



IND INTERNATIONAL CONFERENCE ON ORAL CHELATION

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WITH ANNUAL CONFERENCE OF THALASSAEMIA & SICKLE CELL SOCIETY OF BOMBAY

Age - 16 yrs, Results of matriculation
40th day ceremony of father,

— x —

The day dawned bright and warm,
it was the 24th March 1936, when a
young lad packed ^{into a small bag,} a pair of shirts & shorts and
a few other personal possessions of interest to a
boy his age and bid his mother farewell.

"Anama" he said, I will now return home only
after I secure a job.

He was then just 16 years of age and ^{had} done exceptionally
well, as usual, at his secondary school ~~passing~~
out examination. He had "matriculated", an
occasion which would definitely have brought a
shine into his father's eyes, as this was ^{one of the} the very
first steps which he had guided him on to take, on
~~his~~ an ever rising staircase to the world of Science.

The father who had retired from a long stint,
on the fringes of medical research at the Pasteur
Institute, Coonoor had passed on his ambition for

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scientific work onto his eldest child, Sukumaran as he was named. The young school boy treasured a book in Malayalam, his mother's tongue, titled "Vidhiyodu Poruthiyavar Veerathakkal" — "Brave are the souls who fought against fate". This book contained life sketches and biographies of those men who were the path breakers in their chosen field of Science. #

However the lad ~~could~~ ^{was} not even ^{to} see the glow in his father's eyes, because by the time his results were declared, he was no more and they were in the midst of the traditional 40 days of mourning. The sudden loss, turned him into the man of the house overnight and he set about to take on these onerous responsibilities.

He had a younger ~~sister~~ ^{brother} and a still younger ~~brother's~~ ^{brother's} sister, both in school, ~~besides~~ his mother besides the ~~responsibilities~~ ^{various tasks} of running a household on his mind, these must have framed his determination ~~to~~ not to continue further into college, but to take up a job.

The Pasteur Institute and Coornuor, both scenes from a happy childhood drew him and

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with only the Rupees Ten which his mother had given him, he was on his way. The Bus fare depleted some of his funds but he was at Coonoor finally. The Institute, of which he had heard so much about, was truly a lodestar ~~to him, draw~~ drawing him to the world of science.

However, an institute could not bend its rules to take in an apprentice, however keen his interest in science. It was the height of the worst season in the Blue Mountain Hill Stations of Ootacamund & Coonoor and hands being in short supply, the hardworking and conscientious lad got a job as a shop attendant at Jethmal Chambhalal and Co, a firm of textile merchants.

The small salary ^{of Rs 18/- per month} kept body and soul together, enabling him save to 10/- to send home to his mother. Between the work of folding cloth and other such jobs as carrying for the customers, he still found time to develop his skills and read about science. This got him the next job at J. G. Fortsch & Co, where besides the clerking, he was also doing the grafting of rose plants.

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The years passed, his pursuit of knowledge continued and at 18 years of age, he achieved what he had always wanted to do in his life, he began his career in science at the Pasteur Institute, ~~at~~ Coonoor.

The beginning was early, the job at the bottom most rung of the ladder - washing of glass ware. The cold winters and manually washing sinks full of glass ware almost drove him away from science. He had by dint of his usual perseverance stood first in the Madras Presidency Typists examination - an opportunity for a ^{Govt} job, prized by most young men of those times - making one a very sought after and eligible groom on the Indian scene of those times. But that "El Dorado", the library of the Pasteur Institute kept him away from all such, so much, apparently "cushier jobs".

All free hours and late-nights were spent at the library, voraciously devouring ~~and~~ assimilating and every reference

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Book, Journal and Paper from that vast
Treasure house.

It was a light burning rather very late
at night, or too early in the morning if one
may say that attracted the Director of the
institute, who used to live on the campus and
~~would soon~~ being an Army man ~~was~~ used
to taking such inspection visits at these odd hours.

Lal Mulligan spoke to ^{the young} Sukeumaran
that morning about his library visit, he was
very much impressed by the wealth of knowledge
which his young lab attendant had. He promoted
him and brought him out of the washroom into
his own lab as an assistant. The assistant was
eager, quick, had a sharp intellect, an aptitude, may
be a sixth sense for medical work and untiring in his
work, the teacher was enthused. Sukeumaram rapidly
learnt all the techniques in biochemical, epidemiological
and pathological analysis. ~~He~~ He was deputed to
the Madras Medical College where he became
adept in

