

## CURRICULUM VITAE



### **Dr.D.DanisVijay.,PhD**

Assistant Professor,  
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### **RESEARCH INTERESTS:**

Interdisciplinary and Multidisciplinary research focus - Drug resistant bacteria, Ventilator and community acquired pneumonia, RT PCR detection in respiratory viruses, Multiplex PCR panel development for ESKAPE and Atypical pathogens, Tuberculosis, Fungemia, Respiratory infections, Viral diseases, Rheumatic heart disease, Neo natal sepsis, Gut Microbiome, Marine microbiology and pharmacology and Marine Plant extract and Nano particles on drug resistant bacteria,.

### **ACADEMIC PROFILE**

<b>Degree</b>	<b>Specialization</b>	<b>University/Institution</b>	<b>Year of Passing</b>
<b>PhD</b>	<b>Medical Microbiology</b>	Chettinad Academy of Research and Education (CARE) Chennai - 603103	2021
<b>M.Sc</b>	<b>Medical Microbiology</b>	Chettinad Academy of Research and Education (CARE) Chennai - 603103	2016

### **FELLOWSHIPS / RESEARCH EXPERIENCE**

- 1. Junior Research Fellow (2017 – 2021):** Chettinad Academy of Research & Education, Chennai - 603103, Tamil Nadu, India.

**PhD Thesis title:** "Evaluation of conventional and molecular methods in early detection of pathogens causing respiratory tract infections."

**Experimental field:** Multiplex- PCR (Bacteria, Fungi, Respiratory Viruses), Real Time PCR (SARS CoV-2), ELISA - (sTREM-1 biomarker) analysis.

**Field:** Medical Microbiology

## **CLINICAL MICROBIOLOGY EXPERIENCE**

### ❖ **Clinical Bacteriology:**

Experience in processing and reporting various clinical specimens, identification, antibiogram and molecular typing of bacterial.

### ❖ **Clinical Mycology:**

Identification of medically important fungi and antifungal susceptibility testing for yeast and moulds.

### ❖ **Clinical Virology:**

Experience in virological technique which include Multiplex, RT-PCR and immunofluorescence techniques.

### ❖ **Immunology:**

Hands on Experience in Immunofloresence and Blotting Techniques.

## **TECHNICAL EXPERTISE**

- a. **Molecular Biology-** DNA & RNA isolation from micro-organisms from (Bacterial, Fungal and Viral) direct respiratory samples, Plasmid DNA isolation, Primer designing, conventional multiplex-PCR and Real Time PCR, ELISA.
- b. **Microbiology-** Preparing various types of differential & selective media for microbial cultures. Antibacterial testing, Anti-fungal testing.
- c. **Cell Culture Techniques -** Primary cell culture, Subculture and maintained cell lines, Cell thawing and cryopreservation, cell viability & cytotoxicity, apoptotic morphological changes in fluorescent microscope using different probe staining, Assessment of DNA fragmentation.
- d. **Isolation and Purification of Bioactive Compounds -** Peptide, polysaccharides and marine plant secondary metabolites.

## **TEACHING EXPERIENCE**

**(2017-2020)**

As per the University Grants Commission (UGC) of India guidelines, I have taught:

- Medical Genetics and Immunology, Microbiology, Molecular Diagnostics for B.Sc and M.Sc Life science students.
- Microbiology practical classes for B.Sc, M.Sc (Allied Health Sciences& Nursing), BDS and MBBS students.
- Molecular Diagnostics and its recent technologies for MD Microbiology and MD Pathology students.

**(2021-2022)**

As per the National Medical Council (NMC), Medical Council of India (MCI) University Grants Commission (UGC) of India guidelines, I have taught:

- Microbiology theory and practical classes for Doctor of Medicine (MD), Master of Dental Surgery (MDS), MBBS, BDS, BS.c, MS.c (Allied Health Sciences & Nursing) students.
- Molecular Diagnostics and Research technologies for Research Assistant, MD Microbiology and MD Pathology students.

