program on <b>SCIENCE ON WHEELS</b> <b>Second Phase</b>	Uttarakhand Science Education Research Centre (USERC), Department of Information and Science and Technology, Dehradun, Govt. of UK	Pilot Activities in 06 remote areas Workshops cum training programs	<b>PI</b>
16	Artificial Intelligence-Workshop on Emerging Technology in schools of Pithoragarh Region	Uttarakhand Council for State Science and Technology (UCOST).	Workshop Cum Seminar	<b>PI</b>
17	International Immunology Day -2023	IIS, New Delhi	01 Day Program	<b>Organizing Secretary</b>
18	Development of Diagnostics Algorithm by Studying Genetic Polymorphisms and genotypic distributions in different grades of Cervical anomalies and Cancers due to Oncogenic Human Papillomaviruses (HPVs) and other etiological factors in females of Uttarakhand Population	Uttarakhand Council for Biotechnology (UCB), Department of Science and Technology, Govt. of Uttarakhand.	R&D Project	<b>PI</b>
19	Workshop cum Training Program on <b>SCIENCE ON WHEELS</b> <b>Second Phase</b>	Uttarakhand Science Education Research Centre (USERC), Department of Information and Science and Technology, Dehradun, Govt. of UK	Pilot Activities in 05 remote areas Workshops cum training programs	<b>PI</b>

#### Awards and Honors:

- 1) Received **Young Scientist Award** in 12<sup>th</sup> Uttarakhand State Science and Technology Congress (USSTC), 2017-18, in discipline Medical Sciences including Pharmaceutical Science, Organized by Uttarakhand State Council for Science & Technology (UCOST)
- 2) Awarded with **Scientist of the Year-2019** at 2<sup>nd</sup> National Conference Cum Workshop entitled, "Channeling as Tools and Techniques to Agriculture Biotechnology, Microbiology and Molecular Biology in 21<sup>st</sup> Century", organized by Deptt. of Biotechnology and Microbiology, Kalp Labs, Mathura, UP
- 3) Awarded with best oral presentation at 1st Annual Conference of the Indian Academy of Biomedical Sciences & International Symposium on Advances & Applications of Molecular Biology in Clinical Research at **C.S.M. Medical University, Lucknow, UP**
- 4) Received **Gurudev Singh Award** for Honesty and Courage (Chandigarh).
- 5) Awarded for the designing and initialization of first Biosafety Level -3 Laboratories (BSL-3) by Hon. Health Minister, Shri. Surinder Singh Negi (2015).

#### Academic and Scientific Recognition

- Program Coordinator for Uttarakhand Science Education and Research Centre (USERC), Department of Science and Technology, Govt. of UK.
- Successfully guided and co-guided 102 dissertations/thesis for Life Science students from various institutions from all over India, many of the work from which have been published and presented in various journals and conference.
- Worked in many projects funded by DBT and ICMR at Auroprobe laboratories, Ghaziabad, UP.

- Developed, designed and successfully started **BSL-2 & BSL-3** and Advanced Molecular Diagnostics Facilities for the SRR Medical College and Cellular & Molecular Research Oriented Training Programs at Central Molecular Research Laboratory, Biochemistry Department, SGRIM&HS, Dehradun, U.K.
- In-Charge for Swine Flu (H1N1) testing center, approved by National Center for Disease Control, New Delhi, Govt. of India and Ministry of Health and Family Welfare, New Delhi. (First of its own kind in Uttarakhand).
- Dean Secretary, Shri Guru Ram Rai University, Dehradun, Uttarakhand
- Ph.D Supervisor for 05 Research Scholar from Biotechnology discipline
- Ph.D Co-Supervisor for 05 Research Scholar from Microbiology discipline
- Board of Study, Subject Expert and Approved Supervisor for Shobit University, Gangoh, UP and Mangalayatan University, Aligarh, UP, Graphic Era University, Dehradun, Dev Bhoomi University, Dehradun.
- Developed and started own laboratories DNA Labs-A Centre for Applied Sciences, Dehradun) with NABL Accredited, ICMR Approved and ISO Certified in the fields of Coronavirus testing, Pathology, Cellular and Molecular Diagnostics, Teaching and Training and Research.

### Membership:

- 1) Member of India Association of Medical Microbiologist- Delhi Chapter.
- 2) Life time Member of Indian Immunology Society
- 3) Advisory Board Member, International Journal of Life- Sciences Scientific Research
- 4) Editorial Board Member of, Indian Journal of Genetics and Molecular Research
- 5) Member (External expert) of Institutional Biosafety Committee (IBSC), appointed by Department of Biotechnology (DBT) Govt. of India
- 6) Program Coordinator, Health & Hygiene, Uttarakhand Science Educations and Research Centre, Department of Science and Technology, Govt. of Uttarakhand.

### PhD Supervisor/ Co-Supervisor for the following Universities:

- 1) Graphic Era University, Dehradun, Uttarakhand.
- 2) Uttaranchal University, Dehradun, Uttarakhand.
- 3) Desh Bhagat University, Fatehgarh Sahib, Punjab
- 4) NIMS University, Jaipur, Rajasthan
- 5) Uttarakhand Technical University, Dehradun, Uttarakhand
- 6) HNB Garhwal University, Srinagar, Uttarakhand

