Lecture Workshop on 27th and 28th of February 2015
"ADVANCES IN ENDOCRINOLOGY AND GENETICS"
Sponsored by the
Science Academies of the country,

The three National Science Academies, the Indian Academy of Sciences (Bangalore), Indian National Science Academy (New Delhi) and the National Academy of Sciences India (Allahabad) sponsored two day lecture workshop on ‘Advances in Endocrinology and Genetics’ organized by the Department of Biological Sciences, St. Aloysius College, Mangaluru-575003 on the 27th and 28th of February, 2015. The objective of the seminar was to keep young students and the faculty abreast with the progress done in the field of Genetics and Endocrinology, to provide them an opportunity to interact with the experts in the field and most importantly, to build bridges between the students and the other institutions. 164 science enthusiasts were the delegates of the lecture workshop which included under graduate, post graduate, research scholars and faculty members of 12 institutions as well as professional colleges.

Day 1- 27.02.2015 (Friday)

Inauguration (9:15-10:00 am)

Inauguration was held at Eric Mathias Hall, presided by Rev. Fr. Swebert D’Silva SJ the Principal, who thanked the Science Academies for sponsoring the programme. He also emphasized that the colleges can use such programmes to strengthen teaching and research and translate the same for the benefit of common man.
Prof. Ranganath, the convenor, in his inaugural address emphasized the significance of the lecture workshop to the students and teaching community. He appreciated St. Aloysius College for the vibrancy in co-curricular and extra-curricular activities. He also added how to implement knowledge acquired from scholarly workshops of this nature.

Prof. S. K Saidapur enlightened the delegates by giving an insight of the programmes conducted by the Science Education Panel (SEP) such as lecture workshops, summer fellowships and journals published for research enthusiasts. The vote of thanks was proposed by Prof. Precilla D’silva the coordinator.

**Inauguration of the Lecture Workshop**
**Talk 1 (10:00a.m-11:30a.m)** Resource person-Prof. B. Shanbagh, INSA Senior Scientist, Department of Marine Biology, Karnataka University. Topic-‘Progress in Endocrinology: from Past to Present’

Prof. Shanbagh, in the due course of her talk, highlighted the origin of endocrinology and the invaluable contribution of various biologists in understanding hormones and their functions, till date.

**Talk 2 (11:45a.m-1:15p.m)**
Resource person-Prof. H.A. Ranganath, former Director, NAAC, Former Vice Chancellor of Bangalore University.

Topic- ‘Mendelian Genes to Synthetic Genomes: An Overview’

Prof. Ranganath explained in brief, the advancement of genetics starting from the Mendelian time to the Modern day. He laid emphasis on the revolutionary discoveries made in Genetics, the applications of Genetic engineering and the progress made in this regard. He encouraged students to ask questions without any inhibitions even if it meant interrupting during his talk.

**Talk 3 (2:00p.m-3:30p.m)**
Resource person-Prof. S.K. Saidapur, INSA Senior Scientist & Former Vice-Chancellor of Karnataka University.

Topic- The Endocrine System of Vertebrates: An Overview

Prof. Saidapur introduced the endocrine system, explained the types of hormones with examples and illustrated their action in vertebrates.

**Talk 4 (3:45p.m-5:15p.m)**
Resource person-Prof. Thelma, Department of Genetics, University of Delhi

Topic- ‘Secrets of the Human Genome, some unearthed and more hidden’

Prof. Thelma, in her lecture, spoke about the Human Genome Project and its contribution to understanding the human genome, at great length. Interesting details of her research work on some genetic disorders were shared with the delegates. She laid emphasis on the fact that there is much, yet to be discovered and learnt from the human genome.
Day 2 - 28.02.2015(Saturday)

Inauguration of National Science Day
Day two commenced with the Inauguration of the National Science Day, commemorating the invention of the Raman Effect in India by Sir C.V. Raman. A garland was laid on his portrait, floral tribute was offered by the dignitaries as well as the student representatives, and a song ‘o vijnani’ was sung by the students as an acknowledgement to his commendable contribution to the field of science.

Prof H.A. Ranaganath with the aid of a power point presentation spoke on the life of Sir C.V. Raman and his contribution to Indian science. This was followed by Prof Thelma’s address in which she emphasized on the need to pursue science as a passion rather than a profession. She encouraged the young students to take up research and contribute to the country’s progress. Rev. Fr. Leo, who presided over the inauguration, in his speech, motivated the students to ‘Make in India’. The vote of thanks was proposed by Prof Precilla D’silva the coordinator.

National science Day celebration
**Talk 5(10:00a.m-11:30a.m)**
Resource person - Prof.B.K.Thelma

Topic-‘Genomic Medicine-where do we stand?’

Prof.Thelma explained the application genomic medicine, its benefits and scope for further research. She presented the details of various modern-age techniques such Spectral Karyotyping that could be used in the diagnosis of genetic disorders and emphasised on the need to make them affordable.

**Talk 6(11:45a.m-1:15p.m)**
Resource person – Prof.B.Shanbhag

Topic-‘How hormones act?’

Prof.B.Shanbagh gave a simplified lecture on the complicated action of hormones; the role of ‘second messengers’ in completing the hormone action was also explained in detail.

**Talk 7(2:00p.m-3:30p.m)**
Resource person – Prof.S.K.Saidapur

Topic-‘Advances in Hormone Research and Applications’

Prof.S.K.Saidapur enlightened the delegates on the advances in this field.

**Talk 8(3:45-5:15p.m)**
Resource person – Prof.H.A.Ranganath

Topic-‘Epigenetics and Epigenomics-can they explain the unexplainable?’

Prof. H.A.Ranganath presented the various aspects of epigenetics from methylation of DNA to non-coding RNA. He also spoke about the inactivation of the X-chromosome in *Drosophila* & marsupials.

After every lecture, ample time was allotted for an interactive session wherein the delegates were free to ask questions and interact with the resource persons.

**Valedictory Function (5:15pm)**
The valedictory function began with a feedback session wherein a number of students as well as teachers, came forward with their suggestions. As a token of appreciation, the college presented momentos to the resource persons. Prof. Harsh Paul, HOD, Department of Microbiology proposed the vote of thanks. With the singing of the National Anthem, the curtains were drawn over the two-day lecture workshop.

**Outcome of the workshop:**

- At a time when it is believed that there is less scope for basic sciences, the workshop proved that this field has lot of potential for research and that it has much to offer.

- The lectures on the first day gave importance to basics which helped the students to easily grasp the subject while on the second day thrust was given to the applications and research done in these fields.

- The talk on the programs offered by the INSA & SEP made the students and teachers aware of the opportunities available at various levels.

- After every lecture, ample time was allotted for interactive sessions wherein the delegates were free to ask questions and converse with the resource persons. The inquisitiveness of the students was reflected by the fact that they continued to bombard the resource persons with questions, even during the recess.

- The delegates comprised of, not only students of basic sciences but also of medicine, pharmacy and teachers including those from the pre-university, thus reaching out to a wide range of students and faculty.
Display of Academy Journals

Resource persons with the volunteers