

ANNEXURE-XI

UNIVERSITY GRANT COMMISSION
Bahadurshah Jafar Marg, DelhiASSESSMENT /EVALUATION REPORT UGC MRP (F.NO.36-191/2008 (SR))
CARRIED OUT AT
PONDICHERRY UNIVERSITY
PUDUCHERRY

A	DETAILS OF PROJECT	
	Title of the Project	Studies on the protective effects of <i>Trigonella foenum-graecum</i> (Fenugreek) seeds on the endoplasmic reticulum stress mediated damage in type II Diabetic rats
	Total duration of the project	3 years and six months (1.5.2009 to 1.10.2012)
	Project status	Completed
	Subject	Biochemistry
	File NUMBER:UGC Reference No.& Date	F.NO.36-191/2008 (SR)
	Grant Approved	<u>7,36,000/-</u>
B	EVALUATION REPORT OF EXPERT MEMBER	
1.	Name of the Principal Investigator	Dr. S. Sudha Rani
2.	Designation	Assistant Professor
3.	Address with e-mail and Mobile No.	Dept. of Biochemistry and Molecular Biology, Pondicherry university-605014 Email:sadrassudha@gmail.com; sadrassudha@yahoo.com Mobile:9443768726
4.	Whether work is focused on the title of the project	Yes, the work is focused on the title of the project
5.	Whether original work is done	Yes, the work is original
6.	Whether significant contribution made by the principal Investigator	Yes, this study has attempted to validate the traditional knowledge on fenugreek seeds by showing the protective effects of fenugreek seed extract (FSE) in Type 2 diabetic animals. The protective effects of FSE and its phytoconstituents-trigonelline and diosgenin against oxidative stress, inflammatory and ER stress mediated damage insulin target tissues are significant. The antidiabetic effects of fenugreek seeds and its phytochemicals observed in this study specify their therapeutic value and biomedical applications.

7.	Whether proposed work have relevance to the society/scientific community	Yes, the work has significant relevance to the society, showing an increasing trend in the incidence of diseases based on the Lifestyle. The data obtained in the study emphasize on the major bioactive compounds of Fenugreek seeds and its potential therapeutic effects against Type 2 diabetes. The bioactive compounds present in Fenugreek seed may serve as potential molecules for developing new anti-diabetic drugs with fewer side effects.
8.	What type of contribution found in the final report. Theoretical/Practical. If there are Theoretical contribution given by the Principal Investigator, Whether real applications are given	This study detailed on importance and pharmacological effects of FSE. The literature highlights the various pharmacological activity of FSE including pro-inflammatory, oxidative stress and ER stress mediated tissue damage in T2DM rats. Also the wet lab studies identified major phyto-constituents of FSE and their biomedical applications.
9.	Whether Theoretical /Practical contributions And their results and finds are published	Yes, the findings from this study are published in International Journals with good impact factor
10.	Whether results and findings are significant	Yes, the results and findings are significant
11.	Whether the significant Publications are made by Principal Investigator, Peer reviewed Journal	Yes, Good Publications are made from this work which are as follow: <ol style="list-style-type: none"> 1. S. Sudha Rani, S. Subhashree and R. Murugesan (2012). Lipid lowering effect of fenugreek seed powder in diabetic rats fed with high fat diet. Biomedicine 32 (1):67-71 2. P. Sankar., S. Subhashree and S. Sudha Rani (2012). Effect of <i>Trigonella foenum-graecum</i> seed powder on the antioxidant levels of high fat diet and low dose streptozotocin induced type II diabetic rats. European Review for Medical and Pharmacological Sciences 16 (3 Suppl):10-17 (IF 1.09) 3. M. Tharahaswari, J. Syam Praveen Kumar, N. Jayachandra Reddy, S. Subhashree, and S. Sudha Rani. (2014). Fenugreek seed extract stabilize plasma lipid levels in Type 2 Diabetes by modulating PPARs and GLUT4 in Insulin target tissues. American Journal of Phytomedicine and Clinical Therapeutics. [2][5] 587-602 4. M. Tharahaswari N. Jayachandra Reddy R. Kumar K. C. Varshney M. Kannan S. Sudha Rani (2014). Trigonelline and diosgenin attenuate ER stress, oxidative stress-mediated damage in pancreas and enhance adipose tissue PPAR-γ activity in type 2 diabetic rats. Molecular and Cellular Biochemistry. 396:161-174; (IF 2.561) 5. Tharahaswari Mayakrishnan, Jayachandra Reddy Nakkala, Syam Praveen Kumar Jeepipalli, Kumar Raja, Varshney Khub Chandra, Vasanth Kumar Mohan, Sudha Rani Sadras (2015). Fenugreek seed

		extract and its phytochemicals - trigonelline and diosgenin arbitrate their hepatoprotective effects through attenuation of endoplasmic reticulum stress and oxidative stress in type 2 diabetic rats. Eur Food Res Technol. 240:223-232 (IF 1.919)
12.	The number of Publications made by Principal investigator in standard reputed journal	5
13.	Whether the contribution made by Principal Investigator is sufficient	Yes, the contribution made by Principal Investigator is sufficient
14.	The findings and results of the sanction major Research projects are justifiable	Yes, findings and results of the sanction major Research projects are justifiable
15.	Whether completed project work meet the Proposed objectives	The objectives have been achieved
16.	Give your brief comments on the overall Work of the project	This work has social importance as it draws attention to the importance of validating the therapeutic potential of Fenugreek seeds and its phytochemicals against Type 2 Diabetes
17.	Any specific comments	This study is well designed and the data obtained from this study could be helpful for both scientific community as well as society
18.	Indicate your overall assessment of the Project Poor /Good/ Excellent	Good

Date: 28.3.19

Place: Poichy

K. Premkumar
28/3/2019

Name and Address of the Expert: Dr. K. Premkumar, Ph. D.,
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REGISTRAR
Registrar 3/19
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