

Centre/School/Special Centre: School of Studies of Natural

Resources

**Department:** Pharmacy

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Qualifications: M. Pharm. PhD

Area of Interest/Specialization: Neuro-ocular Pharmacology

**Experience:** 25 Years

Awards and Honors: GATE Qualified, FIC

# **Research Projects:**

| S.No. | Title                  | Role         | Agency   | Period | Amount     | File no. and date    | Status    |
|-------|------------------------|--------------|----------|--------|------------|----------------------|-----------|
|       |                        |              |          |        | Sanctioned |                      |           |
| 1     | UGC SAP                | Deputy       | UGC      | 2011-  | Rs. 68.75  | F.3-60/2011 (SAP-II) | completed |
|       | 'Ehnopharmacological   | Coordinator  |          | 2016   | lakh       | Dated 05/04/2011     |           |
|       | Studies of Traditional |              |          |        |            |                      |           |
|       | Medicinal Plants'      |              |          |        |            |                      |           |
| 2     | A search for herbal    | Principal    | CCOST    | 2015-  | Rs. 1.40   | 1094/CCOST/MRP/2015  | completed |
|       | anticataract drugs     | Investigator | Raipur   | 2017   | Lakh       | Dated 04/09/2015     |           |
|       | from Achanakmar        |              |          |        |            |                      |           |
|       | forest area of         |              |          |        |            |                      |           |
|       | Chhattisgarh state     |              |          |        |            |                      |           |
| 3     | Search for novel       | Principal    | Ministry | 2014-  | Rs 25.70   | Z.28015/107/2014-HPC | completed |
|       | anticataract agents:   | Investigator | of       | 2019   | Lakh       | (EMR)-AYUSH-A        |           |
|       | Phytochemical and      |              | Ayush,   |        |            | Dated 12/01/2015     |           |
|       | pharmacological        |              | Extra    |        |            |                      |           |
|       | investigation of       |              | Mural    |        |            |                      |           |
|       | unexplored medicinal   |              | Research |        |            |                      |           |
|       | plants of Chhattisgarh |              | Scheme   |        |            |                      |           |
|       | State                  |              |          |        |            |                      |           |

International Collaboration/Consultancy: NIL

### **Patent Details:**

- US Patent on research work entitled "A Novel Antifertility Agent", Agrawal S.S., Bodakhe S.H., Diwan Roma and Dhameja Pooja. Publication No. US 2003/0212105 A1.
- IndianDesignPatent on "Vision Maze", ShivaniBehera., Ashmita Das, Dr S
  H.Bodakhe, Nirdesh Kumar, Km Neha Sharma, Geeta Singh, Nidhi Kumari, Dr Amrita
  SinghandDr Jaya Shree. Publication No. 370401-001 dated 04/12/2022.
- IndianDesignPatent on "Central Vision Maze", Ashmita Das, ShivaniBehera,
  OnkarKashyap, Dr Amrita Singh, Dr Jaya Shree and Dr S H.Bodakhe. Publication
  No.372498-001dated 04/12/2022.
- # Indian Patent on research work entitled "Hedychiumcoronarium: A Novel Therapeutic Remedy Against Glaucoma Progression", OnkarKashyap, Ashmita Das, DrVinod D Rangari, , Dr S H.Bodakhe, Kamta P Namdeo, Dr Amrita Singh and Dr Jaya Shree. Application No. 2022 1049661 A dated 11/11/2022.

#### **Best Peer Reviewed Publication:**

- 1. Singh A and Bodakhe S.H.Resveratrol attenuates behavioural impairment associated with learning and memory in HFD-STZ induced diabetic rats. *British Journal of Pharmacology* (2022). 179(19):4673-4691. doi: 10.1111/bph [Impact factor: 9.501].
- **2.** Choudhary R., **Bodakhe S.H.** Magnesium taurate prevents cataractogenesis via restoration of lenticular oxidative damage and ATPase function in cadmium chloride-induced hypertensive experimental animals. *Biomedicine and pharmacotherapy*.84, 836-844 (2016) [Impact factor: **7.419**]
- **3.** Choudhary R., **Bodakhe S.H.** Olmesartan, an angiotensin II receptor blocker inhibits the progression of cataract formation in cadmium chloride induced hypertensive albino rats. *Life sciences*. 167, 105-112 (2016) [Impact factor: 6.78]
- **4.** Dutta B.J, Seksaria S., Bajwa S. S., Gupta G D, **Bodakhe S H** and Singh A, "Potential role of IP3/ Ca<sup>2+</sup> signaling and phosphodiesterases: Relevance to neurodegeneration in

