

# ORTHOMOLECULAR Medicine Hall of Fame



Saturday, May 2<sup>nd</sup> Fairmont Queen Elizabeth Hotel Montreal, Canada

Compiled by Greg Schilhab and Steven Carter. Produced by Greg Schilhab.

# Orthomolecular therapy consists in the prevention and treatment of disease by varying the concentrations in the human body of substances that are normally present. –Linus Pauling, 1968

#### 2008 Hall of Fame Inductees

Joseph Goldberger, MD Adelle Davis, MSc Carlton Fredericks, PhD Robert Cathcart III, MD Richard Kunin, MD Michael Lesser, MD



#### 2006 Hall of Fame Inductees

Bill Wilson Ruth Flinn Harrell Arthur Sackler Max Vogel Abram Hoffer Lendon Smith David Hawkins Theresa Feist



#### 2007 Hall of Fame Inductees

Henry Turkel Fannie Kahan Ewan Cameron Glen Green Bernard Rimland Masatoshi Kaneko



# Program

Honouring Our Orthomolecular Pioneers

Hosted by

Andrew Saul, PhD & Steven Carter

7:00 pm	Reception
7:30 pm	Welcome & Dinner
8:30 pm	Induction Program

### Orthomolecular Medicine Hall of Fame 2009 Inductees

Ilya Metchnikov T. L. Cleave Hugh MacDonald Sinclair Archie Kalokerinos Jeffrey Bland

## Ilya Metchnikov, Ph.D. 1845 - 1916



"Death begins in the colon." –Ilya Metchnikov

**B** orn in 1845 in Ukraine, Ilya Metchnikov studied natural sciences at the University of Kharkov and pioneered research in immunology. In 1904, he became the deputy director at the Pasteur Institute laboratory in Paris from where he discovered the process of phagocytosis which demonstrated how specific white blood cells can engulf and destroy harmful bacteria in the body. His theories were radical and the "sophisticated" microbe hunters in the West –Pasteur, Behring and others–scorned the Russian and his humble theory.

Nevertheless, history vindicated Metch-

nikov's brilliant theory and he was awarded the Nobel Prize for medicine in 1908.

Although references to the nutritional power of fermented foods date back thousands of years, Elie Metchnikov is regarded as the father of modern probiotics. He made a landmark observation that the regular consumption of lactic acid bacteria in fermented dairy products, such as yogurt, was associated with enhanced health and longevity in Bulgarian peasant populations. He linked this to the "Bulgarian bacillus" which was discovered by a 27-year old Bulgarian physician Stamen Grigorov, and he later demonstrated how healthy bacteria in yogurt helped digestion and improved the immune system. The reduction of the harmful bacteria coupled with the increase in good bacteria in the intestines appear to improve the immune system and reduce the burden on the cleansing organs such as the kidneys and liver.

The scientific rationale for the health benefit of lactic acid bacteria was provided in his book *The Prolongation of Life* published in 1907, in which he asserted that some of the bacterial organisms present in the large intestine were a source of toxic substances that contributed to illness and aging. This book also delved into the potential lifelengthening properties of lactic acid bacteria. He suggested that "The dependence of the intestinal microbes on the food makes it possible to adopt measures to modify the flora in our bodies and to replace the harmful microbes by useful microbes." He wrote two more books: *Immunity in Infectious Diseases* (1905) and *The Nature of Man* (1938).

In recognition of Metchnikov's place in the probiotic realm, the International Dairy Federation (IDF) created, in 2007, "The IDF Elie Metchnikov Prize" to recognize outstanding scientific discoveries in the fields of microbiology, biotechnology, nutrition and health with regard to fermented milk products.

