

## RESEARCH PAPERS

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- 41 KK Bhutani & group Himsra (Rt) *Capparis spinosa* Linn in: The Ayurvedic Pharmacopoeia of India 2006, Part - I: Monographs, Vol. 5 (MoH & FW, Department of AYUSH, New Delhi) p. 41-42.
- 42 KK Bhutani & group Latakaranja (Sd.) *Caesalpinia bonduc* (Linn.) Roxb, in: The Ayurvedic Pharmacopoeia of India 2006, Part - I: Monographs, Vol. 5 (MoH & FW, Department of AYUSH, New Delhi) p. 95-97.
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- 44 KK Bhutani & group Renuka (Fr.) *Vitex negundo* Linn., in: The Ayurvedic Pharmacopoeia of India 2006, Part - I: Monographs, Vol. 5 (MoH & FW, Department of AYUSH, New Delhi) p. 154-156.
- 45 KK Bhutani & group Svetpunarnava (Rt.) *Boerhavia verticillata* Poir., in: The Ayurvedic Pharmacopoeia of India 2006, Part - I: Monographs, Vol. 5 (MoH & FW, Department of AYUSH, New Delhi) p. 168-169.
- 46 KK Bhutani & group Vanda (Lf.) *Dendrophthoe falcata* (Linn.f.) Ettingsh., in: The Ayurvedic Pharmacopoeia of India 2006, Part - I: Monographs, Vol. 5 (MoH & FW, Department of AYUSH, New Delhi) p. 181-182.
- 47 KK Bhutani & group Vanda (St.) *Dendrophthoe falcata* (Linn.f.) Ettingsh., in: The Ayurvedic Pharmacopoeia of India 2006, Part - I: Monographs, Vol. 5 ( MoH & FW, Department of AYUSH, New Delhi) p. 183-184.
- 48 KK Bhutani & group Vanda (Aerial Rt.) *Dendrophthoe falcata* (Linn.f.) Ettingsh., in: The Ayurvedic Pharmacopoeia of India 2006, Part - I: Monographs, Vol. 5 ( MoH & FW, Department of AYUSH, New Delhi) p. 185-186.
- 49 KK Bhutani & group Vanda (Fl.) *Dendrophthoe falcata* (Linn.f.) Ettingsh., in: The Ayurvedic Pharmacopoeia of India 2006, Part - I: Monographs, Vol. 5 ( MoH & FW, Department of AYUSH, New Delhi) p. 187-188.
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- 51 KK Bhutani & group (B Singh, Manoj and UR Lal) *Asparagus adscendens* Roxb., in: Quality Standards of Indian Medicinal Plants 2006, Monographs, Vol. 4 (ICMR, New Delhi) p. 28-35.
- 52 KK Bhutani & group (B Singh, Manoj and UR Lal) *Chlorophytum arundinaceum* Baker, in: Quality Standards of Indian Medicinal Plants 2006, Monographs, Vol. 4 (ICMR, New Delhi) p. 67-75.
- 53 KK Bhutani & group (B Singh, Manoj and UR Lal) *Citrullus colocynthis* (Linn.) Schard., in: Quality Standards of Indian Medicinal Plants 2006, Monographs, Vol. 4 (ICMR, New Delhi) p. 76-83.
- 54 KK Bhutani & group (B Singh, Manoj and UR Lal) *Embelia ribes* Burm.f., in: Quality Standards of Indian Medicinal Plants 2006, Monographs, Vol. 4 (ICMR, New Delhi) p. 130-136.
- 55 KK Bhutani & group (B Singh, Manoj and UR Lal) *Evolvulus alsinoides* (Linn.) Linn., in: Quality Standards of Indian Medicinal Plants 2006, Monographs, Vol. 4 (ICMR, New Delhi) p. 145-153.

