Cancer is the second most common cause of death in the world. Treatment of cancer is very challenging and immunotherapy has been developed as a potential way to fight cancer. The main obstacle with immunotherapy is that cancer cells evolve from healthy body cells in response to an accumulation of genetic mutations. As a consequence, the immune system struggles to detect the abnormal cells as they are mainly recognized as self. This implies that equipping the immune system to eliminate cancer cells is tricky, yet represents a very efficient way to constrain the growth of tumors. We became interested in developing immunotherapeutical strategies against skin cancer in the context of our observations that Langerhans cells (LC) are very potent antigen presenting cells and are able to incorporate protein antigens and present them to CD4+ and CD8+ T cells in the skin-draining lymph nodes. As a consequence, we developed an immunization strategy through the skin, termed epicutaneous immunization. Protein antigen applied onto barrier disrupted skin induces long-lasting cytotoxic T-cell responses, potent enough to control and inhibit tumor growth. In this review, we suggest that immunization strategies through the skin could be a promising new approach for the treatment of skin cancer.