

Enzymes are minute particles, organic catalysts, that promote many anabolic and catabolic functions in the human, animal, and plant life. They are too numerous to mention individually but each kind serves a specific limited function. In recent years medicine has shown an increased interest in enzymes. Although they can be chemically analysed and in their existence to metabolically proven in bio assay,<sup>o</sup> they have braved all attempts to become visible to the human eye. The break-through has been achieved through the joint venture of three research organisations: Ronle Research, the American Medical Foundation for Independent Research and the Constructive Research Foundation; Dr. E. Pierre Hemes, Dr. Sigfrid Enamer, Dr. Carl Albin, Dr. Patrick Flanagan, Dr. Max Jacobson and Mr. Alex Kolemman. Ronle Research made it possible for Dr. Hemes to construct a microscope on entirely new principles that uses as the method of visualisation a new type of energy which is generated by a patented tube as positive and negative ions without disturbing or modifying molecular structure of the test material itself. Any kind of radiation which would charge the

enzyme will not project the true structure of the enzyme itself because the radiation will charge directly the nucleus of the enzymes. That means that if the enzymes are bombarded by the rays of an X-ray, electronic or emission microscope or positive or negative ions, the charging instrument will not be able to resolve the object under investigation, because they have the approximate frequency as the energy emitted from the nucleus of the enzymes. The molecules of the enzymes are charged in such a way that it makes it impossible for these instruments to dissolve it. It was furthermore before impossible to show enzymes also because of the methods employed for their isolation and separation from the plant and animal raw material. It has enabled scientists to study them in their pure form. Two different methods were perfected by the Constructive Research Foundation. The first one consisted in making any organic material, plant, or animal material, entirely absorbable by water. This method would not change the physical, chemical or biological nature of the enzyme or steronins. That means that no method of extraction by either alcohol, ether, acetone or chloroform was used. From this solution enzymes were selectively

precipitated by the known method of carbomax precipitation by coloring this solution and *with* it in an ultra centrifuge and then preserving it in sorbitol, making the material *into white + salt* and thus keeping the enzymes intact and active. When this preparation was put into the microscope the enzyme became visible. The size could be calculated by means of this instrument as 0.1 to 0.001, angstrom. They appear as spheroidal bodies either with single or double chains and with the position of the nucleus charged by two or two and a half units of its own size. They are not situated in the center, their displacement depending upon the charge of positive ions. To start, two enzymes have been used for the research: The enzymes derived from the root of horseradish, known as peroxidase, and a group of enzymes known as rennin, from the calf's stomach, industrially used in the processing of milk for cheese making. The nature of these enzymes has never been biologically or chemically identified.

Enzyme A contains one and a half to two molecules carbon that the activity of the carbon negatively charged which means we have one and a half to two molecules, pseudo carbon, hydrogen five. One molecule nitrogen by gases and color to one quarter molecule holium from the size of the ring we have four molecules of oxygen. Enzyme B in chemical is more impressive and more resistant, maintained from one and a half molecule carbon pseudo carbon from ten to fifteen percent of the whole molecule. The amount of carbon could be increased or decreased by the nature of the product. Correspondingly if the original carbon increases the hydrogen could be increased to twelve to fourteen molecules. If the material after radiation of five to ten R. units the original carbon becomes several carbons like in the case of Enzyme A, and the hydrogen charge with polymorph gases which theoretically nature of hydrogen gas and at this point the material with the light gases are the structure of isotrop. The enzymes are contained three to four molecule nitrogen and six oxygen. The most important part of this discovery is that not only was it possible for the microscope to visualize

The wave length of the enzyme could be determined by the microscope as 600 to 800 million cycles per second. In conclusion it can be said that the enzymes could not only be visualized and studied by the help of the new microscope but their chemical and physical nature determined with calculation that is derived from the very nature of the instrument. It will therefore be possible from here on that, with the two methods, effective theoretical studies can be made with known material with known action. They can be directly visualized as to construction and can be roughly compared to known material.

The research staff was of the opinion from observation that they are dealing with a metabolic factor that may contain not only the empirically assumed factors of cell life and may also sustain the life of the cells by liberating them from the toxic and other pathological influences. This was to our great surprise, confirmed after this material was radiated with ten roentgen units which would have destroyed living and diseased cellular structure.

That these enzymes not only escape damage but are actually activated and potentiated by it as shown under the microscope, their numbers were greatly increased without any damage to the nucleus of the enzyme. The enzyme itself became the primary carrier of the energy which was given by the X-rays and thus dilated the membrane of the enzyme and forced ample multiplication and the plasma to the enzyme. Generally the enzymes multiply at a similar rate as the viruses which means sixty to eighty enzymes per second appearing in the plasma after the X-ray radiation.

In conclusion it can be said that these two important discoveries carry implications that can be fully evaluated only by further research. This microscope is far superior to the most powerful electronic microscope, cathode microscope, positive ion microscope, with its maximum resolution at eighteen thousand to eighteen thousand five hundred and magnification up to three hundred thousand. The microscope at present magnifies three and a half to six million times and has a resolution of 0.1 to 0.001 angstrom units. But further development doesn't limit it. There is no limit to any increased magnification and resolution beyond five

million. The microscope has also the advantage of absence of heat, light, and vacuum and the destructive effect of the electronic ray itself. The microscope works at a higher frequency, six to eight million cycles per second in absence of high vacuum and excessive heat. In the electronic microscope high voltage, electronic rays and excessive heat angulate, burn and evaporate biological specimens so that nothing is left but structures which can not reveal the true form and inner structure. Further limitation of the electronic microscope consists in the maximum output which emit the necessary