### **PAPER PRESENTATION**

1. Detection of Non typeable *Haemophilus influenza* by P6 (OMP) gene from Respiratory samples. **International Science Symposium on HIV & Infectious Diseases** (ISSHID 2019) October/12<sup>th</sup> - 14<sup>th</sup>, Conference, Chennai, Tamilnadu, India. (**Oral Presentation**)
2. Multidrug resistant magA(K1), wzy(K2 and Hypervirulent (rmpA) *Klebsiella pneumoniae* causing Pulmonary infection". **International Science Symposium on HIV & Infectious Diseases** (ISSHID2019) October 12<sup>th</sup>-14<sup>th</sup>, Chennai, Tamilnadu, India. (**Poster Presentation**)

### **RESEARCH PULICATIONS)**

1. **Danis Vijay D**, Jayanthi S, Meenakshi N, Meharaj SS, Sujhithra A, Perumal J. Characterization of virulence factors, antifungal resistance with ERG-11 gene among *Candida* species isolated from pulmonary samples. Microbial pathogenesis. 2019 Dec 1;137:103750, doi.org/10.1016/j.micpath.2019.103750, Microbial pathogenesis (Elsevier).
2. **D.Danisvijay**, S.H.ShifaMeharaj, A.Sujhithra, R.Vidhya, N.Meenakshi, S.Jayanthi, J.Perumal. Hypervirulent and biofilm specific resistance among carbapenemase producing *Klebsiella pneumonia* causing respiratory tract infection, Manuscript Number: thelancetrm-D-20-00001, **pre print with THE LANCET**.
3. **Danish Vijay**, Jayanthi.S, Meenakshi.N. Biomarkers improve the prognostic and mortality prediction in pneumonia. Indian Journal of Microbiology Research. 2018, IJMR, October-December, 2018;5(4), DOI: 10.18231/2394-5478.2018.0089, Indian Journal of medical research.
4. S.H.ShifaMeharaj, S.Jayanthi, **D.Danisvijay**, A.Sujhithra. Multiplex PCR based detection of mecA, mecC and PVL gene in analysis of prevalence, circulation, transmission of MSSA/MRSA strains in a tertiary care hospital. Doi 10.1823 j.ijmmttd.2019.034, International journal of Medical Microbiology and Tropical diseases. 2019
5. **D.Danisvijay**, S.Jayanthi, N.Meenakshi, S.H.ShifaMeharaj, A.Sujhithra, R.Vidhya. A review of Pathogenesis, Treatment and Prevention of Novel Corona Virus (SARS-CoV-2) DOI: 10.31080/ecprm.2020.09.00632, EC pulmonology and respiratory medicine.

6. A.Sujhithra, M.Chokkalingam, S.Jayanthi, **D.Danisvijay**, S.H.ShifaMeharaj. Cardiac Biomarkers: A Beneficial tool in the Diagnosis and Prognostification in heart failure- A Social Focus on Rheumatic Heart Disease. DOI: 10.31080/eccy.2020.07.00559, EC- Cardiology.
7. **D.Danisvijay**, S.Jayanthi, N.Meenakshi, S.H.ShifaMeharaj, A.Sujhithra, J.Perumal. Detection of Non typeable *Haemophilus influenza* by P6 (OMP) gene from Respiratory samples.**ISSHID-2019**, BMC Infectious Diseases,DOI: 10.1186/s12879-020-05038-y.
8. **D.Danisvijay**,S.Jayanthi,N.Meenakshi,S.H.ShifaMeharaj,A.Sujhithra,J.Perumal.“ Multidrug resistant magA(K1), wzy(K2 and Hypervirulent (rmpA) *Klebsiella pneumoniae* causing pulmonary infection”, **ISSHID-2019**,BMC Infectious Diseases ,DOI: 10.1186/s12879-020-05038-y.
9. **D.Danis Vijay**, ShifaMeharaj, Jayanthi, Sujhithra, Vidhya. Symptomatic and asymptomatic presentation of SARS-CoV-2 (COVID-19) patients; a case report, JEMDS.DOI: 10.14260/jemds/2020/786.
10. Sujhithra. A, M. Chokkalingam, S. Jayanthi, Sanjay Andrew Rajaratnam, **D. Danisvijay**. Impact and Challenges of Ethics in Echocardiography: A Non-Invasive Procedure, JEMDS,DOI: 10.14260/jemds/2021/22.
11. S.H.ShifaMeharaj, S.Jayanthi, **D.Danisvijay**, A.Sujhithra, J.Perumal.blaKPC, blaNDM, blaVIM detection among the Carbapenem resistant organisms (CROs) isolated in the Intensive care unit.**ISSHID-2019**,BMC Infectious Diseases, DOI: 10.1186/s12879-020-05038-y.
12. S.Jayanthi, **D.Danisvijay**, S.H.ShifaMeharaj, A.Sujhithra,J.Perumal. Molecular characterization of opportunistic pathogens in the hospital environment: a neglected source, **ISSHID-2019**, BMC Infectious Diseases, DOI: 10.1186/s12879-020-05038-y.
13. R Vidhya, **D Danis Vijay**, A Sujhithra, S.H.ShifaMeharaj,S Jayanthi, T. Kathir Subramanian. Micro RNA as a potential biomarker for diagnosis of neonatal sepsis – A review. JEMDS, DOI: 10.14260/jemds/2021/83.
14. **Danish Vijay Devaraj**, Jayanthi Sivasubramaniya, ShameemBanu AS.A study on extended spectrum  $\beta$  lactamase & metallo  $\beta$  lactamase producing bacteria from drinking water sources in and around Kelambakkam, Indian J Microbiol Res 2016;3(3):255-261, DOI: 10.5958/2394-5478.2016.00056.X.
15. Sujhithra. A, S. Jayanthi, M. Chokkalingam, **D. Danisvijay**, Vidhya R, Sanjay Andrew Rajaratnam, Streptococcal Pharyngitis and Rheumatic Fever, | J Pure Appl Microbiol | 16(1):55-62, doi.org/10.22207/JPAM.16.1.58.
16. Sujhithra. A, S. Jayanthi, M. Chokkalingam, **D. Danisvijay**, Vidhya R, Sanjay Andrew Rajaratnam, Echocardiographic Parameters, Clinical Profile and Presence of *Streptococcus pyogenes* Virulent Genes in Pharyngitis and Rheumatic Fever, Pure Appl Microbiol, doi.org/10.22207/JPAM.16.2.27.
17. **D. Danis Vijay**, S.H. Shifa Meharaj , S. Jayanthi, A. Sujhithra, R. Vidhya, N. Meenakshi, Aruna Shanmuganathan, A Comparison Study of CBNAAT, Gene Xpert and Line Probe Assays in the Diagnosis of Tuberculosis in smear Negative Specimens, J Pure Appl Microbiol, 0973-7510; doi: 10.22207/JPAM.16.3.42.