- 56 KK Bhutani & group (B Singh, Manoj and UR Lal) *Inula racemosa* Hook. f., in: Quality Standards of Indian Medicinal Plants 2006, Monographs, Vol. 4 (ICMR, New Delhi) p. 169-177.
- 57 KK Bhutani & group (B Singh, Manoj and UR Lal) *Pluchea lanceolata* (DC.) Clarke, in: Quality Standards of Indian Medicinal Plants 2006, Monographs, Vol. 4 (ICMR, New Delhi) p. 185-193.
- 58 KK Bhutani & group (B Singh, Manoj and UR Lal) *Symplocos racemosa* Roxb., in: Quality Standards of Indian Medicinal Plants 2006, Monographs, Vol. 4 (ICMR, New Delhi) p. 215-223.
- 59 KK Bhutani & group (B Singh, Manoj and UR Lal) *Trigonella foenum-graecum* Linn., in: Quality Standards of Indian Medicinal Plants 2006, Monographs, Vol. 4 (ICMR, New Delhi) p. 232-241.
- 60 KK Bhutani & group (B Singh and UR Lal) *Caesalpinia bonduc* (Linn.) Roxb. emend. Dandy & Excell, in: Quality Standards of Indian Medicinal Plants 2005, Monographs, Vol. 2 (ICMR, New Delhi) p. 25-33.
- 61 KK Bhutani & group (B Singh and UR Lal) *Catharanthus roseus* (Linn.) G. Don, in: Quality Standards of Indian Medicinal Plants 2005, Monographs Vol. 2 (ICMR, New Delhi) p. 54-61.
- 62 KK Bhutani & group (B Singh and UR Lal) *Cissus quadrangularis* Linn., in: Quality Standards of Indian Medicinal Plants 2005, Monographs Vol. 2 (ICMR, New Delhi) p. 62-69.
- 63 KK Bhutani & group (B Singh and UR Lal) *Convolvulus microphyllus* Sieb. ex Spreng, in: Quality Standards of Indian Medicinal Plants 2005, Monographs Vol. 2 (ICMR, New Delhi) p. 70-78.
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- 69 KK Bhutani & group (B Singh, Manoj and UR Lal) *Berberis aristata* DC. var. *aristata*, in: Quality Standards of Indian Medicinal Plants 2005, Monographs Vol. 3 (ICMR, New Delhi) p. 78-87.
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- 75 KK Bhutani & group (B Singh and D Gupta) *Lawsonia inermis* Linn., in: Quality Standards of Indian Medicinal Plants 2003, Monographs Vol. 1 (ICMR, New Delhi) p. 123-129.
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- 77 KK Bhutani & group (B Singh and D Gupta) *Piper longum* Linn., in: Quality Standards of Indian Medicinal Plants 2003, Monographs Vol. 1 (ICMR, New Delhi) p. 168-173.
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#### **Projects Executed:**

<b>SrNo</b>	<b>Project Name</b>	<b>Start</b>	<b>Finish</b>	<b>Sponsored By</b>
1	Fifth biennial conference: DDNPTM – 2016.	2015	Continuing	DoP (MCF), DST, Deptt. of Ayush etc.
2	Effect of finger millet ( <i>Eleusine coracana</i> ) and kodo millet ( <i>Paspalum scrobiculatum</i> ) arabinoxylan on adipogenesis and associated inflammatory Markers-A nutrigenomic study.	2013	Continuing	Department of Biotechnology, Ministry of Science and Technology, Government of India.
3	Identification of potential Anti-HIV natural product	2013	Continuing	Department of Biotechnology,