### Research Publications = 90 (National and International Journals)

1. **Sharma Narotam**, Veena Sharma, Tariq Masood, Satish Chandra Nautiyal, Shivani Sailwal, Rajesh K. Singh, Rajeev K. Kushwaha, and R. K. Singh. "Usage of Conventional PCR Technology for the Detection of HLA-B27 Allele: A Significant Molecular Marker of Ankylosing Spondylitis." *Indian Journal of Clinical Biochemistry* 28, no. 2 (2013): 189-192.
2. **Narotam Sharma**, Veena Sharma, Prem Raj Singh, R.S. Kushwaha, Satish Chandra Nautiyal, Shivani Sailwal, Rajesh K Singh, Tariq Masood, Pankaj Mishra, R.K Singh. Age wise distribution of high-risk Human Papillomavirus in Northern Indian women. *Biomedical Research India* 2012; 23 (4): 547-550.
3. **Sharma Narotam**, Veena Sharma, Prem Raj Singh, Shivani Sailwal, Rajeev S. Kushwaha, Rajesh K. Singh, Satish C. Nautiyal, Pankaj Mishra, Tariq Masood, and R. K. Singh. "Diagnostic Value of PCR in Genitourinary Tuberculosis." *Indian Journal of Clinical Biochemistry* 28, no. 3 (2013): 305-308.
4. **Sharma Narotam**, Sharma Veena, Nautiyal Satish Chandra, Singh Prem Raj, Rajeev S, Kushwaha, Sailwal Shivani, Ghosh Shayan, Naushad Ahmer, Singh R.K. Conventional PCR usage for the detection of Mycobacterium Tuberculosis complex in Cerebrospinal Fluid by MPB64-Target PCR. *International Journal of Drug Development & Research, October-December 201, Vol. 4, Issue 4, ISSN 0975-9344.*
5. **Narotam Sharma**, Veena Sharma, Prem Raj Singh, Tariq Masood, Satish Chandra Nautiyal, Shivani Sailwal, Rajeev S Kushwaha, Shayan Ghosh, Ahmer Naushad, R.K Singh. Detection of Type-Specific Human Papillomavirus–Clinical Utility in Cervical Cancer Management, *International Journal of Multidisciplinary Research Academy IJPSS* Volume 2, Issue 12 ISSN: 2249-5894.
6. **Narotam Sharma**, Veena Sharma, Satish Chandra Nautiyal, Prem Raj Singh, R.S. Kushwaha, Shivani Sailwal, Shayan Ghosh, Ahmer Naushad, R.K Singh. A1, A2 Beta Casein Variants in Cows–Its Impact on Modern Human Health, *International Journal of Multidisciplinary Research Academy. IJRSS* Volume 2, Issue 4 ISSN: 2249-2496.
7. **Sharma N** , Nautiyal SC, Kumari S, Kumari K, Singh V , Kumar K , Singh SK, Singh RK. High Resolution Melt Curve Analysis Innovative Approach for Molecular Diagnosis. *Webmed Central BIOTECHNOLOGY* 2013; 4(2):WMC003992.
8. Veena Sharma, **Narotam Sharma**, Satish Chandra Nautiyal, Prem Raj Singh, Binish Jawed, R.K Singh, Amplification of the Bovine Beta Casein Gene, *Am. J. PharmTech Res.* 2013; 3(1) ISSN: 2249-3387.

