

# ALIEN PROPERTY CUSTODIAN

## PREPARATION OF POWERFUL SOLUBLE TUBERCLE BACILLI ANTIGEN

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This invention relates to the preparation of powerful soluble tubercle bacilli antigen for use in the treatment and prevention by inoculating it to the human body.

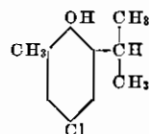
The object of this invention is to produce the powerful soluble tubercle bacilli antigen which is injected to the selected persons having the individuality of immunity producing temperament, thus obtained blood, plasma and serum in said human body is used to cure the tubercle disease.

In the process of manufacturing the tubercle antigen according to this invention, the living tubercle bacilli culture of powerful virulence is mixed in 40% acetone which is combined with 0.1% chlor-calvacrol, then the bacilli is dispersed by stirring and stored in an air-tight glass container which is frequently shaken, the mass kept therein for several days and then it is separated by the centrifugal means, thus a supernatant yellowish fluid is obtained, which is referred to as the Solution I and retained air-tightly. After being dried the said bacilli mass, is weighted and ground in a porcelain mortar to fine powder. When the bacilli has lost its rod-forms and acid-fastness and become indefinite colloidal form by testing under a microscope, it is again weighted and then it is mixed into physiological salt solution which contains 0.1% chlor-calvacrol, and the soluble ingredient is separated from the bacilli by the centrifugal means, thus a supernatant fluid is adapted which is referred to the Solution II, and it is retained air-tightly. At last, the precipitated bacilli mass is again ground and mixed into 40% acetone which contains 0.1% color-calvacrol, thus the soluble ingredient is separated and a supernatant fluid is obtained which is referred to as the Solution III. The precipitated material is abandoned. Thus retained three supernatant fluids are mixed, and filtered through porcelain filter, and a slightly yellowish turbid fluid is obtained. This fluid is the Powerful Soluble Tubercle Bacilli Antigen prepared according to this invention. 1 c.c. of this fluid contains 0.035 gr. of the above mentioned tubercle bacilli in raw state. This original solution 1 c.c. is calculated as 10,000 units of this antigen.

In use I provide a 10,000 times diluted solution of this antigen. For adult persons inoculation dose begins with 1 c.c. (one unit), and after dis-

appearance of the reactions doses are successively increased. For the purpose of cure for patient it is repeatedly applied until the disease being cured. For the purpose of prophylaxis of tuberculosis the inoculation of final dose 1.0-5.0 c.c. of the original solution per 50 kg. body-weight suffices. For children dose is decreased in proportion to body-weight.

In the preparation for the tubercle antigen according to this invention, acetone and physiological salt solution are combined with chlor-calvacrol



therefore this chlor-calvacrol acts to soften and destroy the cover film of bacilli made of sebaceous material, thus the bacilli are killed surely, accordingly thus prepared antigen can be easily absorbed into the tissue of the human body, therefore the immunity can be produced rapidly in said human body and moreover this antigen does not remain in the injected portion of the body owing to its great absorptive nature, therefore accessory action such as suppuration can be avoided.

And the therapeutic application of this antigen in such a case of unpreparedly application to acute, sub-acute and chronic patient is liable to aggravate the disease on account of its potent virulence. In such circumstances, before the application of this antigen, the disease focus may be cured or suppressed completely or relatively by use of tubercle immune blood and serum which is obtained by inoculation of tubercle bacilli and their products (chiefly this antigen) into persons of an individuality to be highly immunized; thereupon the active immunizing faculty is quickened to increase by inoculation of this antigen at the proper time.

On the contrary the chronic non-phthisic type is in many cases cured by amelioration of the whole body and suppression of symptoms through repeated inoculations of this antigen.