of typhoid fever when we have it. We are even occasionally able to cope with the onslaught of the deadly anthrax.

Hardly less striking is the clinical fact that some individuals seem incapable of contracting the contagious diseases with which their companions under similar circumstances are infected. If we find difference in individual susceptibility to certain diseases, the difference becomes more marked as we pass in animal life from the individual to species. White mice are absolutely immune from glanders, the rat from anthrax.

Facts such as these evolved from clinical experience and careful experimental research, point irresistibly to the assumption that there is some guardian influence or influences which as a rule anihilate the occasionally deadly microbes. There is something definite of a chemical or biological nature which makes up the entity to which the good old phrase—*vis medicatrix naturæ*—refers. The cause of disease, as we observe it clinically, is complex. We note not only the exciting cause, as for example, a bacillus; but the predisposing cause, as, for instance, a generally low vital condition of the system. There then follows the inference that this protecting and healing influence must vary in degree.

The old question is still asked: "Why does Mr Jones die of phthisis? Why does Mr. Smith recover? Why does Mr. Brown escape it altogether?" The lecture-room bacteriologist gives back the ringing answer: "Mr. Jones' lungs were a good culture medium, and Mr. Smith's a poor one, while Mr. Brown's afforded no sustenance to the bacillus at all." All this we heard *ad nauseam* a generation or two ago, only couched in different language. "Mr. Jones had a scrofulous diathesis, Mr. Smith had a stronger constitution, while as for Mr. Brown, he never had any consumption in his family at all." Like many such an answer, it only satisfies the novice long enough for him to parse the sentence.

We know that there are certain bacteria —such as anthrax—which will not grow on the frog's body partly on account of the low temperature; some which cannot grow because of the presence of certain other conditions with which we are familiar. Some will not grow when exposed to the air. Some need the air. Some will not grow on nutrient gelatin. Some, and in fact the majority, need an alkaline or neutral culture medium. Some will not grow outside of the animal body at all. But this knowledge helps us very little, although it gives us a clew to the direction in which we are to work. We know that environment has a very great influence upon the resisting and recuperative powers. There is an instance on record where fourteen clerks out of the twenty-two employed in a small office with poor light, bad ventilation, and worse pay, died of phthisis in a very short time after the first case occurred. We send our phthisis cases away to the woods, or to high altitudes—nay, even the change from the city to the country is almost certainly followed by some benefit. If you innoculate rabbits with tuberculosis and coop them up in a dark cellar, the will, as a rule die, while, when they are turned out upon an island and given the benefit of fresh air, light, exercise and proper food, they often recover from their tuberculosis and the points of inoculation become encapsulated and calcareous.

It has been shown that by injecting glucose into the blood of rabbits it is possible to reduce greatly the number of staphylococci necessary to kill the healthy animal with septicæmia. It has been possible to render white mice, otherwise immune, susceptible to glanders by feeding them on phloridzin, which causes sugar to appear in the urine. We have a clinical illustration of the effect of sugar in the system in the readiness with which diabetics contract other disease—noticeably septicæmia—yet the surgeons tell us that by the most rigid and careful antisepsis it is possible to make wounds heal as readily in diabetics as in healthy persons.

Closely connected with the natural resistance to and recovery from disease is the question of acquired immunity. Since the rise of the bacterial pathology the work expended upon it has been great and varied. We are still no further on the road to the