Sight and Life Interview

Stanislaw Berger: A Living Legend

Professor Stanislaw Berger was the recipient of a Living Legend Award at the 19th International Congress on Nutrition in 2009. He looks back on a career as a nutrition scientist that spans over 70 years and reaches back to his compatriot Casimir Funk, who coined the term "vitamine" in 1912 and in whose Warsaw laboratory Professor Berger worked as a young man.

Sight and Life (S&L): Professor Berger, you have dedicated your professional life to the subject of nutrition. What made you choose this discipline as the main focus of your career?

Stanislaw Berger (SB): It was due to many calamities in my difficult life – the first being the bombardment and destruction of my house in Warsaw at the outbreak of the Second World War in September 1939. I became homeless for many years thereafter. Two aspects of what was to follow gave my life its definitive direction.

The first was that, having lost my home, I worked on farms belonging to friends of my family. I attended at this time the only agricultural high school that existed in Poland during the Nazi occupation, namely Czernichów near Kraków. My favorite subjects (at the time, and ever since) were biology and chemistry. I always had my chemistry textbook with me in my rucksack during the war.

The second stems from my experience as a soldier in the Polish Army. After almost 2,000 kilometers of marching and fighting our way into Germany that took the Polish forces all the way to Dresden, I was severely wounded in a terrible massacre. I was partially paralyzed and taken from the battlefield as a prisoner of war. I was put in various hospitals and kept without food and water for three or four days (this was done to save my life, on account of the gunshot wound I had received). I was to escape death on three more occasions after this, but this was the first and most memorable occasion.

From a relatively early age, therefore, I had a deep know-ledge of food production, and also of intense hunger. This com-

bination of experiences motivated me to embark on a career as a nutritionist, and human nutrition science became my lifelong passion.

"My knowledge of food production, and also of intense hunger, motivated me to embark on a career as a nutritionist"

S&L: You became an employee of the Department of Hygiene Nutrition of the National Institute of Hygiene in Warsaw in 1950. How has the world's concept of public hygiene and public health changed in the past 60 years?

SB: This is a big question, and it should be addressed to the relevant policy-makers and decision-makers in Poland's government, public health institutions and medical universities. My work at the Department of Nutrition in the State Institute of Hygiene (PZH) (now part of NIPH) lasted only seven years (from 1950 to 1957), after which I went to the Graduate School of Nutrition at Cornell University, USA, as the first Rockefeller Fellow from Poland after the Second World War. On returning from the USA, I became a professor at the Warsaw University of Life Sciences (WULS) [Szkoła Główna Gospodarstwa Wiejskiego (SGGW)], where I started working in 1953.

In my personal opinion, to eliminate – or at least diminish – hunger, we need to unite agriculture with medicine. This applies to hidden hunger too, and likewise to dietary-related health conditions such as obesity.

S&L: The Warsaw University of Life Sciences is Poland's largest agricultural university, and dates back to 1816. You became a Professor of Agriculture there in 1976, having worked for the United Nations Food and Agriculture Organization (FAO) from 1967 to 1970, and you are currently honorary chairman of the Committee of Nutrition Sciences at the Polish Academy of



Sciences. What, in your view, has been Poland's major contribution to agriculture and nutrition studies in the past half-century?

SB: Poland's major contribution has been in recreating, and also establishing from new, various academic and research institutions in the field of nutrition science – for example, the Food and Nutrition Institute, which is supported by FAO. My work at Warsaw University of Life Sciences is part of this effort. It has involved the creation and leadership of the first Institute of Human Nutrition and eventually – unique in Poland, and perhaps in all of Central Europe – of a Faculty of Human Nutrition and Consumer Sciences that offers residential, extramural, and evening courses all the way up to post-doctoral level, as well as running widely respected research projects.

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5&L: You co-edited the book "Nutrition Sciences for Human Health", which was published in 1988. How do you regard the developments that have taken place in nutritional science since that date?

SB: In terms of national food and nutrition policy, most of the ideas outlined in the chapter "Human Nutrition Science in the Food Chain" (pp. 1–8) have been adopted in Poland. Perhaps certain aspects of this book should be updated now – for instance, in relation to ecology, economic and social change, and advances in laboratory equipment. It is imperative, however, that we continue to invest heavily in research in this area and also in related educational programs.

S&L: What, in your opinion, is the significance of the Scaling Up Nutrition (SUN) movement?

