



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 6545

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at Dipartimento di Dipartimento di Laboratory of Agricultural and Environmental Microbiology

Scientist- in - charge: Prof. Lucia Cavalca

[Name and surname] SUBHOSHMITA MONDAL

CURRICULUM VITAE

PERSONAL INFORMATION

| | |
|---------|-------------|
| Surname | MONDAL |
| Name | SUBHOSHMITA |

PRESENT OCCUPATION

| | |
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| Appointment | Structure |
| Postdoctoral fellow | University of Milan, Italy at Department of Food, Environmental and Nutritional Sciences |

EDUCATION AND TRAINING

| Degree | Course of studies | University | year of achievement of the degree |
|---------------------|---|---|-----------------------------------|
| Bachelor in Science | Biotechnology | UTKAL UNIVERSITY, BHUBANESWAR (INDIA) | 26 MARCH, 2011 |
| PhD | Microbiology, Bioprocess Engineering, Membrane technology | JADAVPUR UNIVERSITY, KOLKATA (INDIA) | 16 DECEMBER, 2020 |
| Master | LIFE SCIENCE | NATIONAL INSTITUTE OF TECHNOLOGY, | 13 JANUARY, 2013 |



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| | | ROURKELA (INDIA) | |
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REGISTRATION IN PROFESSIONAL ASSOCIATIONS

| Date of registration | Association | City |
|----------------------|-------------|------|
| NA | NA | NA |

FOREIGN LANGUAGES

| Languages | level of knowledge |
|-----------|--------------------|
| English | Speak, Read, Write |

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

| Year | Description of award |
|-----------|---|
| 2014-2019 | University Grant Commission, Govt. of India for PhD |
| 2015-2016 | Hungarian State Board Scholarship for Visiting researcher |

TRAINING OR RESEARCH ACTIVITY

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| <p>▫ 5days Hands on workshop on Molecular Biotechnology and Bioinformatics. International Centre for stem cells, cancer and biotechnology, Pune, India.2014</p> <p>▫ Short-term Training Program on Computational Systems Biology. AICTE, DBT and Indian Institute of Technology (Madras, India)</p> <p>▫ 5 days Short-term course on Application of MATLAB in Bioengineering, Indian Institute of Technology (Indore, India)</p> <p>Analytical skills:</p> <ul style="list-style-type: none">• HPLC, GC-MS, FESEM, TLC, FTIR, Gel electrophoresis• Membrane separation techniques• Bioprocess technology-5L Biofermenter (Lab scale)• Protein purification, Enzyme assay• Bioinformatic analysis: PyMol, Chimera, Ligplot+, Cytospace• Analytical Softwares : Design Expert, SuperPro Designer• Aerobic and anaerobic microbial condition - for bioremediation <p>Conventional microbiology laboratory techniques</p> |
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PROJECT ACTIVITY

| Year | Project |
|-----------|---|
| 2012-2013 | Appointed as Project fellow at Department of Chemical Engineering, Jadavpur University, Kolkata (India) - Production and purification of beta-galactosidase from milk whey-based lactic acid bacteria using fermentation and membrane based separation technology (Funded by UGC Govt.of India) |
| 2023-2024 | Appointed as Postdoctoral fellow for 17months at Department of Food, Environmental and Nutritional sciences, University of Milan, Italy - The Heavy Metal Bio-recovery and Valorization (HMBV) using heterophilic bacteria (Funded by Fondazione Cariplo) |

PATENTS

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| NA |
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CONGRESSES AND SEMINARS

| Date | Title | Place |
|------------|--|--|
| 20/12/2019 | International Symposium on Environment & Climate crisis | Department of Environmental Studies, St. Xavier College (Kolkata, India) |
| 9/11/2014 | International Conference on Emerging Trends in Biotechnology | Jawaharlal Nehru University, New Delhi (India) |
| 9/06/2017 | National Conference on Sustainable Technologies to connect people with Nature - Supported by Reliance Industries Ltd. | Central Glass & Ceramic Research Institute, Kolkata (India) |
| 14/03/2013 | National Seminar on Current Perspectives of Fungi in Healthcare & Environment-Annual meeting of Mycological Society of India | Bangalore University, Karnataka (India) |
| 9/12/2017 | Bioprocessing India 2017 | Indian Institute of Technology, Guwahati (India) |
| 1/10/2018 | XXIX Interamerican Congress of Chemical Engineering Incorporating the 68th Canadian Chemical Engineering Conference, 2018 | Toronto, Ontario |
| 21/02/2016 | Conference on Membrane organized by the European membrane society Czech Republic (PERMEA, 2016) with Visegrad fund | Prague, Czech Republic |

