

Notable Cancer Center Member

Leo I. Gordon, MD



When asked how he first became interested in medicine, Leo I. Gordon, MD, credits his family. The son of a physician and a nurse, Dr. Gordon and his twin sister were steeped in all things medical during their Chicago childhoods, so not surprisingly, both grew up to be successful physicians themselves.

Indeed, for Dr. Gordon, the Abby and John Friend Professor of Cancer Research and Professor of Medicine at the Feinberg School of Medicine at Northwestern University; Chief, Division of Hematology/Oncology and Associate Director for Clinical Sciences at the Robert H. Lurie Comprehensive Cancer Center of Northwestern University, medicine and the study of blood diseases and cancer have been a central focus.

After receiving his MD from the University of Cincinnati and completing his internship and residency at the University of Chicago, Dr. Gordon continued studying through fellowships at the University of Minnesota and University of Chicago where, under the guidance of his mentor, the late John Ultmann, MD, he began to concentrate on research, particularly related to lymphomas. “I had a strong attraction to this specialty, because the

science is fascinating and it is readily translated from the laboratory to the patient,” Dr. Gordon says. Now he is a premier clinician-scientist, nationally distinguished for his work in non-Hodgkin’s lymphomas. He joined the faculty of Northwestern in 1979 and became chief of hematology/oncology in 1996.

His current interests lie in radioimmunotherapy of lymphoma and free radical biology. Radioimmunotherapy is a revolutionary treatment using antibodies to deliver radiation to the tumors via I.V. injection, therefore targeting the cancer sites more effectively and sparing the patient the worst side effects linked with traditional radiation and chemotherapy. Free radical biology involves the study of oxygen radicals or reactive oxygen species, which are ubiquitous because they are produced as a consequence of our oxygen-rich environment. It appears that these substances are important not only as possible causes of certain cancers (an observation made by Dr. Sigmund Wietzman, also a member of the Division of Hematology/Oncology and former Division Chief), but paradoxically may be necessary in order to treat certain cancers. The study of our adaptation to oxidant stress is a fundamental theme in Dr. Gordon’s research. Dr. Gordon, along with his colleagues Ron Gartenhaus, MD, Andrew Evens, MD and Sheila Prachand, have been examining cell lines in lymphoma and myeloma in order to study the role of free radicals in cell death pathways. Soon clinical studies of agents which target cell components which generate free radicals and promote death pathways in cancer cells will be started. “We hope that this approach will provide an effective, targeted treatment for lymphoma and other cancers,” says Dr. Gordon.

Dr. Gordon claims time is his greatest foe – and who can argue given the extent of his commitments? In addition to his extensive clinical and laboratory work, journal peer-review and a position on a National Cancer Institute (NCI) study section, Dr. Gordon also has responsibilities as the Chief of the Division of Hematology/Oncology – responsibilities that include managing all faculty matters such as appointments, promotions and salaries, overseeing Northwestern Memorial Hospital’s hematology/oncology inpatient unit, and heading up the hematology/oncology practice in the faculty medical practice group, Northwestern Medical Faculty Foundation. He is as committed to teaching as he is to research: he is responsible for the three-year fellowship training program, which currently has 20 fellows in various levels of training, lectures to sophomore medical school students and trains the hematology/oncology residents. He has more than doubled the size of the hematology/oncology division in the past six years and has built up the program so that it comfortably rests in the top 10 of cancer programs in the country. Dr. Gordon believes that people in leadership positions should strive to create an environment where talented people can succeed.

Dr. Gordon has clear designs on the future of cancer. “Successful treatment of cancer lies in the study of molecular biology and physiology and the ability and foresight to translate that knowledge so that it can be applied to patients. It’s figuring out what makes cells work and what makes them get out of control, and how to reverse that process.” With a wealth of knowledge, skills and acumen, Dr. Gordon is well on his way to achieving his goal.