

## ANNUAL REPORT OF THE 34<sup>th</sup> COUNCIL OF THE NATIONAL ACADEMY OF SCIENCES OF SRI LANKA

This report reviews the activities of the Council for the period 1 April 2013 – 28 February 2014.

### 1. THE COUNCIL

The Council was reconstituted as given below, at the AGM held on 5 April 2013.

#### NASSL Council – 2013

##### Officers

Dr Kingsley A de Alwis	-	President
Dr K Locana Gunaratna	-	Immediate Past President
Prof Vijaya Kumar	-	Vice President
Prof Nilanthi de Silva	-	General Secretary
Prof Ajith de Alwis	-	Assistant Secretary
Prof J N O Fernando	-	Treasurer
Prof Nadira Karunaweera	-	Secretary, Foreign Relations
Prof H D Gunawardena	-	Editor

##### Members

Prof Upali S Amarasinghe	-	Council member
Prof T M Sunethra Atukorala	-	Council member
Prof A P R Aluwihare	-	Council member
Prof E Dilip de Silva	-	Council member (until July 2013)
Prof Priyan Dias	-	Council member (from November 2013)
Eng Dr Mervyn Gunasekera	-	Council member
Prof A D V de S Indraratne	-	Council member
Dr A M Mubarak	-	Council member
Dr Ravi Pereira	-	Council member
Dr U Pethiyagoda	-	Council member

Eleven regular Council meetings were held during the period, with relatively good attendance.

Particulars of attendance of members at Council meetings are given below:

Name	Present	Excused	Absent	Total
Dr Kingsley de Alwis	11	0	0	11
Dr Locana Gunaratna	10	1	0	11
Prof Vijay Kumar	6	5	0	11
Prof Nilanthi de Silva	9	2	0	11
Prof Ajith de Alwis	7	2	2	11
Prof J N O Fernando	7	4	0	11
Prof Nadira Karunaweera	9	2	0	11
Prof H D Gunawardena	10	1	0	11
Prof Upali Amarasinghe	7	4	0	11
Prof Sunethra Atukorala	8	3	0	11

Prof A P R Aluwihare	8	3	0	11
Prof Dilip de Silva	0	4	0	4
Prof Priyan Dias	3	0	1	4
Dr A M M Mubarak	9	2	0	11
Eng Dr Mervyn Gunasekera	4	1	6	11
Prof A D V de S Indraratne	5	1	5	11
Dr Ravi Pereira	7	4	0	11
Dr U Pethiyagoda	3	5	3	11

## 2. NEW FELLOWS

At the Annual General Meeting held on 5 April 2013, at the Sri Lanka Foundation Institute, Colombo 7, the following new Fellows were elected:

1. Rajapaksha Liyanarachchige Rohana Chandrajith
2. Palawinnege Ruchira Tharangini Cumararatunga
3. Amilra Prasanna de Silva
4. Vajira Harshadeva Weerabaddana Dissanayake
5. Samantha Santhajayantha Lankatileka Hettiarachchi
6. Shivanthi Janaki De Silva Hewavisenthi
7. Anuja Padmanatha Premawardhena
8. Withana Pathirannahalage Siripala
9. Subramaniam Sotheeswaran

### 2.1 Induction Ceremony

The Induction Ceremony for new Fellows was held in the New Auditorium of the Faculty of Medicine, University of Colombo, at Kynsey Road, Colombo 8, on 16 August 2013. Prof AP de Silva was unable travel from Ireland to attend the ceremony. The following took their oaths and were formally enrolled as new Fellows of the Academy:

1. Prof ULB Jayasinghe (elected in 2012, but could not attend Induction Ceremony)
2. Prof RLR Chandrajith
3. Prof PRT Cumararatunga
4. Prof VHW Dissanayake
5. Prof SSL Hettiarachchi
6. Prof SJdeS Hewavisenthi
7. Prof AP Premawardhena
8. Prof WP Siripala
9. Prof S Sotheeswaran

### 2.2 Fellowship dinner

The Induction Ceremony was followed by a Fellowship Dinner, which was attended by about 40 Fellows and their spouses.

