



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE: 4634

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 Department of Agricultural and Environmental Sciences - Production, Territory, Agroenergy**

Scientist- in – charge: Prof. Sacchi

**NISHA SHARMA**

**CURRICULUM VITAE**

**PERSONAL INFORMATION**

|                      |            |
|----------------------|------------|
| <b>Surname</b>       | SHARMA     |
| <b>Name</b>          | NISHA      |
| <b>Date of birth</b> | 06/05/1989 |

**PRESENT OCCUPATION**

|             |           |
|-------------|-----------|
| Appointment | Structure |
| N/A         | N/A       |

**EDUCATION AND TRAINING**

| Degree                 | Course of studies                  | University           | year of achievement of the degree |
|------------------------|------------------------------------|----------------------|-----------------------------------|
| Degree (PhD)           | CROP SCIENCE                       | UNIVERSITY OF PADOVA | 2020                              |
| Specialization         | PLANT TOXICOLOGY                   |                      |                                   |
| Degree (Master)        | MS BY RESEARCH IN BIOTECHNOLOGY    | KATHMANDU UNIVERSITY | 2015                              |
| Specialization         | PLANT BIOTECHNOLOGY                |                      |                                   |
| Degree (UNDERGRADUATE) | BACHELOR OF SCIENCE IN ENGINEERING | KATHMANDU UNIVERSITY | 2012                              |
| Specialization         | BIOTECHNOLOGY                      |                      |                                   |
| Other                  |                                    |                      |                                   |



## REGISTRATION IN PROFESSIONAL ASSOCIATIONS

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

## FOREIGN LANGUAGES

| Languages | level of knowledge |
|-----------|--------------------|
| NEPALI    | NATIVE             |
| ENGLISH   | PROFESSIONAL       |
| HINDI     | GOOD               |
| ITALIAN   | FAIR               |

## AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

| Year | Description of award                                                                              |
|------|---------------------------------------------------------------------------------------------------|
| 2012 | University Grant Commission (UGC) to complete the master projects                                 |
| 2014 | Rewarded by Erasmus Mundus with Asia for nine months in student exchange 2014 programme to Italy. |
| 2016 | Cariparo Scholarship for Doctorate Course for 3 years in Italy                                    |
| 2017 | Cleanup Conference Student Scholarship to attend the conference in Australia                      |

## TRAINING OR RESEARCH ACTIVITY

|                          |
|--------------------------|
| description of activity: |
|--------------------------|

## PROJECT ACTIVITY

| Year | Project                                                                                                                                                                                              |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2018 | International Visiting Graduate Study, University of Toronto, Canada<br><i>Treatment of Arabidopsis with PFASs, NMR plant sample preparation, using NMR data processing and presentation package</i> |
| 2016 | Research Associate, Center for Molecular Dynamics, Nepal<br><i>DNA extraction, e-DNA, gel electrophoresis, Innovating non-invasive fish monitors</i>                                                 |
| 2014 | Student Exchange Programme, EMMA with Asia, University of Padova, Italy<br><i>Proteomic and biochemical investigation on the effects of sulfadiazine in Arabidopsis thaliana</i>                     |
| 2013 | Research Assistant, Kathmandu University, Nepal                                                                                                                                                      |



|      |                                                                                                                                                                                  |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | Plant Tissue Culture: <i>Monitored and mentored undergraduate student in laboratory to evaluate the extensive study of plant tissue culture</i>                                  |
| 2013 | Research Assistant, Biotechnology Unit, Nepal<br>Tissue culture of tomato, molecular based techniques were used for the seeds improvement                                        |
| 2011 | Trainee, Center for Molecular Dynamics, Nepal<br>Molecular techniques like extraction Of DNA and RNA from animal and plant tissue, preparing the samples for the DNA sequencing. |

## PATENTS

|        |
|--------|
| Patent |
| N/A    |
|        |

## CONGRESSES AND SEMINARS

| Date            | Title                                                                                                                              | Place                             |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| SEPTEMBER, 2019 | Comprehensive multiphase NMR: a powerful technology to study the effects of PFASs on the model plant <i>Arabidopsis thaliana</i> . | BARI, ITALY                       |
| AUGUST, 2019    | Accumulation and effects of Perfluoroalkyl Substances (PFASs) in three <i>Salix</i> species.                                       | SAN JOSE, UNITED STATE OF AMERICA |
| FEBRUARY, 2019  | NMR-Based Metabolomics for <i>Arabidopsis thaliana</i> treated with PFASs.                                                         | PADOVA, ITALY                     |
| JUNE, 2019      | Biodiversity and bioindicators in monitoring and management of contaminated soils                                                  | NAPOLI, ITALY                     |
| SEPTEMBER, 2017 | Biochemical and proteomic analyses in <i>Arabidopsis thaliana</i> plants treated with sulfadiazine                                 | UDINE, ITALY                      |
| SEPTEMBER, 2017 | Plants treatment with Perfluoroalkyl Substances (PFASs): Uptake and effects on growth and morphology                               | UDINE, ITALY                      |
| SEPTEMBER, 2016 | Protein Composition Readjustment in <i>Arabidopsis Thaliana</i> following                                                          | PADOVA, ITALY                     |



|                 |                                                                                                       |                      |
|-----------------|-------------------------------------------------------------------------------------------------------|----------------------|
|                 | Sulfadiazine Treatment                                                                                |                      |
| SEPTEMBER, 2017 | Plants treatment with perfluoroalkyl substances (PFASs): uptake and effects on growth and morphology. | MELBOURNE, AUSTRALIA |
| MAY, 2017       | Plant's adaptation to the environment: abiotic stress, antioxidant metabolism, "omics" tools.         | PADOVA, ITALY        |

