Peter T. Cherbas retired from the Indiana University Department of Biology in June 2013, after 28 years of service to IU. Peter’s youth was spent in Philadelphia (8 years), Michigan (6 years) and western Massachusetts (4 years). His father was an engineer and most of Peter’s non-scholastic science involved electronics and rockets, with his first forays into biology coming in high school when he and a friend started a mouse colony in an unused coal bin in his basement. He comments that all of the experiments that excited him and his compatriot about science (surgery on the mice, building an X-ray machine, and the associated chemistry) would now be illegal in any high school science fair! Alas, he was not able to take a single biology class in high school due to scheduling conflicts.

In fact, it was not until his sophomore year at Harvard that Peter took his first biology class. Near the end of that course, James D. Watson (of Watson and Crick fame) spoke about his work. He remembers that in the final lecture Watson volunteered that only some parts of biology were worth pursuing. For example Watson stated, "... if I had a son who wanted to do developmental biology I'd kill him and commit suicide." Peter notes that he was ornerous enough to take this as sufficient reason to declare himself a developmental biologist and he spent the following summer reading texts on embryology.

The next fall Peter enrolled in a course on developmental biology taught by Carroll Williams with a young assistant professor named Fotis Kafatos. An additional fortuitous event for Peter in this course was that he met a young lady named Lucy Fuchsman. All three of these people were to be instrumental in Peter’s scientific development and career. Williams’ expertise was in insect hormones, while Kafatos was a young lion in the area of molecular genetics and development. Both felt that Harvard students could do anything if only encouraged. When Williams discovered Peter’s interests in development he invited him into his lab, introduced him to many colleagues, and then let him do whatever Peter thought interesting. Peter notes that the notion that steroid hormones were just like the lac operon of E. coli was a topic of conversation so that’s where he focused. He graduated from Harvard in 1967 and in 1968 he and Lucy were married. After a brief post-graduate stint at Rockefeller University, Peter returned to Harvard, completing his Ph.D. in insect physiology in 1973.

Newly minted Ph.D. in hand, Peter proceeded to a yearlong postdoctoral study in Cambridge, England, with Michael Ashburner to learn about fruit flies (Drosophila), then returned to Harvard to work with Carrol Williams. Peter realized early on that determining the underlying action of steroid hormones would require developing a system that would allow the recovery of large amounts of homogeneous tissue. In order to accomplish this he, in partnership with his wife and long time scientific collaborator, Lucy Cherbas (nee Fuchsman), developed tools and culture conditions for Drosophila cells. They were able to show that these homogeneously cultured cells responded to the hormone, behaving similarly to the whole animal. The protocols that they developed are now in common use by the entire scientific community, and when someone needs expert scientific advice on tissue culture, they invariably come to Peter and Lucy for help.

Understanding how steroid hormones exert their impact on cellular processes has remained an underlying theme of Peter’s research until this day, even as he has expanded this research into genome-level analyses. Peter recognized earlier than most the need to develop genomic technologies at Indiana University. Peter thus founded two entities in the College and the Department: The Center for Genomics and Bioinformatics (CGB) and the Drosophila Genomics Resource Center (DGRC). The CGB offers a range of next-generation sequencing and bioinformatic services that support the development of genome-enabled research programs. It is widely used by researchers here and outside of IU. The DGRC serves the Drosophila research community by collecting and distributing DNA clones and cell lines and consulting on their use. The services of the DGRC are extensively used by scientists at IU and around the world.
Peter’s prominence in the genomics community played a substantial role in IUB’s participation in the model organism Encyclopedia of DNA Elements (modENCODE) project funded by NIH, which made good use of Peter’s cell cultures. The work performed by modENCODE offers an unprecedented functional annotation of the fly genome and will provide the foundation for countless future experimental and computational studies. Peter worked tirelessly through the years on this project and was an important reason for its resounding success.

One would be remiss to not mention that Peter and Lucy have a daughter, Kathy. She now resides in New York and is an accomplished cellist, who as her father likes to point out, has had “gigs” at Carnegie Hall, Radio City and several Broadway shows. Based on Peter’s early encounters with the violin, it would appear that perhaps there is something to all this genetic research that has occupied Peter for all these years. Peter and Lucy are justifiably proud parents and as one might expect, dote on their young grandchild. Peter’s retirement will allow him more time for doting, although he will continue to do his science in the absence of obligations of teaching and committee work. We all wish him the best.

Thom Kaufman