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BV 2015-12 - *Recall Antigen for Promoting T-Helper Type 1 Response*

APPLICATION:

Compositions and methods to stimulate a cell-mediated immune response, which may be useful for treating certain types of cancers and microbial infections

KEY BENEFITS:

- Stimulates an immune response that may be useful for treating HPV-related cancers
- Stimulates an immune response that may be useful for treating microbial infections
- Induces cell-mediated immune response

MARKET SUMMARY:

Recall antigens are substances containing proteinaceous antigens that induce a delayed-type hypersensitivity response in an intradermal skin test in a majority of people previously sensitized or exposed to the recall antigen. The prototypical recall antigens are those commonly used in immunologic skin testing to test immune response. CANDIN (*candida albicans*) is a recall antigen that is made from the culture filtrate and cells of two strains of *Candida albicans* .

Memory T cells play an important role in maintaining long-term immunity to previously encountered pathogens or tumor antigens. They may proliferate, and rapidly acquire effector functions to kill virus-infected cells or tumor cells, and secrete cytokines that inhibit replication of the pathogen after re-stimulation with re-exposure to antigen. Antigen presenting cells, which may transfer peripheral antigenic signals to the lymphoid organs, play a crucial role in the induction of antigen-specific T cell immunity responses to virus infection and Human Papilloma virus-associated tumors.

Treatments are also needed that would improve immune system control of other diseases, including viral, fungal, and bacterial infections, and cancer. Recall antigens can be used as adjuvants in immunotherapies for numerous diseases including cancer and microbial infections.

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TECHNICAL SUMMARY:

CANDIN induces Interleukin-12 (IL-12) secretion by Langerhans cells. IL-12 stimulates Th1 T helper cell subpopulation. In this way, CANDIN stimulates proliferation of Th1 cells. The inventor has shown that intradermal injection of CANDIN alone will stimulate Th1 cell proliferation in vivo, and this will be beneficial for immune response to microbial infections, including bacterial, viral, and fungal infections, and for anti-cancer immune response.

DEVELOPMENTAL STAGE:

Phase I clinical trial in humans

PATENT INFORMATION AND CONTACT:

App Type: PCT
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App Type: US Nat
Country: US
Serial No.: 15/552,285
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Country: AU
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