

Therefore, I am injecting cows, in the tissue of the neck, with twenty cubic centimeters of concentrated tuberculin with the idea of producing a re-action, and while the temperature is rapidly rising, drawing the blood and separating the serum which is tested for its active principle by being introduced into both healthy and tuberculous animals, the re-action being carefully noted. The normal serum, of course, is also being injected into check animals.

Upon second thought I appreciated the fact that we have immunity more marked in some parts of the body than in others, which suggests the possibility of the latter containing an antitoxin, yet so far we have failed, as I have said, to get an antitoxin of sufficient potency to be curative. This failure is likely due to the fact that in the first place, if it is produced by the tubercle bacillus, we have not used the right solvent. It has occurred to me, therefore, that it might be possible to obtain the antitoxin by the use of fluids from the animal (but more certainly if we take the serum from those parts of the body which are more naturally immune, like the pancreas). If this protective substance, on the contrary, is produced by the animal cells, would it not be best in making our anti-tuberculous serum to take the blood, not from the general economy, but from parts of the animal which show the greatest tendency to immunity; therefore, from the pancreatic vein.

Again, I am trying a line of experiments by intercepting the blood in the portal system, and using solvents to extract any antitoxin that it may contain before it is acted upon by the liver.

This is an intimation of the line of work now being conducted in the very newly created laboratories of the Commonwealth of Pennsylvania, too new, however, and the time allotted me by this Association too short to venture to give any further details upon this occasion. The results of the work, however, will be published by the State Government from time to time. Should these results be successful, I shall be content, in view of the great good which will accrue to humanity, regardless of credit to myself.