## 3. CONDOLENCES

The Council noted with great regret, the passing away of three of its distinguished Fellows, Dr Douglas Nethsinghe, Dr Gamani Corea and Prof G P Wannigama, during the past year.

## 4. ACTIVITIES DURING THE YEAR

#### **4.1 Promoting Science Education through Information and Communication Technology**

The resource materials developed during the course of 2012 under this TWAS-funded project were distributed to several schools, and the Ministry of Disaster Management. Arrangements have also been made to distribute more copies to schools through the Committee for the Popularization of Science of the Sri Lanka Association for the Advancement of Science.

#### **4.2 Seminar on Nanotechnology for National Development**

A one-day seminar on the theme 'Nanotechnology for National Development' was held on 5 April 2013, preceding the NASSL AGM, at the Sri Lanka Foundation Institute, with about 80 participants.

The Hon Senior Minister for Scientific Affairs, Dr Tissa Vitarana was the Chief Guest. In the first pre-lunch session, presentations were made by Prof Sirimali Fernando on the 'National Nanotechnology Initiative – a brief history'; by Prof Gehan Amaratuna on 'Profits from Particles: nanotechnology contribution to the national economy'; and by Prof Veranja Karunaratne on 'SLINTEC: adding value, generating wealth'.

In the second pre-lunch session, presentations were made by Prof K.M. Nalin de Silva on 'Nanotechnology for textiles and environment: Sri Lankan initiatives'; Dr Nilwala Kottegoda and Dr Nimal Dissanayake on 'The Nitrogen Issue: SLINTEC's nanovation for slow release fertilizer' and Engr Sunanda Gunasekera on 'The first Sri Lankan Park for Science: the growth of a nanopolis'.

During the post-lunch session, Mr Manoj Silva spoke on 'The DIMO experience with nanotechnology'; Mr Ashan de Silva spoke on 'The Laugfs experience' and Prof Ajith de Alwis spoke on 'Sustainable nanotechnology in Sri Lanka – gaining wealth with people and planet in mind'.

The seminar concluded with a summing up by Prof Vijaya Kumar and a vote of thanks from Prof Nilanthi de Silva. The presentations were all well received with lively discussions at the end of each session, and subsequent reports in the English press.

#### **4.3 Publication of the International Symposium on Improving the Quality of Life through Science**

The programme and proceedings of the International Symposium on Improving the Quality of Life through Science, which was held along with the AASSA General Assembly in Colombo on 17 October 2012 was published in April 2013. Copies were sent to the Australian Academy of Science, which took the lead in organizing the Symposium and to the Ministry of Technology and Research which supported NASSL in this activity.

#### **4.4 Guest Lectures**

On 16 September 2013, NASSL and SLAAS jointly sponsored a lecture by visiting Nobel Laureate Yuan T Lee, at the SLFI.

On 25 October 2013, on a joint invitation extended by the Higher Education for the 2st Century Project and the NASSL, Dr R A Mashelkar, FRS, delivered a lecture on 'Inclusive

Innovation: the Global Game Changer’, at the BMICH Committee Room C. Dr Mashelkar is a National Research Professor in India and the President of the Global Research Alliance, a network of publicly funded R&D institutes from Asia-Pacific, Europe and USA. He spoke on the importance of high quality, low cost, scientific innovations that improve the quality of life for the masses, and the role of scientists and scientific institutions in facilitating such innovation.

#### **4.5 Symposium on Chronic Kidney Disease of Uncertain Aetiology**

A full-day symposium entitled ‘Chronic Kidney Disease of Uncertain Aetiology: a scientific basis for future action’ was held on 10 December 2013 at the Galadari Hotel in Colombo.

The Hon Senior Minister for Scientific Affairs, Dr Tissa Vitarana was the Chief Guest. The keynote address on ‘Chronic kidney disease: global and Sri Lankan perspectives’ was delivered by Dr Shanthi Mendis, Director, Management of Non-Communicable Diseases, WHO, Geneva.

