

**PONDICHERRY UNIVERSITY
PUDUCHERRY**

ASSESSMENT/EVALUATION REPORT UGC MRP

A DETAILS OF PROJECT		
1.	Title of the Project	Evaluation and production of secondary metabolites of <i>Spilanthes acmella</i> L. A valuable medicinal plant
2.	Total duration of the Project	3 years
3.	Project Status	Completed
4.	Subject	Biotechnology
5.	File No.: UGC Reference No. & Date	41-567 / 2012 (SR), Dt. 18.07.2012
6.	Grant Approved	Rs. 12,36,793/-
B EVALUATION REPORT OF EXPERT MEMBER		
1.	Name of the Principal Investigator	Dr. N. Arumugam
2.	Designation	Professor
3.	Address with e-mail and Mobile No.	Department of Biotechnology Pondicherry University Kalapet, Puducherry – 605 014. E-mail: arumugan.dbt@pondiuni.edu.in Mobile No.: 9944338491
4.	Whether work is focused on the title of the Project	Yes
5.	Whether original work is done	Yes
6.	Whether significant contribution made by the Principal Investigator	Yes
7.	Whether proposed work have relevance to the society/scientific community	Yes
8.	What type of contribution found in the final report Theoretical/Practical. If there are theoretical contributions given by the Principal Investigator, Whether real applications are given	Practical: as conditions for mass propagation of the medicinal plant, <i>Spilanthes ciliata</i> have been optimized and analyzed the presence of bioactive fatty acid derived amides, alkylamides in tissue cultured plantlets and field grown plants.
9.	Whether Theoretical/Practical contributions and their results and finds are published	Yes, two papers have been published
10.	Whether results and findings are significant	Yes
11.	Whether the significant publications are made by Principal Investigator in peer reviewed journal	Yes

12.	The number of publications made by Principal Investigator in standard reputed journal	One paper published in Journal of Chromatography B (Elsevier) with the impact factor of 2.603. Another paper published in International Journal of Pharmacy and Biological Sciences, which is a open access journal, but not in UGC-CARE List on 16 th July 2019.
13.	Whether the contributions made by Principal Investigator is sufficient	Yes
14.	The findings and results of the sanctioned Major Research Projects are justifiable	Yes
15.	Whether completed Project work meet the proposed objectives	Yes
16.	Give your brief comments on the overall work of the Project	As per the title, the project was proposed to work on <i>Spilanthes acmella</i> . However, the Principle Investigator has did research on <i>Spilanthes ciliata</i> due to availability of this species in his location. The project work has brought out the optimum conditions for mass propagation of an important medicinal plant, <i>Spilanthe ciliata</i> by employing tissue culture techniques. The presence of alkylamides, the fatty acid derived amides in tissue cultured plantlets and field grown plants has been elucidated. The bioactive compound, Spilanthol has been isolated, purified and characterized. Importantly, presence of high amount of Spilanthol in the flower head has been determined compared to other plant parts. This project has been carried out carefully and the objectives have been achieved. Further, future research is also envisaged to quantify and characterize other alkyamide compounds in <i>S. ciliata</i> .
17.	Any specific comments	Although the bioactive compound, Spilanthol has been isolated from field grown plant of <i>S. ciliata</i> , some more research work on its biosynthesis in tissue cultured plants and its biological activities would have much appreciable.
18.	Indicate your overall assessment of the Project Poor/Good/Excellent	Good

Date: 16th July 2019
Place: Chennai – 600 025

Name & Complete Address
of the Expert

: Prof. N. Mathivanan
Director & Head, Centre for Advanced Studies in Botany
Chairperson, School of Life Sciences
University of Madras, Chennai – 600 025



Prof. N. MATHIVANAN
Director
Centre for Advanced Studies in Botany
University of Madras
Guindy Campus, Chennai - 600 025.



Dr. N. Arumugam
Professor
Department of Biotechnology
School of Life Sciences
Pondicherry University
Puducherry - 605 014



Registrar
Pondicherry University 3/9