## LIFE LONG ACHIEVER



# **PROF. SUNNY LUKE**

#### Three hats of Dr. Sunny Luke-A Scientist, a Professor and an International Educationalist

Dr. Sunny Luke, the eldest son of Mr. and Mrs. M.Chacko Mathathilparambil was born on 8th November 1951 in Neericadu; a beautiful luxurious green village 12kilometres from Kottayam town, Kerala. In 1983, he arrived in USA on a student visa for his higher studies in Molecular Biotechnology and Genetics. After six years of study and research, he became the Associate Director of Molecular Pathology Research at Maimonides Medical Centre, Brooklyn, New York and also became an Adjunct Graduate Professor in Medical Biotechnology in the Dept. of Biology, Adelphi University, New York

# FAMILY AND EDUCATION

Sunny Luke had his primary education in Neericadu, Secondary education from MT Seminary High School,Kottayam, Undergraduate education from KE College Mannanam, Post Graduation in Genetics from University of Kerala, Research Campus, Kariyavattom in 1975. On 15th August 1976, Sunny got married to Philo, the daughter of Late Mr.& Mrs. Kuruvilla Thomas, Karot House, Chingavanam and together they have two sons, Sandeep Luke and Sanoop Luke. Diya and Camilla are daughters-in-law. Ava and Kayan are grandchildren. Shortly after their marriage, the couple moved to Nigeria where they worked as high school teachers from 1976-1984 with the Ministry of Education (MoE) in Jos, Plateau State. After eight years of service in Nigeria, Sunny moved to US for his higher studies in Medical Biotechnology & Genetics.



Sunny Luke and his family (2018)

In the US, he had his graduate studies and research from these prestigious institutions; Adelphi University NY, Fordham University NY, University of Toledo, Ohio, Greater Baltimore Medical Center(GBMC),Maryland and Long Island College Hospital/SUNY Health Science Center in Brooklyn, NY. He received his master's and doctorate degrees in Medical Biotechnology & Genetics and also obtained the national license to practice as a lab scientist in diagnostic genetics. He is also a recipient of Chartered Biologist (CBiol) certification from the Institute of Biology, London, UK.



Sunny Luke as a graduate student at Adelphi University, NY (1984)

#### AS A MEDICAL SCIENTIST IN USA

Dr. Luke served as a scientist in Medical Genetics and Cancer Biology at Long Island Hospital, State University of New York, Brooklyn (1993-98),

Associate Director of Medical Research with the Dept. of Pathology, Maimonides Medical Center, Brooklyn (1993-98). He moved to Ortec International–Columbia University School of Medicine in New York (1998-2008) as a Distinguished Medical Scientist in Stem cell Technology and Tissue Engineering in its R&D dept. During this period he also worked as a Graduate Professor (Adjunct) in Medical Biotechnology & Genetics at the Dept of Biology, Adelphi University, Garden City, New York (1994-2008).



Sunny Luke with the CEO of LongIsland College Hospital, immediately after the publication of his research article on Human Evolution, published in the journal-Nature Genetics (1992)



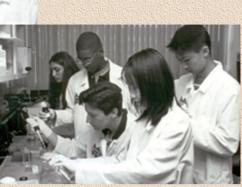
The Employee of the Month award at LongIsland College Hospital, USA (1993) From 2008, till date he has been serving as the Program Director of IISAC (International Institute for Scientific & Academic Collaboration), promoting international education and research for American university students and professors in India.

During his scientific career in USA as a Medical Scientist, Sunny could publish more than 60 research papers in his field of specialization; Medical Genetics, Oncology, Tissue Engineering and Human Evolution. His peer reviewed publications appeared in famous scientific journals like; Nature Genetics, Lancet, Journal of Cell Science, Genome, American Journal of Medical Genetics, American Journal of Human Genetics, Human Evolution, American Journal of Physical Anthropology and host of other journals. His publications are available on; http://www.iisac.org/dr\_sl.pdf Dr.Luke has received several research grants from prestigious agencies like; NIH,NCI and Maimonides Research Foundation to study the Role of genes and chromosomes in birth defects, cancer, sexual abnormalities and human evolution. With the support of venture capitalists and private research foundations, his research team at Ortec International received huge funds for the development of natural skin, cartilage, fat tissue from epidermal stem cells and Mesenchymal stem cells to develop human spare parts in the lab for transplantation.

