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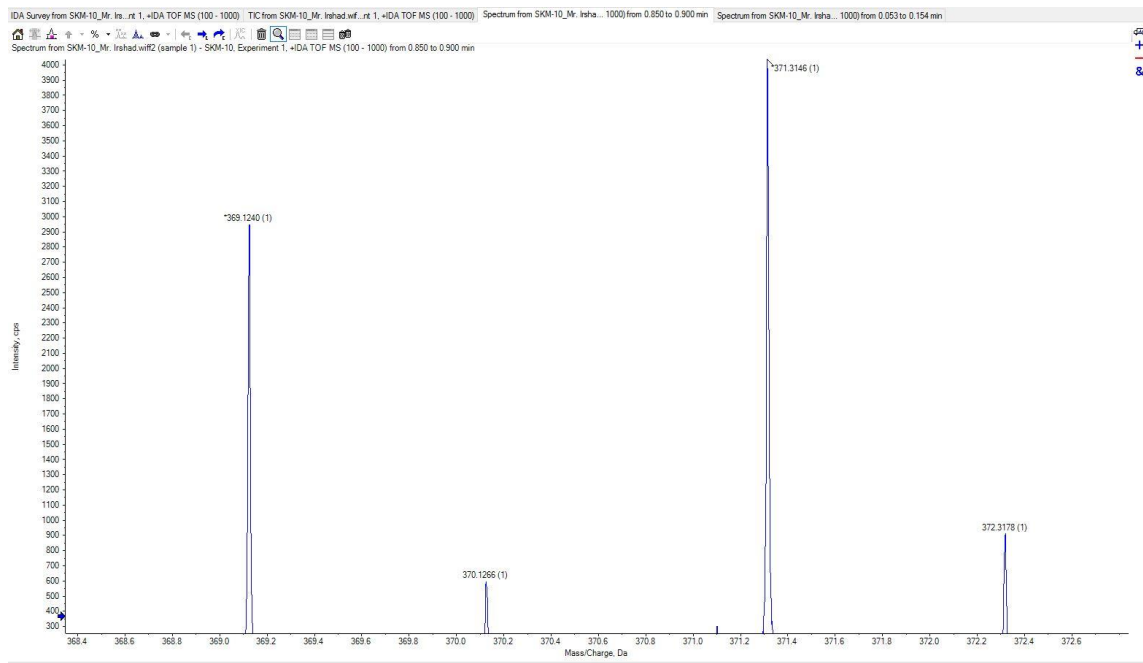
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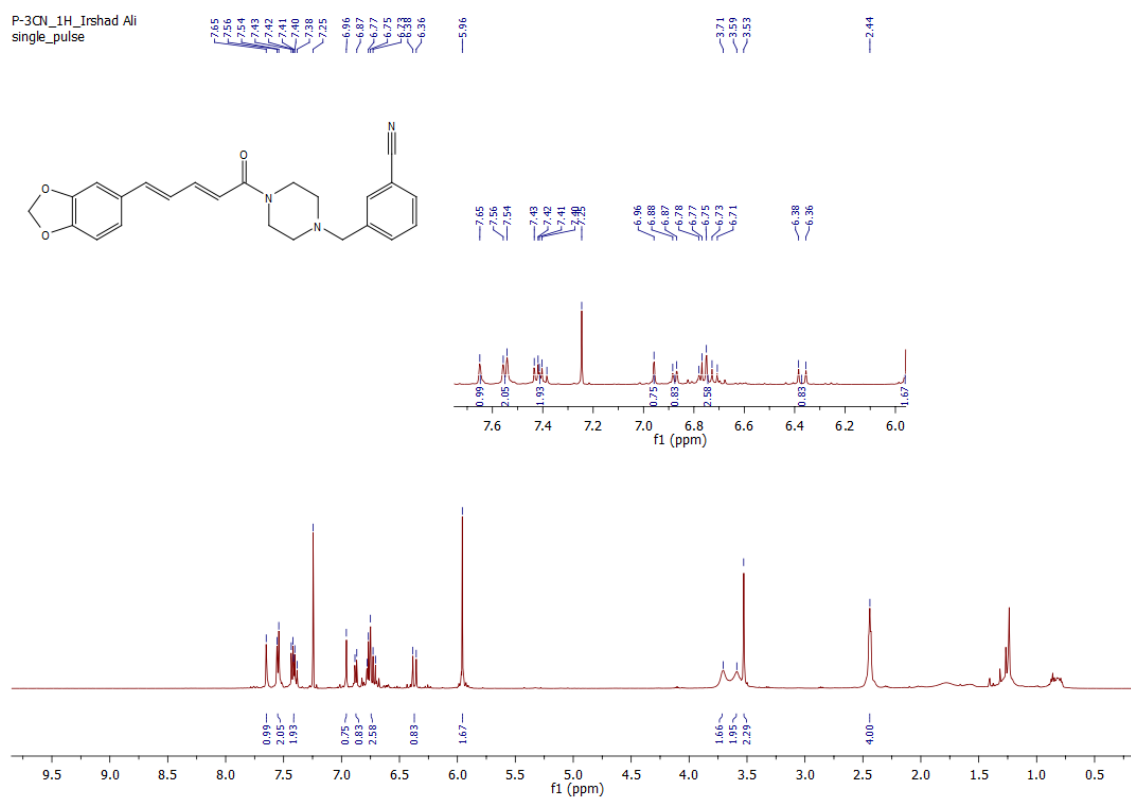
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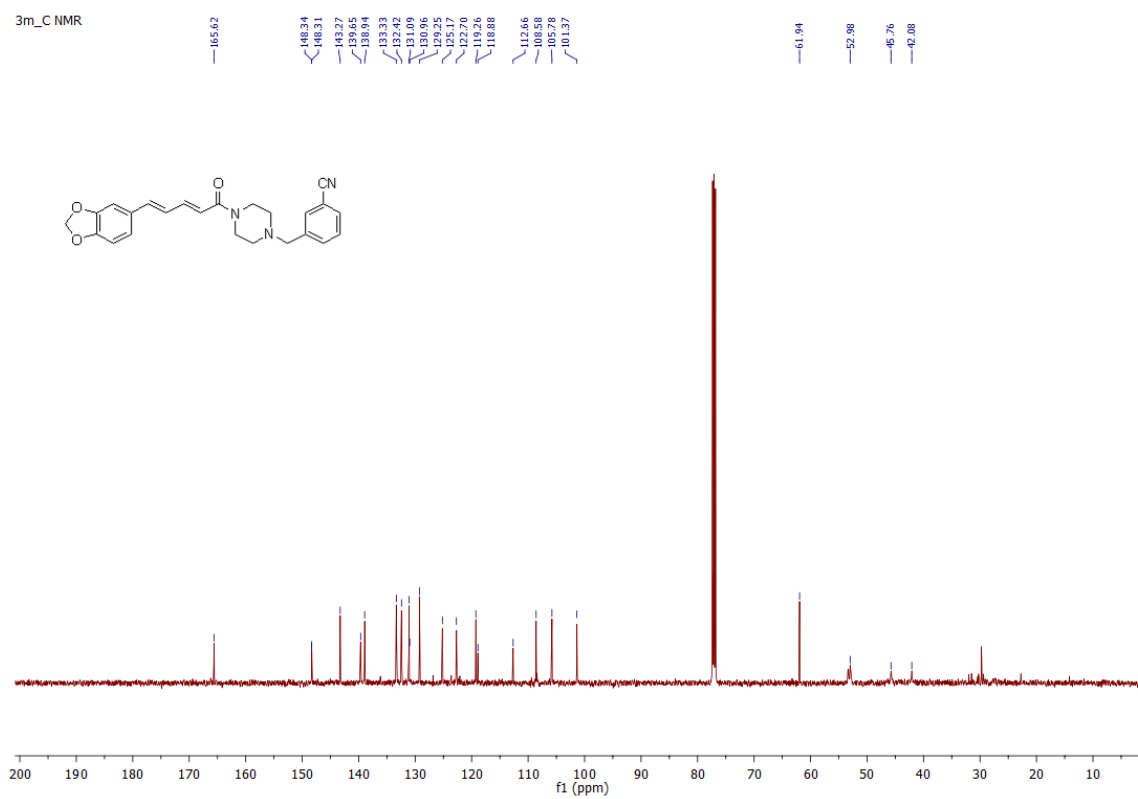
**Figure A3.** HRMS spectra of 2-(((2E,4E)-5-(benzo[d][1,3]dioxol-5-yl)penta-2,4-dien-1-yl)amino)-N-(4-fluorophenyl)acetamide (6j).