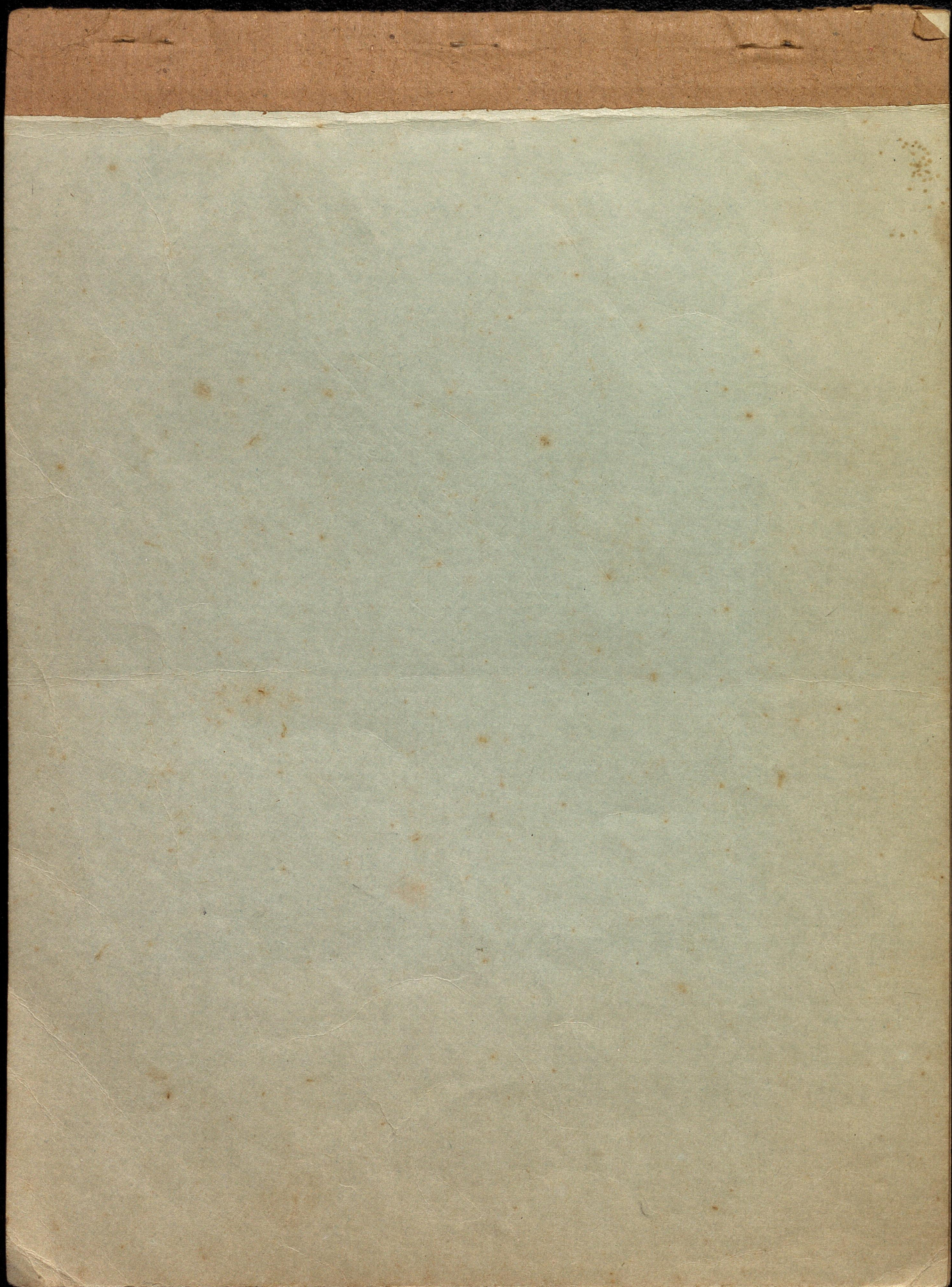
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The book his father had given him and the lives described was the guiding spirit in his scientific endeavour. His meticulousness in work, rationality in thought were also reflected in his hand writing. His ~~was~~ every alphabet, word and sentence were exquisitely formed, whether it was in the drafting of a report or the taking down of detailed notes for every case, extract from a paper, book or journal he had handled. These particularly, he had made a habit of noting down in a very small script on the pages of table diaries, a vast, correctly indexed collection, ~~over his five decades~~ the first almost five decades old, still perfectly legible and well kept as his most recent.

The end of the Second World War and freedom to our country brought about the departure of Col Mulhigan from India. However the impression etched on his mind about his young scientific assistant ~~as~~ was ever fresh, renewed by the religious exchange of Christmas and New Year greetings. A recent letter from him says



Remembering Suku uncle....



Part I - First impressions.

Part II - A scientist par excellence.

Part III - Associations across the globe.

Dr. Krishnaja A.P.
August 11, 2011.

A scientist par excellence

Part I - First Impressions

"Konjan thulliyal muttolam, pinne thulliyal chattiyl" (When a prawn jumps, it reaches knee-high, when it tries to jump further, it ends up in the frying pan). This is an old Malayalam proverb which I often repeat to my daughters, one that I myself was much used to hearing during my rebellious 20s. The adage never fails to remind me of the one who would administer the reprimand, my Suku Uncle.

The first time I met Suku Uncle was in late November 1973, on my maiden trip to Bombay. He had come to receive my brother and me at Dadar station. I had heard a lot about him from my father, but as usual, I decided to form my own opinion, as and when I met him. And after meeting him, well I decided there was still time to form an opinion. The first impression I had of him — a medium-built man in white pants and shirt arguing with a taxi driver about the fare — didn't augur favourably (back then, I had no idea of how unscrupulous a few Bombay cabbies can sometimes be). I soon found out that his all-white ensemble was because he had to head to a Freemason's meeting. Interesting, I thought, trying to figure out just what a Freemason was. Lacking the courage to ask him, I put down "finding out more about Freemasonry" as number 1 on my itinerary.

The next morning, ensconced in his home, Suku Uncle made coffee for us. I drank it, although I never had coffee in the mornings, preferring tea. But I didn't say anything, thinking this was what he was used to. The coffee drinking continued for over three months, until one morning I casually asked him, "So do you always prefer coffee over tea?" "No, I actually prefer tea," he said. "Then why do we drink coffee every morning?" I asked astounded. "Because I thought you preferred it," uncle replied. We both burst out laughing, and the next morning saw us sipping on our favourite brew: Tea.

This instance gave me my first glimpse into Suku Uncle's deeply caring nature. I would come across it later as well, when he would fold a kerchief that I had mended for him, darned side up — just because it surprised him that I could darn so well. But that didn't mean he

pampered me either. On the first day I had to travel by local train (incidentally, only my third day in Bombay), he left me all by myself, with the words "In this city, as long as you have a tongue in your mouth, you will get back home". I was angry and scared. I didn't even know in which direction Virar lay, leave alone Chrchgate! My route involved going from King Circle to Bandra on the Harbour line, Bandra to Andheri on the Western line, and then from Andheri to the Central Institute of Fisheries Education, Versova (where I was pursuing an M.Sc by research), by bus. Later on, I realized that having to navigate this on my own made me bold, confident and independent.

When I shifted base to Bombay in 1973, food came in the form of new discoveries, flavours, aromas and colours. Uncle introduced me to a whole lot of different cuisines and restaurants. At his home, I gave a free rein to my culinary talent, encouraged by uncle, friends, colleagues, and the numerous guests we had from India and abroad. Since he had had a major heart attack a few years previously, he had strict diet restrictions. That led me to experiment with my own recipes. One of those was substituting toned milk for coconut milk in the preparation of vegetable stew — a recipe that became a huge family favourite. Uncle also taught me a few recipes of his own, one of them for wheat *adais*, a dish he made whenever I returned from tiring trips to the Aarey Lake for my study. I now make those *adais* for my daughters.

My interest in gardening was also fostered by Uncle. He bought me a cactus plant with small, star-like red flowers and I kept it for many years. He also had a pot of "Brahmakamal" and these flowers which blossomed at midnight were a huge hit at our Ghatkopar housing society in the 80s. All our neighbours would come over at night, waiting for the flowers to unfurl, even as uncle regaled them with tea, snacks and stories. Another point of pride was a lovely red Bougainvillea which I had until a few years ago.