His research findings on human evolution were exhibited at the American Museum of Natural History in the Hall of Human Evolution. He also received prominent awards from scientific organizations and institutions like; New York Academy of Sciences, Sigma Xi- The North American Research Society, Maimonides Research Foundation, Long Island College Hospital, Adelphi University etc. He was voted as one of the best professors at Adelphi University by his students. Some of his notable research contributions are; finding the role of her2neu gene amplification in breast cancer progression, chromosome and DNA aneuploidy in the clonal evolution of breast and ovarian cancer, fusion of bcr/abl gene in chronic myeloid leukemia and its role in individualized therapy, influence of "Y" chromosome genes in intersex conditions, discovery of two father's responsible for the birth of dizygotic twins, evolutionary fusion of two small chromosomes of higher apes into human chromosome 2, proved by his technique of fluorescence in-situ hybridization, to reveal the chromosome basis of human evolution, comparison of human genome with that of higher apes using genomic in-situ hybridization showing 99% of human DNA sequence similarity, molecular mechanism of human chromosome 9 inversion in human population, genetic abnormalities in sperm cells and Y-chromosome gene alterations as a cause of male infertility, use of genetic abnormalities in diagnosing molar pregnancy subtypes, and genetic basis of spontaneous abortions.

In all his research laboratories, he developed Research Scholar Programs/ summer research internships for talented high school and university students in association with the New York Academy of Sciences to provide opportunities for youth in medical research while grooming them as future medical scientists. Many of such students who passed through Sunny Luke's hands are now working as top scientists in USA. High school and college interns in Sunny Luke's lab at Maimonides Medical Centre, Brooklyn (1996)





#### AS A GRADUATE PROFESSOR AT ADELPHI UNIVERSITY

Sunny Luke came to Adelphi University as a graduate student where he received his MS degree in Medical Biology specializing in Human Genetics (1986) and later become a graduate Adjunct Professor in the same department in 1994. His contributions as a professor at Adelphi University were remarkable. He developed several professional courses in Medical Biotechnology and Molecular Medicine. These were the sought after courses for Biotechnology students to develop lucrative careers. The job oriented courses he introduced at Adelphi University were; Medical Genetics, Molecular



Mechanism of diseases, Human Genome, Cancer Biology, Stem Cell Technology and Tissue engineering. Through these courses he helped to translate the dreams of many aspiring students who came from India to Adelphi. Through his teachings and trainings, these foreign students obtained great jobs in various research centers in USA. He could help some of the talented students from Kerala to receive scholarships and teaching assistantships to support their graduate studies at Adelphi University. For many of such Indian students, he could offer jobs and H1 visas in his own research laboratories and also through his connections in other medical centers and pharmaceutical companies in USA.

Sample of few scientific journals in which Sunny Luke's fndings were published

#### AS AN INTERNATIONAL EDUCATIONALIST

In 1998, he founded International Institute for Scientific & Academic Collaboration Inc (IISAC), a nonprofit 501c(3) organization in New Jersey promoting international education and collaborative research. He still serves as its Program Director (www.iisac.org ). This non- profit organization is run by volunteer professors, scientists, medical doctors, engineers and young professionals. The aim of this charity organization is to promote several youth enrichment activities in the US with the desire to instill the spirit of success in young minds through experiential learning, research internships, leadership programs, publication of an interdisciplinary journal, mentoring and conducting career seminars.

