

teins,¹ the chief of such things, and most of the other biologically important substances have been obtained, and we are at length in possession of exceedingly clear and reliable ideas as to the chemical constitution of living matter. In fact, the nature and laws of the chemical composition of protoplasm are actually more certain than the nature and laws of its physical structure.²

In this manner, by slow degrees, the description of living things has progressed, and gradually the characteristics of life have become less obscure and their aspects more simple. It cannot be denied that many traits like consciousness and inheritance are, at least for the present, beyond the scope of description in terms of matter and energy, and the fundamental riddle shares this detachment.³ But the physico-chemical basis

¹ E. Fischer, "Untersuchungen über Aminosäuren, Polypeptide und Proteine." Berlin, 1906.

² Substantial progress in the latter field is nearly all of very recent date, almost wholly since the sudden rise of physical chemistry.

³ "But now, having confessed that Life as a principle of activity is unknown and unknowable — that while its phenomena are accessible to thought the implied noumenon is inaccessible — that only the manifestations come within the range of our intelligence while that which is manifested lies beyond it; we may resume the conclusions reached in the preceding chapters. Our surface knowledge continues to be