

## Trends in research collaboration in the field of natural products chemistry in Sri Lanka

Geethika Yapa <sup>1\*</sup>, M A T de Silva <sup>2</sup> and E Dilip de Silva <sup>3</sup>

<sup>1</sup> National Science Foundation, 47/5, Maitland Place, Colombo 7

<sup>2</sup> 6/9 De Silva Road, Kalubowila, Dehiwala

<sup>3</sup> Department of Chemistry, University of Colombo, Colombo 3

Evaluating the productivity of scientific research and determining its impact are routine measures carried out by research sponsoring agencies. The productivity can be measured qualitatively and quantitatively by the various outputs of a research project. One such output used frequently for assessing the productivity is the number of publications and such other published literature that arises out of a research study. The publications may be the results of the efforts of a single researcher or a collaborative effort of a group of researchers. The level of collaboration is an important characteristic of research activities since the interaction between scientists particularly in the publication of joint papers results in the exchange of knowledge and establishment of vital research networks.

The present study was carried out to assess the trends in the collaboration of Sri Lankan natural products chemistry researchers during the period 1975 – 2000.

The primary data source for this study was the Science Citation Index Expanded from which we extracted information on the author affiliations of publications of Sri Lankan natural products chemistry researchers. Further, this database provided citation data (number of citations received during the first five – year lifetime of a publication) for the relevant publications. The publications were categorized into five groups according to the type of collaboration that existed between the authors.

The results indicate that 48% of Sri Lankan natural products research involved “international collaboration” with foreign scientists as co-authors. This high level of international collaboration is significant, because it indicates the recognition bestowed on Sri Lankan researchers by peers and contemporary counterparts from other countries, in relation to their capabilities and quality of work. Another interesting observation is the citation rate peak for publications with international collaboration during the 4-year period 1987 to 1990, which incidentally also corresponds to the overall publication peak. Our data also revealed that only a moderate collaboration (28% of the total publications) exists between groups of researchers in the same department/unit of an Institution in Sri Lanka. However, when viewed in the context of citations received for publications in International Journals listed in the SCIE, it is clear that the collaborative efforts of groups of Sri Lankan scientists, specially during the earlier period, were significant and productive, thus revealing a high international visibility for Sri Lankan scientists in the specialized area of natural products chemistry.

\* [geethika@nsf.ac.lk](mailto:geethika@nsf.ac.lk)