On behalf of IISAC, Sunny Luke developed the first "Semester Abroad Program in India" for US University students with the help of Pondicherry University in 1999. Over the last 20 years, Sunny Luke could send close to 1,000 undergraduate students from more than 60 US universities to India for a semester of study with transferable credits. This program was expanded

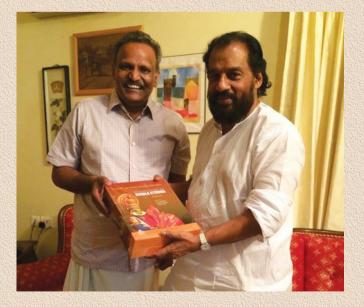




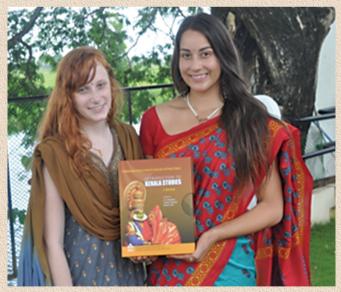
American Students enjoying the Kerala culture through IISAC's Semester India Program (2012) to University of Kerala and KIIT University, Odisha. The Semester in India program offers a rare opportunity for US students to get exposed to a culture and way of life typically far removed from their own. These students learn about India through classroom work, field trips, directed research and social interactions. Sunny Luke also developed several Faculty- led programs for US professors to bring their students to India. Several batches of students came to Kerala for field studies in Tropical Biodiversity, Agriculture and Tropical Medicine. Through study abroad and Faculty-Led programs, Sunny Luke could shape and mould few young adults from USA to become dynamic and successful global citizens. At present, Sunny Luke is developing "Clerkship India Program" for US and foreign medical school students for a short term clinical training in Kerala.

#### SUNNY LUKE AND BOOK ON KERALA

Sunny Luke's idea to publish a comprehensive reference book on Kerala for the Malayali Diaspora and Semester India students at the University of Kerala become a reality in 2012. IISAC published a 1,400 page, hard bound reference book on Kerala in two separate volumes titled "Introduction to Kerala Studies." He could pin point 100 prominent authors who are experts in their respective fields to contribute text book chapters on various topics. This book is organized into 13 units with 85 chapters in a student friendly language. The main sections of the book related to Kerala are; history and social structure, cultural heritage, religions heritage, linguistic and artistic heritage, political heritage, economic heritage, natural heritage, knowledge heritage, health care, Kerala Diaspora, tourism heritage ,emerging Kerala society. This book shows the latest statistics on every front of human life in Kerala and



Prof. Sunny Luke is presenting a copy of the book 'Introduction to Kerala Studies' to Dr. K.J. Yesudas, the legendary singer of India. (2014)



Semester India Students from USA carrying the Book on Kerala, as a part of their biodiversity course in Kerala (2015)

some of the topics are ideal for curriculum development in Indian and foreign universities. This book serves as a field guide to learn Tropical Biodiversity for students of Faculty-led programs from US universities. This comprehensive reference Book on Kerala has reliable information on root tourism, Diaspora studies and specialized studies. This book became a reality with the great support received from the World Malayalee Council (WMC) representatives namely; Mr.Alex Koshy, Mr.Isaac John, Mr. Johnny Kurvilla. They could raise the seed money for the publication of this book and IISAC is indebted to them for their kind gesture.

#### RETIRED LIFE IN KERALA, INDIA

Now Sunny Luke at the age of 70 leads his retired life in India with his wife Philo at Skyline River Valley Villa in Kottayam. He decided to spend his retired life in India because of four personal reasons;(1) Kerala is ideal for retirement, because as senior citizens, one can get help like maids, drivers, caretakers which are a luxury in America (2) Helping the less privileged students in the community through volunteer education and by conducting free academic seminars to encourage them to go abroad for higher studies (3) Helping some of Kerala's higher education institutions to develop real world curriculum based on hard and soft skills (4) Serving as a voluntary visiting professor to some graduate schools and medical schools in Kerala to give awareness lectures on the latest advances in the fields of Molecular Biology, Biotechnology, Genetics and Molecular Medicine.

