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Patent Title: **Process for the Production of Immunoglobulin A in Milk**

AgResearch Ref: **IgA**

Inventors: ***A Hodgkinson, S Hodgkinson***

- A process for producing immunoglobulin A from hyperimmunised mammals using a 3 route immunisation protocol. Also provides immunoglobulin A and milk containing immunoglobulin A produced by the processes of the invention.

Background

The key role of immunoglobulins, including IgA in milk is to provide local protective immunity in the gastrointestinal tract of offspring during the suckling period. Immunoglobulins have come to be recognised as useful in the pharmaceutical and veterinary fields for treating bacterial or viral infections of the gut, and more generally in the treatment of disease and inflammation. Various techniques for producing immunoglobulins have been proposed, a particularly popular method is for the induction and harvesting of immunoglobulins from ruminant milk.

Invention

The ruminant immune systems differs from its human counterpart in that the immunoglobulin dominant in bovine mammary secretions is IgG_1 so that the main focus of antibody production in milk by active immunisation has been on immunoglobulin G's, although IgA would be the preferred immunoglobulin. This invention provides a process for the induction and production of immunoglobulin A from hyperimmunised mammals using a 3 route immunisation protocol.

Uses of the Invention

Immunoglobulin A product useful for producing formulations for possible immunisation against selected pathogens.

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