Uncle also gave me my earliest money lessons, instilling in me the habit of saving. He would say the first Rs 10,000 are the most difficult to earn, and from him, I learnt to balance my splurging with my saving. That said, he believed in living life King-size and friends and relatives were accustomed to being gifted in style from Uncle. He was meticulous in maintaining accounts. Today, when I repay my daughters for some household expenditure

they have incurred and they hesitate to accept the money, I repeat Uncle's words, "Keep it, accounts are accounts".

In fact, a lot of what I am today, I owe to Suku Uncle. The way he lived his life won my respect and admiration. He loved life and took excellent care of himself, though he had major health issues. His strong work ethic and integrity made a lasting impression on all those around him. His enthusiasm, zeal and dedication served as an inspiration to all those who worked with him. He worked hard and somehow, made work sound so exciting! Whenever I think of him, I hear his hearty laugh, see his jet-black hair and shining eyes that danced with fun! I remember what his friend, Dr. Meera Khan told me on one of his visits. "Don't be taken in by Suku's seriousness," he told me. "The first time I met him in Holland, it was in the midst of half a dozen laughing girls, with Suku joking away in the centre." Uncle knew how to strike a balance between fun and work.

Many a night, I would sit and listen in rapt attention as he recounted the discovery of sickle cell hemoglobin amongst the Todas from the Nilgiri region. This was also the work that would introduce him to the legendary Prof. Hermann Lehmann and Dr. Marie Cutbush Crookston, when they visited the Pasteur Institute in Coonoor in early 1952. Dr. Lehmann was to study sickling in the tribals of the Nilgiris while Dr. Marie wanted to concentrate on the blood serology of these subjects. Uncle, as a staff member at the Pasteur Institute was asked by the then director, Dr. Veeraraghavan, to help them in their study (At that time he was involved in a study of syphilis among the Todas of Nilgiris and the contact he had with them was perhaps the reason he was selected for this job).

His association with Dr. Lehmann kindled his interest in the study of abnormal haemoglobins in later years. The detailed serology he learned from Marie later helped him to enter the services of the Human Variation Unit at the Indian Cancer Research Centre, Bombay. Thus, he benefited immensely from the association with the team. Uncle would often talk about those tough early days at Coonoor. In those days, he would observe *mann vrath* (vow of total silence) once a week and visit Dr. Kamala Soni's home to spin the *charkha*. He learnt knitting from her and he used to knit socks. I found it interesting, since I had never come across a man who knew knitting. He often teased me because I didn't know

knitting. I was wondering why I did not learn it from my mother who was proficient in it. That was it! I decided that I would learn, and within a span of 20 days, with the help of my friend Savita's mother, I managed to give him a dark maroon sweater I had knit, in the midst of the busy schedule of writing my thesis. He liked it so much that he took it with him on his immediate trip to Germany. It remained a precious part of his baggage on all his subsequent trips as well. Later, my husband Charu would also often use that sweater on his trips abroad.

In spite of the many demands that were made on him, Uncle was always kind and helpful. Success, when it came, did not change his unassuming modesty. He believed in working hard and knew that nothing worthwhile in this world was ever achieved unless one believed in oneself, and dared to walk that extra mile that others didn't risk. He would tell me about one of the books that influenced him most as a child: *Vidbiyodu Poruthiyavar Veeratmakal* (roughly meaning "brave are the souls who fought against fate" in Malayalam). Gifted by his father, the book contained autobiographical sketches of great men who fought against their circumstances and scaled new heights. A few men of science were also included. Uncle too fought against fate, overcoming seemingly insurmountable obstacles.

Suku Uncle left home after the 40th day ceremony following his father's death, and headed to Coonoor to look for a job. He was armed with only his SSLC certificate (the modern equivalent of the SSC or the A-level exams). His first job was as an attendant in a cloth store in 1936 and he worked there till 1939 (since he was still underage, he couldn't look for a proper job). He joined the Pasteur Institute as a laboratory attendant in 1939. Even when he became an internationally renowned scientist, he remained first and foremost, a fine human being. It may surprise many to know that he had reached this position of eminence without having had the opportunity to obtain a university degree himself. He may perhaps be the only person in India to have attained this position without a formal degree.

I believe one of his finest qualities was his ability to interact with people across all strata of society. So while he corresponded regularly with the finest minds in the world of Science, he also had interesting conversations on most evenings with a coconut seller. Then there was a handicapped shoe polisher (this was when we lived at Sion) from whom Uncle regularly got his shoes polished — whether his shoes needed polishing or not.

Uncle was also — as I found out on my first day in the city — a Freemason, theosophist and one of the custodians of Blavatsky Lodge in Bombay. He was also one of the oldest members of the Philatelic Association of India. He was an avid collector of stamps and first day covers for more than 40 years and had a huge stamp collection dating from 1947. Then he had innumerable friends, both from India and abroad, who would stay with us often. He took great care of them whenever they stayed with us, paying attention to the minutest of details. I remember one of his friends, the superintendent of an eye hospital in Trivandrum, who remarked after a night's stay in Uncle's home: "After my mother's death, this is the first time I felt so cared for".

He provided solace to hundreds of abnormal haemoglobin and thalassaemic families. Many of them kept in touch with him for years. Often he would help them out of his own pocket, guided by a deep concern for his patients. I had accompanied him on visits to a few of his patients, one among them being Mr. Rodrigues. I remember our visit to Mr. Rodrigues' Bandra residence and the warm welcome accorded to us by the family, just after he returned home from his latest hospital admission. Apart from his patients, my own friends too were very attached to Uncle.

My daughters, Aditi and Rohini, were also incredibly fond of him, probably because he taught them couplets like "I scream, you scream, we all scream for ice cream", just like he taught me self affirmations like, "I am getting better and better every day and in every way". They would look forward to his weekend visits, when he would take them for walks around Anushakti Nagar, where we then stayed. It was on one such walk by a favourite haunt, a lake, that he fell down. We rushed him to KEM Hospital, where he passed away. He had returned just 10 days ago from an assignment that took him to Oxford, UK. I am happy that he spent his last 10 days in our home and that Charu and I were with him when he breathed his last. That was some consolation. My youngest daughter was born in 1992 and Charu suggested the name Sukanya, in memory of Suku uncle.