Sunny is a great naturalist, who developed a beautiful farm nursery and garden on his 3 arce ancestral land in Thiruvanchoor, Kottayam. This is a sweet diversion from his academic activities during the COVID pandemic. This nursery is now a source of attraction for farmers, nature lovers, home owners and institutions. More on this garden can be obtained from www. hillsidegarden.in

Sunny Luke, during his retired life is still guided by the American philosophies of; be active, innovative, take it easy and give back to the community. This underpinning of the American culture makes him happy everyday while feeling accomplished and useful for people around him.



Dr.Sunny Luke with his graduate students from BAM College where he taught Molecular Biology and Biotechnology as a volunteer professor (2019)







## IISAC'S CLERKSHIP ABROAD PROGRAM IN INDIA FOR VISITING MEDICAL STUDENTS

Experience a country with 5,000 years of continuous history through IISAC's prestigious medical centers located closer to biodiversity hot spots in Kerala. Fall in love with an exotic culture and challenge your mind. Get an experience of a life time while developing as future physicians.



#### UNIVERSITY AND HOSPITAL BASED CLINICAL ROTATIONS

- Medicine / General Surgery / Pediatrics / Obstetrics & Gynecology/ Psychiatry / Neurology
- Emergency Medicine/ Ambulatory Medicines /Intensive Care Medicine
- Anesthesiology /Diagnostic Radiology /Laboratory Medicine / Pathology
- Family Medicine /Orthopedics /Otolaryngology/ Ophthalmology
- Dermatology /Cardiology /Gastroenterology
- Nephrology /Urology /Pulmonology / Infectious Diseases
- Oncology /Paediatric Developmental Disabilities and Rehabilitation
- Geriatrics/Allergy and Immunology /Neonatal and perinatal medicine
- Paediatric Neurology /Endocrinology & Diabetics
- Hematology /Rehabilitation medicine /Advanced Pharmacology
- Paediatric Surgery /Trauma and Emergency Surgery
- Neurosurgery /Epidemiology and Environmental Healt



APPLY THROUGH IISAC AND ENROLL FOR 6-8 WEEKS OF PATIENT CARE IN MORE THAN 50 SPECIALTIES OF MEDICINE AND TRANSFER CREDITS TO YOUR HOME UNIVERSITY

#### **PROGRAM HIGHLIGHTS**

- Explore a new country its culture and health care system and develop specific clinical skills under the supervision of licensed Indian physicians.
- An outstanding Clerkship Abroad program that offers a broad array of core, elective and selective clinical rotations in more than 50 specialties of medicine.
- Compare and contrast the epidemiology of common and rare diseases of the host country with that of your home country.
- Learn clinical decision making skills, take patient histories, perform physical examination and learn new procedures.
- Interact with patients from different back grounds social economic backgrounds and different belief systems.
- Get exposed to alternative health care systems in India like; Ayurveda, Yunani, Homeopathy, Naturopathy and compare and contrast their health benefits with that of Allopathy.
- Get introduced to the diagnosis and management of patients with infectious diseases that are endemic to India.

IISAC

- Develop cultural sensitivity by obtaining exposure to Indian classical music, dances, cuisines, festivals, yoga and meditation.
- Opportunity for independent travel during weekends through rolling mountains, plains, valleys, beaches and enjoy the sights
  & sounds of tropical flora and fauna in a biodiversity hot spot.



#### INTERNATIONAL INSTITUTE FOR SCIENTIFIC & ACADEMIC COLLABORATION, INC.

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"Promoting international education & research"





# SPEND A SEMESTER IN INDIA

A unique program for US students developed with Prestigious Indian universities by IISAC, NJ, USA

- University of Kerala, Thiruvananthapuram ,Kerala
- Mar Ivanios College , Thiruvananthapuram, Kerala
- KIIT University, Bhubaneswar, Odisha, India





- Earn 15 credits toward your US undergraduate degree
- Gain practical experience through internships, field studies and directed projects
- Practical training in yoga, meditation, performing arts and cooking
- Service learning opportunities with schools, orphanages and mentally challenged
- Most affordable Semester India Program in USA



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