

## **Dr. Arushdeep Sidana**

B.Sc. Medical (2008)

M.Sc. Microbial and Food Technology (2010)

Ph.D. Microbiology (2016)



**Date of joining: 09-03-2020**

**Designation: Research Associate**

### **Work experience:**

- 1) Worked as a Research Associate in Biochemistry and Biotechnology Area of CSIR-Indian Institute of Petroleum, Dehradun (22-02-2018 to 06-03-2020).
- 2) Worked as Assistant Professor, Microbiology in the Department of Biological and Paramedical Sciences in RIMT University, Mandi Gobindgarh, Punjab (01-08-2016 to 10-11-2017).
- 3) Worked as a Senior Research Fellow in the Dept. of Microbiology, Indira Gandhi Medical College and Hospital, Shimla (03-12-2015 to 23-07-2016).

### **Qualified National Level Exam**

1. GATE-2015 Life Sciences (Microbiology & Food technology)

### **Journal Publications**

1. Bandhu, S., Bansal, N., Dasgupta, D., Junghare, V., Sidana, A., Kalyan, G., Hazra, S. and Ghosh, D. 2019. Overproduction of single cell oil from xylose rich sugarcane bagasse hydrolysate by an engineered oleaginous yeast *Rhodotorula mucilaginosa* IIP132. *Fuel*, 254: 115653.
2. Sidana, A., Kaushal, S. and Farooq, U. 2018. Evaluation of antileishmanial potential of *Gentiana kurroo* Royle by *in vitro* and *in silico* methods. *Journal of Applied Pharmaceutical Science*, 8(2): 143-49.
3. Sidana, A., Negi, A.K. and Farooq, U. 2017. *In vitro* assessment of antileishmanial activity of natamycin and nystatin. *Brazilian Archives of Biology and Technology*, 60: e17160368.
4. Sidana, A., Alam, A. and Farooq, U. 2017. Soy protein isolate: A substitute of fetal bovine serum for the *in vitro* cultivation of *Leishmania donovani*. *Legume Research*, 40(6): 1-4.
5. Sidana, A. and Farooq, U. 2015. Evaluation of antileishmanial activity of plants used in Indian traditional medicine. *Bangladesh Journal of Pharmacology*, 10:423-26.

### **Crude Inventions:**

- 1) Solar concentrator: To concentrate and detoxify (furfural removal) any biomass hydrolysate by using direct sunlight without the use of any other supply of energy.
- 2) Pitching flask: To aseptically inoculate a 15-20L fermenter

### **Magazine Articles:**

1. Sidana A. 2014. Cutaneous Leishmaniasis in Rampur Bushahr: Lack of awareness could be dangerous. *Science Reporter*, 51(5): 9.
2. Sidana A. 2016. Abnormal body movements in children: Acute Bacterial Meningitis. *Science Reporter*, 53(07): 11.
3. Sidana A. 2017. Antibiotic Resistance-Making Antibiotics Useless. *Scientific India Magazine*, 5(4): 20-21.

### **Reviewer of Scholarly Journals:**

1. "Biocatalysis and Agricultural Biotechnology" by Elsevier B.V., Radarweg 29, 1043 NX Amsterdam, Netherlands.
2. "3 Biotech" by Springer International Publishing.
3. "Indian Journal of Experimental Biology" by NISCAIR, CSIR, India.

### **Awards and Prizes:**

1. Awarded best poster prize in 60th Annual Conference of The Association of Microbiologists of India (AMI- 2019) held on 15-18 November, 2019 at Central University of Haryana, Mahendergarh.
2. "Best Teacher Award" for the year 2016-2017 in the department of biological and paramedical sciences, RIMT University, Punjab.
3. Awarded Silver Medal (Second Prize) for poster making on Diabetes in HP-RSSDI-2016, organized by the Department of Medicine, Indira Gandhi Medical College, Shimla, H.P. on 7<sup>th</sup>-8<sup>th</sup> May, 2016.
4. Awarded first prize for oral presentation on Isolation, Biotransformation and Evaluation of Antibacterial Activity of Embelin from *Embelia ribes* in 11<sup>th</sup> Symposium on "Phytochemistry and Ayurveda: Potential and Prospects" organized by Universities' Journal of Phytochemistry and Ayurvedic Heights on 22<sup>nd</sup> December, 2012.

### **Membership of Scientific societies:**

1. Life member of "Indian Science Congress Association" (Membership no. L37662)
2. Life member of "Association of Microbiologists of India" (Membership no. 4931-2019)

### **Technical Expertise:**

- Analytical HPLC (Manual injection and Auto-sampler)
- Mini and Pilot scale Biomass Digester
- 3L to 50L fermenters
- UV-Visible Spectrophotometer
- DNA Isolation, Gel Electrophoresis, End-point PCR, RFLP, Phylogenetic analysis
- Protein-Ligand Docking
- Natural Compounds Isolation and Purification
- Microbial Biotransformation