9. Sharma Veena, Singh Premraj, **Sharma Narotam**, Pracheta, Paliwal Ritu. Study of epidemiology of HPV infection in the Uterine Cervix of Women's in Delhi / NCR regions, India *International Journal of Drug Development & Research, January-March 2012, Vol. 4, Issue 1, ISSN 0975-9344.*
10. **Narotam Sharma**, Amitabh Talwar, Satish C. Nautiyal, Rakhi Kaushik, Amanpreet Singh, Akhil Pratap Singh, Jivesh K. Shaw, Shilpi Dixit, and R. K. Singh. "Nested-PCR and Uracil-N-Glycosylase-significant approach to prevent amplicon contamination in tuberculosis PCR performing laboratories." *Archives of Applied Science Research* 5, no. 2 (2013): 177-179.
11. **Sharma N**, Sharma V, Singh PR, Jawed B, Babu V, Kandpal J, et al. Tuberculosis and Molecular Diagnosis. *WebmedCentral Biotechnology* 2013; 4(2): WMC003992.
12. **Sharma N**, Ali S, Nautiyal SC, Singh V, Kumari S, Kumar K, et al. Hepatitis B Virus DNA Quantification Using TaqMan Probe and its Significance. *Webmed Central Molecular Biology* 2013; 4(3): WMC004042.
13. **Narotam Sharma**, Satish.C.Nautiyal, MD. Zohaib Ahmed, Neha Saini, Renu Dhar, Harshita Verma, Bhawana Bhatt, Yogyata Jadli, R.K. Singh, Ease of Dual Priming Oligonucleotide Technology for the Genotyping of Herpes Simplex Virus, *International Journal of Toxicological and Pharmacological Research* 2013; 5(2).
14. **Narotam Sharma**, Satish C Nautiyal, Prabhjyot Kaur, Deepti Singh, Rakhi Kaushik, Pratima Singh and Shweta Rawat, Advent in technologies for molecular diagnosis of tuberculosis, *Advances in Applied Science Research*, 2013, 4(3):146-149.
15. Veena Sharma, Prem Raj Singh, **Narotam Sharma** and Jagdish Kandpal, Phage amplification technology for the rapid detection of *Mycobacterium tuberculosis* complex—clinical utility for the diagnosis of pulmonary tuberculosis, *Advances in Applied Science Research*, 2013, 4(3):158-162.
16. **Sharma N**, Kandpal J, Jawed B, Pandita A, Razdan N, Rawat S, et al. Human Papillomavirus Genotyping by Dual Priming Oligonucleotide Technology And Its Clinical Efficacy in Cervical Cancer Management. *Webmed Central MICROBIOLOGY* 2013; 4(5):WMC004214.
17. **Narotam Sharma**, Zohaib Ahmed, Binish Jawed, Rakhi Kaushik, Rinky Goel, Jivesh K Shaw, Akhil Pratap Singh, Satish C Nautiyal and R.K. Singh, Incidence of genital tuberculosis in reproductive age group 'Journal of Microbiology and Biotechnology Research, Vol 3, Issue 3, June 2013.
18. **Narotam Sharma**, Jagdish Kandpal, Satish C Nautiyal, Shweta Rawat, Akhil Pratap Singh, Amitabh Talwar, Shailendra Panwar, R.K. Singh. Real Time PCR Usage in the Quantification of Hepatitis B Virus DNA-Clinical Applications in Disease Management, *International Journal of Pharma Research & Review*, May 2013, vol.2. issue5.
19. **Narotam Sharma**, Jagdish Kandpal, Sarita Kumari, Md. Zohaib Ahmed, Deepti Singh, Pratima Singh, Akhil Pratap Singh, Satish Chandra Nautiyal, R.K. Singh, Molecular Revealing of Non-Tuberculous Mycobacterium-Clinical Usage to Diagnose Hidden Danger *International Journal of Drug Development & Research* July 2013, Vol.5, issue 3.
20. **Narotam Sharma**, Sarita Kumari, Md. Zohaib Ahmed, Amitabh Talwar, Garima Agarwal, Anita Mehar, Pallavi Rawat, Satish Chandra Nautiyal, R.K. Singh, Molecular targets used in validation and corrections in artifacts of pcr based infectious agents diagnosis, *Journal of Biomedical and Pharmaceutical Research* 2 (3) 2013, 194-197.
21. **Narotam Sharma**, Pratima Singh, Satish Chandra Nautiyal, Mohammad Shuaib, Pallavi Rawat, Gurmeet Kaur, Jiwesh Kumar Shaw, R.K. Singh, Rapid detection of HLA-b27 sequence specific alleles by in-house optimized molecular assay for the detection of ankylosing spondylitis, *Journal of Biomedical and Pharmaceutical Research* 2 (3) 2013, 175-180.
22. Prabhjyot Kaur, Pallavi Rawat, Anita Mehar, Himanshu Thapliyal, Bhupender Mingwal and **Narotam Sharma**, Human Mitochondrial DNA & Diseases Associated, *International Journal of Universal Pharmacy and Bio Sciences* 2(4): July-August 2013,37-42.
23. Sunmeet Kaur Kohli, Shiny Saha, Kusum Budha, Sakshi Sonar, Apoorva Upreti, Garima Chaudhary, Preeti Dimri, Manisha Bhatt, Bagh Singh, **Narotam Sharma**, Bio intermittent Shedding of Tubercul Bacilli-Clinical Significance in Disease Management, *IJPBSRD* 1(1): September-2013, p.01-06.
- 25 **Sharma Narotam**, Quantitative Detection of HIV-1 RNA-Clinical Usefulness in Disease Management." *Journal of Biomedical and Pharmaceutical Research* 2, no. 4 (2013).
- 26 **Narotam Sharma**, Mukesh Kumar, Natasha K Ahmed, Shivani Sailwal, Deepti Singh, Subhash Sharma, Danish Kalim, Application of Nested Polymerase Chain Reaction using IS6110 Molecular Target to Reveal Mycobacterium Tuberculosis DNA from Extra Pulmonary Tuberculosis Patient, *International Journal of Universal Pharmacy and Bio Sciences* 2(4): July-August 2013, 43-49.
- 27 **Sharma Narotam**, Quantification of HBV DNA and its Impact on Viral Load Monitoring. *Journal of Biomedical and Pharmaceutical Research* 2, no. 4 (2013).
- 28 Sharma Veena, **Narotam Sharma**, Prem Raj Singh, Binish Jawed and Satish Chandra. Amplification of the Bovine Beta Casein Gene- Relevance to Modern Human Health. *Am. J. PharmTech Res.* 2013; 3(1).
- 29 **Sharma Narotam**. "H1N1 and Molecular Diagnosis-Rapid and Ease in Viral and Disease Monitoring." *Journal of Biomedical and Pharmaceutical Research* 2, no. 3 (2013).
- 30 **Narotam Sharma**, Jivesh Kumar Shaw, Shivani Sailwal, Satish Chandra Nautiyal, Nadia Razdan, Shilpi Dixit, Rakhi Kaushik, Subhash Bhatt, R.K. Singh. Nested PCR, ADA and AFB Staining for the Clinical Evaluation of Tuberculous Meningitis *IJPBSRD* 1(1): September-2013, p.07-14
- 31 Singh Prem Raj, Veena Sharma, **Narotam Sharma**, Devender Singh, and Jagdish Kandpal. "Evaluation of D-PCR using the RNA polymerase Gene (rpoB) Primers for Rapid Differential identification of Mycobacterium tuberculosis Complex and Nontuberculous Mycobacteria." *Annals of Biological Research*, 2013, 4 (9):45-48.
- 32 **Narotam Sharma**, Punit Punia, Akansha Singh, Sonakshi Gulati, Satish C Nautiyal, Krishna Murari, Qainath Ali, Deepak Sharma. Selective Amplification of *mpb64* gene using Conventional PCR Technology for the Detection of Mycobacterium Tuberculosis Complex. *IJPBSRD* 1(1): September-2013, p.15-24.
- 33 Singh, Prem Raj, Veena Sharma, and **Narotam Sharma**. *mpb-64*- Potential Marker for the Detection of *Mycobacterium Tuberculosis* Complex for the Detection of Tuberculosis." *International Journal of Biopharmaceutics*. 2013; 4(3): 175-179.
- 34 **Narotam Sharma**, Molecular Genetics of Human Papilloma Virus- Significant for Cervical Cancer Diagnosis and Management, *International Journal of Pharma Research and Health Sciences*, Volume 2 (1), 2014, Page-56-62.
- 35 Nani Kazi Deshar, **Narotam Sharma**, R.K. Singh, Viral & Bacterial Meningitis: Usefulness of Molecular Assays for the Determination of the Etiological Agents, *Sch. J. App. Med. Sci.*, 2014; 2(1C):243-250.