SB: My opinion about SUN is very positive, because food is useless if not consumed. Nutrition is therefore rightly becoming a focal point in the SUN Movement's strategy for 2012–2015, and I agree that "together we are achieving what no one of us can do alone." However, we have to consider possible cooperation with existing bodies (e.g. the UN, the EU, regional and national institutions, and many societies and organizations). Perhaps in the SUN Movement we need "officers" for managing nutrition

activity. My suggestion is therefore to develop appropriate projects or graduate programs within the discipline of nutrition (e.g. throphology, nutribiology).

I believe that human nutrition science must play the key role in the food chain. The right to life will be an empty slogan if we do not secure the right to food and healthy nutrition based on unbiased scientific evidence. Let us hope that human nutrition science will help us to solve – today, and in years to come – many complex aspects of the food chain to the benefit of the world's population.

S&L: You have been awarded the Commander's Cross with Star of the Order of Polonia Restituta, and the Gold Medal of Honor NOT (the Polish Federation of Engineering Associations). What do these honors mean to you?

SB: The question should really be put to the people who have nominated me for these awards! For my part, I see them as recognition of over 70 years of hard work in the service of nutrition, both in my native Poland and abroad.

S&L: Looking back on your career, what would you do differently if you had the opportunity to live your life again?

SB: I would not change anything about my difficult life, except that it would have been nice to be able to devote more time to my family, and also to leisure activities.

S&L: As a young man, you studied under Casimir Funk, who developed the concept of "vitamines" in 1912. What are your recollections of Casimir Funk, and how would you assess his influence on nutritional science?

SB: When Funk returned to Warsaw (1923–1927) I had just been born, but his spirit and ideas helped me when I was working in his laboratory at the State Institute of Hygiene (PZH) – Nutrition Unit. From 1950–1957 I conducted many experiments there, most of them dedicated to vitamin science (especially vitamin A and carotenoids) and nutrition.

It is a pity that despite being nominated, Funk did not receive the Nobel Prize in recognition of his pioneering work in vitamin science. In his Nobel Prize Lecture of December 11, 1929, Sir Frederick Gowland Hopkins stated that "Funk had received not too much, but too little credit for his vitamins work as a whole." I am working now on Kazimierz Funk's activity as a "traveling scientist in vitaminology" (his career took him to Bern, Paris, Berlin, London, New York, Warsaw, Paris, and New York again). In Poland, he is regarded not only as a vitamin scientist but also as nutrition scientist on the basis of his excellent knowledge of biochemistry.

"In Poland, Casimir Funk is regarded as a nutrition scientist"

5&L: You have had a very full and distinguished career, Professor Berger. When you look back on everything that you have done and experienced, what advice would you give to a young person wanting to study nutrition science today?

SB: I would repeat some of the things I said when receiving a Living Legend Award at the 19th International Congress Nutrition, which was held in Bangkok in 2009. They all begin with a *p*:

- > First: Be Passionate about your activity, because with full engagement you may expect good results;
- > Second: Be Patient about obtaining results, which may come in the short term but may also come only in the long term;

- > Third: Be ready to Publish or Patent your achievements in well-regarded scientific journals, for it you do not, they will perish;
- > Fourth: Expect that you will have a Piece of luck in your chosen field of activity;
- > Fifth: Be ready to Promote your co-workers and successors, otherwise your success will vanish; and
- > Sixth: Be Precise in speaking and writing.

S&L: Professor Berger, thank you very much.

Professor Stanislaw Berger was interviewed by Jonathan Steffen

First Announcement Oxygen Club of California 2014 World Congress, University of California, Davis, May 7–10, 2014 Davis, CA, USA



The Oxygen Club of California is pleased to announce the upcoming OCC 2014 World Congress to be held at the University of California Davis Convention Center from May 7 to May 10, 2014.

The OCC 2014 conference focuses on Nutrition and Redox Biology in Development and Health. The program covers cutting-edge science with an internationally recognized group of outstanding speakers and includes the following sessions:

- Polyphenols and Flavonoids: From Metabolism to Dietary Guidelines
- The first 1,000 Days: From Metabolic Signal to Societal Impact
- > Redox Signaling and Systems Biology in Health
- > Vitamin E in Translational Medicine

- Round Table Discussion: Micronutrients, Signaling, and Health
- > Round Table Discussion: Central Role of Mitochondria in Health Systems

Abstract deadline: March 30, 2014

The scientific program is available at the OCC 2014 website www.oxyclubcalifornia.org/OCC2014/index.php

You are welcome to contact us for any further information, and we hope that you will join us in this outstanding meeting.

On behalf of the organizing committee,
Dr Maret Traber
President
Oxygen Club of California