

# A Day in the Life of Dr Noel W Solomons

**Sight and Life (S&L):** *Dr Solomons, you are Director of the Center for Studies of Sensory Impairment, Aging and Metabolism (CESSIAM). How long have you been in this role, and what does it entail?*

**Noel Solomons (NS):** I have been in this position since July 1, 1985 – the day the new center was founded. I am also its Senior Scientist. The Center is the operative arm of a non-profit association, the ASOCIACION CESSIAM. I've been the Vice President of the Board of Directors of ASOCIACION CESSIAM since 1987.

The role involves projecting the vision and the mission of the institution, both internally and externally. Above all, the Center is about discovery and the creation of new knowledge. It is also about training young scientists and building capacity for knowledge creation. It is not about participating in public health programs per se. External projection involves contacting potential donors of research financing in foundation, government and industry sources and communicating with potential collaborators and researchers.

Reviewing research manuscripts and free-paper abstracts for scientific meetings occupies much of my time. The role also involves financial administration.

**S&L:** *Is there such a thing as a normal working day for you? If so, could you describe it?*

**NS:** When I'm not travelling, there is a usual work week. On Tuesdays, we hold an Academic Seminar, in which one of our staff or students will make a presentation on research. On Fridays, we convene a coordination meeting of our Guatemala City staff, followed by another Academic Seminar. Occasionally, we invite a guest professional to give a presentation. I try to leave Wednesdays free so that I can work from home, do errands and visit other professionals or entities. On Saturdays, I have one-on-one meetings with the post-doctoral staff members and graduate students to mentor their projects.

**S&L:** *Can you tell us something about the team that supports you at CESSIAM?*

**NS:** There is an external (international) team and an internal (local) team. The external team consists of the Nevin Scrimshaw International Nutrition Foundation in Boston and the Hildegard Grunow Foundation in Munich, Germany. We also have productive ongoing academic collaborations with several other international universities.

The internal support team consists of two loyal staff members in clerical and custodial positions. We have five full-time professionals based in the Headquarters – two with international doctoral degrees in nutritional sciences – and one coordinating our outpost in Quetzaltenango in the Western Highlands.

**S&L:** *Can you tell us something about the history, values and objectives of CESSIAM itself?*

**NS:** CESSIAM was born out of values: our guiding principle is to encourage creative and unfettered lines of research outside of the constraints and orthodoxies of any institutional oversight. From 1977 to 1984, I perceived a weakening of the investigative mission of INCAP due to the politicization of research. As a conscious counter-reaction, CESSIAM's most important value was to provide a refuge for the expression of scientific curiosity originating from the inspiration of the investigator, with strict adherence to the objectivity of the scientific method. We also wanted to develop young scientists as 'human capital' for innovative biomedical investigation.

We originally had four divisions for the center, but this has evolved to two: Diet and Health; and Safety and Efficacy of Iron.

**S&L:** *Your website states that "CESSIAM is located in Guatemala City, Guatemala. The small, modest building belies the copious amounts of cutting-edge nutrition research going on within!" Could you tell us more?*



“It may be immodest to state it, but I usually enjoy reading my own articles. I like sharing a narrative with the readership.”

**NS:** The small building on the website photo is but one of a number of small buildings that make up the Center. In our white office headquarters, we have the offices; in a twin building attached, there is a space used for a clinic or simple laboratory, as well as a meeting room for seminars and some offices for our students. In the city of Quetzaltenango, in the Western Highlands of Guatemala, we have two locales in a commercial center. I have never subscribed to the “edifice complex” of some institutions, where the grandeur of the physical facilities becomes a status symbol. Our current facilities are ample compared to the space in the eye and ear hospital in our early years.

**S&L:** *CESSIAM celebrated the 25<sup>th</sup> anniversary of its foundation in 2010. What did that milestone mean to you and your colleagues?*

**NS:** Our 20<sup>th</sup> anniversary in 2005, celebrated in Guatemala, had already made clear how many diverse individuals had participated in projects over the previous two decades, and how successful many had become in their own right.

Following on from that, our 25<sup>th</sup> anniversary was celebrated during the course of the whole calendar year of 2010. The centerpiece was an afternoon wine-tasting party in Oporto on the occasion of the second World Congress on Public Health Nutrition. Virtually all of our staff and students had free-papers accepted to the Congress, and some won awards. The entire worldwide staff from *Sight and Life* was present to honor us with a toast and a commemorative plaque. The celebration will be remembered by all.

**S&L:** *You are an officer of the Nevin Scrimshaw International Nutrition Foundation (INF). What is the relationship between INF and CESSIAM?*

**NS:** Around the time of the founding of CESSIAM it was “awkward” to have large amounts of funds in local banks. We worked out a means to have hard currency deposits held in Boston and released as needed on a monthly basis. This arrangement persists through today, helping us to obtain equipment and reagents that are difficult to purchase directly in Central America.

**S&L:** *CESSIAM is based in Guatemala. What is the health and nutritional status of the population of Guatemala, and how has it changed in the past quarter-century?*

**NS:** Infant and under-five mortality have progressively declined over the past 25 years, but overweight and obesity have emerged in urban populations. Anemia remains a problem. We have mosquito-borne infections of *Vivax* malaria and Dengue fever on the coastal plain. We are among the nations most infested

by intestinal worms. Guatemala has two glaring manifestations of poor public health. The first is the maternal mortality ratio, with women dying in childbirth in numbers upwards of 300 per 100,000 live births in some parts of the Western Highlands. The second – and the most immediately relevant to CESSIAM and *Sight and Life* – is the rate of stunting in children from 6 to 59 months. In the most recent survey, this was 54% – the highest of any Latin American nation.

