

1. Name: SAPTARSHI KONAR

2. Designation: State Aided College Teacher

3. Department: Molecular Biology & Biotechnology

4. Date Of joining: 21.08.2018

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#### 7. Academic Qualifications:

| Degree | Stream                              | College / University                | Year of Passing |
|--------|-------------------------------------|-------------------------------------|-----------------|
| Ph.D.  | Molecular Biology and Biotechnology | University of Kalyani , West Bengal | 2019            |
| M. Sc. | Molecular Biology & Biotechnology   | University of Kalyani , West Bengal | 2009            |
| B. Sc. | Botany (Hons.)                      | University of Calcutta, West Bengal | 2007            |

8. Total Experience:

8 a) Teaching Experience: 5yrs8b) Research Experience: 10yrs

#### 9. Experience Details:

#### **Research Experiences:**

- Ph.D. research in Molecular Biology & Biotechnology from University of Kalyani. (September 2012–March 2019). (Thesis title: A study on *in vitro* plant regeneration and amelioration of drought tolerance by gamma irradiation and β-aminobutyric acid elicitation in *Hibiscus sabdariffa* L.)
- CSIR-Project fellow in the CSIR sponsored project entitled, "Pathway engineering and system biology approach towards homologous and heterologous expression of high value phytoceuticals" at Indian Institute of Chemical Biology (IICB), Kolkata. (April 2011–August 2012).
- Senior Research Fellow in the externally funded NFBSRA research project entitled "Rumen microbial manipulation for mitigation of methane emission and productivity enhancement of dairy animals" at National Dairy Research Institute (N.D.R.I., Eastern Regional Station, ICAR), Kalyani . (January 2010–April 2011).
- Summer trainee in the project entitled "Molecular diagnosis of multidrug resistant tuberculosis: a rapid detection tool", at Dept. of Biochemistry, Institute of Postgraduate Medical Education & Research (IPGMER), Kolkata. (May June 2008).
- Two weeks (June 2009) in-plant Industrial training mainly emphasized on various techniques of processing of milk and milk products, chemical as well as microbiological quality control, ETP and instrumentation involved in Dairy industry, at Central Dairy, Belgachia, Kolkata. (Under the Directorate of Dairy Development, Government of West Bengal).

# **Teaching Experiences:**

- 1st Jan. 2020 to cont.: State Aided College teacher in Molecular Biology & Biotechnology at Kanchrapara College, W.B.
- 1st Nov. 2018 to 31st Dec. 2019: Assistant Professor (contractual) in Biotechnology (B.Sc. & M.Sc.) at Institute of Genetic Engineering, Kolkata, West Bengal.
- 21st Aug. 2018 to 31st Dec. 2019: Guest lecturer in Molecular Biology & Biotechnology at Kanchrapara College, W.B.
- 10. Area of Research: Plant molecular biology, Plant tissue culture, Plant stress biology, *in vitro* mutagenesis and Plant Genetic transformation.

### 11. Publications:

- 11 a) Number of Publication in International Journal: 3
- 11 b) Number of Publication in National Journal: 6
- 11c) Number of Publication in International Conference Proceedings: 4
- 11d) Number of Publication in National Conference Proceedings: 5
- 11e) Number of Books / Books chapters: 2

## 12. List of Publication:

### 12a) International Journal:

| Author(s)   | Title of the Paper   | Details of Journal                    | Publishers |
|---|--|---------------------------------------|------------|
| Konar, S., Adhikari, S.,<br>Karmakar, J., Ray, A.,<br>Bandyopadhyay, T K.                                       | Evaluation of subculture ages on organogenic response from root callus and SPAR based geneticfidelity assessment in the regenerants of <i>Hibiscus sabdariffa</i> L.                               | Industrial Crops and Products         | Elsevier   |
| Konar, S., Karmakar, J.,<br>Ray, A., Adhikari, S.,<br>Bandyopadhyay, T. K.                                      | Regeneration of plantlets through somatic embryogenesis from root derived calli of <i>Hibiscus sabdariffa</i> L.(Roselle) and assessment of genetic stability by flow cytometry and ISSR analysis. | PloS one                              | PLOS       |
| Adhikari, S., Ghosh, S.,<br>Azahar, I., Adhikari, A.,<br>Shaw, A. K., <b>Konar, S.,</b><br>Roy, S., Hossain, Z. | Sulfate improves cadmium<br>tolerance by limiting cadmium<br>accumulation, modulation of<br>sulfur metabolism and antioxidant defense<br>system in maize   | Environmental and Experimental Botany | Elsevier   |

