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Albert Tyler
Albert Tyler, embryologist and professor of biology at the California Institute of Technology, died 9 November 1968 in San Marino at 62. Tyler was the first student to receive a Ph.D. in biology at the Institute, and he was the last graduate student of Thomas Hunt Morgan. His career spanned the years which witnessed the transformation of experimental embryology, a branch of classical zoology, into modern developmental science, whose strongest influences come from genetics and molecular biology. Tyler actively participated in this metamorphosis. Although thoroughly familiar with classical embryology (especially of marine invertebrates) and to an unusual degree appreciative of the historical foundations of contemporary biology, he welcomed novel approaches and new ideas. He was among the first to apply modern physiological and biochemical methods to the study of development. His first paper embodying this approach, “On the energetics of differentiation,” was published in 1933 following a period of postdoctoral work in Warburg’s laboratory.

Tyler’s name is also closely associated with the chemistry and physiology of the fertilization process and with the fertilizin-antifertilizin theory. He and his students extended and refined Lillie’s original hypothesis and proposed plausible mechanisms for the main features of fertilization. These concepts stimulated fruitful studies on reproduction in higher organisms and helped create the field of “immunoreproduction.” During the last 10 years Tyler became involved, with characteristic drive and enthusiasm, in studies of the macromolecular events during embryogenesis in the sea urchin. He was especially interested in “masked messenger RNA,” the synthesis of which he correlated with the onset of embryonic determination. He was convinced that informational RNA would some day be clinically useful, and he performed numerous experiments basic to that ultimate achievement. Related to the masked messenger concept was his interest in the properties and developmental role of cytoplasmic DNA, which he explored actively during his last years.

Tyler was a former president of the American Society of Naturalists and the Society of General Physiologists. He had a long association with the Marine Biological Laboratory at Woods Hole, of which he was a trustee for 14 years, and was active on numerous government committees and in the World Health Organization.

As former students or associates, we have lost a dear friend, and science has lost a devoted scholar.

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