	analogs using molecular docking and medicinal chemistry approaches.			Ministry of Science and Technology, Government of India.
4	Fourth biennial conference: DDNPTM – 2014.	2013	2014	DoP (MCF), DST, Deptt. of Ayush etc.
5	Third biennial conference: DDNPTM – 2012.	2011	2012	DoP (MCF), DST, Deptt. of Ayush etc.
6	To ascertain the commercial potential of the method for domestic production of Shikimic Acid.	2010	2012	Indian Council of Medical Research (ICMR), Government of India.
7	Conservation, molecular characterization of gene resources of rare, critically endangered, and commercially important (Cyperipedium cordigerum D. Don, Paphiopedilum venustum (Wall) pfitz & Stein., Paphiopedilum specerianum and Dendrobium.	2010	2013	Department of Science and Technology (DST), Ministry of Science and Technology, Government of India.
8	Survey of pharmaceutical potential of herbal wealth of Bihar and its traditional systems in vogue.	2009	2009	Department of Pharmaceuticals (DoP), Ministry of Chemicals and Fertilizers (MCF), Government of India.
9	DST-PAC meeting for the schemes under Science and Society Division.	2009	2009	Department of Science and Technology, Ministry of Science and Technology, Government of India.
10	Training imparted to Staff of Drug Testing Laboratory, Department of Ayurveda, Punjab, Chandigarh	2009	2009	Directorate of Ayurveda, Punjab
11	Phospholipid samples on HPTLC (Qualitative & Quantitative analysis)	2009	2009	IMTECH, Chandigarh
12	Capacity Building Support to Prof. K K Bhutani.	2008	Continuing	Merck & Company Inc., USA.
13	Second biennial conference: DDNPTM – 2010.	2008	2010	DoP (MCF), DST, Deptt. of Ayush etc.
14	Analytical method development of ADKP Polyherbal formulation.	2008	2008	Vedic Life Sciences Ltd., Mumbai



15	Sample analysis on HPTLC (Coded sample RD1-10 provided by outsider)	2008	2008	Guru Gobind Singh College of Pharma, Yamuna Nagar
16	Carbohydrate analysis on HPLC	2008	2008	Punjabi University, Patiala
17	Analytical method development on HPTLC	2008	2008	Punjabi University, Patiala
18	Discovery of potential antileishmanial chemotherapeutics and ethno therapeutics from medicinal plants.	2007	2010	Department of Science and Technology, Ministry of Science and Technology, Government of India.
19	First Biennial conference: DDNPTM – 2008 [Part support by Merck & Co. USA].	2007	2008	DoP (MCF), DST, Deptt. of Ayush and Merck & Co., USA
20	Griffonia simplicifolia for qualitative & quantitative analysis on HPLC	2007	2007	M/s Cepham, Derabassi
21	Quantitative analysis of Nyctanthes Arbortristis (plant ext) on HPTLC	2007	2007	Punjabi University, Patiala
22	Protocols for (ADKP) Tablets	2007	2007	Vedic Life Sciences, Mumbai
23	Identification of anti-viral compounds with potential for development of microbicide to prevent HIV infection and transmission.	2006	2010	Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India.
24	Stevia rebaudiana, a source of low calorie sugar: An assessment of its role in antidiabetic therapy.	2006	2008	Department of Biotechnology, Ministry of Science and Technology, Government of India.
25	Ecorestoration of gene resources in rare, endangered and therapeutically important orchids Epipactis helleborine (Linn.) Grantz, Vanda testacea (Lindl.) and Vanilla planifolia Andre and rapd analysis to ensure cytological stability in the regenerants.	2006	2008	Department of Biotechnology, Ministry of Science and Technology, Government of India.
26	Survey & evaluation of pharmaceutical potential of north-east India.	2006	2008	Department of Pharmaceuticals (DoP), Ministry of

				Chemicals and Fertilizers (MCF), Government of India
27	Qualitative & Quantitative analysis on HPTLC (Coded Sample & Std provided by TBRL)	2006	2006	T.B.R.L., Chandigarh
28	Monosaccharides analysis on HPLC	2006	2006	Punjabi University, Patiala
29	Standardized extract preparation of Ginkgo biloba leaves containing flavonoid glycosides (>24%) and total terpene lactones (>6%).	2005	2005	SBL, Sahibabad
30	Chemical profiling of Exts on HPTLC	2005	2005	M/s Alpha Drugs Ltd., Lalru
31	Estimation of Ofloxacin on HPLC	2005	2005	M/s Promed Company, Delhi
32	Flavonoids estimation on HPTLC from plants	2004	2004	M/s Panacea Biotech, Lalru
33	Quality analysis of Brahmi samples	2004	2004	Department of Agronomy, College of Agriculture, Pantnagar
34	Analysis of Stevia samples	2004	2004	IPCA Laboratories Ltd. Mumbai
35	Central Scheme for Development of Standard Operating Procedure (SOP) of Manufacturing Process of Compound of Ayurvedic-Siddha-Unani Formulation and Their Pharmacopoeial Standards Under APS Scheme.	2003	2006	Department of ISM & H, Ministry of Health and Family Welfare, Government of India
36	A Composite Proposal for Preparation, Standardization and Stability Related Issues of Pippalyadi Yoga, an Ayurvedic Oral Contraceptive.	2003	2005	Department of ISM & H, Ministry of Health and Family Welfare, Government of India
37	Ex-situ and In-situ Cultivation, Conservation of Medicinal Plants and Production of Germplasm of Quality Material in Bulk from Brahmi, Anatmool, Asparagus adsendens, etc.	2003	2005	Department of ISM & H, Ministry of Health and Family Welfare, Government of India

