

## DEPARTMENT OF PHARMACOLOGY

Metric (*2017 Onwards)	Total	Trend																																								
Paper*	123	<table border="1" style="display: none;"> <caption>Year-wise Research Output: Pharmacology</caption> <thead> <tr> <th>Year</th> <th>Paper Publications</th> <th>Book/Book Chapters</th> <th>Patents</th> </tr> </thead> <tbody> <tr><td>2017</td><td>5</td><td>0</td><td>0</td></tr> <tr><td>2018</td><td>2</td><td>2</td><td>0</td></tr> <tr><td>2019</td><td>3</td><td>1</td><td>0</td></tr> <tr><td>2020</td><td>4</td><td>2</td><td>0</td></tr> <tr><td>2021</td><td>6</td><td>1</td><td>0</td></tr> <tr><td>2022</td><td>7</td><td>2</td><td>0</td></tr> <tr><td>2023</td><td>5</td><td>1</td><td>0</td></tr> <tr><td>2024</td><td>8</td><td>3</td><td>0</td></tr> <tr><td>2025</td><td>10</td><td>2</td><td>0</td></tr> </tbody> </table>	Year	Paper Publications	Book/Book Chapters	Patents	2017	5	0	0	2018	2	2	0	2019	3	1	0	2020	4	2	0	2021	6	1	0	2022	7	2	0	2023	5	1	0	2024	8	3	0	2025	10	2	0
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Book/Chapter*	12																																									
Project*	15																																									
Patent*	02																																									
Consultancy																																										

Article Title (Last Five Years)	Journal name
A combined treatment effect of cilostazol and pentoxifylline in the treatment of peripheral vascular disease	<i>Asian journal of medicine and health</i>
A comparison of efficacy of two brands of enoxaparin in covid-19 patients: a pilot study	<i>Asian journal of medicine and health</i>
A comparison of pharmacy students' and community pharmacists' knowledge, attitude, and practise of generic versus branded medicines	<i>Journal of medical research and reviews</i>
A comprehensive assessment of prescription patterns for anemia management in pregnant women: a study from anand district, india	<i>Cureus journal of medical science</i>
A hospital-based perspective observational study on medication-related problems in clinical practice	<i>Indian journal of medical specialities</i>
A multi-omics investigation to decipher the paradoxical context dependent role of the ptpn1 gene in cancer prognosis	<i>Current pharmacogenomics and personalized medicine</i>
A new vision for ocular disease: stem cell strategies in regenerative ophthalmology	<i>Stem cell reviews and reports</i>
A novel approach for the simultaneous determination of hecogenin and stigmaterol in <i>chlorophytum borivillianum</i> extract using high-performance liquid chromatography	<i>Journal of natural remedies</i>
A prospective longitudinal study of medication errors in private hospital of metropolitan city of gujarat	<i>Indian journal of pharmacy and pharmacology</i>
A prospective study on prescribing patterns of drugs used in alcoholic liver disease	<i>Research journal of pharmacy and</i>