I feel enormously privileged and grateful that life gave me the chance to learn from him. He introduced me to so many things, taught me to really look around, rejoice, accept everything

that came my way and to adapt to all situations. His zest for life and work still fascinates me.

Thank you Suku Uncle, with all my heart.

Letter from Mr. Claude Rodrigues.

Mr. Claude Rodrigues,

25, Rajan,
Off Carter Road,
Bandra, Bombay 400 050.

December 15, 1990.

Dear Dr. & Mrs. Krishnaja - Charu Nair,

It was a great shock to read in the papers of the death of Dr. P.K. Sukumaran. I feel a great sadness and a personal loss: the loss of a good, dedicated and most helpful Doctor and Friend. In my prayers I shall always remember him.

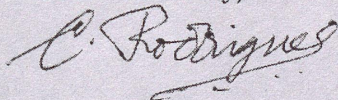
I first came in touch with Dr. Sukumaran in the early fifties, when I was referred to the Indian Cancer Research Centre, being a case of Thalesemia with Feotal Haemoglobin. Since then, I always kept in touch with him and he was most helpful to me, personally and through his other doctor friends, whenever I was in need of special medical attention.

Only in March this year, when I was quite ill, my people phoned to him at the Wadia Hospital and early one morning, a few days later, he was at my place, all concerned and very helpful. Fortunately, for me, in a short time I made a good recovery and I was able to resume my duties.

But, little did I dream that, that would be the last time I would see him ... May his soul rest in peace. I am feel sure he is already enjoying his eternal reward promised by the Almighty "to His good and faithful servants".

I am with you in this hour of sorrow and I extend my sincere sympathy to you, to his brother and sister and to all his dear ones.

Yours sincerely,



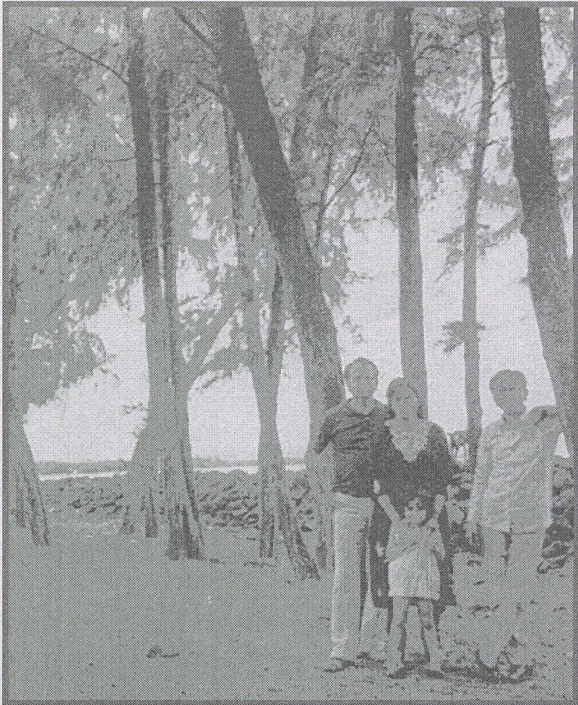


At his Ghatkopar residence with my daughters, Robini and Aditi.



With Aditi, Robini and me.





At Alibag, with me, Charu and Rohini.



In France, during one of his trips.

Part II - A Scientist par Excellence

P.K.Sukumaran - An authority on Haemoglobinopathies and Thalassaemias, A scientist par excellence.

Sukumaran, known as "Suku" to his friends and colleagues the world over, was a leading scientist and an authority on Haemoglobinopathies and Thalassaemias. A pioneer in the field, the diagnostic services offered by him over the years earned him the status of a reference centre for Bombay as well as for India and her neighbouring countries. This led to the identification of majority of haemoglobin variants and thalassaemias prevalent in the sub-continent such as Hb-S, D, J, L, Q, H, E, M, Barts, structural variants of H₂PFH, thalassaemia and several rare combinations. A dedicated and meticulous scientist, he had indogeneously perfected electrophoretic and hematological techniques as early as 1956, for accurate diagnosis of haemoglobinopathies and thalassaemias. His paper electrophoretic patterns like drawings were an artist's envy and almost impossible to reproduce.

Though he did not have a formal degree, he had the opportunities to be trained in the best of laboratories. Early on at Pasteur Institute, Coonoor, he worked in clinical laboratory doing haematology, bacteriology, serology and clinical biochemistry, having picked up the techniques in the department. He was deputed to be trained in clinical biochemistry and blood group serology at Madras Medical College.

He was trained at St. Bartholomew Hospital, London, in abnormal haemoglobins under Prof. Lehmann for a year 1962-1963 and later for a year, in Prof. Jonxi's laboratory, at the University of Groningen (Holland) on peptide mapping and amino acid sequence studies on abnormal haemoglobins, under the NEBUTA fellowship. He had participated on invitation in the NATO Advanced Course in Human Population Genetics at Rome and Sardinia, for three months in 1964.

After retirement from Cancer Research Institute, Mumbai, he joined Wadia Children Hospital Research Institute, Mumbai, as a specialist in Haemoglobinopathies. He was also a member of the Scientific Committee and Governing Council.

He was a Member, Expert Panel on Haemoglobinopathy and Thalassaemia under the International Committee on Standardisation in Haematology (ICSH), 1974-1979, Member Expert Committee on Haematology, ICMR. He represented India on the South North Round Table on haemoglobinopathies, Invitation by the Third World Academy of Sciences, TWAS at, Trieste, Italy, 1986.

References 1&2 by Prof. Luzzatto and Dr. Undevia respectively, aptly summarize his academic background, perseverance, dedication to work, achievements and personal qualities. It could not have been done better. One can get a glimpse of the spirited autobiographic story of his work in Reference 3. His advice to younger people was to "have the courage of your convictions that you are right and do not be led astray by others' opinions". This was mentioned in the context of his losing priority in reporting Hereditary persistence of fetal haemoglobin (HPFH), when he was persuaded by two eminent authorities in world hematology to believe that this was nothing new.

1. In memoriam P.K. Sukumaran 1920-1990. Hemoglobin. 1991;15(5): v-vii. Luzzatto L. PMID: 1802880.

2. Dr. P. K. Sukumaran. 1991. Thalassaemia and Sickle cell society of Bombay News Letter Vol. VII. No.1. pp. 1-3. J.V.Undevia.