18. Vidhya Ravi, **D. Danis Vijay**, A. Sujhithra, S. Jayanthi, T. Kathir Subramanian, N.Harish, Neonatal Sepsis: The impact of Hypervirulent *Klebsiella pneumonia* in a Tertiary Care Hospital, *J Pure Appl Microbiol.* 2022, <https://doi.org/10.22207/JPAM.16.3.56>
19. Vidhya Ravi, **D. Danis Vijay**, A. Sujhithra, S. Jayanthi, T. Kathir Subramanian, N.Harish, Diagnostic utility of Interleukin-6, Interleukin- 8 and C-Reactive protein for early detection of Neonatal Sepsis in Tertiary Care Hospital, *J Pure Appl Microbiol.* 2022. (**Under Review**).
20. Vidhya Ravi, **D. Danis Vijay**, A. Sujhithra, S. Jayanthi, T. Kathir Subramanian, N.Harish, Association of gut microbiota with neonatal sepsis - A study from a tertiary care hospital. *J Pure Appl Microbiol.* 2022. (**Under Review**).

#### **DETAILS OF SUBMITTED EXTRAMURAL FUND:**

1. Antibacterial properties of secondary metabolites by mangrove plant *Rhizophora mucronata* against the growth of **ESKAPE** pathogens. – **Indian Council of Medical Research, STS Fund.**
2. Isolation of bioactive potential molecules from brown seaweeds *Turbinaria conoides*, *Scytosiphon lomentaria* & *Sargassum polycystum* a novel properties of **antiviral** Human Papilloma virus infection and **anticancer** activity against **Cervical cancer**. SERB Special Call for Proposal, **Science and Engineering Research Board, Department of Science and Technology Government of India.**

#### **PERSONAL INFORMATION**

<b>Age &amp; D.O.B</b>	30 Years & 12.06.1992
<b>Residential Address</b>	36A/12, A Street, Nethaji Nagar, Tondiarpet, Chennai-600081, Tamil Nadu.
<b>Nationality</b>	Indian
<b>Gender</b>	Male
<b>Marital Status</b>	Married
<b>Languages Known</b>	Tamil and English (Able to read, write & speak)
<b>Hobbies</b>	Trekking and Cooking.

#### **REFERENCES**

##### **1. Prof. Dr. S. Jayanthi, MD., Ph.D,**

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**DECLARATION**

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

Signature



**(D.Danis Vijay)**