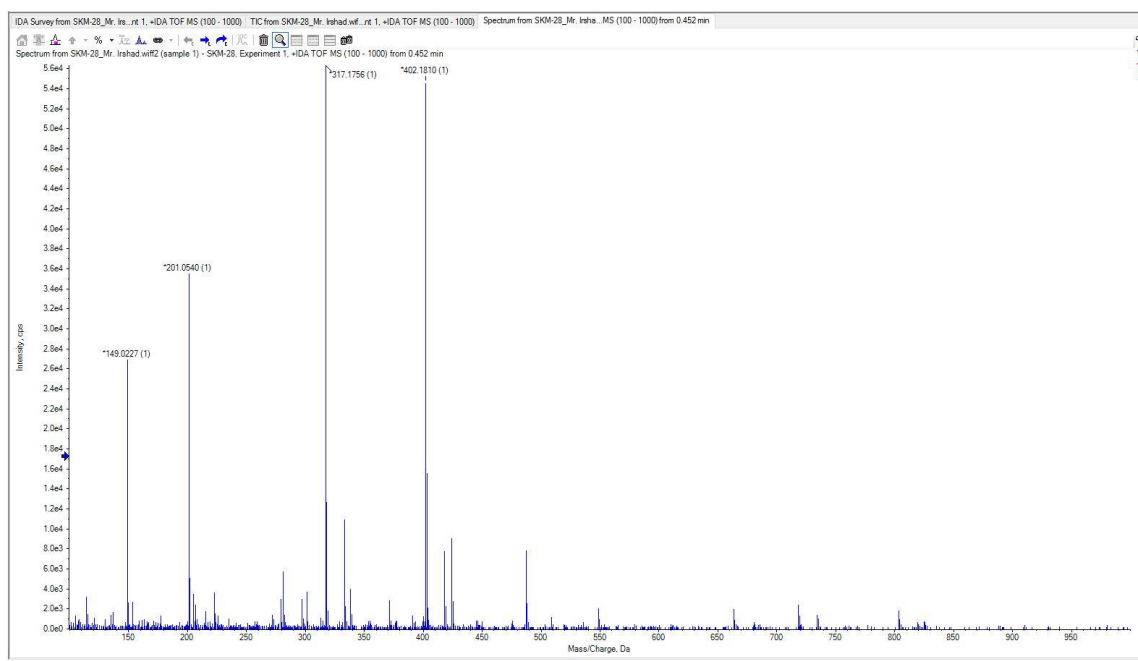
**Figure A4.**  $^1\text{H}$  NMR spectra of 3-(((4-((2E,4E)-5-(benzo[d][1,3]dioxol-5-yl)penta-2,4-dienoyl)piperazin-1-yl)methyl)benzonitrile (9m)