In the first pre-lunch session, Prof AMS Dhammika Menike Dissanayake spoke on ‘Geographical distribution and epidemiology of CKDu in Sri Lanka’ and Dr Tilak Abeysekera spoke on ‘Medical Features of CKDu’. In the second pre-lunch session, Dr PG Mahipala spoke on ‘Financial and economic costs of CKDu’, and Prof K Tudor Silva spoke on ‘Social and economic impact of CKDu’.

During the first post-lunch session, Prof CB Dissanayake spoke on ‘Water quality in the Dry Zone in relation to the occurrence of CKDu’; Prof Oliver Ileperuma spoke on ‘Fluoride in the water and its possible health impact’; Prof Priyani Paranagama spoke on ‘Heavy metals, particularly arsenic and cadmium, in water and the food chain’; Prof AMS Dhammika Menike Dissanayake spoke on ‘Algal and herbal toxins in relation to the epidemiology of CKDu’; Dr AM Mubarak spoke on ‘Challenges in the estimation of the trace elements As, Cd and Hg’; Prof Vijaya Kumar spoke on ‘Pesticides – a possible source of nephrotoxic chemicals in the environment’; and Dr CS Weeraratne spoke on ‘Fertilizer use in Sri Lanka, with special reference to CKDu’.

In the final session for the day, Dr Palitha Bandara spoke on ‘Short-term measures: improving health services’; Mr A Abeygunasekera spoke on ‘Short-term measures: community water supply projects; and Prof Janaka de Silva spoke on ‘Long-term measures: multi-disciplinary research on the aetiology of CKDu’. These presentations were followed by a panel discussion on short- and long-term action needed to deal with CKDu. The discussion was moderated by Prof Vijaya Kumar and Mr Nalaka Gunawardena. The panellists included Prof Tudor Silva, Dr Herath Manthrithilake, Mr Ranjit Mulleriyawa, Dr Palitha Bandara, and Mr A Abeygunasekera. The day’s discussions were summarized by Mr Nalaka Gunawardena, with a list of action points for policy makers, affected families, civil society groups, charities and philanthropists, the media, researchers, and for the Sri Lankan public.

The event was sponsored by the Colombo North Rotary Club, Bank of Ceylon and Nawaloka Metropolis Laboratories.

There were over 80 participants at the Symposium, including members of the press. The event was reported in 3 articles in the English press. All participants were given CDs with the

Literature Repository on CKDu 1998 – 2013, edited by Prof Rezvi Sheriff and Dr N Janakan; copies of the paper on the findings of the WHO-MOH-NSF sponsored research, by Jayatilake et al, published in BMC Nephrology in 2013; and copies of the Executive Summary of the WHO-MOH-NSF project on CKDu.

It is planned to publish the proceedings of the Symposium as a NASSL Occasional Paper.

#### **4.6 Joint seminar with ICTAD on Nanotechnology for the Construction Industry**

A seminar on 'Nanotechnology in the Construction Industry in Sri Lanka' is planned to be held jointly with ICTAD on 7 March 2014.

#### **4.7 NASSL Participation in Meetings and Workshops**

Dr Kingsley de Alwis represented NASSL at the 13<sup>th</sup> Annual Conference of the Science Council of Asia held in Bangkok on 7 - 9 May 2013.

Prof APR Aluwihare represented NASSL at the Inter Academy Medical Panel's Scientific Congress and 4<sup>th</sup> General Assembly held in Johannesburg on 14 - 16 August 2013. Although NASSL submitted a bid for election to the IAMP Executive Committee 2013 - 2016, it was not successful.

Dr Kingsley de Alwis and Prof Nadira Karunaweera represented NASSL at the 2<sup>nd</sup> Summit of South Asian Academies, held in New Delhi on 24 – 27 Sept 2013.

