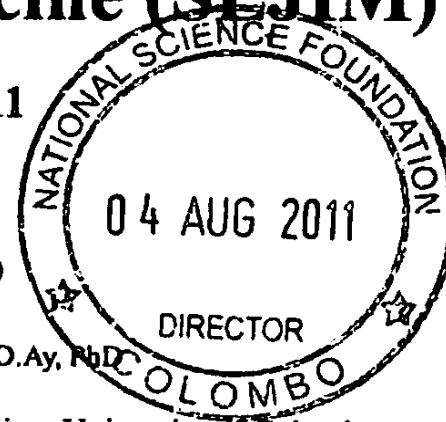


# Sri Lanka Journal of Indigenous Medicine (SLJIM)

Volume 01 Number 01 Page 01 - 50 June 2011



## EDITORIAL BOARD

### EDITOR-IN-CHIEF

**Prof. A. P. G. Amarasinghe MD, Ay, PhD**  
Prof and Head, Department of Prasutitantra Kaumarabhrithya  
Course Coordinator, MD.Ay Programme  
Institute of Indigenous Medicine, University of Colombo  
Email: drgamarasinghe@gmail.com

## ASSOCIATE EDITORS

**Dr. H. A. S. Ariyawansa MD, Ay, PhD**  
Senior Lecturer, Department of Nidana Chikitsa  
Additional Director, PG Section  
Institute of Indigenous Medicine, University of Colombo  
Email: drhasariyawansa@gmail.com

**Dr. A. H. M. Mawjood MSc, PhD**  
Senior Lecturer, Department of Dravya Guna Vignana (Unani)  
Institute of Indigenous Medicine, University of Colombo  
Email: mawjood@iim.cmb.ac.lk

**Dr. M. W. S. J. Kumari MD, Ay**  
Senior Lecturer, Department of Basic Principles  
Institute of Indigenous Medicine, University of Colombo  
Email: drjanakanthi@yahoo.com

**Dr. P. R. Waratenna MD, Ay**  
Senior Lecturer, Department of Shareera Vignana  
Institute of Indigenous Medicine, University of Colombo  
Email: drwaratenna@gmail.com

**Dr. Kumudu Weerasekara MPhil**  
Senior Lecturer, Department of Nidana Chikitsa  
Institute of Indigenous Medicine, University of Colombo  
Email: kumuduweerasekara@yahoo.com

## EDITORIAL BOARD MEMBERS

**Dr. B. M. Nageeb MPhil, PhD**  
Senior Lecturer, Department of Dravya Guna Vignana (Unani)  
Institute of Indigenous Medicine, University of Colombo  
Email: bmnageeb@yahoo.com

**Dr. S. D. Hapuarachchi MD, Ay**  
Senior Lecturer, Department of Dravya Guna Vignana  
Institute of Indigenous Medicine, University of Colombo  
Email: swamadh@gmail.com

**Dr. K. B. Jayawardhana MA, PhD**  
Senior Lecturer, Department of Basic Principles  
Institute of Indigenous Medicine, University of Colombo  
Email: kbjayawardhana@gmail.com

## ADVISORY BOARD

**Prof. S. G. Ranasinghe MD, Ay, PhD**  
Former Prof and Director  
Institute of Indigenous Medicine, University of Colombo

**Prof. Jayantha Welihinda**  
Prof. Department of Bio Chemistry  
Former Director, Institute of Indigenous Medicine,  
Faculty of Medicine, University of Colombo  
Email: jwelihinda@gmail.com

**Prof. S. Bhavani MAMS**  
Former Prof. and Head, Siddha Section  
University of Jaffna

**Dr. D. M. R. B. Dissanayaka MSAM**  
Former Senior Lecturer and Director  
Institute of Indigenous Medicine, University of Colombo  
Email: rbdissanayake@gmail.com

**Dr. Praneeth Abesundara MA, PhD**  
Senior Lecturer, Department of Sociology  
University of Sri Jayewardenepura  
Email: nishadapraneeth@gmail.com

**Prof. Ikhlas Khan**  
Director of FDA Programme  
National Centre for Natural Product Research (NCNPR)  
Editor, *Planta Medica*  
Oxford, University of Mississippi, USA  
Email: ikhan@olemiss.edu

**Prof. Manjari Dwivedi MD, Ay, PhD**  
Prof. and Former Dean, Faculty of Ayurveda  
Banaras Hindu University, Varanasi, India  
Email: manjari5@yahoo.com