- 36 **Narotam Sharma** et al., Internal Controls for the Quality Assessment of Polymerase Chain Reaction Methods for the Diagnosis of Infectious & Autoimmune Diseases, *Sch. J. App. Med. Sci.*, 2014; 2(1D):485-488.
- 37 **Sharma Narotam**, Suneel Kumar Sachan, Indu Bushan, Rinky Rai, Aayushi Shukla, Aanchal Nehra, Smrati Yadav, Renu Nautiyal, Satish C. Nautiyal, and R. K. Singh. Assessment of extensively drug resistant tuberculosis by studying the drug sensitivity pattern in north Indian region. *J. Microbiol. Biotech. Res.*, 2014, 4 (2):31-33.
- 38 **Narotam Sharma**, Suneel Kumar Sachan, Indu Bushan, Rinky Rai, Aayushi Shukla, Aanchal Nehra, Smrati Yadav, Renu Nautiyal, Satish C. Nautiyal, and R. K. Singh. DNA Profiling Patterns of Mycobacterium tuberculosis and Mycobacterium bovis- A Review. *Gene & Genome Biology*. 2014, 1(1):1-17.
- 39 **Narotam Sharma**, Nazia Parveen, Mohammad Shahruxh et.al. Extensively Drug Resistance Tuberculosis & Molecular Tools, Cellular & Molecular Biology, 2014, 1(1):1-6.
- 40 **Narotam Sharma**. Bio intermittent Shedding of Tubercular Bacilli - Clinical Significance in Disease Management. *IJPBSRD* 1(1): September-2013, p.01-06
- 41 **Narotam Sharma**, Jagdish Kandpal, Sanjay Kumar, SatishCNautiyal,Rupendra Shakya1, Nani Kazi Deshar. Assessment of Pandemic H1N1 (2010-2011) in Northern Indian Region by Molecular Characterization; *Journal of Science / Vol 5 / Issue 1 / 2015 / 86-89*.
- 42 **Narotam Sharma** et al. Neurological Pathogens Characterization by Molecular Amplification Techniques-Clinical Relevance for the Disease Management; *Journal of Science / Vol5, Issue2, 2015, 81-85*.
- 43 Mukesh Kumar, Ashwani Kumar, **Narotam Sharma**, R.K. Singh; Molecular Characterization of *M.Tuberculosis* and *M. Bovis*- Clinical Application for the Disease Management; *Journal of Science / Vol 5 / Issue 5 / 2015 / 300-303*.
- 44 Narotam Sharma, Satish C. Nautiyal, and R. K. Singh. "Biochemical and Molecular characterization of cerebrospinal fluid for the early and accurate diagnosis of *Mycobacterium tuberculosis*." *Biomedical Research* 26, no. 3 (2015): 426-430.
- 45 **Narotam Sharma**, R.K. Singh, Praveen Sharma. Molecular Mycobacteriology and Expansion in Disease Diagnosis. *Indian Journal of Clinical Biochemistry*. April 2016, Volume 31, [Issue 2](#), pp 138-147
- 46 Dandriyal, Ajit, Narotam Sharma, Mohmmad Adil Farooq, Pankaj Bisht, Vishal Kumar, and Manoj Kumar Sahani. "Genotyping of HLA-B27 Sequence Specific Alleles in Ankylosing Spondylitis and Uveitis Patients." *International Journal of Biomedical and Advance Research* 6, no. 6 (2015): 480-483.
- 47 Sharma Narotam, Meenakshi Bahuguna, Sneha Rawat, Neelam Panwar, Priyanka Chauhan, Rakhi Kaushik, Satish Chandra Nautiyal, and R. K. Singh. "Hepatitis C Virus (HCV) RNA Quantification and Typing for the Identification of HCV Genotypes in clinical isolates." *International Journal of Biomedical and Advance Research* 6, no. 6 (2015): 466-469.
- 48 Huidrom, Sangeeta, Manab Deka, R. K. Singh, and Narotam Sharma. "Assessment of Novel Strains of Intestinal Lactic Acid Bacteria (LAB) Isolated from the Infant Faeces as Potential Use of Probiotics. *Int. J. Curr. Microbiol. App. Sci* 4, no. 6 (2015): 86-94.
- 49 **Sharma Narotam**. Dual Targets in PCR and its Usage for the Molecular Characterization of Mycobacterium Tuberculosis. *Sch. J. App. Med. Sci.*, 2015; 3(3H):1584-1586
- 50 **Narotam Sharma**, Vishal Kumar, Gyanendra Awasthi. Oncogenic Human Papilloma Virus type/s Detection in Cytologically Abnormal Females–Clinical Relevance for Disease Management; *Sch. J. App. Med. Sci.*, 2015; 3(8E):3107-3112.
- 51 **Narotam Sharma**, Rakhi Kaushik, Satish C Nautiyal. Genotypic Distribution of Hepatitis B Virus in different Spectrum of its Viral Load in a Tertiary care Hospital in Northern India; *Sch. J. App. Med. Sci.*, 2015; 3(9A):3134-3138.
- 52 Bhavana Singh, Vishal Khandalwal, Urvashi Agarwal, Narotam Sharma, IS6110 gene in Mycobacterium tuberculosis complex in Tuberculosis meningitisClinical Applications for Disease Monitoring, *Sch. Acad. J. Biosci.*, 2017; 5(1):14-15
- 53 Prashant Singh, Deep Chandra Suyal, Naveen Kumar, Manish Dev Sharma, Indra Rautela, Aditya Patel, Narottam Sharma and Veena Pandey, Isolation And Molecular Characterization Of Plant Growth Promoting Rhizobacteria from the High Altitude Himalayan Region Of Uttarakhand, *Journal of Plant Development Sciences Vol. 9 (3) : 217-222. 2017*
- 54 Rekha Gorkela, Sachin Kumar, Anchal Chaurasia, Binish Jawed, Mukta Sehgal, Vatsal Prashar, Indu Bushan, Manish Dev Sharma, Narotam Sharma, Herpes Simplex Virus Genotyping in Neurological abnormalities-Clinical Relevance for Disease Monitoring, *Sch. J. App. Med. Sci.*, 2016; 4(12D):4488-4489
- 55 Ekpo Mfon Luke, Narotam Sharma, Satish Chandra Nautiyal, Nitin Verma, Ordu Kenneth, Molecular Characterization of Mycobacterium tuberculosis using IS6110 Gene with Nested PCRClinical Relevance for the Disease Characterization, *Int J Pharma Res Health Sci*.2017;5 (2):1641-1644
- 56 Prashant Singh, Hem C. Joshi, Naveen Kumar, Manish Dev Sharma, Aditya Patel, Narotam Sharma, Veena Pandey, Evaluation of Plant Growth Promoting Rhizobacteria and Mycorrhizal Fungi for Growth and Nutrient Uptake in Pearl Millet (*Pennisetum glaucum*); *Int.J.Curr.Microbiol.App.Sci* (2017) 6(6): 2648-2655
- 57 Bharti Arora, Urvashi Agarwal, Uma Shankar, Abhilasha Kanojia, Narotam Sharma, High Risk Human Papilloma Virus (HR-HPV) Genotyping in Female with Abnormal Cervix, *Sch. J. App. Med. Sci.*, 2016; 4(12D):4490-4492.
- 58 Huidrom S and Sharma N. Isolation and Screening of Novel Isolates of Bifidobacteria from Human Milk as Potential Probiotic with Antidiarrheal Activity. *Ann Appl Microbiol Biotechnol J*. 2018; 2(1): 1007
- 59 Sangeeta Huidrom, Akshay karn and Narotam Sharma *International Journal of Current Research*, 9, (12), 63033-63037
- 60 Aditi Sharma, Narotam Sharma, Clinical Evaluation of *Mycobacterium Tuberculosis* Culture and Multiplex PCR for the Characterization of Multiple Drug Resistance Tuberculosis in Dehradun, Uttarakhand, India, Vol 3, No 2 (2017)
- 61 Komal, G., K. Vijay, Narotam S. Ghanshyam, and R. Anita. "Molecular Characterization of Chikungunya Virus in Serum-Relevance for Disease Management. *Arc Org Inorg Chem Sci* 2 (5)-2018." *AOICS. MS. ID* 148.
- 62 Sharma, Narotam, Rawat, Anita, Gupta, Komal, Agarwal, Ruchi, Ghanshyam; Significance of  $\beta$ -actin gene in Cerebrospinal fluid for the Cellular and Molecular Characterization of Tuberculosis Meningitis, *International Journal for Environmental Rehabilitation and Conservation*, Volume VIII: No. 1 2017 [168 – 178]
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- 90 Ankita Singh, Indra Rautela, Madhu Kaushik, Swati Sinha, Ravindra Kumar Kachhap Oraon, Narotam Sharma. Herbal Allies for Rheumatoid Arthritis: A Comprehensive Review of Natural Products. *Plant Science Today*