## PUBLICATIONS

| PUBLISHED ARTICLES                                                                                                                                                                                                                                                                                                                                                                    |
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| <p><b>Nisha Sharma</b>, Giuseppe Barion, Inisha Shrestha, Leonard Barnabas Ebinezer, Anna Rita Trentin, Teofilo Vamerli, Giustino Mezzalana, Antonio Masi, Rossella Ghisi.(2020). Accumulation and effects of perfluoroalkyl substances in three <i>Salix L.</i> species. <i>Ecotoxicology and Environmental Safety</i>, 191, 110150.</p>                                             |
| <p>Pandey, Binayak Raj, Angela Shrestha, <b>Nisha Sharma</b>, and Bhupal Govinda Shrestha. "Evaluation of Phytochemical, Antimicrobial, Antioxidant Activity and Cytotoxic Potentials of <i>Agave americana</i>. (2019). <i>Nepal Journal of Biotechnology</i> 1, 30-38.</p>                                                                                                          |
| <p><b>Nisha Sharma</b>, Giorgio Arrigoni, Leonard Barnabas Ebinezer, Anna Rita Trentin, Cinzia Franchin, Sabrina Giaretta, Paolo Carletti, Sören Thiele-Bruhn, Rossella Ghisi, Antonio Masi. (2019). A proteomic and biochemical investigation on the effects of sulfadiazine in <i>Arabidopsis thaliana</i>. <i>Ecotoxicology and environmental safety</i>, 178, 146-158.</p>        |
| <p>Amy Jenne, Ronald Soong, Wolfgang Bermel, <b>Nisha Sharma</b>, Antonio Masi, Maryam Tabatabaei Anaraki and Andre Simpson, 2018. Focusing on "the important" through targeted NMR experiments: an example of selective <math>^{13}\text{C}</math>-<math>^{12}\text{C}</math> bond detection in complex mixtures. <i>Faraday discussions</i>.</p>                                    |
| <p><b>Sharma, Nisha.</b>, Gauchan Dhurva Prasad, Dhakal, Ashna, Luitel, Anup. (2015). Establishment of Regenerative Callus, Cell Suspension System and Molecular Characterization of <i>Stevia Rebaudiana</i> Bertoni for the Production of Stevioside in In Vitro. <i>International Journal for Research in Applied Science &amp; Engineering Technology</i> , 3(VIII): 133-141.</p> |
| <p>Gauchan, Dhurva Prasad, Dhakal, Ashna, <b>Sharma, Nisha</b>, Bhandari, Sabin, Maskey, Elina, Shrestha, Nayan, &amp; Gurung, Sushma. (2014). Regenerative callus induction and biochemical analysis of <i>Stevia rebaudiana</i> Bertoni. <i>Journal of Advanced Laboratory Research in Biology</i>, 5(3): 41-45.</p>                                                                |



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| Articles in reviews                                                                                                                                                                                                                                  |
| <b>Nisha Sharma</b> , Sara De Vecchi, Leonard Barnabas Ebinezer, Anna Rita Trentin, Rossella Ghisi, Antonio Masi. Accumulation, Physiological and morphological alterations induced by perfluoroalkyl substances in Maize ( <i>Zea mays</i> ) plant. |

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|----------------------|
| Congress proceedings |
| N/A                  |

OTHER INFORMATION

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROFESSIONAL SKILLS AND SOFTWARES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Proficient in plant molecular biology-based techniques, proteomics and metabolomics<br>Microsoft Excel, Word, PowerPoint, SPSS, PRISM, R and R studio, Origin, AutoCAD, Adobe Photoshop, ArcGIS online, Google earth, LaTeX, MestRenova, Amix.                                                                                                                                                                                                                                                                                                                                   |
| <b>REFERENCES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Prof. Antonio Masi</b> , Associate Professor, DAFNAE, University of Padova, Legnaro, PD, Italy, E mail Id: <a href="mailto:antonio.masi@unipd.it">antonio.masi@unipd.it</a> .<br><b>Prof. Andre Simpson</b> , Professor and Director, Environmental NMR Centre, University of Toronto, Canada. E mail Id: <a href="mailto:andre.simpson@utoronto.ca">andre.simpson@utoronto.ca</a><br><b>Prof. Stefano Dall'Acqua</b> , Assistant professor, DSF, University of Padova, Padova, Italy. E mail.ID : <a href="mailto:stefano.dallacqua@unipd.it">stefano.dallacqua@unipd.it</a> |

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.

Place and date: padova, 16/07/2020

SIGNATURE