tion than it had before '72, and he will point with pride to the stately university buildings which are but the outward manifestation of the genius and intellect which labor within.

Now, good neighbors of Ontario, I am happy to be with you, and do rejoice with you in this dedication of these handsome and well-equipped rooms to the holy cause of science. I can assure you that the ability and learning of the director of this department, Prof Wright, are well-known and highly appreciated by his co-laborers in the United States, and many of us have long regretted that you have not earlier supplied him with improved facilities for his work.

Let us briefly inquire into some of the scientific problems, the solution of which will demand the time, attention, and energy of this department. A simple enumeration of all these questions would require more time than I have at my disposal; therefore, I will dwell only upon those in which I am most interested.

All living things consist of individual parts, which the histologist calls cells. Some of the lowest forms of life are simple, free cells, and we say that they are unicellular. This simple cell must perform all the vital functions. It must digest, absorb, and excrete. Its range of function is necessarily limited. As we ascend the scale of organized life, we find a multiplication and differentiation of cells. In man certain cells have for their sole function the elaboration of the digestive juices, others are employed in the separation of effete and poisonous matters from the blood and their elimination from the system; some are devoted exclusively to the reception of impressions from the external world, some convey these impressions to the central nervous system, and others are more directly concerned in the intellectual processes. Health is maintained by the proper and correlated activity of these various groups of cells.

Within the past 15 years it has been clearly demonstrated that the introduction of some of the lower forms of vegetable life, called bacteria, into the body of man and other animals produces disease. The study of these micro-organisms has brought into existence and developed the science of bacteriology. A large amount of information has already been accumulated in this field of scientific work, and in the art of the preservation of health, hygiene, and the art of restoration to health, medicine has made valuable practical applications of these scientific facts. One of the objects of these laboratories and lecture-rooms is to make the young student acquainted with what is already known in the science of bacteriology. But there are many problems in bacteriology which remain unsolved, and to this your most earnest attention will be given.

The study of bacteriology, so far, has been nearly altogether morphological. I say this in no spirit of criticism. Indeed, I recognize the fact that it could not have been otherwise. The study of form naturally and necessarily precedes the study of functions. The ornithologist, on finding a new species of bird, first studies its size, its general formation, the colour of its plumage, the shape of its beak, the spread of its wing, etc. It is only later, and after more extensive observation, that he can tell you about its habits, how it builds its nest, what it feeds on, what birds are its enemies, etc. And it would probably require still more extensive observation before he can tell you what effect altered environments would have on the bird, whether or not it would thrive in a different climate, with only unaccustomed food to feed upon, and with new foes to encounter. Therefore, I repeat that I am not offering a criticism when I state that the study of bacteriology has been largely morphological. But I am sure that all will agree with me that these enemies to man's health and happiness, for such we can pronounce the pathogenic germs, should be studied from every possible standpoint. Suppose that we knew nothing about the yeast plant save its morphology, the size and method of development of the cells, we would know but little. The fact that yeast produces carbonic acid gas and alcohol is certainly equally important with a knowledge of its morphology.

The chemical study of bacteria offers a fruitful field for the investigator. What chemical alterations do they cause in the various media in which they grow? What fermentations do they induce? Why is it that altered environment so materially affects the virulence of some of them? Why is it that the bacillus of anthrax is so invariably fatal with certain animals, while others are wholly immune against the