patients at tertiary care hospital in vadodara – a observational study	<i>technology</i>
A simple, precise, and sensitive rp-hplc method for quantification of teneligliptin hydrobromide and metformin hydrochloride: development and validation	<i>Research journal of pharmacy and technology</i>
A study on drug-drug interactions among hospitalized patients at private hospital	<i>Educational administration: theory and practice</i>
A systematic review and meta-analysis recite the efficacy of tacrolimus treatment in renal transplant patients in association with genetic variants of cyp3a5 gene	<i>American journal of clinical and experimental urology</i>
A validated hptlc method for quantiication of a new combination containing lidocaine hcl and diltiazem hcl	<i>Discover chemistry</i>
Acute oral toxicity evaluation of p-propoxybenzoic acid in sprague-dawley rats according to oecd guideline 425 – up-and-down method	<i>Indian journal of physiology and pharmacology</i>
Acute toxicity sudy of eladi quatha: a compound ayurvedic formulation	<i>Journal of advanced zoology</i>
Adenosine receptor subtype modulators: insight into molecular mechanisms and their therapeutic application	<i>American journal of translational research</i>
Adverse drugs reaction and prescribing pattern of antidiabetic medications in type 2 diabetes patients: an observational ambispective study	<i>Clinical diabetology</i>
Aegeline attenuates tnbs-induced colitis by suppressing the nfkb-mediated nlrp3 inflammasome pathway in mice	<i>Inflammopharmacology</i>
Alleviating effect of <i>ficus racemosa</i> in high-fat-high-fructose diet-induced non-alcoholic fatty liver disease	<i>Indian journal of physiology and pharmacology</i>
Alleviating potential of <i>zingiber officinale</i> and cow urine distillate co-administered with levetiracetam in epileptic rats: a pharmacokinetic and pharmacodynamics approach	<i>Journal of natural remedies</i>
Ameliorative effect of <i>avena sativa</i> (oats) in dinitrobenzene sulphonic acid induced inflammatory bowel disease in rats	<i>Indian drugs</i>
Ameliorative effect of ethanolic extract of <i>coptis teeta</i> wall. Roots in alloxan induced diabetic rats	<i>Indian drugs</i>
Ameliorative effect of nodakenin in combating tnbs-induced ulcerative colitis by suppressing nfkb-mediated nlrp3 inflammasome pathway	<i>Naunyn-schmiedeberg's archives of pharmacology</i>
An in-silico and in-vitro approach for the exploration of preliminary anti-cancer potential of p-propoxybenzoic acid through inhibition of protein tyrosine phosphatase 1b enzyme	<i>Proceedings of the indian national science academy</i>
Analytical methods for simultaneous estimation of sglt2 inhibitor and dpp-4 inhibitor in their combination for treatment of type 2 diabetes mellitus	<i>Letters in applied nanobioscience</i>
Anti-arthritic activity of ethanolic extract of <i>citrus aurantium</i> linn. Leaves in complete freund's adjuvant induced arthritis in rats	<i>Indian drugs</i>
Antibody drug conjugates as targeted cancer therapy: past development, present	<i>Archives of pharmacal research</i>

challenges and future opportunities	
Anti-diabetic and insulinotropic effects of p-anisic acid in high-fat diet and streptozotocin induced type-2 diabetic rats	<i>Chemistry and biodiversity</i>
Assessing drug utilization and drug–drug interactions in the management of epilepsy, alzheimer's, parkinson's disease and migraine	<i>Journal of pharmaceutical health services research</i>
Assessment of antibacterial drug utilization patterns and antibiogram in the infectious diseases: a prospective cross-sectional study	<i>Naunyn-schmiedeberg's archives of pharmacology</i>
Assessment of knowledge, attitude and behavior on adverse drug reactions between community and hospital pharmacists: a questionnaire-based study	<i>Indian drugs</i>
Carbamoyl 1,4-dihydropyridine derivatives: synthesis and impressive antidiabetic activity	<i>Russian journal of organic chemistry</i>
Cardioprotection at the molecular interface: extracellular and intracellular targets in mi management	<i>International journal of pharmaceutical sciences review and research</i>
Chemopreventive role of phytoconstituents in breast cancer: an integration therapy	<i>Current bioactive compounds</i>
Clinical study on prescribing trends and quality of life assessment in terminally ill patients with oral squamous cell carcinoma treated with palliative chemotherapy	<i>International journal of clinical and experimental medicine</i>
Collocating novel targets for tuberculosis (tb) drug discovery	<i>Current drug discovery technologies</i>
Comprehensive analysis of aspirin and apixaban: the development, validation, and forced degradation studies of bulk drugs and in-house capsule formulations using the rp-hplc method	<i>American journal of translational research</i>
Coronary artery disease prescribing pattern and risk factor assessment in the patients undergoing angioplasty	<i>International journal of basic &amp; clinical pharmacology</i>
Decrypting the multifaceted peripheral neuropathy based on molecular pathology and therapeutics: a comprehensive review	<i>Archives of physiology and biochemistry</i>
Development and application of hptlc method for estimation of rivaroxaban and aspirin in bulk drug and in-house tablet form	<i>Journal of chemical metrology</i>
Development and application of rp–hplc method for estimation and evaluation of stability of brinzolamide in ophthalmic formulation	<i>Journal of chemical metrology</i>
Development and characterization of solid smedds for enhanced oral delivery of ticagrelor	<i>Nanotechnology perceptions</i>
Discovering the potential of natural remedies in the post covid-19 complications based on in silico techniques	<i>Organic communications</i>
Effectiveness and safety assessment of beta-blockers, calcium channel blockers, and angiotensin receptor blockers in hypertensive patients: a prospective study	<i>American journal of cardiovascular disease</i>
Effects of a metal-curcumin complex on acetic acid induced ulcerative colitis in rats: role of oxidative stress and tnf- $\alpha$	<i>International journal of information research and review</i>
Evaluating the drug repurposing benefits of clopidogrel against adenine induced chronic	<i>Journal of nephropathology</i>