- Alzheimer disease and possible therapeutic strategies" Biochemical Pharmacology. 2022. 201, 115071. https://doi.org/10.1016/j.bcp.2022.115071 [Impact Factor: 5.858]
- **5.** Das A, Kashyap O., Singh A., Shree J., Namdeo K. P. and Bodakhe S.H. Oxymatrine Protects TGFβ1-Induced Retinal Fibrosis in an Animal Model of Glaucoma. *Frontiers In Medicine* (2022). 8:750342. DOI: 10.3389/fmed.2021.750342 [**Impact factor: 5.091**].
- **6.** Shrivastava P., ChoudharyP;Nirmalkar U; Singh A; Shree J;Vishwakarma, P. K.; **Bodakhe S.H.** Magnesium taurate attenuates progression of hypertension and cardiotoxicity against cadmium chloride-induced hypertensive albino rats. *Journal of Traditional and Complementary Medicine*(2018). [Impact factor: **4.88**]
- 7. Soni P., Choudhary R. and **Bodakhe S.H.** Effects of a novel isoflavonoid from the stem bark of *Alstoniascholaris* against fructose-induced experimental cataract. *Journal of Integrative Medicine*.17, 374-382 (2019). [Impact factor: 4.22]
- **8.** Ahuja, M. &Bodakhe, S. H.In vitro lens protective and antimicrobial activity of *Buteafrondosa. Journal of Pharmacy and Pharmacology* **56**, 63 (2004) [Impact factor: 3.765].
- **9.** Singh Amrita and **Bodakhe S. H.** Resveratrol delay the progression of cataract formation against naphthalene induced experimental cataract in the albino rats. *Journal of Biochemical and Molecular Toxicology*.e22420.https://doi.org/10.1002/jbt.22420. [Impact factor: 3.642]
- **10.** Choudhary R., Shree J., Singh Amrita and **Bodakhe S. H.** Role of the renin–angiotensin system in the development of cataract formation in angiotensin-II-induced experimental rats. *Biochemical and Molecular Toxicology*. 2021 DOI: 10.1002/jbt.22789 [Impact factor: 3.642].
- **11.** Shree J., Choudhary R., **Bodakhe S H.**Losartan delays the progression of streptozotocin induced diabetic cataracts in albino rats. *Journal of Biochemical and Molecular Toxicology*. 2019;e22342.[**Impact factor: 3.642**]
- 12. Khan S B; Choudhary R; Vishwakarma P. K; Singh Amrita; Jaya Shree; **Bodakhe S. H.** Protective effect of alpha-lipoic acid on progression of cataract formation infructose-induced experimental cataract. *PharmaNutrition*. 5,127–132 (2017). [Impact Factor: 3.512]
- **13.** Shitlani D., Choudhary R., Pandey D.P., **Bodakhe S.H.** Ameliorative antimalarial effects of the combination of rutin and swertiamarin on malarial parasites. *Asian pacific journal of tropical disease*. 6 453-459 (2016) [Impact factor: 3.041].