### Book/s Published

- 1) Use of HLA-B27 PCR technique for detection of Ankylosing Spondylitis LAP (Lambert Academic Publications), Germany.

**Patent on:** Contamination Free Cell Free DNA (Cfdna) Isolation Process for Early Diagnosis Of Rheumatoid Arthritis

### Scientific Poster presentations and Oral presentations in National Conferences/ Seminars/ CMEs

1. Delivered presentation on "Study of Prevalence of High Risk- Human Papilloma Virus DNA in Women with Uterine Cervix Infection" at International Conference at C.S.M. Medical University, Lucknow, U.P.

2. Delivered oral presentation on “Multiplex PCR for the diagnosis of tuberculosis meningitis at National Conference on “Emerging trends in Biotechnology and Pharmaceutical Research” at Mangalayatan University Aligarh.
3. Delivered oral presentation on Comparison of urine and blood samples for the direct detection of Mycobacterium Tuberculosis by Polymerase Chain Reaction at National Symposium on World’s Tuberculosis Day, Auroprobe Labs New Delhi
4. Presented poster on Utility of Conventional PCR Technology for the diagnosis of Tuberculous Meningitis at National Symposium on World’s Tuberculosis Day at Auroprobe Laboratories New Delhi.
5. Presented poster on “Utility of Conventional PCR For the Detection of *Mycobacterium Tuberculosis* Complex in Pulmonary and Extra pulmonary Specimen”
6. Presented poster on “Tuberculosis and Emerging Technologies”
7. Delivered oral presentation on Genito-Urinary Tuberculosis–A Sexually Transmitted Infection? at AIIMS, New Delhi.
8. Oral Presentation on Neurological Pathogens Characterization by Molecular Amplification Techniques–Clinical Relevance for the Disease Management in 9th Uttarakhand State Science and Technology Congress (9th USSTC-2014) November, 2014, Dehradun. U.K
9. Poster presentation on High-Risk HPV Genotyping in Abnormal PAP Smears- Clinical Utility in Cervical Cancer Management, in 9th Uttarakhand State Science and Technology Congress (9th USSTC-2014) November, 2014, Dehradun. U.K
10. Poster presentation on, Evaluation of Direct and Concentrated Acid-Fast Smears–Clinical Relevance for Pulmonary Tuberculosis Diagnosis in 9th Uttarakhand State Science and Technology Congress (9th USSTC-2014) November, 2014, Dehradun. U.K.
11. Guest Lecture in CME cum Workshop on, “Autoimmunity & Autoimmune Diseases”, April, 10-11, 2015, organized by Dolphin (PG) Institute of Biomedical & Natural Sciences, Dehradun & Indian Immunology Society, New Delhi.

#### **Symposium/Conference/Workshops/CMEs organized/attended**

##### **2011**

- 1) National symposium on, “New Biotechnology Tools for the Diagnosis of Tuberculosis”, on World TB Day-24<sup>th</sup> March 2011, New Delhi.
- 2) Micro D-Con-2011, 3<sup>rd</sup> Annual Conference of Indian Association of Medical Microbiologists (IAMM)–Delhi Chapter, 26, March 2011.
- 3) Asian Workshop on, “Genomics and Community Genetics (sponsored by Institute Pasteur, France and Wellcome Trust, UK.)-19<sup>th</sup> Nov.2011
- 4) International Symposium on, “Beta-Thalassemia in collaboration with Uttarakhand Government and Indian Academy of Pediatrics on November 20, 2011.
- 5) CME on, “Viral Infections in Solid Organ Transplants”, at Institute of Liver & Biliary Sciences, New Delhi, 23<sup>rd</sup> July 2011