3. Thalassaemias and Haemoglobins. P.K. Sukumaran. The fourth deSa-Sanzgiri Oration under auspices of Dr.Ramesh Sanzgiri Foundation at Margao-Goa on 16th September 1984.

Letter from Prof. Luzzatto.

Royal Postgraduate Medical School
Hammersmith Hospital, Du Cane Road, London, W12 0NN



University of London

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Dear Dr Krishnaji,

Thank you for your kind letter, which came as a real shock to me. I had known your uncle for at least 14 years, and I had come to appreciate both his scholarly achievements and his human qualities. Especially I found his enthusiasm for research and public health in India quite inspiring, and quite unquenched even after his formal retirement. I am especially touched that he remembered the collaboration we were still planning to have, and I am glad his last night in London was at our house.

I am enclosing a letter to Dr Huisman. I hope we have an opportunity to meet one day. With warm heartfelt sympathy to all of the family and to yourself
Luis Luzzatto

Few important Publications:


- Lehmann, H., Sukumaran, P. K., Examination of 146 South Indian aboriginals for haemoglobin variants. *Man.* 2 : 95, 1956.
- Sukumaran, P. K., L. D. Sanghvi and G. N. Vyas, Sickle-Cell. Trait in Some Tribes of Western India, *Curr. Sci.* Vol. XXV. 1956. 290-291.
- N. Nagaratnam, P. K. Sukumaran. Thalassaemia in Ceylon. *Acta haematologica.* 1967;38(4): 209-18. PMID: 4964889.

- P. K. sukumaran, S. M. merchant, Meena P. Desai, Barbara G. Wiltshire and H. Lehmann. Haemoglobin Q India (a64(E1 3) Aspartic Acid > Histidine) Associated with β -Thalassaemia Observed in Three Sindhi Families. *Journal of Medical Genetics* 1972. 9, 436 – 442.
- P.K. Sukumaran, T. Nakatsuji, M.B. Gardiner, A.L.Reese, J.G.Gilman and T.H.J.Huisman. Gamma thalassaemia result from the deletion of a Gamma globin gene. *Nucleic Acids Research*. 1983. 11: 4635-4643
- P K Sukumaran, L D Sanghvi, J A Ager, H Lehmann Haemoglobin L in Bombay: findings in three Gujarati-speaking Lohana families. *Acta genetica et statistica medica*. 1959;9: 202-6. PMID: 13835609
- Sukumaran, P.K. Studies on the haemoglobin A and B of Indian cattle. *Biochim Biophys Acta*. 1965 May 4;100:616-8. PMID: 14347964.
- P K Sukumaran, H R Master, J V Undevia, V Balakrishnan, L D Sanghvi. ABO blood groups in active cases of smallpox. *Indian journal of medical sciences*. 1966. 20(2): 119-22. PMID: 5909504
- P K Sukumaran, T H Huisman, W A Schroeder, P R McCurdy, J T Freehafer, N Bouver, J R Shelton, J B Shelton, G Apell. A homozygote for the Hb G type of foetal haemoglobin in India: a study of two Indian and four Negro families. *British journal of haematology*. 1972. 23(4): 403-17. PMID: 5084806
- Sukumaran, P.K. & Master, H.R. The distribution of abnormal haemoglobins in the Indian population. In: *Proceedings of the First Conference of the Indian Society of Human Genetics, Vol. 1. Human population genetics in India*. Bombay, Orient Longman, 1973, pp. 91-111.
- Sukumaran PK. 1974. Abnormal Hemoglobins in India. *Trends in Hematology*. Sen NN, Basu AK (eds). J B Chatterjea Memorial. Committee: Calcutta 223–261...
- P K Sukumaran. Thalassaemias. *The Journal of the Association of Physicians of India*. 1978. 26(7): 627-36. PMID: 721770.
- Nakatsuji T, Gilman JG, Sukumaran PK, Huisman TH. Restriction endonuclease gene mapping studies of an Indian (A gamma delta beta) zero-thalassaemia, previously identified as G gamma-HPFH. *Br J Haematol*. 1984;57(4):663-70.PMID:6204682.

- B. Sangani, P K Sukumaran C Mahadik, H. Yagnik, S Telang, F Vas, R A Oberoi, B Modell, S M Merchant. Thalassaemia in Bombay. The role of medical genetics in developing countries. Bulletin of the World Health Organization. 1990. 68(1): 75-81.

Times of India
20-12-1990

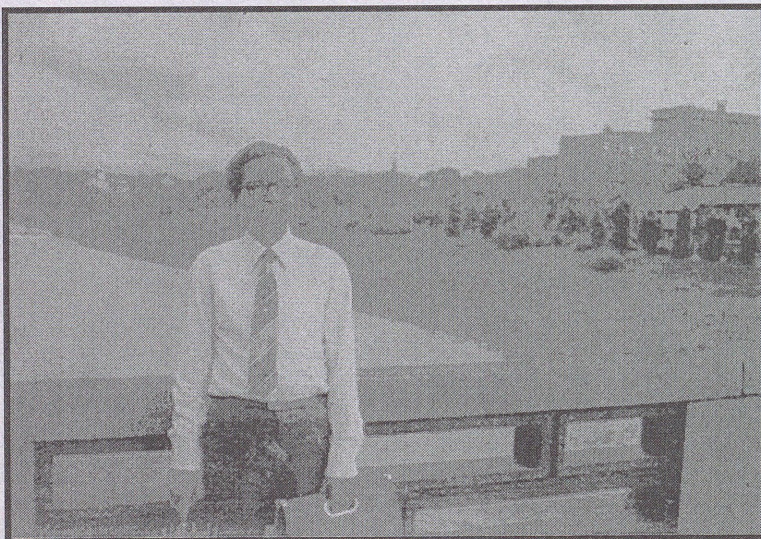
"From a tiny Acorn,
A mighty Oak does grow"



From an early beginning at the Pasteur Institute Coonoor to International eminence in Haemoglobinopathies. A scientific career of excellence spanning five decades at Pasteur Institute, Coonoor, Cancer Research Institute, and Wadia Children's Hospital Research Institute, Bombay. Above all a warm, kind and caring human who brought sunshine into those lives he touched. Fondly remembered: Dr. Krishnaja, Charu Nair, Aditi & Rohini, B/8, Vindhya, Anushaktinagar, Bombay 94.

