

The Frontiers of Thymic Malignancy

The first International Conference on Thymic Malignancies at the NIH provided a forum to better manage this rare disease.

As every oncologist knows, designing effective treatment and management strategies for individuals with relatively common cancers of the breast or lung can be challenging. For rare cancers, where the paucity of cases makes research opportunities scarce, that challenge is magnified enormously. Malignancies of the thymus—a gland that produces and “educates” critical cells of the immune system called T-lymphocytes—are such rare tumors whose biology is largely unknown. Surgery has been the mainstay treatment in early stages of thymic malignancy, but many patients with advanced stage tumors require aggressive multimodal treatment. Furthermore, the involvement of the thymus results in a broad array of symptoms associated with immune responses and autoimmune diseases.

To spearhead further basic and clinical research into thymic malignancies, Giuseppe Giaccone, M.D., Ph.D., Chief of CCR’s Medical Oncology Branch, organized the International Conference on Thymic Malignancies—held on August 20–21, 2009, on the NIH campus in Bethesda, Md. and co-sponsored by the Medical Oncology Branch and the Foundation for Thymic Cancer Research—which brought together more than 100 scientists, pathologists, and clinicians from major institutions in the United States, Europe, and Japan with interest and expertise in the disease and its treatment.

“These are rare tumors with about 450 to 600 new cases in the U.S.



(Photo: L. Eiben)

The first International Conference on Thymic Malignancies speakers’ dinner and reception were held at the Foundation for Advanced Education in the Sciences House.

every year,” said Dr. Giaccone. “So it’s an understudied disease, but the NCI has the ability to study rare tumors more easily than other institutions because we can bring patients from all over the country and all over the world here.”

Dr. Giaccone published a monograph covering the major presentations given during the first International Conference on Thymic Malignancies in the October 2010 issue of *Journal of Thoracic Oncology*. The two-day meeting was organized as a workshop in which researchers presented lectures and posters featuring extensive reviews and novel findings on topics spanning the epidemiology of thymic malignancies to the basic biology of the disease, to the treatment of patients with the cancer. The group set out to establish research priorities, to develop potentially collaborative protocols, to standardize diagnosis and monitoring criteria, and to develop a patient database and tissue bank.

Several CCR investigators presented novel findings at the meeting. Ronald Gress, M.D., Chief of the Experimental Transplantation and

Immunology Branch, discussed the layered levels of control between the thymus and the immune system. Dr. Giaccone and Arun Rajan, M.D., of the Medical Oncology Branch, presented case studies of the surgical results of two thymic malignancy patients. Drs. Giaccone and Rajan also presented data on studies of targeted therapies for thymic neoplasms. Ola Landgren, M.D., Ph.D., of the Medical Oncology Branch, also shared findings of a population-based study on mortality and morbidity patterns among 681 thymoma patients in Sweden.

As a result of this conference, the thymoma community recognized the need for an association to study thymic malignancies in a structured fashion. A meeting to ratify this structure, called the International Thymic Malignancy Interest Group, was held in New York City on May 5–6, 2010. Dr. Giaccone noted, “There are plans for similar meetings to be held regularly in the future in an effort to share current information and improved treatment options available to doctors and patients with thymic cancer.”