**Figure A5.**  $^1\text{H}$  NMR spectra of 3-((4-((2E,4E)-5-(benzo[d][1,3]dioxol-5-yl)penta-2,4-dienoyl)piperazin-1-yl)methyl)benzonitrile (9m)



**Figure A6.** HRMS spectra of 3-((4-((2E,4E)-5-(benzo[d][1,3]dioxol-5-yl)penta-2,4-dienoyl)piperazin-1-yl)methyl)benzonitrile (9m)



# List of Publications

## Publications from the research work

1. **Jitendra Kumar**, Gauri Shankar, Sunil Kumar, Jobin. Thomas, Neha Singh, Saripella Srikrishna, Jitendra Satija, Sairam Krishnamurthy, Gyan Modi, Sunil Kumar Mishra. Extraction, isolation, synthesis, and biological evaluation of novel piperic acid derivatives for the treatment of Alzheimer's disease. **Molecular Diversity** **2023** (IF 3.8, 2023).
2. **Jitendra Kumar**, Gauri Shankar, Sunil Kumar, Gourav Singh, Gajendra T. A., Sanskriti Raj, Upesh Mandloi, Saripella Srikrishna, Saroj Kumar, Amit Kumar Singh, Pradeep Kumar, Kavindra Nath Tiwari, Sairam Krishnamurthy, Gyan Modi, Sunil Kumar Mishra, Design, Synthesis and biological evaluation of novel piperic acid and benzylpiperazine hybrid molecules for improvement of memory impairment via cholinesterase inhibitory activity. **Chemical Papers**, (IF 2.2, Accepted 2024).