#### 2004 Hall of Fame Inductees

Linus Pauling\* William McCormick\* Roger Williams Evan Shute Wilfrid Shute Irwin Stone Carl Pfeiffer Alan Cott William Kaufman Humphry Osmond



\* not shown

#### 2005 Hall of Fame Inductees

Max Gerson Albert Szent-Györgyi Cornelis Moerman Frederick Klenner Josef Issels Emanuel Cheraskin David Horrobin Hugh Riordan



# Hugh MacDonald Sinclair, Ch.B. 1910 - 1990



"He may prove to be one of those people whose long term influence is far greater than ever seemed likely while he was alive" –David Horrobin

Hugh Macdonald Sinclair, was one of the twentieth century's outstanding experts in human nutrition. He was born in Duddington House, Edinburgh, Scotland, and went to Oriel College, Oxford to study Animal Physiology. He was appointed Departmental Demonstrator in Biochemistry, before going on to study Clinical Medicine at University College Hospital Medical School, London. Sinclair spent most of his working life as a Fellow of Magdalen College, Oxford,

though he made many forays into a wider world, notably during the Second World War when he was involved in planning how the British could be properly nourished and in famine relief in the Netherlands and Rhineland.

Sinclair is most widely known for claiming that "bad fats" worsened what he called "diseases of civilization", such as coronary heart disease, cancer, diabetes, inflammation, strokes and skin disease. He believed that diets deficient in essential fatty acids are the cause of most degenerative illnesses. Sinclair's forceful arguments on this matter preceded firm scientific evidence, however. His self-experimentation, including the infamous 100 day seal-meat diet, dramatically demonstrated the importance of long-chain fatty acids of fish oils in decreasing the aggregation of platelets and thus the incidence of thrombosis. Sinclair's main contributions were intellectual. He recognized the central importance of nutrition to human life and, at a time when it had become unfashionable, he constantly emphasized the importance of the right food for proper health. In a famous letter to the *Lancet* in 1956, he made a particular contribution in identifying the crucial role of essential fatty acids in health, which readers classed as either visionary or lunatic, depending on their point of view. His letter foreshadowed half a century of research on a nutritional topic which is steadily increasing in importance.

Sinclair's greatest dream was to establish an international centre for the study of human nutrition. He argued that nutrition is an important area of science in its own right, and that new insights into the relationships between food and human health should guide developments in medicine, agriculture, and food technology. Many of his ideas have relevance for us today.

# Archie Kalokerinos, M.D. b. 1927



"Any attempt to adequately write about Archie Kalokerinos would need a thousand pages and would incorporate many such adjectives as: far-sighted, intelligent, sensible, observant, honest, caring, altruistic, congenial, meticulous, brave, dogged, intrepid, and last but not least, the trite, but well-deserved, 'great.'"

-Oscar Falconi

Archie Kalokerinos was born in Glenn Innes, Australia, in 1927 and took his MD degree from Sydney University in 1951. He was appointed Medical Superintendent of the hospital at Collarenebri, Australia, where he served until 1975. His practice is based on Linus Pauling's theory that many diseases result from excessive

free radicals and can accordingly be prevented or cured by vitamin C.

Kalokerinos is well known worldwide as the doctor who spent much of his time fighting for the well-being of the Aboriginal inhabitants of Australia. He became very concerned about the high death rate of Aboriginal children in New South Wales and came to the conclusion that the infants had symptoms of scurvy, a deficiency of vitamin C. In his ground-breaking book, *Every Second Child*, he discovered that the an acute vitamin C deficiency provoked by the vaccinations was the reason why, at a certain point, up to half of the vaccinated Aboriginal infants died. Instead of being rewarded for this lifesaving observation, Kalokerinos was harassed and his methods were disregarded by the authorities, probably because they were too simple, too cheap and too efficacious to be accepted by the vested interests of modern medicine. And, besides, they were meant to protect a population which, in its own native county, is regarded by some as not worth taking the trouble for anyway. Dr. Kalokerinos, however, thought differently, and the Nobel prize winner Linus Pauling, (who wrote the foreword to *Every Second Child*) endorsed his views.

Kalokerinos is a Life Fellow of the Royal Society for the Promotion of Health, of the International Academy of Preventive Medicine, of the Australasian College of Biomedical Scientists, of the Hong Kong Medical Technology Association, and a Member of the New York Academy of Sciences. In 1978 he was awarded the AMM (Australian Medal of Merit) for outstanding scientific research. He is an author of 28 papers listed in PubMed. He retired from full time practice in 1993 and spends most of his time doing private research.