- **14.** Yadav A., Choudhary R., **Bodakhe S H.**. Role of Nitric Oxide in the Development of Cataract Formation in CdCl<sub>2</sub>-induced Hypertensive Animals. *Current Eye Research*. 43 (12):1454-1464(2018). [Impact factor: **2.631**].
- **15.** Singh Amrita and **Bodakhe S. H.** Biochemical evidence indicates the preventive effect of resveratrol and nicotinamide in the treatment of STZ-induced diabetic cataract *Current Eye Research*. *DOI:* 10.1080/02713683.2020.1782941 [Impact factor: **2.631**]
- **16.** Shree J., Singh A., Choudhary R., Pandey D. P and **Bodakhe S. H.** Topical Administration of ACE Inhibitor Interrupts the Progression of Cataract in Two Kidney One Clip Induced Hypertensive Cataract Model. *Current Eye Research*. 2021 DOI: 10.1080/02713683.2021.2002911 [Impact factor: 2.631].
- 17. Soni P. and Bodakhe S.H. Protective effect of *Coleus forskohlii*leaf-extract compound on progression of cataract against Fructose-Induced experimental cataract in rats. Drug and *Chemical Toxicology*. <a href="https://doi.org/10.1080/01480545.2019.1668404">https://doi.org/10.1080/01480545.2019.1668404</a>. [Impact factor: 2.597]
- **18.** Shree J., Choudhary R., and **Bodakhe S. H.** Therapeutic effects of various renin angiotensin modulators on hyperglycemia-induced cataract formation in Sprague Dawley rats. *European Journal of Ophthalmology*. 2020 DOI: doi.org/10.1177/1120672120962401 [Impact factor: **2.597**].
- 19. Rana, V. S., Juyal, J. P., Blazquez, M. A. &Bodakhe, S. H. Essential oil composition of *Artimisiaparviflora*aerial parts. *Flavor and Fragrance Journal* 18, 342-344 (2003) [Impact factor: 2.500].
- **20.** Gupta Sanjay; **Bodakhe S.H.** Development of pharmacological screening method for evaluation of effect of drug on elevated pulse pressure and arterial stiffness. *Journal of Pharmacological and Toxicological Methods*. 91, 59-65 (2018). [Impact factor: 2.285].
- **21.** Kapoor M. S., Khan S. A., Gupta S., Choudhary R., **Bodakhe S.H.** Animal models of erectile dysfunction. *Journal of Pharmacological and Toxicological Methods*. 76, 43-54 (2015).[**Impact factor: 2.285**].
- **22.** Khan S.A., ChoudharyR.,Singh A., **Bodakhe S.H.** Hypertension potentiates cataractogenesis in rat eye through modulation of oxidative stress and electrolyte homeostasis. *Journal of current ophthalmology*.28, 1-8 (2016). [Impact factor: **1.932**]

- **23.** Singh A., Khan S.A., Choudhary R., **Bodakhe S.H.** Cinnamaldehyde attenuates cataractogenesis via restoration of hypertension and oxidative stress in fructose-fed hypertensive rats. *Journal of pharmacopucture*. 19, 7-15 (2016). [Impact factor: 1.643]
- **24.** Soni P., **Bodakhe S.H.** Anti venom potential of ethanolic extract of *Cordiamacleodii*bark against *Naja* venom. *Asian Pacific Journal of Tropical Biomedicine*. 4(Suppl 1), S449-S454 (2014). [Impact Factor: 1.514]
- 25. ChoudharyManoj., Bodakhe S.H. Gupta Sanjay. Assessment of antiulcer potential of *Moringaoleifera* root-bark extract in rats. *Journal of Acupuncture and Meridian Studies*. 6(4), 214-220 (2013). [Impact factor: 1.463]
- **26.** Rishi, R. K., **Bodakhe, S. H.**, Tailang, M. &Akhtar, M. Patterns of use of Oral Rehydration Therapy in Srinagar (Garhwal). *Tropical Doctor***33**, 143-145 (2003) [Impact factor: *0.846*].
- **27. Bodakhe, S. H.**, Dangi, J. S., Ram, A., Namdeo, K. P. &Bodakhe, K. S. Isolated Cock Ileum: A Tool For Pharmacology Experiments. *Indian Journal of Pharmaceutical Education and Research***43(2),** 199-202 (2009).[Impact factor:0.843].
- 28. Gupta Neelu; Bhattacharya A., Bodakhe S. H.; Katare M. A case of melanosarcoma-in rat. *Indian Journal of Animal Research*. 51(3), 611-612 (2017) ISSN: 03676722. [Impact Factor: 0.427]
- **29. Bodakhe, S. H.**& Ram, A. Hepatoprotective Properties of *Bauhinia variegata* Bark Extract. *YakugakuZasshi***127**, 1503-1507 (2007)[Impact factor: **0.302**].
- **30. Bodakhe, S. H.,** Ram, A. &Pandey, D. P. A New Aromatic Glycoside from *Morinalongifolia* Wall. *Asian Journal of Chemistry* **22(4)**, 2789-2793 (2010). [Impact factor: **0. 535**].
- **31. Bodakhe, S. H.,** Ram, A., Bodakhe, K. S. &Pandey, D. P. New polyphenolic aromatic glycoside from *Bauhinia variegata* L. stem bark. *Asian Journal of Chemistry* **22(5)**, 3549-3553 (2010). [Impact factor: 0. 535].