38	Protocols for Ayurvedic Injections.	2003	2004	Department of ISM & H, Ministry of Health and Family Welfare, Government of India
39	Analysis of sample of Cedrus deodara by GLC	2003	2003	U.I.P.S., Panjab University, Chandigarh
40	Analysis of nine herbs	2003	2003	Dabur Research Foundation, Sahibabad
41	Analysis of tissues for diclofenac residues	2003	2003	M/s Bombay Natural History, Pinjore
42	Testing of ISM drugs under RCH project	2003	2003	M/s HSCC India Limited, Noida
43	Standardization of ayurvedic formulation of five Mandura Preparations	2003	2003	M.M.M. Govt. Ayurvedic College, Udaipur
44	Evaluation of Potential Ayurvedic Drugs for Gynaecological Disorders.	2002	2004	Department of Family Welfare, Government of India
45	Isolation and Characterization of Natural Products.	2001	2001	T. N. Agriculture University, Coimbatore
46	Investigations on Cox-2/Cox-1 Inhibition From Some Indian Medicinal Plants, (As Co-PI).	2001	2004	Council of Scientific and Industrial Research (CSIR), Government of India
47	Standardization and Quality Control, and Formulation of Traditional Medicines.	2001	2004	Indian Council of Medical Research (ICMR), Government of India
48	Central Scheme to Develop Pharmacopoeial Standards for ISM Drugs." Part – II.	2000	2004	Department of ISM & H, Ministry of Health and Family Welfare, Government of India
49	Development of Standards of Selected Therapeutically Important Indian Medicinal Plants.	2000	2003	Indian Council of Medical Research (ICMR), Government of India
50	Immuno-stimulant and Adaptogens from Selected Few Indigenous Plants.	2000	2003	Department of Science and Technology, Ministry of Science and Technology, Government of India.
51	Central Scheme for Development of Agro-Techniques for ISM Drugs. Part- II.	2000	2003	Department of ISM & H, Ministry of Health and Family Welfare, Government of India
52	Conservation of	2000	2001	Dabur Research

	Phytomaterials.			Foundation, Sahibabad
53	Analysis of fatty acids of phospholipids on GC	1999	1999	PGIMER, Chandigarh
54	HPLC of Bergapten and Barberine sample analysis	1997	2002	M/s Namiex Chemicals Ltd., Pathankot
55	Sample testing on HPLC & HPTLC	1997	1997	College of Home science Agriculture University, Palampur
56	Central Scheme for development of cultivation of medicinal plants. Part-I.	1995	1997	Department of ISM & H, Ministry of Health and Family Welfare, Government of India
57	Cultivation of Artemisia annua and Isolation of Artemisinin and related by-products.	1995	1997	Unichem Laboratory, Mumbai

