

Curriculum vitae

Dr. Shivakumar Belur

MSc, PhD

Assistant Professor

P. G Dept of Biotechnology

P. C Jabin Science College,

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Professional summary

To effectively use my skills and abilities to achieve excellence in the field of life science and work closely with a team of highly experienced researchers to dedicate myself to unravel the secrets.

Education

- **Ph.D** in Biochemistry (2015-2020) Karnatak University, Dharwad.
Topic-“Studies on Fucose Specific and TF Antigen Binding Lectins”
- **M.Sc** in Biochemistry (2013-2014): First class (6.90CGPA), Karnatak University, Dharwad.
- **B.Sc** in Chemistry, Botany and Zoology (2010-2012): First class with Distinction (82%), P. C. Jabin Science College, Hubli, India.

Positions held

- **Research Scientist** at Molecular laboratory for COVID-19 in the Department of Microbiology, Karwar Institute of Medical Sciences, Karwar.
Duration: June 2020 to January 2022.
- **Research Assistant** at Virology Research and Development Laboratory (VRDL) KIMS, Hubli
Duration: January 2022 to September 2022
- **Assistant Professor**- P. G Dept of Biotechnology, P. C Jabin Science College, Hubli
Duration: January 2023 to till date

Achievements

- Qualified Karnataka State Eligibility Test for Assistant Professor (**K-SET**) in 2014.
- Awarded with Rajiv Gandhi National Fellowship (**RGNF**) from 2016-2020.

Co-Curricular activities

Represented Karnatak University as a Vice-Captain for Badminton contingent in SouthIndian University competition held at Vellore Institute of Technology, Andhra Pradesh (2013).

Accomplishments

- **Project Assistant** in DST sponsored collaborative project entitled “*Investigating the role of a mitogenic lectin CSL from Cephalosporium curvulum, a pathogenic fungus causing mycotic keratitis*” between Karnatak University, Dharwad, Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Navi Mumbai and L.V. Prasad Eye Institute (LVPEI), Hyderabad.

Duration: August 2014 to July 2015.

Technical Skills

- **Instruments handled-** Flow cytometry (FC 500 & BD Accuri-C6, Fluorescent microscope, RT-PCR, ACTA Prime Plus purification system, Sonicator, Lyophiliser.
- **Cell Culture Techniques-** Handling and maintenance of human cancer cell lines, primary and immortalized corneal cells and peripheral blood mononuclear cells, Human Cell culture-based assays.
- **Proteomics-** Purification of proteins by chromatographic separations and characterization.
- **Microbiological techniques-** Maintenance of pure culture, staining techniques and biochemical characterization.
- **Biochemical techniques-** Enzyme assay, Analysis of stability of enzyme, Analysis of carbohydrate, amino acids, lipids, nucleic acids, vitamins, metal ions, hormones. Analysis of urine & blood.
- **Chromatography-** Paper chromatography, Thin layer chromatography, Gel filtration chromatography, Ion exchange and Affinity chromatography.
- **Immunological techniques-** ELISA, Hemagglutination assay, Hapten Inhibition studies.
- **Molecular biology techniques-** Isolation of DNA from plant and bacteria, isolation of RNA from plant tissue and human cancer cell lines, isolation of Plasmid, agarose gel electrophoresis. Western blotting.

Publications in International Journals

1. “Investigation of TF binding lectins from dietary sources and SRL on proliferation and cell cycle progression in human colon HT-29 and SW620 cells”
Shivakumar Belur, Srikanth Barkeer, Bale M Swamy, Lu-Gang Yu, Shashikala R Inamdar. *Nutrition and Cancer Journal* (2018). Impact Factor **(IF)-2.9**.
2. “A core fucose specific lectin from *Cephalosporium curvulum* induces cellular apoptosis in hepatocellular and pancreatic cancer cells and effective in detecting AFP”
Shivakumar Belur, N Jagadeesh, Bale M Swamy, Shashikala R Inamdar. *Glycoconjugate Journal* (2020). **IF-3.0**.
3. “An L-fucose specific lectin from *Aspergillus niger* isolated from mycotic keratitis patient and its interaction with human pancreatic adenocarcinoma PANC-1 cells”
N Jagadeesh, **Shivakumar Belur**, Prajna Hegde, A.S. Kamalanathan, Bale M. Swamy, and Shashikala R. Inamdar. *International Journal of Biological Macromolecules* (2019). **IF-8.0**.
4. “Mitogenic lectins from *Cephalosporium curvulum* (CSL) and *Aspergillus oryzae* (AOL) mediate host parasite interactions leading to mycotic keratitis”.
Suhas Ballal, **Shivakumar Belur**, Preeti Laha, Sanhita Roy, Rajiv D Kalraiya, B.M. Swamy, Shashikala R. Inamdar. *Molecular and Cellular Biochemistry* (2017). **IF-3.8**
5. “*Aspergillus niger* lectin elicits MyD88 dependent proliferation and apoptosis at lower and higher doses in immortalized human corneal epithelial cells leading to

