

are capable, every motion we make, every thought we think, every emotion we experience, has for its physical basis chemical change; has, in fact, as its basis the chemical degradation, that is the death, of that molecule or those molecules which act; so that all movements and processes which imply or indicate life are, in fact, acts of dying—expressions of death. We are, in fact, each one of us, from moment to moment, not metaphorically, but actually, constantly dying, and as constantly being reconstituted. This is the essential process which underlies all life; not that of man only, but the life of all animals and of all plants. This process is what might be called vital chemistry, but vital chemistry rests upon, absolutely depends upon, organic chemistry, and this again as absolutely rests upon and depends upon inorganic chemistry; so that these two last named had to be mastered before vital chemistry could be successfully studied. It seems probable that life in all its forms, from the lowest up to and including man, is essentially nothing but the action, reaction and interaction—the construction and destruction of chemical molecules—a certain complexity of the molecule being the supreme if not the sole condition of life, and its higher and higher complexity being the measure of the elevation of the life of the tissue and of the organism to which it belongs. For as we ascend from the lower to the higher forms of life the complexity of the chemical molecule increases *pro rata* with the degree of elevation of the life of the tissue to which it belongs until we reach the highest of all known tissues, the gray matter of the human brain, which is made up of chemical molecules so complex that down to the present time it has defied analysis. The study of medicine, entailing as it did the study of the chemistry of all parts of the human body, necessitated therefore and led to the study of organic and that to the study of inorganic chemistry, this last, perhaps, the most important and far-reaching of all the natural sciences which underlie life. This, then, is another way, and a most important one in which the study of medicine forced men to the general study of nature and led to the enlightenment and liberation of the human mind.

We thus see that the study of man's body, supposing it to be successfully prosecuted, necessitates not only a study of