## Students' Dissertation

### Doctoral Program

SrNo	Thesis Title	Year
1.	Synthesis and biological evaluation of substituted $\beta$ -Carboline and isoquinoline analogues. (Lunagariya Nitin Amarshibhai)	2016
2.	Phytochemical investigation of indian medicinal plants against pro-inflammatory mediators. (Udai Chand Agrahari)	2015
3.	Investigations on selected medicinal plants against pro-inflammatory mediators. (Neeraj Kumar Patel)	2015
4.	Evaluation of antiobesity properties of compounds isolated from selected medicinal plants and synthetic phenyl ethanolamine analogues.(Aniket Karmase)	2014
5.	Design, synthesis and biological evaluation of natural product based heterocyclic compounds. (Vikrantsinh Gohil)	2013
6.	Design synthesis and biological evaluation of $\beta$ -carboline derivatives for anti-HIV activity. (Brahm Bhatt Keyur Gopalbhai)	2011
7.	Design, synthesis and biological evaluation of quinoline and tricyclic guanidine compounds for anti-HIV activity. (Nafees Ahmed)	2011
8.	Isolation and structural characterization of potential pancreatic lipase inhibitory constituents from selected medicinal plants. (Rahul Birari)	2011
9.	Development of analytical profiles of selected Arishtas. (Uma Ranjan Lal)	2010
10.	Investigations on natural product scaffolds against pro-inflammatory mediators. (Atish T. Paul)	2009

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|-----|--|------|
| 11. | Investigation of chemical constituents of <i>Agaricus bisporus</i> for anticancer activity. (Chitra G.)  | 2005 |
| 12. | Phytochemical studies on <i>Asparagus adscendens</i> , <i>Asparagus racemosus</i> and <i>Symplocos racemosa</i> and their effect on female hormones. (Jadhav Atul Namdeorao) | 2004 |
| 13. | Studies on immunomodulatory potential of <i>Ocimum</i> species and functional interactions of constituents. (Jadhav Hemant Ramanlal)   | 2004 |
| 14. | Saponins of <i>Bacopa monniera</i> , <i>Terminalia Arjuna</i> and <i>Madhuca indica</i> : comparative effect on respiratory oxyburst process. (Pawar Rahul Shamrao)          | 2003 |
| 15. | Isolation and characterization of biomarkers from natural sources. (Desh Deepak Singh)   | 2003 |

### Masters' Students

SrNo	Thesis Title	Year
1.	Phytochemical investigation of <i>Melia azedarach L</i> for anti-inflammatory activity (Bhagat singh)	2016
2.	Standardization and monograph development of <i>Lodhrasava</i> (Vaishali dhiman)	2016
3.	Design, synthesis and biological evaluation of styrylquinoline derivatives (Battu Mahendar)	2016
4.	Phytochemical investigation of <i>Gmelina arborea</i> and its evaluation for antiobesity activity (Shilpi Saloni)	2016
5.	Design, synthesis and biological evaluation of isoquinoline derivatives (Amandeep)	2016
6.	Isolation of <i>phyllanthin</i> and synthesis of its derivatives for antiobesity activity (Dharm Pal)	2016
7.	Evaluation of in vitro in vivo anti-obesity potential of <i>Atrocorpus heterophyllus</i> (Aditya kucheriya)	2016
8.	Design and synthesis of cinnamoyl-tyramine conjugates for the inhibition of pro-inflammatory mediators (Reena Kanti)	2015
9.	Phytochemical investigation of <i>Ailanthus excelsa</i> Roxb. Bark for Anti-inflammatory constituents (Gautami Godavari)	2015
10.	Development of Phytosome and Liposome Formulation of Pinostrobin for Evaluation of Anti-Inflammatory Activity (Gaurav Jaiswal)	2015
11.	Design, Synthesis and Biological evaluation of capsinoid derivatives for anti-obesity activity (Kirti Joshi)	2015
12.	Evaluation of in vitro and in vivo antiobesity potential of <i>Ferula Asafoetida</i> , <i>Murraya Koenigii</i> and their combinations (Sonali )	2015