PUBLICATIONS

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| Books |
| Signalling of Rhizosphere Microbiomes: Benign and Malign Borders. In: Arora, N.K., Bouizgarne, B.(Eds.) Microbial BioTechnology for Sustainable Agriculture Volume 1. Microorganisms for Sustainability, vol 33. Springer, Singapore (2022), doi:10.1007/978-981-16-4843-4 7 |
| A pipeline for assessment of pathogenic load in the environment using microbiome analysis. In Microbial |



Metatranscriptomics Belowground, Nath, M., Bhatt, D., Bhargava, P., Choudhary, D.K. (Eds.) Springer Nature Singapore (2021), doi:10.1007/978-981-15-9758-9

The Bull Effect of Endophytic Fungi: An Approach with Quorum Sensing. In: Singh B. (eds) Advances in Endophytic Fungal Research. Fungal Biology. Springer, Cham (2019). doi:10.1007/978-3-030-03589-1 8

Articles in reviews

Partial refinement of fungal chitinase (*Beauveria bassiana*) with multistage membrane filtration (2019), *Acta Alimentaria*, 43 (3), 277-287. doi:https://doi.org/10.1556/066.2019.48.3.1

Kinetics of en- riched chitinase as extracellular metabolite in *Beauveria bassiana* (2019), *Microbiology and Biotechnology Letters*, 47(1), 96-104. doi:https://doi.org/10.4014/mbl.1802.02011

Gates for Conversation in Microbes (2018), *Neuroquantology*, 16(8), 1-8. doi:http://dx.doi.org/10.14704/nq.2018.16.8.1128

Strain-specific identification of *Beauveria bassiana* isolated from a novel habitat, using rDNA-based sequence analogy (2018), *Egyptian Journal of Biological Pest Control*, 28(1), 1-8. doi:https://doi.org/10.1186/s41938-018-0033-4

Biochemical activities of lactose-derived prebiotics—A review (2017), *Acta Alimentaria*, 46(4), 449-456. doi:https://doi.org/10.1556/066.2017.46.4.7

Studies on isolation, optimization and bioprocess engineering behaviour of entomopathogenic fungi, *Beauveria bassiana* (2017), *Indian Chemical Engineer*, 59(1), 41-56. doi:https://doi.org/10.1080/00194506.2015.1075439

Conversation game: talking bacteria (2016), *Journal of cell communication and signaling*, 10(4), 331-335. doi:10.1007/s12079-016-0333-y

Journey of enzymes in en- tomopathogenic fungi (2016), *Pacific Science Review A: Natural Science and Engineering*, 18(2), 85-99. doi: https://doi.org/10.1016/j.psra.2016.10.001

Synthesis and functionality of proteinacious nutraceuticals from casein whey—A clean and safe route of valorization of dairy waste (2015), *Chemical Engineering Research and Design*, 97, 192-207. doi:https://doi.org/10.1016/j.cherd.2015.03.017

Production, purification, characterization, immobilization, and application of β - galactosidase: a review (2014), *Asia-Pacific Journal of Chemical Engineering*, 9(3), 330-348. doi:https://doi.org/10.1002/apj.1801

Congress proceedings

Alice Melzi, Milena Colombo, Subhoshmita Mondal, Sarah Zecchin, Camilla Valli, Lucia Cavalca (2023). Passive biosorption and enzymatic reduction in *Serratia* and *Rhodococcus* strains involved in Nickel, Copper and Chromium removal from wastewaters. *Microbial diversity 2023*, Parma, Italy

Mondal S., Melzi A., Colombo M., Zecchin S., Cavalca (2024). L.REDUCTION OF HEXAVALENT CHROMIUM AND DETECTION OF ENZYMATIC ACTIVITY IN RHODOCOCCUS QINGSHENGII STRAIN SC26. 7th international Symposium on Biosorption and Biodegradation/Bioremediation - BioBio 2024.Prague, Czech republic

Melzi A., Colombo M., Mondal S., Valli C., Cavalca L. (2024). MICROPOROUS MICROCARRIER BIOFILM FOR COPPER REMOVAL FROM INDUSTRIAL WASTEWATERS. 7th international Symposium on Biosorption and Biodegradation/Bioremediation - BioBio 2024. Prague, Czech republic

Mondal S., Melzi A., Colombo M., Zecchin S., Cavalca L. (2024). UNDERLYING REACTIONS TO REDUCE HEXAVALENT CHROMIUM USING RHODOCOCCUS QINGSHENGII BACTERIAL STRAIN. V AISSA#UNDER40 CONFERENCE 2024. Florence, Italy



OTHER INFORMATION

Visiting researcher (2015-2016) at Department of Microbiology & Food Engineering, Corvinus University of Budapest (HUNGARY)

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Please note that CV WILL BE PUBLISHED on the University website and It is recommended that personal and sensitive data should not be included. This template is realized to satisfy the need of publication without personal and sensitive data.

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Place and date: MILAN, 31/03/2024