##### **2012**

- 6) Emerging trends in Biotechnology & Pharmaceuticals Research, Feb, 18-19, 2012 at Mangalayatan University, Aligarh, U.P.
- 7) National Conference on, “Phytomedicine–An Alternate to Modern Medicine & their Molecular Expression”, by Institute of Pharmaceutical Research & Dept. of Biotechnology, GLA University, Mathura on Feb. 16-17, 2013.
- 8) International Symposium on Advances & Applications of Molecular Biology in Clinical Research & 1<sup>st</sup> Annual Conference of the Indian Academy of Biomedical Sciences & at King George’s Medical University, Lucknow, 22 Nov.2012.
- 9) Workshop cum Hands on Training on, “Clinical Applications of PCR”, Dolphin (PG) Institute of Biomedical & Natural Sciences, Dehradun, 10-11 April, 2012. (As a guest Speaker and Resource person)
- 10) 7<sup>th</sup> Uttarakhand State Science & Technology Congress. 21 Nov.2012

##### **2013**

- 11) National Symposium on Role of Biotechnology in Infectious Disease, 7-8 March, 2013
- 12) Satellite Symposium – International Neurology Workshop (New Delhi-2013), May 19, 2013
- 13) National Symposium on, Biomarkers in Health & Disease- Bench to Bedside- July 3-4, 2013.
- 14) 8<sup>th</sup> Uttarakhand State Science and Technology Congress (USSTC)-2013, Doon University, Dehradun, December, 26-28, 2013

##### **2014**

- 15) National CME on Recent Advances in Biochemistry-2014, January 14, 2014.
- 16) Rakt Pravah” the sixth annual conference of Indian Medical Association (IMA), Blood Bank of Uttarakhand, 08-09 March 2014.



- 17) Organized and attended CME on “Thyrodilemma- understanding the Control Centre of Metabolism”.
- 18) Attended National Seminar cum Workshop on Current Scenario of Plant Tissue Culture, Genomics and Bioinformatics Tools. 28, 29 Nov.2014.
- 19) 41st National Conference of Association of Clinical Biochemists of India (ACBICON 2014), AIIMS, Jodhpur, Rajasthan, India.

#### 2015

- 20) 9th Uttarakhand State Science and Technology Congress (9th USSTC-2014) November, 2014, Dehradun. U.K.
- 21) CME cum Workshop on, “Autoimmunity & Autoimmune Diseases”, April, 10-11, 2015, organized by Dolphin (PG) Institute of Biomedical & Natural Sciences, Dehradun & Indian Immunology Society, New Delhi. (As a Guest Speaker)
- 22) DIABETES UPDATE – 2015, Department of Medicine, Shri Guru Ram Rai Institute of Medical & Health Sciences, Dehradun (Uttarakhand), 28<sup>th</sup> - 29<sup>th</sup> November 2015

#### 2016

- 23) Attended 1<sup>st</sup> International Conference on Human Implications of Biotechnology at Central University of South Bihar, Patna. Gave oral Presentation on Molecular fingerprints pattern development of *Mycobacterium tuberculosis* and *mycobacterium bovis* from clinical isolates-relevance to study pathogenicity, transmission & epidemiology of tuberculosis.
- 24) Attended CME on, “Emerging Trends in Molecular Biology”, and gave oral Presentation on, “Molecular Characterization of Influenza A (H1N1) Virus in clinical Isolates- relevance for the early diagnosis”. at MMU, University, Mullana, Ambala, Haryana. (Accreditations: Haryana Medical Council 7 hours).
- 25) Organizing Secretary for National Conference cum Workshop on Innovations in Cellular and Molecular Diagnosis-A New Era of Prognosis (2-3, December, 2016), Supported and Sponsored by Uttarakhand Council for State Science and Technology (UCOST), Medical Council of India (MCI), Indian Council for Medical Research (ICMR), Uttarakhand Council for Biotechnology (UCB), Accreditation by Uttarakhand Medical Council.
- 26) Attended International Conference on SOUTH EAST ASIA DIABETES FOUNDATION CONFERENCE (SEADFCON) 2016, 26<sup>th</sup> Nov.2016 at SGRRIM&HS, Dehradun (UK)

#### 2017

- 27) Attended Seminar on Biological Resources- Issues & Solutions, 28<sup>th</sup> Feb-2017
- 28) Attended 11<sup>th</sup> Uttarakhand State Science & Technology Congress 2016-2017, presented research paper entitled, “Applications of Molecular Virology Laboratory for the Characterization of Influenza A (H1N1) Virus in Clinical Isolates- Clinical Relevance for the Early Diagnosis & Its Containment”, Feb 02-04, 2017
- 29) Guest of Honor and Guest Speaker for the workshop entitled, “Molecular Diagnostics Techniques”, at Uttaranchal University, Dehradun, December 6-8, 2017.
- 30) Organized workshop entitled, “Expansions in Cellular & Molecular Biology-Need for Current Scenario”, at DAV College for Girls, Yamunanagar, Haryana, December 16-17, 2017.
- 31) Organized a CME on 23.12.2017 on Intellectual Property Rights at SMIH, Dehradun, UK
- 32) Guest speaker for the National Conference organized by State College of Nursing, Dehradun, UK

#### 2018

- 33) Attended one day Interactive Workshop with Scientist and researchers on, “ABS Mechanism and Conservation of Traditional knowledge systems through Patents and IPR regime” Organized by UCOST and Uttarakhand Biodiversity Board (UBB) on dated 30<sup>th</sup> January, 2018
- 34) Attended and presented oral presentation on, “Molecular and Serological Profiling of Dengue Virus in Clinical Isolates- Clinical Relevance for Disease Monitoring”, 12<sup>th</sup> Uttarakhand State Science & Technology Congress organized by UCOST, Govt. of Uttarakhand from March 7 -9, 2018
- 35) Guest Speaker for the Workshop on Physical and Applied Sciences: 14-15 March, 2018 Department of Physics, H.N.B. Garhwal (A Central) University, Chauras Campus.
- 36) Organizing Secretary for National Conference by Central Molecular Research Laboratory, Biochemistry Department, Shri Guru Ram Rai Institute of Medical & Health Sciences on topic, "Current Challenges for Tuberculosis Management", in Collaboration with Uttarakhand Science Education Research Centre (USERC), Dehradun, Deptt. Of Science & Technology, Government of Uttarakhand, on 24.03.2018.
- 37) Chief Guest and Keynote speaker for the National seminar cum workshop organized by Kalp Laboratories, Mathura, 15-16, September, 2018.
- 38) Guest of Honor and key note speaker for the one-day workshop organized by DNA Labs- A Centre for Applied Sciences, Dehradun, Uttarakhand on Bioinformatics: Basic tools and its applications on 09<sup>th</sup> December, 2018
- 39) Attended a CME on Immuno-hematological Problems in Blood Transfusion”, Organized by Blood bank, SGRRIM&HS, Dehradun, UK. on dated 29.03.2018

