H Having just “retired” after 40 years as a surgical oncologist I want to reflect on discovery and challenges in veterinary oncology. In the 1970’s cancer in pet animals was occasionally recognized, rarely treated and outcomes were poor. In the 1980’s cancer in pets was carefully studied for prevalence and natural behavior. Select groups of specialists were formed to diagnose, treat and study cancer in pets. Naturally occurring disease was recognized and funded by N.I.H. as relevant models for human disease. The 1990’s were marked by an explosion of imaging and pathology technology which helped define clinical stage and pathologic grade with uniformity. The canine genome and its relevance to cancer followed in 2005.

The concept of patient referral to oncology specialists and public demand for advanced diagnostics and treatment were pivotal in developing centers of oncology clinical practice. Supporting disciplines of radiology, pathology, clinical pathology, genomics, proteomics, critical care, anesthesia pain management and biostatistics have solidified the multifaceted discipline of oncology both clinically and at the molecular level. Specialty boards in all areas of oncology have flourished. Publications in oncology are voluminous…over 50,000 citations for osteosarcoma alone can be found on Medline in the last five years! “Novel” is in the title of 165, 368 papers since 1977…fewer than that have proven to be novel!

Surgical oncology is now a sanctioned fellowship under the auspices of the American College of Veterinary Surgery. Larger, more complex and sometimes minimally invasive procedures are common place and the concept of “surgical dose” is being applied based on proven outcomes, function and cosmetics. Modern equipment such as orthopedic hardware, cautery and staples have made certain operations, possible and safe. Parallel and hand in hand with surgical oncology we have seen advances in medical oncology, radiation oncology, pathology and tumor immunology.

Many unproven and scientifically flawed cures for cancer are being promoted and sold with rare regulatory oversight. Prospective clinical trials, accurate reporting of large well described case series and evidence based medicine are critical for credibility. The newly launched Canine Lifetime Health project (Morris Animal Foundation) should provide tremendous insight on cancer in animals with an emphasis on genetics, nutrition and environmental risk factors. The Holy Grail of preventing cancer at least can be hoped for.

Challenges remain formidable but hope prevails. The profession needs increased funding for trials and containment of equipment and patient costs. The era of molecular based and personalized medical decisions has arrived but has not yet seen widespread application beyond a few tumor types. How to populate and retain educators, researchers and clinicians in higher education remains a looming and rising storm. According to Yogi Berra, “the future ain’t what it used to be.” We have come a long way in 40 years to establish oncology as a true specialty in veterinary medicine. The future is bright to continue the progress made to date. On behalf of all pets affected by cancer and their owners, I look forward to the next 40 years!