**S&L:** *What are your hopes for public health in Guatemala and in Latin America as a whole?*

**NS:** I’d like to see a focus on the two imposing problems just mentioned. And I would like to see an even greater improvement in the technical skills, equipment and instrumentation available for public health research in Latin America. Researchers should focus on how emerging concepts may relate to our own regional problems. There is an ideological tendency in the region to eschew objective inquiry and rely on doctrinaire formulations of the causes of social ills; I hope that objectivity trumps ideology in the near term.

**S&L:** *How do you view the Scaling Up Nutrition (SUN) movement, and what are your expectations of this initiative?*

**NS:** SUN represents the kind of coalition of institutions that I like to see working together. I am a fervent devotee of private-public collaborations. The persistence of stunting in 36 selected developing countries – including Guatemala – is a blemish on the world’s public report card. Furthermore, the paradigm of the first 1,000 days of life, from conception to the second birthday of a child, as the window of opportunity for assuring normal growth, development and health is based on firm and proven biological and epidemiological evidence.

My only concern with SUN is the danger of it becoming too focused on diet and nutrition as the only tools to reverse poor linear growth. I have long been party to the theory that environmental stressors in the surroundings of the mother, fetus and infant contribute to the impaired utilization of nutrients. Dietary and nutrient interventions are a necessary – but far from complete and sufficient – redress to impaired early growth and development.

**S&L:** *You are a doctor of medicine by training. In what ways has this identity influenced your work?*

**NS:** Being a physician in first instance has *enabled* my work, permitting me to take a leadership role in research with human subjects and populations. Moreover, a physician is less likely to become too narrowly focused on one problem or experimental

technique. Medical doctors are also committed to the Hippocratic tradition, which is based on the dictum of “first do no harm.” This is relevant to areas such as iron administration in malarial regions.

**S&L:** *Do you have a hero who has inspired you in your career?*

**NS:** There are three heroes who have acted as inspirational mentors. In 1965, my political leanings were considered too radical for Top Secret clearance in the Office of Scientific Affairs, so I was relegated to USAID and war-vintage out-buildings in the flats of Foggy Bottom in Washington DC. Again, a modest setting! There I was to meet Dr Harald Frederiksen, a tropical disease physician (and also somewhat of a political renegade), with whom I did a summer internship after my junior year at Harvard College. The topic he proposed would introduce me to the world of international nutrition, and turn my career aspirations from biochemistry to medicine.

Returning to campus, I headed over to cross-register at MIT for an honors thesis on nutrition and infection with Prof. Nevin Scrimshaw, Chair of the Department of Nutrition and Food Science. Nevin, at age 31, had been the founding director of INCAP in Guatemala. Over the years, working with him later on the faculty of his Department and subsequently with his International Nutrition Foundation, I would learn the art of science in broad and relevant topics, as opposed to narrow specialization.

Prof. Irwin Rosenberg, Dean Emeritus of Tufts University's Friedman School of Nutrition: Science and Policy is another major influence. Closely allied in the 1970s with Dr. Scrimshaw, he was a gastroenterologist with an interest in folic acid and vitamin B<sub>12</sub>. We first linked up at the Harvard Medical School as part of the civil rights movement. After finishing my medical training, I became a trainee in the Division of Gastroenterology at the University of Chicago, which Irv was by then running. There I became involved in intestinal handling of lactose, zinc and bile acids in Chicago, and I carried those three interests to Guatemala, when he pointed me to a final, fellowship year abroad at the INCAP.

**S&L:** *The mission of Sight and Life has changed considerably in the past quarter century. How does Sight and Life interact with CESSIAM today, and how do you view the organization's overall evolution?*

**NS:** *Sight and Life* began as a voluntary organization largely involved with vitamin A as a way of addressing nutritional blindness. Its present scope runs across the gamut of micronutrients and into core, complex issues such as stunting and overweight. This is a most favorable evolution, as is *Sight and Life's* leadership and collaborative positions on vexing issues of the day – such as anemia eradication.

CESSIAM has received partial funding from *Sight and Life* for a series of studies, including descriptive studies on complementary feeding patterns. Currently, we are looking to partner with *Sight and Life* in an expanding study on the fortification of maize flour. A further interaction is editorial: I have served as an author for a chapter in the monograph, *Nutritional Anemia*, and as a Contributing Editor for *Sight and Life* magazine.

**S&L:** *What does the magazine itself mean to you? Which parts do you most enjoy reading, and are there any things that you would wish to change about the magazine?*

**NS:** It may be immodest to state it, but I usually enjoy reading my own articles. I like sharing a narrative with the readership. The magazine has a very flexible approach and publishes a broad diversity of articles.

**S&L:** *If you could change one thing about your working life, what would it be?*

**NS:** I wish that I could spend more time with the staff and students at CeSSIAM's outpost in the Western Highlands. It's a remote – but vibrant – location.

**S&L:** *How do you switch off from work? Do you have interests outside your professional existence?*

**NS:** “So much to do ... so little time” is my usual perspective. I enjoy photography, dancing and socializing, but usually in the context of a professional activity.

**S&L:** *Is there anything else that you would like our readers to know?*

**NS:** Being a “transnational” professional is a unique experience. For example, in 2010 I was honored to be the first non-Guatemalan to receive the Guatemalan Medal for Science and Technology. International organizations such as *Sight and Life* provide some form of grounding in my tumbleweed jaunt through my career.

**Dr Noel W Solomons was interviewed by Jonathan Steffen**