## 2019

- 40) Keynote speaker on World Cancer Day, 04<sup>th</sup> February 2019, at Uttaranchal University, Dehradun, UK.
- 41) Participated in State Science and technology conclave on 23-24 February 2019, organized by Uttarakhand Science Education Research Centre (USERC), Dehradun, Deptt. Of Science & Technology, Government of Uttarakhand.
- 42) Delivered a guest lecture on Bioanalytical and Immunological tools and techniques. on March 02, 2019 at Dev Bhoomi Group of Institutions, Dehradun, Uttarakhand
- 43) Attended and presented oral presentation on, “Development of Internal Controls targeting housekeeping genes for the Validation and Assessment of Molecular Diagnostics based PCR protocols for Infectious & Autoimmune Diseases”, 13<sup>th</sup> Uttarakhand State Science & Technology Congress organized by UCOST, Govt. of Uttarakhand from March 26-28, 2019
- 44) Resource Person/Subject Matter Expert (SME) for Faculty Development Program on National Workshop on Biological Risk Management at Lovely Professional University, Jalandhar, Punjab March 15-16, 2019, Under the aegis of Association of Microbiologists of India (AMI).
- 45) Guest Speaker at National Seminar cum Workshop entitled “Career Opportunities in Life Sciences with special emphasis to Biotechnology”, organized at Patna University, Patna, Bihar, March 30-31, 2019.
- 46) Resource Person for the workshop on, “**Women- Successpreneurs in the Era of Modern Science and Technology**”, organized by DAV College for Girls, Yamunanagar, Haryana on April, 05-06, 2019.
- 47) Guest of Honor for National Seminar on Strategies for Conservation and Sustained Utilization of Biodiversity on 18th - 19th October 2019 at Uttaranchal University, Dehradun, UK.
- 48) Invited Speaker for National Symposium on ‘Safe and Effective Medication’ in collaboration with Red Cross on 07<sup>th</sup> October’ 2019 at Dev Bhoomi Group of Institutions, Dehradun
- 49) Co-organizing Chairperson for the Conference Cum Workshop entitled, “Channeling as Tool & Techniques to Agriculture Biotechnology, Microbiology & Molecular Biology in 21st Century”, on 24th-25th November, 2019, Organized by Department of Biotechnology & Microbiology, KALP Laboratories, Mathura, Uttar Pradesh

## 2020

- 50) Participated in one day workshop organized by Biochemistry Department, AIIMS, Rishikesh, Uttarakhand on, “Gastro- Biochemistry Workshop on non-invasive breath test techniques in diseases”, on 23.02.2020

## 2021

- 51) Guest Speaker in Dolphin Institute of Biomedical and Natural Sciences on “Covid-19” in Feb 2021
- 52) 02 days Hands on Workshop from 24<sup>th</sup> to 25<sup>th</sup> March, 2021 on “World Tuberculosis Day” in PLMS College Rishikesh Supported by UCOST department of Science and Technology, Dehradun.
- 53) Guest Speaker on “World Cancer Day” on “Cervical Cancer” in Uttaranchal University.
- 54) Organizing Secretary for USERC funded 02 days’ Workshop on Good Laboratory Practices in the era of Pandemics: Skilling and strengthening Biomedical Professionals for the Current and future Scenario.
- 55) Guest Speaker at the Department of Medical Lab technology, Chandigarh University.
- 56) Organizer cum Resource person and Lab Supporter for 02 days National Workshop cum Conference on “Cellular, Molecular and Biomedical Skills; Need for Post COVID-19 Era ” Supported by UCOST and Organized by Pt. Lalit Mohan Sharma Campus, Rishikesh, Dept. of Medical Lab Technology (Sri Dev Suman Uttarakhand University), Rishikesh.
- 57) Guest Speaker in One Day National Seminar on, “Biotechnology and Covid-19 Pandemics: Role of Biotechnology in Covid Vaccine Development”, Organized by Department of Zoology and Microbiology, Chaman Lal Mahavidyalaya, Roorkee, Supported by Uttarakhand Council for Biotechnology.

## 2022

- 58) Guest speaker for USERC funded program on, One Week Certificate course on Immunological Techniques on 2<sup>nd</sup> March, 2022.
- 59) Guest Speaker at Teerthanker Mahaveer University, Moradabad, on topic entitled, Recent Innovations in Health Sectors”, on 5<sup>th</sup> March, 2022.
- 60) Organizer cum Resource person for 02 days National Workshop cum Conference on “Expansions and Innovations in Health Sector: Translating Research to Mankind” Supported by UCOST and Organized by Pt. Lalit Mohan Sharma Campus, Rishikesh, Dept. of Medical Lab Technology (Sri Dev Suman Uttarakhand University), Rishikesh.
- 61) Organize 03 Days National Workshop Cum conference on, “Biotechnology and its Applications in Disease Diagnosis, Prevention, Prediction and preparedness to combat future Outbreaks” on dated 19, 20 & 21<sup>st</sup> May, 2022. Supported by: Uttarakhand Council for Biotechnology (UCB), in collaborations with Dolphin (PG) Institute of Bio-Medical & Natural sciences, Dehradun.

