

SeeTCL

A novel biomarker test for diagnosis of cutaneous T-cell Lymphomas

The Business Opportunity

Millions of people suffer from skin disorders such as chronic dermatitis, psoriasis, or those that result from drug reactions. Symptoms of these skin disorders (e.g. red bumps, skin discoloration, rash, etc.) are similar to those associated with a variety of cutaneous T-cell lymphomas (CTCL). At the BC Cancer Agency it is not unusual to see patients that have been misdiagnosed for years with a common skin disorder before it is realized that they have CTCL. This misdiagnosis negatively impacts the prognosis of CTCL patients.

BCCA has filed intellectual property related to a diagnostic and prognostic test called SeeTCL, which it believes dermatologists would use to exclude CTCL from diagnosis of common skin disorders. BCCA is looking for a partner interested in pursuing the commercial development of SeeTCL through a licensing arrangement. BCCA believes thousands of dermatopathology labs (including the 7000 College of American Pathologists accredited laboratories) would use this test daily.

The Market/Healthcare Pain

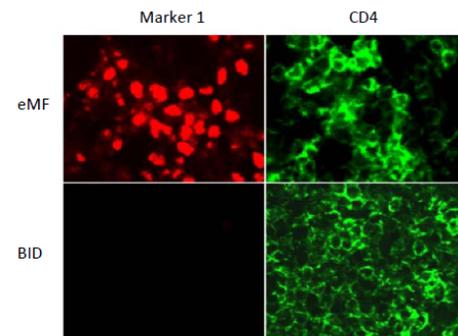
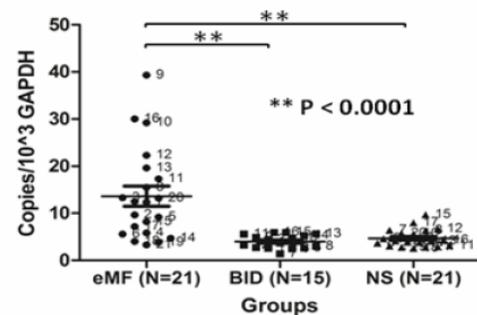
Every year general practitioners and dermatologists are presented with patients exhibiting common skin disorders such as red bumps, skin discoloration and rash. In many cases the cause for such symptoms are not immediately apparent or remedied. For a small number of patients, it is often discovered many years later, that such symptoms are the result of the lymphoid malignancy CTCL.

CTCL comes in various forms, but the most prevalent sub-types are Mycosis fungoides (MF) and Sézary syndrome (SS). MF can manifest as: (i) patches of reddened skin that scale and itch, (ii) reddened plaques with raised edges, or (iii) tumours. SS impacts skin continuity often producing fissures of the palms and soles and can result in skin infections and itching. As with many cancers prognosis improves the earlier CTCL is diagnosed as 5 years survival rates decrease with disease progression (extent of skin, nodal, and visceral involvement). The problem with diagnosing

CTCL is the lack of specific positive cellular markers that can differentiate malignant T cells that cause CTCL, from those T-cells present in a common skin disorder or normal skin. The lack of such a test results in a system unable to make a conclusive diagnosis of CTCL for months or even decades.

The Technology

Dr. Yowen Zhou and his colleagues have identified a series of genes/proteins where an elevated expression is useful in the differential diagnosis and prognosis of CTCL. In fact one gene/protein alone ("Marker 1") has the ability with a high degree of sensitivity and specificity to differentiate early-stage MF (eMF) from benign inflammatory dermatoses (BID) such as contact dermatitis. This has been validated on both nucleic acid based (i.e. RT-PCR) and antibody-base (IHC/flow cytometry) platforms. The figure below demonstrates the ability of Marker 1 to differentiate eMF from BID and normal skin (NS) using the RT-PCR platform.



Patent Status

A US Provisional patent application was filed on this technology in November 2011.

Contact

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