renal failure in experimental animals	
Evaluating the immunomodulatory and detoxifying role of <i>tinospora cordifolia</i> and <i>solanum nigrum</i> in the treatment of colorectal cancer	<i>Research journal of pharmacy and technology</i>
Evaluation of <i>argyreia speciosa</i> root extract as a protective agent against cyclophosphamide-induced toxicities	<i>Journal of applied pharmaceutical science</i>
Evaluation of drug-drug interactions in hospitalised geriatric patients at tertiary care hospital	<i>Indian drugs</i>
Exploring the bioactive properties and mechanism of <i>aegle marmelos</i> in the treatment of inflammatory bowel disease through network pharmacology and a molecular docking approach	<i>American journal of translational research</i>
Gmelinol ameliorates type 2 diabetes and multi-organ complications in streptozotocin-nicotinamide-induced diabetic rats	<i>Naunyn-schmiedeberg's archives of pharmacology</i>
Gynostemma pentaphyllum makino exerts cardioprotective effects by improving hemodynamic, biochemical and histopathological changes through activation of pi3k signalling in isoproterenol-induced myocardial infarction in rats	<i>American journal of translational research</i>
Haematological analysis on anemia in pregnant women attending to antenatal care clinic of anand, gujarat (india)	<i>Latin american journal of pharmacy</i>
Harnessing ferroptosis to combat alzheimer's disease	<i>Acta neurophysiologica</i>
Hemin-induced heme oxygenase-1 induction preserves myocardial architecture and functions via pi3k signalling in isoproterenol-induced myocardial infarction in rats	<i>The jornal brasileiro de patologia e medicina laboratorial</i>
Hemin-induced ho-1 protects isolated rat hearts from ischemia-reperfusion injury by activation of pro-survival signalling pathways	<i>American journal of translational research</i>
Identification and assessment of novel degradants in pazopanib hydrochloride using stability-indicating rp-hplc method	<i>Journal of taibah university for science</i>
In vivo investigation of the therapeutic potential of <i>ziziphus mauritiana</i> against inflammatory bowel disease in albino wistar rats	<i>Medical journal of dr. D.y. patil vidyapeeth</i>
Inside the story about the research and development of covid-19 vaccines	<i>Clinical and experimental vaccine research</i>
Integrated computational and preclinical evaluation of novel synthetic pyrazole pyrazoline thiazole derivative for breast cancer therapeutics	<i>Scientific reports</i>
Integrating network pharmacology and <i>in vivo</i> study to explore the anti-alzheimer's potential of <i>bergenia ligulata</i> and <i>nelumbo nucifera</i>	<i>3 biotech</i>
In-vitro and in-silico evaluation of supercritical extract of <i>acacia auriculiformis</i> against breast cancer	<i>Cell biochemistry and biophysics</i>
Knowledge, attitude and practice of self medication among the staff-members of charotar	<i>Research in pharmacy</i>