- 62) Organize 02 Days Workshop cum Hands on Training Program with Training Center Program in Association with E-Cell IIT Kharagpur on, “Recombinant DNA Technology & Gene and CRISPR Tech organized by: Dept of biotechnology, Institute of science & Research, IPS Academy Indore, Madhya Pradesh.
- 63) Organize “Science Popularization Program (SPP)”, Shaping minds to Scientific Approach in association with Society of Biotechnology, Department of Molecular and Cellular Engineering Jacob Institute of Biotechnology and Bioengineering, Sam Higginbottom University of Agriculture, Technology and Science, Allahabad, UP.
- 64) Organize, “Science Popularization Program (SPP)”, with Department of Zoology, Hemvati Nandan Bahuguna Garhwal University (A Central university), Srinagar (Garhwal), Uttarakhand
- 65) Organize, “Science Popularization Program (SPP)”, “Role of Life Sciences in cellular and Modern Molecular Diagnosis Hope and Scope for Newer Generation organized by Biotechnology Department Chandigarh Group of Colleges, Chandigarh.
- 66) Organize, “Science Popularization Program (SPP)” at Guru Nanak Khalsa College, Yamunanagar, Department of Biotechnology, Yamunanagar, Haryana.
- 67) Coordinator for Zonal Centre Program at Sangam University Bhilwara (Rajasthan)” organize 03 days’ workshop on “Recombinant DNA Technology and Genetic engineering”, on 10<sup>th</sup> to 12<sup>th</sup> October, 2022, Bhilwara, Rajasthan
- 68) Organize Science Popularization Program (SPP)”, with Department of Bioscience & Biotechnology, Banasthali Vidyapith, Rajasthan on Cellular; Modern molecular Diagnosis and the role of Life Sciences, Allied and Biomedical students: Hope and Scope for Newer Generation.

### 2023

- 68) Organize 02 Days Workshop cum Hands on training Program on “Plant Tissue Culture Technologies: Basic Aspects, Applications and Implementations”, at HIT DOON, Dehradun, Uttarakhand.
- 69) Organize 02 Day National Workshop cum Hands on Training programs on “Forensic Sciences: Tools & Techniques in Genome Based Evidences and Its Applications”, 24<sup>th</sup> & 25<sup>th</sup> Feb,2023. Venue: Biotech Lab, Department of biosciences, DAV College Muzaffarnagar. Under the Aegis of star College Scheme, Department of Biotechnology, Govt. of India, New Delhi.
- 70) Organized 02 Days National Workshop cum Conference on Novel Applications in Microbial & Applied Sciences Techniques & its Execution;(NAMASTE) on world Tuberculosis Day at Pt. Lalit Mohan Sharma Campus, Rishikesh, Dept. of Medical Lab Technology (Sri Dev Suman Uttarakhand University), Rishikesh.
- 71) Guest Speaker for UCOST Sponsored Conference at CIMS, Dehradun, UK.

### Organized Science Popularization Program & Workshops Organized on the theme Skills on the Wheels

Program Organized in University/College	Topic
D.A.V. (PG) College, Muzaffarnagar- Under the Aegis of Star Colleges Scheme, DBT, New Delhi	Forensic Science: Tools & Techniques in Genome Based Evidences and Its Applications
Himalayan Institute of Technology, Dehradun, UK	Fundamental of Plant Tissue Culture and DNA/RNA based Technology in Agriculture and Forestry Sciences
Sangam University, Bhilwara (Rajasthan)	Recombinant DNA Technology and Genetic Engineering
Guru Nanak Khalsa College, Yamunanagar, Haryana	Science Popularization Program (SPP)
Hemvati Nandan Bahuguna Garhwal University Srinagar (Garhwal)	Science Popularization Program (SPP)
Chandigarh Group of Colleges, Chandigarh	Hope and Scope of Newer Generation
IPS Academy, Indore, Madhya Pradesh	CRISPR cas technology and Recombinant DNA Technology and Genetic Engineering

### Guest Lectures Delivered in Different Colleges & Universities:

University/ College	Topic / Theme
Amity University Noida Sector-125, Noida (UP)	Biotechnology & Health Sector-Potential Market for Life Science
Shoolini University, Solan, Himachal Pradesh	Biomarkers for Infectious Diseases
GLA University, Mathura, U.P	Molecular Diagnostics and future
Mangalayatan University, Aligarh, UP	Human Papilloma Virus and Diagnostics tools- Clinical relevance for disease Monitoring

Bhojia Institute of Life Sciences, Baddi, Himachal Pradesh	Biotechnology & Industry
CCS University, Meerut, Microbiology Department. U.P	New Biotechnology Tools for the Older Disease
Doon (P.G.) College of Agriculture Science & Technology (DCAT)	Real Time PCR – Advents in Clinical Arena
DAV College for Girls, Yamunagar, Haryana	Molecular Tools–Promises & Potential in Clinical Research & Health Sectors
Dolphin (PG) Institute of Biomedical & Natural Sciences, Dehradun	Various Artifacts in Conventional PCR Technology
Invertis University, Bareilly, U.P.	Molecular Diagnostics- New hope for new generation.
Banasthali University, Tonk, Rajasthan	Nucleic Acid Amplification technologies (NAAT) – Bio-Innovations for Health Sector
Maharishi Markandeshwar University, Mullana	Molecular Characterization of Swine Flu (H1N1)
HNB Garhwal University, Srinagar, U.K.	New tools, New hope for new generation
Uttaranchal University, Dehradun Uttarakhand	Molecular Diagnostics & its Clinical Relevance
Kurukshetra University, Kurukshetra, Haryana	Climatic changes with relevance to emergence and evolution of new pathogens
Sanskriti University, Mathura, UP	Advancements in Basics and Applied Sciences – New hope for new generation
DCRUST University, Murthal, Sonapat, Haryana	Cellular and Molecular Diagnostics in the Era of Post Genomics
Lovely Professional University, Phagwara, Punjab	Biosafety Associated with Diagnosis of Swine Flu
Job opportunities Post Covid-19	Chandigarh University, Chandigarh
One Nation one Health	Ranchi University, Ranchi, Jharkhand

**Declaration**

I hereby declare that all the above information is true to best of my knowledge.

**Date:**

**Place:**

**(Narotam Sharma)**