### 12b) National Journal:

| Author(s)                      | Title of the Paper                                | Details of Journal                | Publishers   |
|--------------------------------|---|-----------------------------------|--------------|
| Santra, A., Konar, S.,         | Rumen fermentation pattern, enzyme profile        | Indian journal of Animal Sciences | Indian       |
| Mondal, A., Das, S.K.          | and ciliate protozoal population in betel         | J                                 | Council of   |
|                                | (Piper betle) leaves fed lactating                |                                   | Agricultural |
|                                | crossbred cows                                    |                                   | Research     |
| Santra, A., Konar, S.          | Effect of increasing level of barley distillers   | Animal Nutrition and Feed         | Animal       |
| Banerjee, A., Mondal, A.,      | dried grains with soluble on ruminal              | Technology                        | Nutrition    |
| Das, S.K.                      | methanogenesis, enzyme profile and ciliate        |                                   | Association  |
|                                | protozoal population in vitro.                    |                                   |              |
| Santra, A., Mondal, A.,        | Influence of graded replacement of paddy          | Indian journal of Animal Sciences | Indian       |
| Konar, S., Banerjee, A.,       | straw with brewer's spent grain on rumen          |                                   | Council of   |
| Chatterjee, A., Das, S.K.,     | protozoa, enzyme profile and feed fermentation    |                                   | Agricultural |
| Ghosh, M.K.                    | under in vitro.                                   |                                   | Research     |
| Santra, A., <b>Konar, S.,</b>  | Effect of betel ( <i>Piper betle</i> ) leaves     | Animal Nutrition and Feed         | Animal       |
| Banerjee, A., Das, S.K.        | supplementation on nutrient utilization, milk     | Technology                        | Nutrition    |
|                                | yield and its quality in lactating crossbred cows |                                   | Association  |
| Santra, A., <b>Konar, S</b> ., | Effect of sunflower oil supplementation on        | Indian journal of Animal Sciences | Indian       |
| Banerjee, A., Chatterjee,      | utilization and growth performances of            |                                   | Council of   |
| A., Das, S.K.                  | crossbred calves.                                 |                                   | Agricultural |
|                                |   |                                   | Research     |
| Santra, A., <b>Konar, S</b> ., | Effect of dietary sunflower oil on rumen          | Animal Nutrition and Feed         | Animal       |
| Chatterjee, A., Das, S.K.      | protozoal population and fermentation             | Technology                        | Nutrition    |
|                                | characteristics in growing crossbred calves       |                                   | Association  |