university of science and technology	
Mathematical modelling of alzheimer's disease biomarkers: targeting amyloid beta, tau protein, apolipoprotein e and apoptotic pathways	<i>American journal of translational research</i>
Mechanistic role of coumarins useful in mitigating inflammatory bowel disease	<i>Revista brasileira de farmacognosia</i>
Method development and validation of cabozantinib by lc-ms/ms	<i>Pharmacia</i>
Method development and validation of degradation studies of lenalidomide by rp-hplc	<i>Research journal of pharmacy and technology</i>
Method development and validation of degradation studies of palbociclib by rp-hplc	<i>International journal of pharmaceutical research (ijpr)</i>
Method development, validation and degradation studies of imatinib mesylate by uplc	<i>Journal of pharmaceutical research international</i>
Modulation of glucose homeostasis and behavioral parameters by <i>passiflora edulis</i> in a rodent model of metabolic syndrome induced by high fructose intake	<i>Pharmacognosy research</i>
Molecular pathology and therapeutics of the diabetic foot ulcer; comprehensive reviews	<i>Archives of physiology and biochemistry</i>
Morbidity pattern and drug prescribing study in morbidity pattern and drug prescribing study in pregnant women of rural part of charotar region	<i>Indian journal of pharmacy practice</i>
Neuroprotective effects of <i>bauhinia variegata</i> in ameliorating diabetic neuropathy and neurodegeneration	<i>American journal of translational research</i>
Nicotine replacement therapy: insights into the mechanisms and potential of nicotine receptor pathway	<i>American journal of translational research</i>
Norfloxacin induced steven johnson's syndrome: a case study	<i>Clinical interventions and clinical trials</i>
Novel approaches to improve systemic bioavailability of curcumin using probiotics for rotenone-induced parkinson's disease in rodents	<i>American journal of translational research</i>
Novel pyridine-1,3,4-oxadiazole linked 1,2,3-triazole hybrids: synthesis, molecular docking, adme, dft study and anti-tumor potential	<i>Results in chemistry</i>
Novel targets for the development of tuberculosis vaccine	<i>Current drug discovery technologies</i>
Pharmacological evaluation of combinational treatment of herbal medicines with 5-fluorouracil for therapeutic enhancement in an animal model of colorectal cancer	<i>Journal of applied pharmaceutical science</i>
Pharmacological study of a3 adenosine receptor agonist (ab meca) in xenograft lung cancer model in mice through in silico and in vivo approach: targeting tnf-a	<i>Current drug discovery technologies</i>
Piperine: medicinal, analytical and therapeutics perspective	<i>Current bioactive compounds</i>
Pre-clinical evaluation of karanjin against dmba-induced breast cancer in female sprague-dawley rats through modulation of smar1 and cdp/cux genes	<i>Naunyn-schmiedeberg's archives of pharmacology</i>
Prevalence, risk factors, and prescribing trends in chronic renal failure in the indian	<i>Journal of pharmacology and</i>

population	<i>pharmacotherapeutics</i>
Prominent targets for cancer care: immunotherapy perspective	<i>Current cancer therapy reviews</i>
Quality by design approach driven development and validation of reverse phase-high-performance liquid chromatography methodology for dual quantification of aspirin and rivaroxaban	<i>Separation science plus</i>
Simultaneous quantification of teneligliptin hydrobromide and metformin hydrochloride: an improved hptlc method with implementation of plackett-burman design	<i>Journal of chemical metrology</i>
Stability-indicating instrumental thin-layer chromatography method for the quantification of dapagliflozin propanediol monohydrate and bisoprolol fumarate with implementation of fractional factorial design	<i>Jpc-journal of planar chromatography-modern tlc</i>
Structural insights of pd-1/pd-l1 axis: an in silico approach	<i>Current protein &amp; peptide science</i>
Study of ayurvedic formulation eladi quatha used for urolithiasis	<i>Journal of pharmaceutical negative results</i>
Synthesis and inha inhibition of imidazo[1,2-a]pyridine derivatives as anti-tuberculosis agents	<i>Current organic chemistry</i>
The role of complementary herbal supplements on phenylhydrazine-induced toxicities	<i>African journal of biological sciences (south africa)</i>
Unraveling the mechanisms of trans-cinnamic acid in ameliorating non-alcoholic fatty liver disease	<i>American journal of translational research</i>
Vericiguat: a promising drug for the treatment of heart failure	<i>Current cardiology reviews</i>
Warfarin and dabigatran for the treatment of acute deep vein thrombosis: comparison of safety and efficacy	<i>International journal of biology, pharmacy and allied sciences</i>
Xenobots: applications in drug discovery	<i>Current pharmaceutical biotechnology</i>

## FOCUSED RESEARCH AREA

- Drug Design and Synthesis:** Focus on the synthesis and optimization of novel chemical entities, including heterocycles and derivatives like Sulphonylureas/guanidine, often involving Molecular Docking studies. (e.g., *Chemotherapeutic Agent* patent).

- **Advanced Analytical Method Development:** Establishing and validating robust analytical techniques, such as Stability Indicating Reverse Phase HPLC Methods, for the accurate estimation of drugs in formulations.
- **Quality Control (QC/QA):** Research into impurity profiling and quantification to ensure the quality and stability of pharmaceutical dosage forms.