# Recent Books/Book Chapters/Monographs etc.

- **1.** Gupta, S.; Juyal, V.; Ahuja, M.; **Bodakhe, S. H.**, *Career in Pharmacy*. Birla Publications: Delhi, 2006. ISBN: 8125600043
- **2.** Ahuja, M.; **Bodakhe, S. H.**; Juyal, V.; Gupta, S., *Synopsis for GPAT*. Dwawan Publications: Delhi, 2016. ISBN: 81-86548440
- **3. Bodakhe, S. H.**; Gupta, S., *A text book of Experimental Pharmacology*. Dhawan Publications: Delhi, 2016. ISBN: 81-86548904
- **4. Bodakhe, S. H.**; Jain, Parag., Bhattacharya Arin; Shree Jaya and Singh Amrita., Guidelines and Screening Methods of Pharmacology ,PharmaMed Press, Hyderabad 2021 ISBN: 97-89389354222

# **Research Supervision:**

### PhD Scholars

| Sr No. | Name of the Candidate                                  | Thesis Title  | Date of PhD  |
|--------|--|---|--------------|
|        |  |   | Degree award |
| 1      | Sanjay Kumar Gupta                                     | Evaluation of effective mechanism for the             | 27/12/2017   |
|        |  | maintenance of pulse pressure by antihypertensive     |              |
|        |  | agents  |              |
| 2      | Rajesh Choudhary Effects of angiotensin receptor block |   | 31/01/2019   |
|        |  | magnesium taurate in hypertension induced             |              |
|        |  | ocular disorders and lenticular alterations.          |              |
| 3      | Pranay Soni  | Study of some medicinal plants with reference to      | 26/11/2019   |
|        |  | cardiovascular and lenticular alteration on           |              |
|        |  | experimental animal                                   |              |
| 4      | Jaya Shree   | Investigation of role of renin angiotensin system in  | 12/11/2020   |
|        |  | modulation and management of cataract formation       |              |
| 5      | Amrita Singh   | Preclinical evaluation of polyphenolic . Bioactive in | 11/06/2021   |
|        |  | animal models of age related disorders                |              |
| 6      | Arin Bhattacharya                                      | Role of vanadium – NSAID complex in nicotine          | 14/06/2021   |
|        |  | exacerbated diabetic cataract                         |              |

Administrative Responsibilities: As assigned by Vishwavidyalaya from time to time

International Research presentations:

1. XIII International Congress of Pharmacology, Munchen, Germany Naunyn-Schmiedeberg's

Archives of Pharmacology) July 26<sup>th</sup> – 31<sup>st</sup>, 1998, **Munchen**, **Germany**.

2. British Pharmaceutical Conference, "Medicines: From cell to society", held at Manchester

(UK) organized by Royal Pharmaceutical Society of Great Britain Manchester (UK).

3. Phytopharm 2008, 12<sup>th</sup> International Congress, 2-4 July, 2008, Saint Petersburg, Russia.

4. 2<sup>nd</sup> International Conference on Drug Discovery and Therapy' held at **Dubai, UAE** 

5. International Conference of Personalized medicine and targeted therapies in cancer. Sharjah

Int of Medical Research, Sharjah, UAE.

6. International Conference on Medical, Biological and Pharmaceutical Sciences, International

Academy of Science, Technology, Engineering and Management, Bangkok, Thailand.

7. 7th International Science Congress, International Science Community Association and

College of Science and Technology, Royal University of Bhutan, Bhutan.

Signature with date

Date: 22/12/2022