## Acceptance Speech of **PROFESSOR RONALD LEVY**

Winner of the 2009 King Faisal International Prize for Medicine 31st Ceremony Saturday 28 March 2009 (1.4.1430H)

Your Majesty, Custodian of the Two Holy Mosques, King Abd Allah Ibn Abd Al-Aziz Your Highnesses Your Excellencies Distinguished Guests

We all hope to see a cure for cancer in our lifetimes. This dream is shared by all people, no matter what country they live in, no matter what language they speak and no matter what religion they worship.

Today, I accept this great honor of the King Faisal International Prize in Medicine, because we made a step along this path, to improve the lives of people with cancer. We did this by using the immune system and turning it against the cancer cells. The treatment we developed is now being used all over the world. More than a million people have been treated and many of them are living longer lives and even being cured of their cancers.

The honor that you bestow on me today has to be shared with the great scientists who came before us and with the many dedicated doctors who treat patients suffering from cancer and who helped to bring new treatments to their patients.

Our bodies can protect us from foreign invaders; germs that live in the world around us. This is the function of the immune system, a network of cells in our blood and in our tissues. The genes that carry the code directing these immune cells are inherited from our ancestors but these genes are altered during our lifetime so that we can adapt and survive in a world that changes around us.

Cancer is an invader not from the outside world but from within our own bodies. The question we asked is "Can our Immune system be taught to recognize our own cancer cells and to reject them"? The answer is yes.

Monoclonal antibodies, molecules made by cells of the immune system, can be injected into the body where they fight against cancer cells. Today we have antibodies to treat breast cancer, colon cancer, leukemia and lymphoma. Soon we will have antibodies for all the other kinds of cancer.

How was this achieved? First we had to understand how the immune system works. Then we had to capture the cells of the immune system and make their supply permanent. Then we had to find the right cells that make the antibody we want. Only then could we discover how to use the antibodies to treat cancer. Finally we had to learn how to combine these new antibody treatments with other more established cancer drugs. Each of these steps was solved and these solutions were the contributions of many people working together or working in different parts of the world, sharing their information with each other.

Our job is not finished. Indeed, it has only just begun. Too many lives are still cut short by this devastating disease. Too many people live in fear. But every day new scientific discoveries are being made. New, dedicated young people, with fresh ideas are asking to try them out. This recognition and honor that the King Faisal International Prize gives today will inspire a whole new generation to work toward the goal of eliminating suffering from cancer for all people of the world.

Thank your for the honor you bestow on me today and thank you for working to improve our understanding of the world we live in, to eliminate suffering everywhere and to work for peace.