The sympathetic innervation of the rabbit heart as a function of age was studied by measuring cardiac catecholamine concentrations and observing the anatomic distribution of sympathetic nerves by the monoamine fluorescence technique. Quite low levels of cardiac norepinephrine rose progressively from the late gestation stage to reach adult values by three weeks of age. Unlike the heart, the adrenal glands were found to contain abundant catecholamine stores. (The SCI® indicates that this paper has been cited in over 185 publications.)

After completing clinical training as a pediatrician at the Johns Hopkins Hospital, and following two years as the pediatric cardiology clinical associate in the Cardiology Branch of the National Heart Institute (NIH), I was vexed by the clinical observation that newborn infants with heart disease were remarkably fragile and labile when compared to older children and adults. It appeared reasonable to suggest that the intrinsic physiological properties of the developing heart and circulation were uniquely age-dependent. There existed, in 1966, an important focus of interest concerning the responses of the developing circulation to cardiac ultrastructure, and the mechanical properties of the developing heart and for a host of investigations of the influence of growth on myocardial energy metabolism, the responses of the developing circulation to cardioactive drugs, and subcellular, cellular, isolated, and *in situ* cardiac responses of the fetus and newborn to cardiocirculatory stress. All of these efforts led to a focus on the pharmacological properties of the ductus arteriosus in fetal and newborn life. We had the good fortune of pinpointing the ductus of premature human infants. The latter is a critical, controlling role of prostaglandins in determining the caliber of the ductus arteriosus before and after birth and of finding a pharmacological substitute for cardiac surgery to close the patent ductus of premature human infants. The latter is an important therapeutic advance for improving the outcome of many thousands of infants yearly.