**Dr. AjiTA SUJIT**

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**professional summary**

* Ph.D (Microbiology) awarded from **Barkatullah University** Bhopal (M.P) vide notification No. **PNo 1409/252-19/Micribiology/Conf/Ph.D/2021/1801.**

**Research Centre**: Department of Microbiology, National Reference Laboratory (NRL) for Tuberculosis (BSL- II Lab**), Bhopal Memorial Hospital and Research Centre (BMHRC**), Bhopal, Madhya Pradesh. govt of India.

* **Three years** **and six months** (1st April 2010 to 30th October 2013) research experience as **SRF** (Senior Research Fellow ) with **High Security animal Disease Laboratory**, (**HSADL**) govt of india (currently **NIHSAD National Institute of High Security Animal Disease Laboratory, ICAR ,(Indian Council of Agriculture Research) BSL-IV** Laboratory on avian influenza virus.
* **Six months** experience as **Lecturer** (**Microbiology**) ( 1st October 2009 to 20th February 2010at Bonnie foi college affiliated to barkatullah university,Bhopal (M.P)
* Currently working as **Academic Specialist** at think and learn private limited (BYJUS).
* **Technical skills:**
* Real time PCR, qRTPCR ,cloning, protein expression & purification.
* Cell culture, virus propagation and serological assay, Virus titration assay, haemadsorbing assay, cytopathic effect in virus, thawing and maintenance of cell culture assays.
* Isolation of RNA , genomic DNA and nucleic acid extraction from virus samples.
* Immunoprecipitation, SDS-PAGE electrophoresis, western blot, ELISA,
* Generation of monoclonal and polyclonal antibodies.
* In-vivo testing of immune response in mice.

**EDUCATION**

* **1. PhD** (Microbiology) from **Barkatullah University** Bhopal (M.P) **2014-2021**

**Thesis Title**: Development of Real Time PCR system to detect rRNA of *Mycobacterium tuberculosis* (MTB) for the detection of MTB from patients on treatment for drug resistant tuberculosis

**Research Centre**: Department of Microbiology, National Reference Laboratory (NRL) for Tuberculosis (BSL- II Lab),Bhopal Memorial Hospital and Research Centre(BMHRC),Govt. of India, Bhopal, MP, India

**University**: Barkatullah University, Bhopal Madhya Pradesh.

**PhD Supervisor**: Dr. Prabha Desikan, Professor & Head, Department of Microbiology & Director, Bhopal Memorial Hospital & Research Centre, Bhopal Madhya Pradesh, India

**2. MSc (Microbiology) 2009**

Department of Microbiology, Barkatullah University Bhopal, Madhya Pradesh, India.

Thesis Title: “Antibacterial, antiviral and immunomodulatory properties of Phyllanthus niruri.”

**Research Centre**: Department of Veterinary Microbiology and Immunology , Deendayal Upadhyaya University of Veterinary Science and Animal Husbandry, Mathura, Uttar Pradesh, India.

**3. BSc (Microbiology)**  **2007**

**Institute:** Motilal Vigyan Mahavidyala (MVM) College, Bhopal, Madhya Pradesh, India

**University:** Barkatullah University, Bhopal (M.P.),India.

**Research EXPERIENCE : January 2014- Feb 2021**

Department of Microbiology, National Reference Laboratory (NRL) for Tuberculosis (BSL- II Lab),Bhopal Memorial Hospital and Research Centre(BMHRC),Govt. of India, Bhopal, MP, India

**Description:**

* Molecular detection of MTB (Mycobacterium tuberculosis) using real time PCR System for detection of 16S rRNA of *Mycobacterium tuberculosis*
* Solid (LJ) and liquid culture (MGIT 960) for detection of *Mycobacterium Tuberculosis.*
* Processing of TB sputum samples by NALC-NaOH method.
* Identification of culture isolates by Niacin, Catalase, Nitrate Reductase, PNB test.
* Microscopy : Bright field microscopy, fluorescent microscopy.
* Ziehl - Neelsen staining and Auramine staining to identify MTB.
* RNA extraction.
* cDNA synthesis.
* Line Probe Assay (LPA) and Catridge Based Nucleic acid amplification (CBNAAT) test for detection of MTB.
* Real Time PCR assay.

**2. Senior Research Fellow (SRF) April 2010 to Oct 2013**

National Institute of High Security Animal Disease Laboratory (NIHSAD,BSL-IV Lab), Bhopal, MP India: Is India’s premier facility working under the Indian Council of Agricultural Research (ICAR) for handling exotic and emerging pathogens of animals by virtue of its bio-safety level-IV containment laboratory and animal experimentation facility.

