

the purely scientific or exact method to the study of the organism.

But biology is not only a subject of purely scientific interest. There is a second and larger class of students — those who study biology as the basis of the art of healing, the medical profession. To them the question of life and death, of the normal or abnormal co-operation of many processes in the preservation of health or the phenomena of disease, is of prime interest: the knowledge of the mechanical, physical, and chemical properties and reactions of living matter, of the construction of the organs and their functions, is only the means to an end. Before the time of Lavoisier, with the solitary exception of Descartes, biology was studied only by medical men; indeed to them both the existence and the progress of the science were entirely due. For them the paramount questions must always be, “What is life? What is its origin? What is death? What are its causes? What is disease?” To this class of students we are indebted for again and again bringing forward and trying to answer these fundamental, these central questions.¹

By the other, the smaller yet increasing class of purely scientific biologists, we are being continually told that these questions are premature or metaphysical,² and

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from what we know, the internal world, to explain what we do not know, the external world” (p. 12).

¹ See, for example, the two very interesting and suggestive addresses by Prof. Ed. von Rindfleisch of Würzburg, ‘Ärztlich Philosophie’ (Würzburg, 1888), and ‘Neovitalismus’ (Verhandl. d. Ges. deutscher Naturforscher und Ärzte zu Lübeck, 1895, vol. i. p. 111).

² See Claude Bernard, ‘La Science Expérimentale,’ 3^{me} ed., p. 211: “La vie est l’idée directrice ou la force évolutive de l’être; . . . mais l’erreur serait de croire que cette force métaphysique est active à la façon d’une force physique. . . . La force métaphysique évolutive par laquelle nous pouvons caractériser la vie est inutile à la science, parce qu’étant en dehors des forces