SUKUMARAN P. K.
Born: 9.9.1920
Passed away: 10.12.1990

We thank all those who were with us in our hour of grief and request forbearance for not acknowledging individually.



Royal Postgraduate Medical School

Hammersmith Hospital, Du Cane Road, London, W12 0NN



University of London

HAEMATOLOGY DEPARTMENT

DIRECT LINE: 081 740 3234

FAX: 081 740 9679

22 April 1991

Professor T H J Huisman
Laboratory of Protein Chemistry
Department of Cell and Molecular Biology
Medical College of Georgia
Augusta
GA30912-2100
USA

Dear Professor Huisman

As from our previous correspondence I am enclosing a brief obituary on P K Sukumaran, together with a photograph of him. The text has been approved by his niece, Dr Krishnaja. I hope you will find it suitable for publication in *HEMOGLOBIN*.

With best regards

A handwritten signature in cursive script, reading "Lucio Luzzatto".

Lucio Luzzatto
Professor of Haematology

copy to: Dr Krishnaja

Prof. Lucio Luzzatto and wife Paola with me & Charu during their stay in 1999.



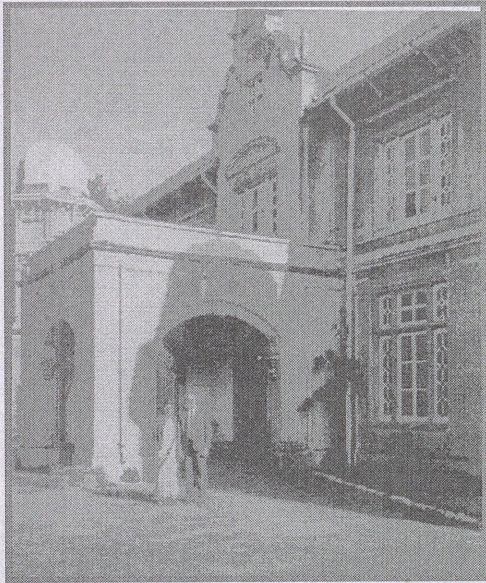
Part III - Associations - Professional and Personal - Across the Globe.

Early work at The Pasteur Institute, Coonoor:

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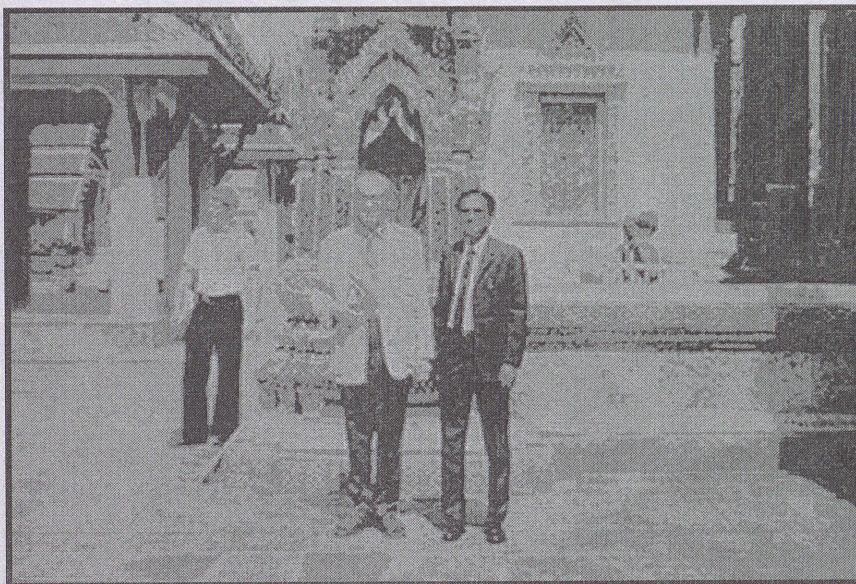
Among the Todas of Nilgiris, South India., the work that led to his association with Prof. Lehmann.





The Pasteur Institute, Coonoor, when Charu and I visited in 1987

With Prof. Lehmann



Letter from Dr. Veeraraghavan, Former Director, Pasteur Institute, Coonoor.

Madras
23 December 1991

Dear Dr. Krishnaja,

Many thanks for your kind letter dated 9th December. Your hand writing closely resembles that of Sankumaran. It took me a few seconds to realise that he was no more.

I am very happy to read the 'In Memoriam' of Sankumaran. It deals in detail with his academic background, his perseverance, dedication to work, achievements and personal qualities. I am sure it could not have been done better. Sankumaran's soul should be happy at the recognition accorded to him from the Scientific Community. I am indeed proud that I could help him

I am sending a copy of the 'In Memoriam' to the Director, Pasteur Institute, Coonoor, for display

in the Institute Library. It should serve as an inspiration to all the staff.

Thanking you, once again, for sending me the 'In Memoriam'

With kind regards

Yours Sincerely
Vemana Laxman

Association with Prof. Hermann Lehmann.

His association with Dr. Lehmann and later, training in his laboratory, helped him to change over to the study of haemoglobinopathies in Indians. With Dr. Lehmann's help, he attended the First Abnormal Haemoglobin Symposium in Istanbul in 1957, his maiden trip abroad and later to many other countries as a member of the ICSH on Abnormal Haemoglobin and Thalassaemia (as a representative of India) and also on some WHO assignments. He had the liberty of visiting Lehmann's family very often and Benigna Lehmann and the children always considered him part of their family. For him, Dr. Lehmann was a friend, philosopher and guide, above all his 'Guru'.

- Hermann Lehmann (1910-1985) by J Dacie. Biographical Memoirs of Fellows of the R... Vol. 34, Dec., 1988. **At the Pasteur Institute in Coonoor we were fortunate in having the technical help and friendship of P. K. Sukumaran (Suku) who was eager to...**

Dr. Marie Cutbush Crookston (1920-2009): The friendship that emerged way back in 1952 continued till Suku Uncle's end. The annual Christmas greetings always arrived in time. This picture was sent along with the last card given below which arrived much early in 1990. Marie Cutbush came to Coonoor on a Nuffield Foundation Award in 1952 along with Dr. Hermann Lehmann for studying the blood groups of tribes in the Nilgiri Hills of South India. Incidentally Marie Cutbush is associated with the discovery of the Duffy blood group system. She contributed to the writing of the first edition of Dr. Mollison's *Transfusion in Clinical Medicine*. Marie was a pioneer in immunohematology and blood transfusion research and her outstanding contributions to immunohematology have made a permanent impact on the field.