# Jeffrey Bland, Ph.D.



"Jeff is the most important innovator and educator in natural medicine in North America."

-Abram Hoffer

Jeffrey Bland was born in 1946 in Illinois, and grew up in Southern California, where he graduated from the University of California, Irvine, in 1967 with degrees in biology and chemistry. In 1971, he completed his doctorate degree in synthetic organic chemistry and began his career as a university professor and researcher at the University of Puget Sound with a dual appointment in Chemistry and Environmental Sciences. In 1976, Dr. Bland was certified as a Certified Clinical Laboratory Director, was tenured

in 1977. From 1976-1995, he served as a prominent educator for the natural foods and nutritional supplement industries and was involved in the founding of Bastyr University of Natural Health Sciences in Seattle, the first accredited university of naturopathic medicine in North America. In 1981, Bland was invited by Linus Pauling to become the Director of Nutritional Supplement Analysis at the Linus Pauling Institute in Palo Alto, California.

In 1984, he started HealthComm, a company dedicated to teaching physicians and other licensed health care providers how to successfully implement nutrition intervention into their practices. Since 1978, Dr. Bland has authored four books on nutrition and health for the general public and six books for health professionals. He is also the principal author of over 100 peer-reviewed research papers on nutritional biochemistry. With his establishment of the Institute for Functional Medicine in 1991, Jeffrey Bland conceptualized functional medicine as a patient-centered systems biology approach to medicine. Utilizing his *Textbook of Functional Medicine*, first published by the Institute in 2005, Dr. Bland introduced the concept of functional medicine to Europe, Asia, Mexico, Brazil, Australia, and New Zealand.

Since 2000, Jeffrey Bland has served as the Chief Science Officer of Metagenics and the President of Metaproteomics, a nutrigenomic research and development company employing more than 40 scientists and physicians at its research centers. Dr. Bland merged his company, HealthComm International, with Metagenics, the combined Metagenics has become the largest global nutraceutical and medical food company serving the fields of functional and integrative medicine. In 2006, Jeffrey Bland established "Synthesis" on his website to serve as a repository for his functional medicine educational materials.



"Cleave saw that many of the diseases of civilization could be explained as the consequences of eating refined carbohydrate, pointing out the crucial fact that refined foods are an artefact of technological civilization."

-Kenneth Heaton

Thomas Latimer Cleave was born in Exeter and entered the Bristol Medical School at the age of sixteen, finished his training at St. Mary's Hospital and went straight into the Royal Navy. There he was a medical specialist in various hospitals at home and abroad, ending up as surgeon captain and director of medical research until he retired in 1962.

After working in obscurity for many

years, in the 1970s Cleave received international acclaim as the father of the dietary fibre hypothesis. His great vision was to see that the human body was maladapted to the refined foods of civilization, primarily carbohydrates, sugar and white flour. He reasoned that if man avoided unnatural foods he would avoid unnatural diseases which were generally absent in wild animals or primitive communities. He spent his life gathering evidence and developing arguments to support this view, which culminated in his grand hypothesis that a range of diseases –from obesity, to diabetes, coronary heart disease, ulcers, dental caries, constipation and appendicitis–were caused by maladaptation to foods containing refined carbohydrates. Since they all had a common cause he viewed them as a single master disease, he called "the saccharine disease." His book of the same name, published in 1974, sold thousands of copies and was written in laymen's language that the public could readily grasp. In 1986, the British Medical Association finally answered Cleave's voice in the wilderness in its report *Food, Nutrition and Health*, which recommended an increase in consumption of fresh food and vegetables and whole grains.

Thomas L. Cleave, M.R.C.P. 1906–1983

One of Cleave's most effective advocates was Dr. Denis Burkitt, the legendary cancer researcher, and their collaboration was turning point in the fortunes of Cleave's hypothesis. Burkitt's connections with 150 third world hospitals enabled him to confirm many of Cleave's epidemiological observations and even to add to his list of Western diseases which can be attributed to refined carbohydrate. Burkitt acknowledged his debt to his friend, stating "Cleave was one of the most revolutionary and far-sighted medical thinkers of the twentieth century, seeing far beyond the small vision of intricate details of individual diseases."