## Other Publications

1. Tanu Srivastava, Sunil Kumar Mishra, Om Prakash Tiwari, Avinash Kumar Sonkar, Kavindra Nath Tiwari, Pradeep Kumar, Jyoti Dixit, **Jitendra Kumar**, Amit Kumar Singh, Pooja Verma, Rajesh Saini, Angaraj Singh & Ashutosh Kumar Dwivedi. Synthesis, characterization, antimicrobial and cytotoxicity evaluation of quaternary cadmium (II)- quercetin complexes with 1,10-phenanthroline or 2,2'-bipyridine ligands. **Biotechnology & Biotechnological Equipment** **2020** (IF 1.63 2020-21)
2. Chandrashekhar Singh, **Jitendra Kumar**, Pradeep Kumar, Brijesh Singh Chauhan, Kavindra Nath Tiwari, Sunil Kumar Mishra, S. Srikrishna, Rajesh Saini,

Gopal Nath & Jasmeet Singh. Green synthesis of silver nanoparticles using aqueous leaf extract of *Premna integrifolia* (L.) rich in polyphenols and evaluation of their antioxidant, antibacterial and cytotoxic activity. **Biotechnology & Biotechnological Equipment 2019** (IF 1.186, 2019)

**List of conferences attended**

1. Participated in “**66th International Pharmaceutical Congress**” as a delegate at **Hitex, Hyderabad, Andhra Pradesh in Jan. 23-25, 2015.**
2. Presented a poster on “**Ensuring safety of botanical dietary supplement**” in “**International Conference on Medicinal Plants: Resource for Affordable New Generation Healthcare**” at CSIR, Lucknow during March 20-22, 2015.
3. Participated and presented a poster on “**Synergy in Herbal Drugs**” in “**Institute Day**” which was held in **IIT (BHU) during 26th and 27th February 2015.**
4. Participated in International Conference on “**Advances in Biological System and Materials Science in Nano World**” organized by **IIT BHU, Varanasi in Feb 19-23, 2017**
5. Participated in seminar on “**Recent Applications of Carbohydrates in Chemistry and Biology (RACCB-2017)**” organized by **IIT BHU, Varanasi in Feb 14-16, 2017**
6. Participated in International Conference on (**ETDDD, 2018, IIT (BHU), Varanasi**)

# Curriculum Vitae

**JITENDRA KUMAR**

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<b>Academic Qualification</b>			
<b>Year</b>	<b>Degree</b>	<b>Institute</b>	<b>CGPA / %</b>
2016-23	Ph.D. thesis submitted (Pharmacognosy)	IIT (BHU), Varanasi	7.00/10
2016	M.Pharm. (PHARMACOGNOSY)	IIT (BHU), Varanasi	7.66/10
2014	B.Pharmacy	SHEAT COLLEGE OF PHARMACY, VARANASI	67.56%
2002	CLASS XII	K.I.C. MIRZAMURAD, VARANASI	56.4%
2000	CLASS X	SBPHSSDANGAHARIYAN,VNS.	58.33%

## **RESEARCH EXPERIENCE**

Doctor of Philosophy (PhD) .....July 2016-June 2024

Supervisor: Dr. Sunil Kumar Mishra

Dept. of Pharma. Engg. & Tech. IIT (BHU), Varanasi, INDIA

Thesis: “Design, Synthesis, and Biological Evaluation of Piperic Acid Template Based Naturally Inspired Novel Multifunctional Molecules for the Treatment of Alzheimer’s Disease”

M. Pharm (Pharmacognosy)..... July 2014-July 2016

Supervisor: Dr. Sunil Kumar Mishra, IIT (BHU), Varanasi, INDIA.

Thesis: “Pharmacognostical Studies and Evaluation of Anticonvulsant Property of Albizia procera Benth”.