Dr. Marie Cutbush Crookston with her grandson.



246 Russell Hill Rd.
Toronto M4V 2T2

(offspring
of Sam C.
Henry O'Brien)

Marie + Owen Crookston
(70) (1-yr) August 1970

Letter from Mrs. Benigna Lehmann.

4th January 1991 22 Newton Road
Cambridge

Dear Dr Krishnaja,

CB2 2AL
U.K.

It was so good of you to write about dear "Suku" as we all called him. He will be sadly missed although continents divided us. My ^{late} husband (and I) had the greatest respect for him and his work as well as great affection for him. He used to come to stay with us, both when we lived in Tunbridge Wells and here and he was so good to the children - now all in their forties - and such fun to have.

My sister, who also knew him slightly, died suddenly in the same way this October and sorrow for her passing is mixed with the feeling of relief that she did not have a long illness and pain.

I telephoned Marie Crookston in Canada and she told me that she had just written to you. You will miss Suku so much I fear. He was such a warm hearted amusing man and must have been a splendid uncle.

I spoke to him on the last day he was in England. He had ^{had} the wrong telephone number unfortunately. Sadly, I could not go to London to see him because I had to rehearse for a concert. If I had foreseen the future, I would have put off the rehearsal, but at the time it seemed important.

Please remember that you are very welcome here should ever you come to Cambridge. Forgive my wobbly writing. I sprained my wrist when I wrote this.

With my sympathy and happy memories of
your dear uncle

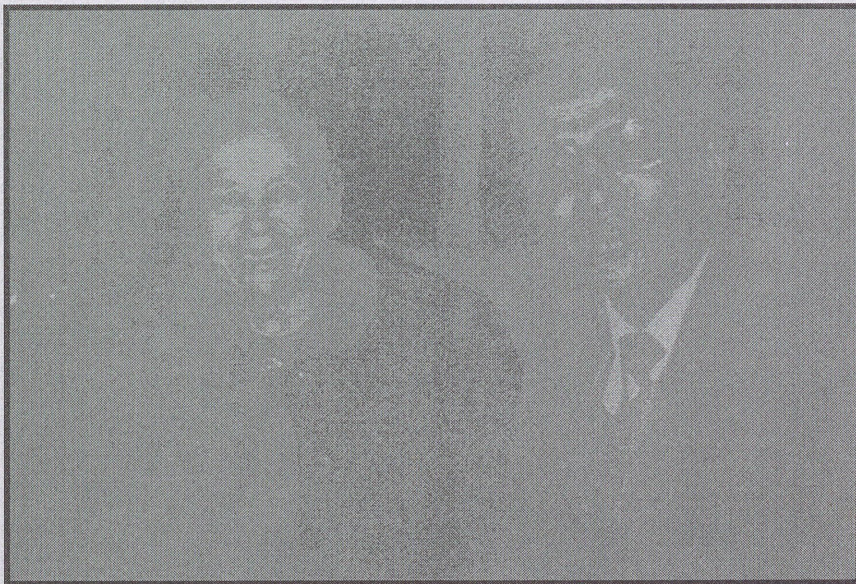
Yours sincerely

Benigna Lehmann

I have written to Dr R. Huntsman in Newfound
Land

Dr. Rose Grundfest Schneider was a pioneering scientist and globally acclaimed researcher of abnormal haemoglobins, like sickle cell haemoglobin, whose research helped diagnose a tenth of the 400 genetic variants identified around the world during her research career. She was among the first to prove that abnormal hemoglobin can be accurately diagnosed at birth, leading to mandatory newborn screening for the variants. She passed away in 2003, at the age of 95.

With Prof. Rose Schneider.



Letter from Dr. Marie Crookston.



(not Dr.) Mrs. Marie Crookston
296 Russell Hill Road
Toronto M4V 2T2
3 January 1971

Dear Dr. Krishnaja,
Your letter came after Christmas. What sad news! But what a blessing that Suku didn't have a long painful illness. I'll always remember him as vigorous, eager for information, and warmly concerned for friends & family. We had a long friendship sustained by letters and only two reunions (one in Bombay in 1956 & another in Paris in 1978). Henmann-Behrens after gave me news of their encounters at hemoglobin meetings. Like me, he was very impressed by Suku's keen mind & ability as a research worker. Suku was proud of your success & took great pleasure in discussing science with you. I'd be interested in knowing more about your specialty.

PEACE
* to *
* 和平 *
* Suku and *
* to *
* his friends *
* & *
* relatives *
* PAIX *
* PAZ *
* MND *
* MND *
* MND *

With the enclosed money order, I would like you to plant a tree — in your garden, or in a park, or at his research institute — in his memory. Or perhaps there is already a memorial fund? We won't forget such an

admirable person — but those who didn't know him might ask "Who was this P.K. Sukkumaran whose death left such a gap?" — and be inspired to greater efforts. Thank you for writing so quickly. You must have many forms to fill and phone calls to make. I certainly appreciate your kindness in taking time to give me details of dear Sukku's illness and death, + for enclosing a recent picture. My condolences and warm wishes to you + your family — Marie C.

4 Jan
Benigna Lehmann has just phoned from England to tell me  about Sukku's death which you had written about to . Have you met her? She is generous, charming + talented — Sukku was fond of her.

For the well-being of the world's children • Pour le bien-être de l'enfance du monde • Por el bienestar de los niños del mundo • На благо всех детей мира • 造福世界儿童。
United Nations Children's Fund • Printed in U.S.A.