**Prof. M. S. Bhagel MD, Ay, PhD**  
Prof. and Former Director, Institute of Postgraduate Training  
and Research in Ayurveda  
Chief Editor, *AYU*  
Gujarat Ayurved University, Jamnagar, India  
Email: directoripgt@ayurveduniversity.com

**Prof. Abhimanyu Kumar MD, Ay, PhD**  
Prof. and Head, Department of Bala Roga  
Managing Editor, *Journal of Ayurveda*  
National Institute of Ayurveda, Jaipur, India  
Email: ak\_ayu@yahoo.co.in

**Prof. M. Shahu MD, Ay, PhD**  
Prof. and Former Head, Department of Shalya Shalakaya  
Faculty of Ayurveda, Banaras Hindu University, Varanasi,  
India  
Email: m.shahuvns@satyamnet.in

**Prof. R. R. Dwivedi MD, Ay, PhD**  
Prof. and Head, Department of Basic Principles  
Editor, *AYU*  
Institute of Postgraduate Training and Research in Ayurveda  
Gujarat Ayurved University, Jamnagar, India  
Email: dwivedi53@rediffmail.com

# Sri Lanka Journal of Indigenous Medicine (SLJIM)

Volume 01 Number 01 Page 01 - 50 June 2011

*Published by*

**Institute of Indigenous Medicine**

University of Colombo

Rajagiriya

Sri Lanka

Tel: +94 11 2694308

Fax: +94 11 2697175

Website: [www.iim.cmb.ac.lk](http://www.iim.cmb.ac.lk)

Email: [sljim@iim.cmb.ac.lk](mailto:sljim@iim.cmb.ac.lk)

*Printed by*

**Ananda Press**

82/5, Sir Ratnajothi

Saravanamuttu Mawatha,

Colombo 13, Sri Lanka.

Tel: +94 11 2435975

E-mail: [anpress@sltnet.lk](mailto:anpress@sltnet.lk)

## Subscription details

Single issue: Rs. 300/= (Local)

Rs. 350/= (Local Institutions)

\$ 25 (Foreigners)

\$30 (Foreign Institutions)

## Method of payment

Cheque / Bank draft / Money orders/ Cash

Payable to Director, Institute of Indigenous Medicine,

Rajagiriya, Sri Lanka.

## Cover story

The figure on the cover page shows twig of *Santalum album* L (Sandalwood) of the family Santalaceae. It is indigenous to Mysore state in India and grows in the dry regions in India especially in Karnataka, Kerala and Tamilnadu and also in Eastern Java, Timor and Island of Malay Archipelago. It is cultivated in Sri Lanka.

It is a small to medium sized, ever green semi parasitic tree with slender branches reaching up to 18 meters in height and 2-4 meters in girth. Bark: dark grey or nearly black, rough, with deep vertical cracks on old trees. Leaves: glabrous, thin elliptic ovate or ovate-lanceolate. Flowers: straw-coloured, brownish purple, reddish purple or violet, unscented, in terminal axillary peniculate cymes.

Sandalwood oil derived from the root and heartwood of the tree is a viscous, yellowish liquid having a peculiar, heavy, sweet and very lasting odour. The main constituents of sandalwood oil is santalol. This primary sesquiterpene alcohol from more than 90% of the oil and is present as a mixture of two isomers,  $\alpha$ -santalol and  $\beta$ -santalol, the former predominating. The characteristic odour and medicinal properties of sandalwood oil are mainly due to the santalol. The higher the santalol contents of the oil, the greater its value. Oils of best quality contain over 94% of santalol.

Sandalwood has anti-inflammatory, anti-bacterial, anti-viral, anti-pyretic, blood purifying, and immune enhancing properties. Sandalwood oil acts as disinfectant on the mucus membranes of the genito-urinary and bronchial tracts; is applied externally in the form of paste with water to scorpion stings, inflamed swellings, prickly and skin eruptions, and on temples in headache, fever and also in skin diseases to allay itching, inflammation and heat.

The review article on page 44 describes the scientific studies of Rathakalka of which sandalwood is one of the major ingredients.

## **From the Director**

It is indeed a great pleasure and honour for me to write a message on the occasion of the release of first issue of the *Sri Lanka Journal of Indigenous Medicine (SLJIM)*, June 2011.

