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7/1/83 Crystal City - Dr. George Pieczenik

This idea involves generating antibodies to all possible naturally occuring antigenic determinants as well as generating all possible naturally as well as non naturally or previously occuring antigenic determinants.

Pieczenik's patent (#4,359,535 allows a method for generating peptides and proteins from random linears of DNA. This allows one to generate all short nucleotide sequences from a DNA molecule that codes for peptides subsections of the ~~[illegible]~~ various possible proteins. Among this class of peptides exist all possible antigenic determinants based on sequence and local secondary structure.

Monoclonal antibodies formed to this population a la Pieczenik's suggestion to Milstein which became Cotton Milstein exp, which became the Kohler Milstein [illegible] then a population of monoclonals to a population of all possible antigenic protein determinants.

These are then sorted into a matrix of monoclonals versus pure antigen such that ~~similar mono are~~ independent monoclonals to ~~similar~~ the same antigen are scored (the occurrence of say secondary independents gives one a boundary on the combinatorial options available to the immune ~~system~~ system).

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This matrix of monoclonals vaccines all small antigen determinants has within it the possibility of being an active as well as passive vaccine method of making a vaccine to any replicating organism, or protein ~~and~~ defined system or protein modified disease causing system.

This matrix can be searched by either the organism causing the disease or an antibody that was ~~ans~~ created by the disease.

For example, sheared human DNA random as in Pieczenik pat #4,359,535 will generate an expression vector as in ibid all human antigenic determinants that are composed of small polypeptide sequences. Mouse, rat or human or other monoclonals to these antigens in a sorted matrix allows one to probe with human antibody to any entity mouse to isolate determinant.

Conversely one can screen with any ~~...~~ bacterium, protein if any reactions compete; then have ~~...~~ identified in matrix monoclonal & specific antigen purified.

Can use viral, plasmid, bacterial, parasite, any organism DNA and generate similar matrix. This allows defining antigenic determinants for these organisms.

Can use spleen, bone marrow, thymus from all alternate organisms for ~~...~~ making different monoclonal matrix.

Idea is to generate matrix of highly specific, pure antibody + antigen to all possible determinants