CHEMISTRY IN RELATION TO BIOLOGY AND MEDICINE WITH ESPECIAL REFERENCE TO INSULIN AND OTHER HORMONES

Your speaker to-day is one who is primarily a worker in the field of experimental medicine; a chemist, if at all, only in so far as an imperfect mastery of your science became necessary for the solution of physiological and pharmacological problems that could not be undertaken or even formulated if their chemical aspects were to be ignored. Under the circumstances I can but feel a sense of deep unworthiness in venturing to address an audience in which are gathered so many distinguished representatives of your noble science. I am highly appreciative of the signal honor conferred upon me by the board of award of the Chicago Section of the American Chemical Society in the bestowal of the Willard Gibbs Medal and I beg the members of the board to believe that I am duly grateful to them.

There exists in our day an essential unity of outlook and interest among the majority of professional chemists, biologists and medical men in respect to the physical and chemical aspects of life. This unity of interest and unanimity of opinion in respect to the applicability of the laws of physics and chemistry to the elucidation of vital processes have their origin far in the past and date from a time long before chemistry had attained to its present dignity as an independent science. It is not my purpose to attempt to record even briefly the history of chemistry or that of medicine, subjects that have been so well treated by many learned men of both professions, but I would ask your forbearance toward an imperfect sketch of the points of contact between your professional ancestors and mine. I leave out of consideration here any reference to such contacts in the ancient or later alchemical periods, or to Arabian science in Western Europe, further than to remark that alchemy, which at its best combined far-reaching metaphysical speculations with a crude experimental chemistry, had, as one of its several aims, not alone the transmutation of the baser metals into gold, thus abolishing that “great disease, poverty,” but also

1 The Willard Gibbs lecture delivered before the Seventh Midwest Interdisciplinary Meeting on the occasion of the award of the Willard Gibbs Gold Medal by the Chicago Section of the American Chemical Society, May 27, 1927.