The system of Indigenous Medicine contains uncountable number of popular and effective medical formulations, their combinations with dosages, methods of usage and dietary and other restrictions in various texts.

The Institute of Indigenous Medicine of University of Colombo being the premier higher educational institution that provide instructions in Ayurveda, Unani and traditional systems of medicine in university education in Sri Lanka, has done a tremendous work to explore the scientific base of these information. It is also a prime duty and the responsibility of a university to impart evidence based knowledge for both health care seekers and the providers to meet their needs and challenges. This *SLJIM* is one such effort. The release of volume 01 of it is much applaudable because it is the first ever peer reviewed journal on Ayurveda in Sri Lanka. The information contained in this Journal will undoubtedly be useful for the Undergraduate and Postgraduate students who engage in research activities in relation to indigenous system of medicine.

I congratulate the Editor-in-Chief, Prof. A. P. G. Amarasinghe and the editorial board for their untiring effort to bring this task to reality with huge success. I also thank the authors for the articles, their valuable contribution, to promote health through indigenous medicine.

I wish all the success.

**Dr. R. A. Jayasinghe**  
DAMS, DFMS, MCL(Delhi),  
Attorney-at-Law (SL)  
*Director*  
*Institute of Indigenous Medicine,*  
*University of Colombo,*  
*Sri Lanka*

## **From the Editor**

It is a great pleasure and privilege for me to have the opportunity of introducing the first volume of *Sri Lanka Journal of Indigenous Medicine (SLJIM)* in this form. This historical event fills a great lacuna in the field of Ayurveda and indigenous system of medicine in Sri Lanka.

The main purpose of this refereed journal is to provide a wide platform for the Sri Lankan scholars and researchers mainly in the field of Ayurveda and indigenous system of medicine to meet their counterparts in the other parts of the world in order to exchange new knowledge.

The first issue of *SLJIM* comes in this form due to the fullest cooperation received from the authors, referees, board of editors and advisors, and also continuous encouragement and guidance of the Director and the Higher Degrees Committee of the Institute of Indigenous Medicine.

Further, the day of coming out of the first issue of the Journal coincides with the 82<sup>nd</sup> anniversary of the Institute of Indigenous Medicine which is very important and memorable. Finally, I wish to bestow my best wishes for the future success of the Journal.

**Prof. A. P. G. Amarasinghe**  
*Editor-in-Chief*  
*SLJIM*

# Sri Lanka Journal of Indigenous Medicine (SLJIM)

Volume 01 Number 01 Page 01 - 50 June 2011

## Contents

### Original Papers

- A preliminary study of the oral hypoglycaemic activity of the ethanol and water extracts of *Munronia pinnata* in the healthy Wistar rats 1  
*S D Hapuarachchi, T S Suresh, W T P S K Senerath*
- Effect of fertilizer and irrigation on growth and yield of *Andrographis paniculata* (Burm.f.) Wall. Ex Nees var. *paniculata* 5  
*K S S Sugathadasa, D K N G Pushpakumara, M A N de Silva*
- A clinical survey to evaluate the role of diet, lifestyle and stress as etiological factors in pathogenesis of type 2 diabetes mellitus 11  
*Ila R Tanna, H M Chandola, J R Joshi*
- Anal manometry study in guggulu based kshara sutra in the management of fistula in ano 16  
*A A J Pushpakumara, D J Anthony*
- Study of microbial quality on different drug formulations widely used in Ayurvedic system of medicine 22  
*B M Nageeb, A P G Amarasinghe, S Widanapathirana*
- Evaluation of the Yava-Kshara Taila Uttar Basti in the management of tubal blockage 29  
*Kamayani Shukla (Upadhyaya), Kaumadi Karunagoda, Nita Sata, L P Dei*
- Effects of *Indravati Rasa* on lipid peroxidation of diabetes induced rats 35  
*S K M K Herapathdeniya, C B Jha, S B Acharya*
- Therapeutic potentials of Ayurvedic Rasayana in the management of Asthi Kshaya vis-à-vis osteopenia/osteoporosis 39  
*Sanjaya Kadlimatti, H M Chndola, K S Maheahwari*
- Review Paper**
- Scientific studies of a popular Sri Lankan indigenous therapeutic agent "Rathakalka" used in paediatric practice 44  
*A P G Amarasinghe*
- Guidelines to authors** 49