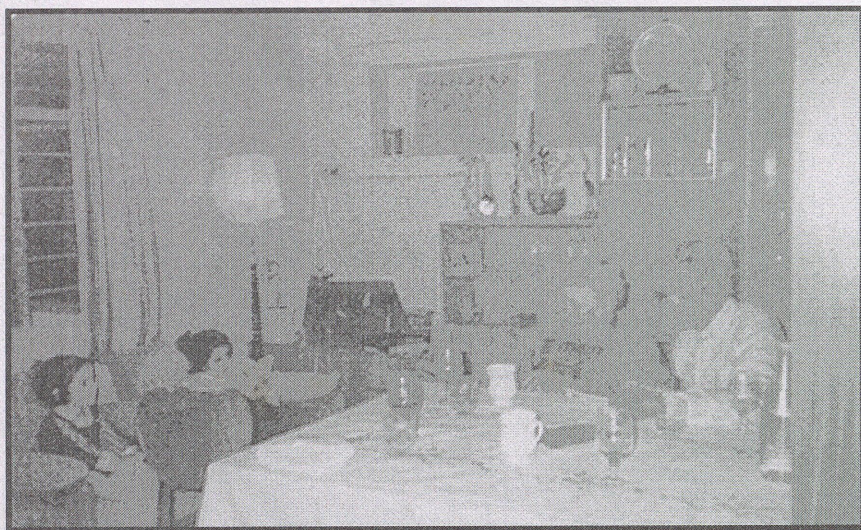
4/1/91
Another idea as a memorial to Sukku — instead of a tree: Perhaps you could arrange to have Sukku's reprints bound into a book with a contents list and a biography, plus some photos.

The book would be treasured by his family +/or by the Research Lab.

You must do whatever seems best without being burdensome.

Marie Crookston

Dr. Rose Schneider at our home during her visit to Mumbai in 1989



Letter from Dr. P. Fessa (Greece).

Mardi 31st, 1991

Dear Dr. Krishnaja,

I am very grateful to you for informing me so promptly of the passing away of my friend - and your beloved uncle - Dr. P. K. Sukumaray; it was very kind of you to have done so in the midst of your sorrow. Certainly, it is not your fault but your letter reached Athens on the 22nd of March only; I can offer no explanation for such a delay, perhaps disturbed communications because of the war in the Persian Gulf are to blame.

It is hard for me to accept that I will no longer meet Dr. Sukumaray at international meetings: always so friendly, so sincere, so lively and youthful in appearance and attitude; I can hardly believe he was now 70. It was always a pleasure to meet him and to talk with him, although we were seeing each other rather rarely. However, I remember exactly when we first met: this was in mid-September 1957, at the Symposium on "Abnormal Hemoglobins" held in Istanbul (we say Constantinople). He participated as an observer, but his work was mentioned; this must have been the beginning of his excellent career in the field of hemoglobinopathies. If I am not wrong, the last time we met was in Bangkok, in the summer 1985 for an International Meeting on Thalassemia.

I feel proud that Dr. Sukumaray had elected me so high among his professional associations and this increases my sorrow that I will not meet him again.

I have passed the sad news to a colleague in Athens, Dr. (Mrs) Dina Politis, who has been with Dr. Lehmann and who remembers your uncle very well from his visits to England.

From your letter I can understand that you must have been very close to your uncle. My wife, Roxane, also remembers him very well. So please accept, from both of us, our deepest respects and sincere sympathy.

Again, allow me to thank you for your consideration to inform me of Dr. Sukumaray's demise. To you and your family, best wishes.

With kind regards, yours sincerely

Phedon Fessis

Dr. Flatz - Uncle met him in Prof. Jonxi's Laboratory in Holland in 1962. The friendship continued to the end.

Dr. med. Gebhard Flatz

Mainzer Straße 267
5300 Bonn 2

January 30, 1991

Dear Dr. Krishnaji,

I received your letter with some delay because I have retired from active duty at the end of last year and have moved to Bonn.

Receiving your letter with the postal stamp Bombay I expected some good news from "Sukhi", as I was used to call your uncle. The deeper was the shock to learn the sad fact that my dear friend is not with us on this earth anymore. I knew your uncle since almost 30 years. We met for the first time in Prof. Jonxi's laboratory in Groningen (Holland) in the summer of 1962 and took an immediate liking to each other. Our friendship and cooperation in science has not ceased since that time, common interests and a common sense of humor connected us even when we did not have a chance to meet very often. P.K. Sukumar was certainly one of the finest Indian beings I met during my life and I will always keep him in fond memory and honor his name.

With kind & kind regards,

Yours sincerely,
Gebhard Flatz

Dr. Gebhard Flatz in the early sixties.



He was associated with **Dr. Bernedette Modell** in connection with the ODA sponsored Thalassaemia control programme. Dr. Modell developed the basic scientific concepts of Community Genetics (a fusion of public health and primary health care aspects of medical genetics) in collaboration with WHO. Her interest in public health aspects of medical genetics arose from a lifetime's work on haemoglobin disorders.

Dr. Nagarathnam from Ceylon was associated with Suku Uncle for more than 30 yrs.

20, Panorama Crescent
North Rocks (Sydney)
NSW 2151, Australia
29-1-91

Dear Dr. Krishnaja,

I am sorry for the delay in replying to your letter. I was considerably disturbed on hearing the news about your uncle's death. My deepest sympathies to you and to your family.

Suku as we all called him, was very dedicated to his work and thoroughly enjoyed the work he did. He was a constant source of encouragement to me and I have known him for almost 30 years or more.

It is rather sad that he could not have gone on for some more years.

Thank you very much for letting me know. I shall certainly let his friends and associates know.

With kindest regards

Yours sincerely
Nagarathnam

Closer home, in Thailand he had many friends: Profs. Prawase Wasi, Sutat Fucharoen, Drs. Na-nakoren and Pootrakul.

Dr Prawase Wasi, a distinguished haematologist and Ramon Magsaysay Award winner is known for his work in identifying the genetic mechanism of alpha thalassemia among Thai population.



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BANGKOK 10700, THAILAND

Tel. 411-4230 ext. 5078
Telex. 84770 UNIMAH TH
Cable: UMAHIDOL

Fax: 662 4121371 or 4125994

25th December 1990

Dr. (Mrs.) Krishnaja, A.P.
B-8 Vindhya
Annshakti Nagar
Bombay 400094
India

Dear Krishnaja,

Thank you very much for your letter of 16th December. It is indeed a sad news to all of us to learn that Suku has passed away. I met him first time in 1957 — 33 years ago. He had been a dear friend to us all. We respected his dedication to research and the high quality of work. All remember him very well. Please convey our condolence and share of the loss of a great friend to all his relatives and friends. We shall never forget him.

With kind regards.

Yours sincerely,

Prawase Wasi



With Prof. Sutath Fucharoen at the Ghatkopar residence in December 1987.

Prof. Sutath Fucharoen - Thailand. His research on thalassemia, and his findings provide insights into different types of genetic abnormality that led to thalassemia in Thai population.