**Description**

* Virus propagation in cell culture, embryonated chicken eggs, virus titration, transfection, plaque assay and neutralization assay,cytopathic effect, maintenance and thawing of cell culture.
* Immunological techniques including immunoprecipitation, SDS PAGE, ELISA and western blot analysis.
* Isolation of Genomic DNA, Viral RNA, Plasmid DNA & cDNA Synthesis,nucleic acid extraction.
* Serological assays for Avian Influenza, cell culture and maintenance of cell lines MDCK, SP2/0 cell lines.
* Lab animal handling mice, rabbits and animal experimentation.
* Generation of monoclonal and polyclonal antibodies against avian influenza antigen.

**3. MSc Dissertation 2009**

Dissertation Project: “Antibacterial, antiviral and immunomodulatory properties of Phyllanthus niruri” from Department of Veterinary Microbiology and Immunology at Pt. Deendayal Upadhyay University of Veterinary Science and Animal Husbandry, Mathura Uttar Pradesh India.

**ACHIEVEMENTS**

* College topper in B.Sc. (Microbiology) MVM College, Bhopal, MP, India.
* University Second topper in M.Sc (Microbiology) from Department of Microbiology, Barkatullah University, Bhopal, Madhya Pradesh, India.

**PROFESSIONAL MEMBERSHIP**

* Life member of Biosafety Society, India.
* Life member of Association of Avian Health Professionals, India.

**PUBLICATIONS**

* **Ajita Pillai**, Panwalkar N, Desikan P. Comparison of Conventional Culture and Reverse Transcriptase Real Time PCR Assay for detection of Tuberculosis in Sputum Samples. *Int.J.Curr.Microbiol.App.Sci* (2019) 8(6): 2399-2403
* **Ajita Pillai** , Nikita Panwalkar, Prabha Desikan .Reverse Transcriptase Polymerase Chain Reaction: A promising tool for rapid identification of ***Mycobacterium tuberculosis*.** *Biosci.Biotech.Res.Comm*.12 (3):737-740 (2019).
* Redda YT, Venkatesh G, Kalaiyarasu S, Bhatia S, Kumar DS, Nagarajan S, **Ajita Pillai**, Tripathi S, Kulkarni DD, Dubey SC. Expression and purification of recombinant H5HA1 protein of H5N1 avian influenza virus in E. coli and its application in indirect ELISA.*J Immunoassay* *Immunochem.* 2016;37(4):346-58.
* Goel A, Singh R, Dash S ,Gupta D, **Ajita Pillai**, Yadav S, Bhatia A. Antiviral Activity of Few Selected Indigenous Plants Against Bovine Herpes Virus-1. *Journal of Immunology and Immunopathology* (2011), 13. 30-37.

**ABSTRACTS & PRESENTATIONS**

* Oral presentation of the abstract on “Comparison of Conventional Culture and Reverse Transcriptase Real Time PCR Assay for detection of Tuberculosis in Sputum Samples” in National Conference on Prowess Womankind: Recent Advances in Management of Health, Environment, Science and Technology at Madhya Pradesh Council of Science and Technology (MPCST),Bhopal (M.P) India (2nd -3rd March 2019).
* Oral presentation of the abstract on “Reverse Transcriptase RT PCR:A promising tool for rapid identification of *Mycobacterium tuberculosis*” in 73rd National Conference of Tuberculosis and Chest Diseases at Nagpur, Maharashtra, India (4th -6th January 2019).
* Poster Presentation on “Study of Antibacterial, Antiviral and Immunomodulatory properties of Phyllanthus niruri” in National Virology Conference on “Viruses: Surveillance, Identification and Management” at Vidya Pratishthan’s School of Biotechnology, Vidyanagari, Baramati, Pune, Maharashtra, India,(2012).
* Poster Presentation on “Development and Characterization of Mabs against an Indian Isolate of H5N1”. in National Virology Conference VIROCON-2012 on “Immunobiology and Management of Viral Diseases in 21 century” at IVRI, Mukteshwar Campus, Nainital ,Uttarakhand, India,(2012).

**PERSONAL DETAILS**

Date of birth 29thJuly 1986

Gender Female

Marital status Married

Languages known English, Hindi, Malayalam,Marathi

Nationality Indian

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**REFERENCES**

* Dr. Prabha Desikan, MD (Microbiology)

Professor & Head (Department of Microbiology)

Director (Bhopal Memorial Hospital & Research Centre)

Ayodhya Bypass, Bhopal M.P, India.

Phone: +91 755 2742212

Email: [prabhadesikan@yahoo.com](mailto:prabhadesikan@yahoo.com)

* Dr. G.Venkatesh, Ph.D (Animal Biotechnology)

Principal Scientist

National Institute of High Security Animal Disease Laboratory

Indian Council of Agricultural Research (ICAR), Bhopal, MP, India.

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* Dr. Harshad Murugkar ,Ph.D (Veterinary Public Health)

Principal Scientist

National Institute of High Security Animal Disease Laboratory

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I hereby declare that the above information is correct to the best of my knowledge and belief. I will provide the original certificates and testimonials whenever required.

11.05.2022

Ajita