

### PROJECT COMPLETION REPORT

Seed Money Project (Grant no. IUL/IIRC/SMP/ /2002/005)

(2021-2023)

1.	<b>Name of PI/Co-PI</b>	Dr. JAHANARH KHATOON	
2.	Department	Biosciences	
3.	Project Title	“To evaluate the phytochemical composition, Antioxidant potential and Anticancer activity of <i>Datura stramonium</i> ”	
4.	Start Date	19/10/2021	
5.	End Date	19/10/2023	
6.	Amount Sanctioned & reference No.	Rs. 1,00,000/- Reference no.- IUL/IIRC/SMP/2002/005	
7.	Amount Released	Rs. 1,00,000/-	
9.	Technical Progress :		
	(A) Highlight the Achievement (100 words)	<p><i>Datura stramonium</i> was collected and identified for experimentation. <i>Datura</i> extracts were prepared using the soxhlet extraction method with different solvents (Methanol, Ethanol, Acetone, Hexane, and Chloroform). Qualitative phytochemical screening, DPPH assay for free radical inhibition, FRAP assay for antioxidant potential, and assessment of total phenolic content were conducted. Additionally, antibacterial potential against MDR bacteria was evaluated. Notably, the MTT assay highlighted significant cytotoxic effects of <i>Datura stramonium</i> extracts on MCF-7 and MDA-MB-231 cell lines, with varying potency. These findings suggest <i>Datura stramonium</i>'s potential as a source of bioactive compounds with pharmaceutical and therapeutic applications.</p>	
	(B) Publication & Patents from the project work	<p>1. <b>A review article</b> “Insights of Genus <i>Datura</i> and its Ethnobotanical Relations, Pharmacological Prevalence and Toxicological Behaviour” (communicated in <i>Fitoterapia Journal</i>)  2. <b>A research paper</b> entitled “Preliminary Phytochemical Screening and Antioxidant Potential of <i>Datura stramonium</i>” is under draft.  4. <b>First International Conference</b> of Association of Clinical Biochemists of India [ACIB] on Newer Trends Of Biochemistry In Ongoing Medical Sciences. <b>An Oral Presentation</b> on “Phytochemical Analysis &amp; Evaluation of Antibacterial Properties of <i>Datura stramonium</i>.”  5. <b>Indo-Uzbek Meet &amp; International Conference</b> on Trends &amp; Innovations in Food Technology: From Farm to Fork TIFT-2022”. <b>Poster Presentation</b> on “Bioactive Constituents of Indian species of <i>Datura</i> (<i>Datura stramonium</i>).”</p>	
10.	Financial Report		
	Statement of Expenditure	Upto March 2024	
		Amount Sanctioned	Amount Used
	Recurring (Contingencies)	50000	50000
	Consumables	50000	50000
	Utilization Certificate	Attach a Utilization Certificate endorsed by Accounts department	
	Signature of PI with date		

2.	Department	
3.	Project Title	
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5.	End Date	
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9.	Technical Progress :	
	(A) Highlight the Achievement (100 words)	
	(B) Publication & Patents from the project work	
10.	Financial Report	
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Signature  
Head of Department

Signature  
Dean of Faculty