### 12c) International Conference

| Author(s)                       | Title of the Paper                             | <b>Details of Conference</b>                   |
|---------------------------------|--|--|
| Konar, S., Karmakar, J.,        | Eco-friendly synthesis of silver nanoparticles | 7th Bangalore India Nano International         |
| Dam, A., Ghosh,                 | leaf extract of Melaleuca bracteata and its    | Conference                                     |
| T.,Bandyopadhyay, T.K.          | antibacterial activity against clinically      |  |
|                                 | isolated pathogens                             |  |
| Konar, S., Ojha,D., Dam,        | Green synthesis of silver nanoparticles from   | 6th Bangalore India Nano International         |
| A.,Bandyopadhyay, T.K.          | leaf extract of <i>Peperomia pellucida</i> for | Conference                                     |
|                                 | enhanced antibacterial activity against        |  |
|                                 | clinically isolated human pathogens.           |  |
| Ojha,D., <b>Konar, S</b> .,Dam, | Rapid in vitro propagation of Aloe vera L.:    | International Conference on Environment,       |
| A.,Bandyopadhyay, M.,           | A miracle medicinal plant.                     | Health and Industrial Biotechnology, organized |
| Bandyopadhyay, T.K.             |  | by Department of Biotechnology, Motilal        |
|                                 |  | Nehru National Institute of Technology,        |
|                                 |  | Allahabad.                                     |
| Konar, S., Dam,                 | Green synthesis of silver nanoparticles        | Indraprastha International Conference on       |
| A.,Ojha,D.,Bandyopadhyay,       | using Hygrophila auriculata leaf extract and   | Biotecnology, organized by University School   |
| T.K.                            | its antibacterial activity against clinically  | of Biotechnology, Guru Govind Singh            |
|                                 | isolated pathogens.                            | Indraprastha University, New Delhi             |

### 12d) National Conference

| Author(s)                       | Title of the Paper                                   | Details of Conference  |
|---------------------------------|--|--|
| Konar, S., Karmakar, J.,        | In vitro culture of <i>Dendrobium</i> : an alternate | National symposium on Environment Impact                                     |
| Bose, S.,Bandyopadhyay,<br>T.K. | strategy for ex situ conservation.                   | on Biodiversity and Plant Development, organized by Department of Biological |
| 1.12.                           |  | Sciences, Presidency University.   |
| Konar, S., Ojha,D.,             | Microwave assisted green synthesis of silver         |  |
| Karmakar, J., Dam, A.,          | nanoparticles from leaf extract of Alocasia          | Nanotechnology at Centre for Research in                                     |
| Bose, S., Bandyopadhyay,        | indica for enhanced antibacterial activity           | Nanoscience and Nanotechnology (CRNN),                                       |
| T.K.                            | against clinically isolated human pathogens.         | University of Calcutta.  |
| Santra, A., Konar, S., Ghosh,   | Effect of dietary supplementation of betel           | 39th Dairy Industry Conference at Eastern                                    |
| Chatterjee, A., Mandal, A.,     | leaves on nutrient utilization, milk                 | Zonal Cultural Centre, Salt Lake City, Kolkata.                              |
| Das, S.K., Roy, P.K.,           | composition and milk yield in dairy catlle           |  |
| Dey, R.A.                       |  |  |
| Santra, A., Konar, S.,          | Effect of dried brewer's spent grain on              | 7th biennial animal nutrition conference at                                  |
| Chatterjee, A., Ghosh, M.K.,    | rumen fermentation, enzyme profile and               | College Veterinary Science and Animal  |
| Das,S.K., Mondal, A.            | ciliate protozoal population in vitro.               | Husbandry, Orissa University of Agriculture                                  |
|                                 |  | and Technology, Bhubaneswar  |
| Santra, A., Konar, S.,          | Effect of supplementation of betel leaves on         | 7th biennial animal nutrition conference at                                  |
| Ghosh, M.K., Chatterjee, A.     | enzyme profile and ciliate protozoal                 | College Veterinary Science and Animal  |
|                                 | population in dairy cattle.                          | Husbandry, Orissa University of Agriculture                                  |
|                                 |  | and Technology, Bhubaneswar  |

# 12e) Book/Book chapters:

| Author(s)                                      | Title of the Book/Book Chapter                | Publishers           |
|--|---|----------------------|
| Paul, A., Ghosh, S., Konar, S.,                | Biorefinery: A Future Key of Potential Energy | Wiley Online Library |
| Ray, A. Paul, A., <b>Konar, S.,</b> Ghosh, S., | Biogas Production and Uses                    | Wiley Online Library |
| Ray, A.  |   |                      |

### 13. Awards / Academic Accolades:

- Qualified Graduate Aptitude Test in Engineering (GATE) in Biotechnology (BT)
- Qualified ICAR NET in Agriculture Biotechnology

# 14. Area of Specialization: Plant Biotechnology