pathogenesis"

N Jagadeesh, **Shivakumar Belur**, VB. Chachadi, SanhitaRoy, Shashikala R. Inamdar. *International Journal of biological Macromolecules* (2020). **IF-8.0.**

6. "The fucose specific lectin ANL from *Aspergillus niger* possesses anti-cancer activity by inducing the intrinsic apoptosis pathway in hepatocellular and colon cancer cells "N Jagadeesh, **Shivakumar Belur**, Barry J Campbell, Shashikala R Inamdar. *Molecular and Cellular Biochemistry* (2020). **IF-3.8.**
7. Exquisite specificity of mitogenic lectin from *Cephalosporium curvulum* to core fucosylated N-glycans.”
Shashikala R. Inamdar, Sachin M. Eligar, Suhas Ballal, **Shivakumar Belur**, Rajiv D. Kalraiya, Bale M. Swamy. *Glycoconjugate Journal* (2020). **IF-3.0.**
8. “A Lectin with Anti-Microbial and Anti Proliferative Activities from *Lantana Camara*, a Medicinal Plant”. Kavita Y Hiremath, N Jagadeesh, **Shivakumar Belur**, Supreeth S Kulkarni, Shashikala R Inamdar. *Protein Expression and Purification* (2020). **IF-2.0**
9. “A polylactosamine specific lectin from *Adenia hondala* induces apoptosis and necrosis in human epithelial colon cancer HT-29 cells”. S R. Inamdar, N Jagadeesh, Kavita Y. Hiremath, **Shivakumar Belur**, Mamta Sharma. *Protein & Peptide Letters*(2021).**IF-1.9**
10. “*Cephalosporium curvulum* lectin causes mycotic keratitis by initiating infection through MyD88 dependent cellular proliferation and apoptosis in human corneal epithelial cells” N Jagadeesh, **Shivakumar Belur**, S Ballal, S Roy, S R Inamdar *Glycoconjugate Journal* (2021). **IF-3.0**
11. “Purification and characterization of a sialic Acid specific bacterial lectin from *Corynebacterium amycolatum* and assigning its role in Keratitis” N Jagadeesh, **Shivakumar Belur**, Sanhita Roy and S R Inamdar *EC Ophthalmology* (2022).

Book Chapters Published

1. “Classification of Elements Periodicity in Properties” Nivedita. N. Hiremath, Pratiksha Akki, Kusum S. Akki, Shivakumar Belur. *Basic Inorganic Chemistry*(2023).
<https://www.kdpublications.in>. ISBN: 978-81-19149-01-8.
2. “Use of nanomaterials in agricultural sectors” Gulamnabi Vanti, Shivakumar Belur and Azamal Husen. *Advances in Smart Nanomaterials and their Applications*(2023) (Elsevier). ISBN: 978-0-323-99546-7. DOI- <https://doi.org/10.1016/C2021-0-02202-1>

Personal Information:

Father name	: Dr. B. B. Belur	PermanentAddress
Date of birth	:16 th November1991	#5“NANDAGOKUL”
Sex	: Male	NehruNagar1 st phase,
Marital status	: Married	Gokul Road,
Nationality	: Indian	Hubli,Pincode-
Languages known:	English, Hindi and Kannada	580030
		Contact:+918971495076(M)
		E-mail-shivakumarbelur@yahoo.com

References

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| 3. Dr. Vishwanath B. Chachadi
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Declaration

I hereby declare that all the above furnished information about me is true to the best of my knowledge and belief.

Place:

Date:

Dr. Shivakumar Belur

