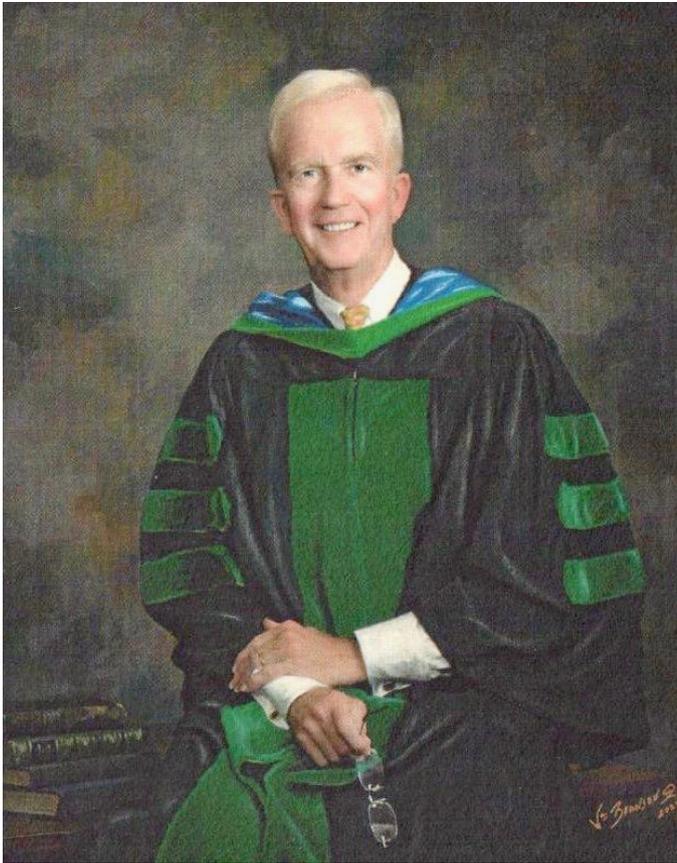


David F. Paulson - The origin of DU 145

Autobiographical sketch / April 2018



In 1976, an elderly male presented to the VA Hospital in Durham with side spread prostatic cancer, previously treated with androgen deprivation. He gave permission for tissue to be removed after his death if it were to be used for scientific purposes. It was known that he had a metastatic CNS lesion.

Tissue was removed from his brain and a fragment of the metastatic CNS lesion taken for in vitro culture. Over the next two years the tissue was passed over 90 times until it was felt secure that the tissue line was immortal. At this time it was felt to be a stable cell line and the manuscript was prepared and published in the [International Journal of Cancer, 21:274-281, 1978](#). The authors were Stone, Mickey, Wanderli, Mickey and

Paulson, “Isolation of a human prostate carcinoma cell line (DU 145)”. Over the years the cell line was distributed widely to investigators who requested it for study purposes. It was also sent to the NIH for preservation and distribution as requested. Unfortunately, the cell line was not hormonally sensitive.

What was my background? I was a medical student at Duke from 1960-1964. At that time Duke had a research scholar program for medical students so interested. I was able to spend one of my four years in this program. I spent the 1964-65 academic year in the laboratory, spent the next year (post-graduate year 2) split equally between Medicine and Surgery and then in the summer of 1964 went to the Surgical Division of the National Cancer Institute at NIH. We were to spend two years equally divided between surgery and research. Although I was planning to return to Duke for a residency in Cardiovascular Surgery, I was assigned to be the Urologist to the NIH for the next 6 months. I learned quite a bit of Urology during those months. Working with the noted virologist Alan Rabson as my mentor, I established an in vitro hamster prostatic cell line after infecting the cells with SV40 virus. This line could be transplanted back into the hamster and transferred from animal to animal. This led to additional publications regarding this cell line, along with presentations at forums both in the US and abroad. Shortly after beginning my second year at the NIH I decided that as I was already well

known in Urology, that might be a better career path. I returned to Duke in June of 1967 having spent a 3rd year at the NIH, began my clinical residency and also established a research facility to look at urologic malignancies. After completing my residency in some 2.5 years, I joined the faculty, focused on urologic malignancies both in the clinic and in the laboratory. That is what led to the investigators and facility available to take advantage of the tissue specimen subsequently known as DU 145 as it was the 145th specimen that we had attempted to propagate in vitro.

Cell lines established by David Paulson's group

DU145 (CVCL 0105)	DU9479 (CVCL 4828)	
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