HCNO and living proteid. Both easily polymerise, the living proteid growing and the cyanic acid forming the polymeric cynamelid $HnCnNnOn$. Both yield urea on dissociation; both are liquid and transparent at low temperature, and both coagulate at higher temperature. Pflüger concludes that the beginning of life depended upon the formation of cyanogen, and then he reminds us that cyanogen and its compounds are produced only at incandescent heat. He summarizes as follows: "Accordingly, I would say that the first proteid to arise was living matter, endowed in all its radicles with the property of vigorously attracting similar constituents, adding them chemically to its molecule, and thus growing *ad infinitum*. According to this idea, living proteid does not need to have a constant molecular weight; it is a huge molecule undergoing constant, never-ending formation and constant decomposition, and probably behaves towards the living chemical molecules as the sun behaves towards small meteors."*

It will be seen that according to Pflüger life is a molecular phenomenon, and it seems to be that this must be true. Non-living matter, whether it be inorganic or organic, is relatively stable intramolecularly, while living matter is never stable within its molecule, which is constantly casting out and as constantly absorbing atomic groups. It assimilates and it excretes, and these phenomena are its essentials. Deprive the living molecule of food, and it dies; prevent its excretion, and it dies. Reaction between the living molecule and outside matter is constant, and is necessary to the continuance of life. The fact that life resides in the molecule is, as I have stated, taught in Pflüger's theory. It is also recognized by Allen, who, in speaking of living proteid, says: "It is a molecule of enormous size, and (so far as the dynamic elements are concerned) its various groups are linked together by many nitrogen atoms, but not in a chain. It is not a proteid, a cyan compound, an amid, an amine, nor an alkaloid, but something that can yield some of them during life and others at its death. Death consists in the relaxation of the strained relationship of the nitrogen to the rest of the molecule. When thus 'the silver cord is loosened,' the relaxed groups fall into a state of repose. Most of these groups are proteids in which the N is peripheral, triad and unoxidized, having yielded its O to some other element. If, however, such a proteid molecule be applied to a living cell, it can be linked on again by its N, which thus once more becomes central."

In his very interesting monograph on the Biogen Hypothesis, Verworm objects to saying that a molecule lives. He states that it is illogical. "A living thing is only that which demonstrates

*The different theories of the orgin of life are ably discussed by Verworm in his General Physiology.