Tim Hunt grew up in Oxford, where he became fascinated by science at the Dragon School. At 14, he entered Magdalen College School, where his interest in biology grew. Tim entered Clare College, Cambridge in 1961 to read Natural Sciences. He joined the Department of Biochemistry in 1964 as a graduate student working on the control of haemoglobin synthesis. In 1968 he moved to the Albert Einstein College of Medicine in New York as a postdoctoral Fellow with Irving London.

Tim returned to the Department of Biochemistry in Cambridge in 1971 where he continued to work on translational control throughout the 1970s. He taught summer courses at the Marine Biological Laboratory, Woods Hole, Massachusetts from 1977 to 1983, looking at changes in protein synthesis in sea urchin and clam eggs after fertilisation. In 1979, he helped Joan Ruderman and Eric Rosenthal with experiments on the translational control of maternal mRNA in clam eggs, where two of the major mRNAs concerned later turned out to be the A and B-type cyclins. By 1982, Tim had almost exhausted the potential of sea urchin eggs, but it was then that he performed the experiment that led to the discovery of cyclins and subsequent research on the control of the cell cycle. In 1990, Tim joined ICRF (now The Francis Crick Institute) in London. He became a fellow of the Royal Society in 1991, a foreign associate of the US National Academy of Sciences in 1999 and shared the Nobel Prize for Physiology or Medicine with Lee Hartwell and Paul Nurse in 2001. He enjoys cooking, photography and making up problems for Molecular Biology of the Cell with his friend John Wilson. In 2016, he and his wife Mary Collins moved to Okinawa, where Mary was the Provost of OIST (Okinawa Institute of Science and Technology). In 2022, Mary was appointed Director of the Blizard Institute of QMUL and they returned to London.