## PUBLICATIONS

1. **Jitendra Kumar**, Gauri Shankar, Sunil Kumar, Jobin. Thomas, Neha Singh · Saripella Srikrishna, Jitendra Satija, Sairam Krishnamurthy, Gyan Modi, Sunil Kumar Mishra. Extraction, isolation, synthesis, and biological evaluation of novel piperic acid derivatives for the treatment of Alzheimer's disease. **Molecular Diversity** 2023 (IF 3.8, 2023).
2. **Jitendra Kumar**, Gauri Shankar, Sunil Kumar, Gourav Singh, Gajendra T. A., Sanskriti Raj, Upesh Mandloi, Saripella Srikrishna, Saroj Kumar, Amit Kumar Singh, Pradeep Kumar, Kavindra Nath Tiwari, Sairam Krishnamurthy, Gyan Modi, Sunil Kumar Mishra, Design, Synthesis and biological evaluation of novel piperic acid and benzylpiperazine hybrid molecules for improvement of memory impairment via cholinesterase inhibitory activity. **Chemical Papers**, (IF 2.2, Accepted 2024).
3. Tanu Srivastava, Sunil Kumar Mishra, Om Prakash Tiwari, Avinash Kumar Sonkar, Kavindra Nath Tiwari, Pradeep Kumar, Jyoti Dixit, **Jitendra Kumar**, Amit Kumar Singh, Pooja Verma, Rajesh Saini, Angaraj Singh & Ashutosh Kumar Dwivedi. Synthesis, characterization, antimicrobial and cytotoxicity evaluation of quaternary cadmium (II)- quercetin complexes with 1,10-phenanthroline or 2,2'-bipyridine ligands. **Biotechnology & Biotechnological Equipment** 2020 (IF 1.63 2020-21)
4. Chandrashekhar Singh, **Jitendra Kumar**, Pradeep Kumar, Brijesh Singh Chauhan, Kavindra Nath Tiwari, Sunil Kumar Mishra, S. Srikrishna, Rajesh Saini, Gopal Nath & Jasmeet Singh. Green synthesis of silver nanoparticles using aqueous leaf extract of *Premna integrifolia* (L.) rich in polyphenols and evaluation of their antioxidant, antibacterial and cytotoxic activity. **Biotechnology & Biotechnological Equipment** 2019 (IF 1.186, 2019).

## AREA OF INTEREST

- Medicinal Plants Extraction, Isolation, Purification of Active Constituents.
- Chemistry of Natural Products, Pharmacognosy.

## KEY SKILLS AND KNOWLEDGE

- Extraction, Isolation, purification and characterization of Bioactive components.
- Ability to Standardization of new Bio-molecules.

- Knowledge of functional group conversion and multiple step synthesis.
- Exposure to TLC, Column Purification, Extraction and Analysis of NMR, IR and Mass Spectrometry Data.
- Good understanding of Microsoft Office and literature search using SCI Finder, etc.
- Good understanding of GraphPad prism, Kinetica, EndNote, and Autodock software.
- Animal dissection skills: Organ isolation (Brain, liver, kidney)

#### **SCHOLASTIC ACHIEVEMENTS**

- GPAT qualified in 2014
- BBAU Entrance qualified in 2014 (M. Pharm admission)
- NIPER JEE qualified 2014 (M.S. Pharma admission)
- IIT BHU entrance qualified 2014 (M. Pharm admission)
- IIT BHU entrance qualified in 2016 (Ph.D. admission)
- Received M.H.R.D. fellowship from AICTE, New Delhi. (2014-2016)
- Received M.H.R.D. fellowship during Ph.D. (2016-2021)

#### **SEMINARS & WORKSHOPS ATTENDED:**

- Participated in “66th International Pharmaceutical Congress” as a delegate at **Hitex, Hyderabad, Andhra Pradesh in Jan. 23-25, 2015.**
- Presented a poster on “Ensuring safety of botanical dietary supplement” in “International Conference on Medicinal Plants: Resource for Affordable New Generation Healthcare” at **CSIR, Lucknow during March 20-22, 2015.**
- Participated and presented a poster on “Synergy in Herbal Drugs” in “Institute Day” which was held in **IIT (BHU) during 26th and 27th February 2015.**
- Participated in International Conference on “Advances in Biological System and Materials Science in Nano World” organized by **IIT BHU, Varanasi in Feb 19-23, 2017**

- Participated in seminar on “Recent Applications of Carbohydrates in Chemistry and Biology (RACCB-2017)” organized by **IIT BHU, Varanasi in Feb 14-16, 2017**
- **Participated in International Conference on (ETDDD, 2018, IIT (BHU), Varanasi)**

**LANGUAGES KNOWN**

- English
- Hindi
- Bhojpuri

**HOBBIES**

- Playing Cricket, Volleyball
- Traveling

**PERSONAL DETAILS**

Father’s name : Kalicharan

Mother’s name : Seeta Devi

Dob : 01/12/1984

Gender : Male

Religion : Hindu

Blood group : B+

Address- Vill-Kallipur, PO-Mirzamurad, Teh- Rajatalab, Varanasi (UP), 221307

**DECLARATION**

I hereby declare that the above said particulars are true to the best of my knowledge and belief.

Date:

(Jitendra Kumar)

Place: Varanasi, U.P.