

पेटेंट कार्यालय
शासकीय जर्नल

**OFFICIAL JOURNAL
OF
THE PATENT OFFICE**

निर्गमन सं. 05/2025
ISSUE NO. 05/2025

शुक्रवार
FRIDAY

दिनांक: 31/01/2025
DATE: 31/01/2025

पेटेंट कार्यालय का एक प्रकाशन
PUBLICATION OF THE PATENT OFFICE

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511003694 A

(19) INDIA

(22) Date of filing of Application :16/01/2025

(43) Publication Date : 31/01/2025

(54) Title of the invention : MOLECULAR DOCKING, SYNTHESIS AND ANTIDIABETIC ACTIVITY OF 3,4,5-TRIFLUOROBENZAMIDE

(51) International classification :C07D401/12, A61K31/225, A61K31/407, A61K31/435, A61K31/445, A61P3/10

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

(71)Name of Applicant :

1)IFTM University

Address of Applicant :IFTM University, Lodhipur, Moradabad, Uttar Pradesh, Pin Code: 244002 -----

2)Dr. Shweta Verma

3)Dr. Alankar Srivastav

4)Mr. Sagun Sharma

5)Mr. Rahul Chauhan

6)Mr. Anshul Sharma

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)Dr. Shweta Verma

Address of Applicant :IFTM University, Faculty of Pharmacy, Lodhipur, Moradabad, Uttar Pradesh, Pin Code: 244002 -----

2)Dr. Alankar Srivastav

Address of Applicant :IFTM University, Faculty of Pharmacy, Lodhipur, Moradabad, Uttar Pradesh, Pin Code: 244002 -----

3)Mr. Sagun Sharma

Address of Applicant :Project management for various OSD products from manufacturing to release, Auditing facilities for regulatory compliance, QMS Management, SME to support R&D for Product Development, Analytical Development, Germany, London, WD244DQ -----

4)Mr. Rahul Chauhan

Address of Applicant :MET, Faculty of Pharmacy, MIT group of Institutions, Moradabad, Uttar Pradesh, Pin Code: 244001 -----

5)Mr. Anshul Sharma

Address of Applicant :IFTM University, Faculty of Pharmacy, Lodhipur, Moradabad, Uttar Pradesh, Pin Code: 244002 -----

(57) Abstract :

The present invention relates to the design and synthesis of a novel antidiabetic compound, N-(2-((1-((2,6-dihydroxypyrimidin-4-yl)amino)-4-methyl-1-oxopentan-2-yl)amino)-2-oxoethyl)-3,4,5-trifluorobenzamide. This compound is developed through a multi-step process involving the strategic use of protecting groups, peptide coupling, and final derivatization with a trifluorobenzoic acid moiety. The synthesis incorporates computational molecular docking studies to predict the compound's binding efficacy with key antidiabetic targets, followed by experimental validation. The claimed compound demonstrates superior antidiabetic activity, achieving 85–90% efficacy compared to 30–55% for its individual moieties. The invention addresses limitations of current antidiabetic treatments by offering enhanced therapeutic efficacy, reduced side effects.

No. of Pages : 25 No. of Claims : 8