13. Design, Synthesis and Biological evaluation of 6-Gingerol derivatives for anti-obesity activity (Rohini Verma) 2015
14. Phytochemical investigation of *Pterocarpus marsupium* and *Capparis decidua* for the evaluation of antiobesity activity (Irfan Mudassir) 2014
15. Isolation and characterization of chemical constituents from *Fumaria indica* and its potential against release of pro-inflammatory mediators in vitro (Godasu Suresh Kumar) 2014
16. Investigation on *Carissa carandas* Linn. roots for anti-inflammatory constituents (Sindhuja Galipalli) 2014
17. Abhayavati: Its tablet formulation, standardization and monograph development (Shashi Prakash Dubey) 2014
18. Standardization and monograph development of *Sothaghna lepa* (*Dosaghna lepa*) (O Harika Supraja) 2014
19. Phytochemical study of *Tylophora indica* and *Pinus roxburghii* and their evaluation for release of pro-inflammatory mediators in LPS stimulated cell lines (Anukatalla Sandhya) 2014
20. Synthesis of Beta-carboline derivatives and their evaluation for biological activity (Deshmukh Balaji Digambarrao) 2014
21. Isolation and characterization of anti-inflammatory principles from *Ipomea fistulosa* leaves (Ramandeep) 2014
22. Synthesis of halfordinol derivatives for anti-adipogenesis activity (Shweta Tiwari) 2014
23. Phytochemical investigation of *Trichosanthes dioica* Roxb, and its evaluation for anti-obesity activity. (Sufia Javed) 2013
24. Standardization and monograph development of *satpala ghrta*. (Sonam Jain) 2013
25. Phytochemical investigation and evaluation of in vitro anti-inflammatory activity of *Cassia occidentalis* roots. (Sravani Pulipaka) 2013
26. Design and synthesis of derivatives of caffeic acid and isoeugenol for pancreatic lipase inhibitory activity. (Neha Shrivastava) 2013
27. Phytochemical investigation of *Moringa oleifera* Lam. For anti-obesity activity. (Kodati S.B. Prakash) 2013
28. Seasonal variations in the chemical composition of medicinal plants by HPLC. (Sruti Rasabattula) 2013
29. Phytochemical investigation of *Ipomoea turpethum* roots for in vitro no inhibitory activity. (B. Dhanunjaya Reddy) 2013
30. Phytochemical investigation of *Luffa cylindrica* fruits for in vitro antioxidant activity. (D. Sreekanth) 2013
31. Standardization and monograph development of *mukkamukkatuvadi gutika*. (Tanna Bhakti Chhaganlal) 2013
32. Screening of selected medicinal plants for pancreatic lipase inhibitory activity and Phytochemical investigations of *Ferula asafoetida* Linn. (Ruchi Shekhar) 2012

33. Synthesis of Capsinoid derivatives & their evaluation for pancreatic lipase inhibitory activity. (Richa Mittal) 2012
34. Synthesis and Biological Evaluation of 2-(1,3,5-Triazin-2-yl)-1-Methyl-1,2,3,4-Tetrahydro- $\beta$ -Carbolines for their Pharmacological Activity. (Ravi Kumar Bandaru) 2012
35. Screening of selected Indian medicinal plants for pancreatic lipase inhibitory activity and phytochemical investigation of *Cassia siamea* Lamk. (Dilip Kumar) 2012
36. Synthesis and Biological Evaluation of Rutaecarpine and its Analogues. (Manju) 2012
37. Design and synthesis of 1-phenyl-2-(phenylamino) propanol derivatives for evaluation of lipolysis activity. (P. Priyanka) 2012
38. Standardization and evaluation of emu oil and comparison with fish oil and olive oil and assessment of emu oil for anti-inflammatory property. (Shah Ishika Ashokkumar) 2012
39. Bilvadi Gutika: Its tablet formulation and monograph development. (Chavan Navnath Chintaman) 2012
40. Semi-synthesis of gossypol derivatives and their evaluation for anti-leishmanial activity. (Alka Choudhary) 2011
41. Screening of common medicinal plants for their anti-obesity properties and detailed phytochemical investigation of *Lagerstroemia indica* Linn. (Jagtap Sneha Chandrakant) 2011
42. Synthesis of carbazole analogues for anti-obesity property. (Preeti Singh) 2011
43. Phytochemical investigation of *Aerva lanata* and SAR studies of  $\beta$ -carboline class canthin-6-one alkaloids for anti-leishmanial activity. (Salauni Amitkumar Shah) 2011
44. Phytochemical investigation of *Justicia gendarussa* Burm. For its anti-inflammatory activity. (Shweta Arya) 2011
45. *Arka vati*: Its Tablet formulation, Stability studies and Monograph development. (Iqbal Zafar) 2011
46. *Saptaparna vati*: Its Tablet formulation, Stability studies and Monograph development. (Joshi Bijal Bahen) 2011
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