David E. Kuhl is an American scientist and physician known for his pioneering work in positron emission tomography.

Dr. Kuhl’s interest in medical imaging dates to his time in high school where he did experiments in autoradiography, a process through which images are produced by the pattern of decay emissions from a distribution of a radioactive substance. His work in this area led to the award of a scholarship from the Westinghouse Talent Search.

After obtaining his M.D. at the University of Pennsylvania Medical School, Kuhl led the development of the principles and mechanisms for longitudinal and transverse section scanning. His aim was to accomplish total three-dimensional reconstruction from series of stacked images. After several preliminary efforts, Kuhl designed a detector that scanned in a series of tangential traverses, rotating about the patient on a circular path between scans. This device recorded the first true axial tomographic images of emission sources.