Prof Nilanthi de Silva represented NASSL at the 5<sup>th</sup> World Health Summit held in Berlin in October 2013, when she spoke at the Workshop on 'Transforming Health Professions Education - Responses to the Lancet Commission'

Dr Kingsley de Alwis and Prof Ajith de Alwis represented NASSL at the SLAYS seminar on 'Driving Research Towards Economy: Opportunities and Challenges' at the NSF Auditorium on 5 July 2013.

During the course of the year, NASSL received calls for nomination of scientists for several international programmes. From among those nominated by the NASSL, two were selected to participate in the Young Physician Leaders programmes sponsored by the Inter Academies Medical Panel (IAMP). Dr Lakmali Amarasiri of the Faculty of Medicine, University of Kelaniya attended the programme held in Singapore in April 2013. Dr Anjana Silva of the Faculty of Medical Sciences, Rajarata University of Sri Lanka, attended the programme held in Berlin in October 2013.

#### **4.8 Awards received by Fellows**

Several Fellows of the Academy received President's Awards for Scientific Publication in 2007, 2008 and 2009 at a ceremony held on 17 January 2013. They included Prof U S Amarasinghe, Prof A Bamunuarachchi, Prof R L R Chandrajith, Prof L G Chandrasena, Prof KGA Dahanayake, Prof K I Deen, Prof E D de Silva, Prof H J de Silva, Prof N R de Silva, Prof W P S Dias, Prof C B Dissanayake, Prof M A K L Dissanayake, Prof V H W Dissanayake, Prof D N Fernando, Prof C V S Gunatilleke, Prof I A U N Gunatilleke, Prof H D Gunawardhana, Prof K Hirimburegama, Prof M M Ismail, Prof ER Jansz, Dr U L B Jayasinghe, Prof U P E H Karunanayake, Prof S H P P Karunaratne, Prof V Karunaratne, Prof N D Karunaweera, Prof S W Kotagama, Prof S A Kulasooriya, Prof N S Kumar, Prof V Kumar, Mr T R D Pethiyagoda, Prof

A Pathiratne, Prof A P Premawardhena, Prof R M G Rajapakse, Prof W D Ratnasooriya, Prof U Samarajeewa, Prof A M A N K Senanayake, Prof M H R Sheriff, Prof W P Siripala, Prof K H Tennekoon, Prof V Thevanesam, Prof R Weerasooriya, Prof A R Wickremasinghe, Prof R L C Wijesundara, Prof M J S Wijeyaratne, Prof E D Wikramanayake.

Prof A D V de S Indraratna received the OPA National Apex Award for Economics.

#### **4.9 Foreign relations**

##### **4.9.1 Science Council of Asia**

Dr Kingsley de Alwis attended the 13<sup>th</sup> Annual Conference of SCA in May 2013, as President NASSL, and as Vice President and President Elect of SCA. He attended the two SCA Management Board Meetings and also participated in the “International Symposium on the Role of Science in Asia: Facing the Challenges of AEC 2015”. NASSL remains committed to hosting the SCA Annual Conference scheduled to be held in 2016.

##### **4.9.2 Indian National Science Academy**

INSA invited NASSL to send a delegation to the Second Summit of Science Academies of South Asia in September 2013. Dr Kingsley de Alwis and Prof Nadira Karunaweera represented NASSL at this meeting.

##### **4.9.3 Pakistan Academy of Sciences**

PAS has expressed the desire to enter into a formal Memorandum of Understanding with NASSL in order to facilitate collaboration between members of the two academies. A draft MoU is under preparation.

##### **4.10 NASSL Research and Development Fund**

A Research and Development Fund has been set up to enhance the capacity of NASSL to commission important research projects/ programs in support of its mandated policy advisory role.

#### **5. NASSL OFFICE**

Ms Sriyani Weerasinghe continued to work as Administrative Assistant in the NASSL Office on 3 days a week (Mondays, Wednesdays and Fridays).

Prof Nilanthi de Silva  
General Secretary / NASSL  
3 March 2014