

Keeping Watch

The Department of Cell and Developmental Biology Turns 160

BY PATRICK CLIFF

The watch is 130 years old this year. In a sense, a watch that hasn't ticked in who knows how long is a peculiar way to symbolize a basic science department, especially one like the Department of Cell and Developmental Biology that has adapted to major shifts in science — and whose name has shifted along the way.

Still a pristine gold, the watch almost certainly looks much the same as it did when Charles H. Stowell, M.D., an early professor in the Medical School's Department of Anatomy, opened his Christmas present from the department's chair, Corydon L. Ford, M.D., in late 1885. (Ford became professor of anatomy in 1854, an event the current department cites as its beginning.)

Both educators remain central to the department's lore. When Ford died in 1894, Victor Vaughan, who eventually became dean of the Medical School, described his former teacher this way: "Under his clear instruction, that which we had vainly endeavored to impress upon our minds from the pages of Gray becomes in fact a mental possession of our own." And Stowell helped the department expand beyond gross anatomy by introducing the first microscopy course ever taught in the United States.

The department's history is marked with legends who maintained and expanded the academic rigor: G. Carl Huber (M.D. 1887), a devoted histologist who created the first Ph.D. program in anatomy; Bradley Patten, Ph.D., author of *Human Embryology*, which contains his elegant biological drawings that seem to reveal an understanding of development beyond the technical; Elizabeth Crosby, Ph.D., the neuroanatomist who, in 1936, became the first woman to be a full professor at the Medical School and later received the National Medal of Science from Jimmy Carter.

While Patten was chair — he served from 1935 to 1959 — Stowell's widow bequeathed the gold watch to the department, requiring that it be displayed in each department chair's office. Russell T. Woodburne (Ph.D. 1935), an internationally famous gross

anatomist, succeeded Patten as chair. His legacy resides within science and ethics, as he helped guide the state of Michigan toward the Anatomical Gift Act of 1958 that formalized the donations of bodies to science. Under Woodburne's leadership, the school also established an annual memorial service for those who had donated their bodies to science — a practice that continues to this day.

As the department evolved and continued to attract renowned scientists, the watch changed hands many times. During his brief chairship, Johannes Rhodin, M.D., Ph.D., brought electron microscopy, and an emphasis on technically advanced imaging, to

the department. In 1981, under A. Kent Christensen, Ph.D., now professor emeritus, the department's name changed to the Department of Anatomy and Cell Biology, initiating a shift to cellular and, later, molecular biology. Developmental biology, which evolved from the descriptive field of embryology, came into the fold in the late 1980s under the leadership of Bruce Carlson, M.D., Ph.D., now professor emeritus of anatomy. The inclusion prompted the last name change, made in 2000, to the current Cell and Developmental Biology.

The department's size and reputation grew under the chairship of James Douglas Engel, Ph.D., the G. Carl Huber Professor of Developmental Biology, who of course kept the

gold watch in his office. It is now home to nearly two dozen faculty members and recently ranked nationally among the top 10 departments in research funding from the National Institutes of Health.

Celebrating its 160th anniversary, the department is more robust than ever. Deborah Gumucio (Ph.D. 1986), the James Douglas Engel Collegiate Professor and interim chair of the department, is fond of discussing its past and its future.

The department — housed in the modern A. Alfred Taubman Biological Science Research Building — and its technology can seem so far from Stowell's relatively simple microscopes. But, in Gumucio's office, the watch rests a few feet away from a drawing by Patten. The watch dangles inside a simple bell jar: a timepiece between eras. "It makes you feel connected," says Gumucio. "It embodies where we've been as a department as well as the amazing potential we have going forward." [M]

“It embodies where we've been... as well as the amazing potential we have going forward.”



Bearing an engraving of a regal buck, Stowell's watch is a symbol of the department's legacy.

EINOR JACOBSEN