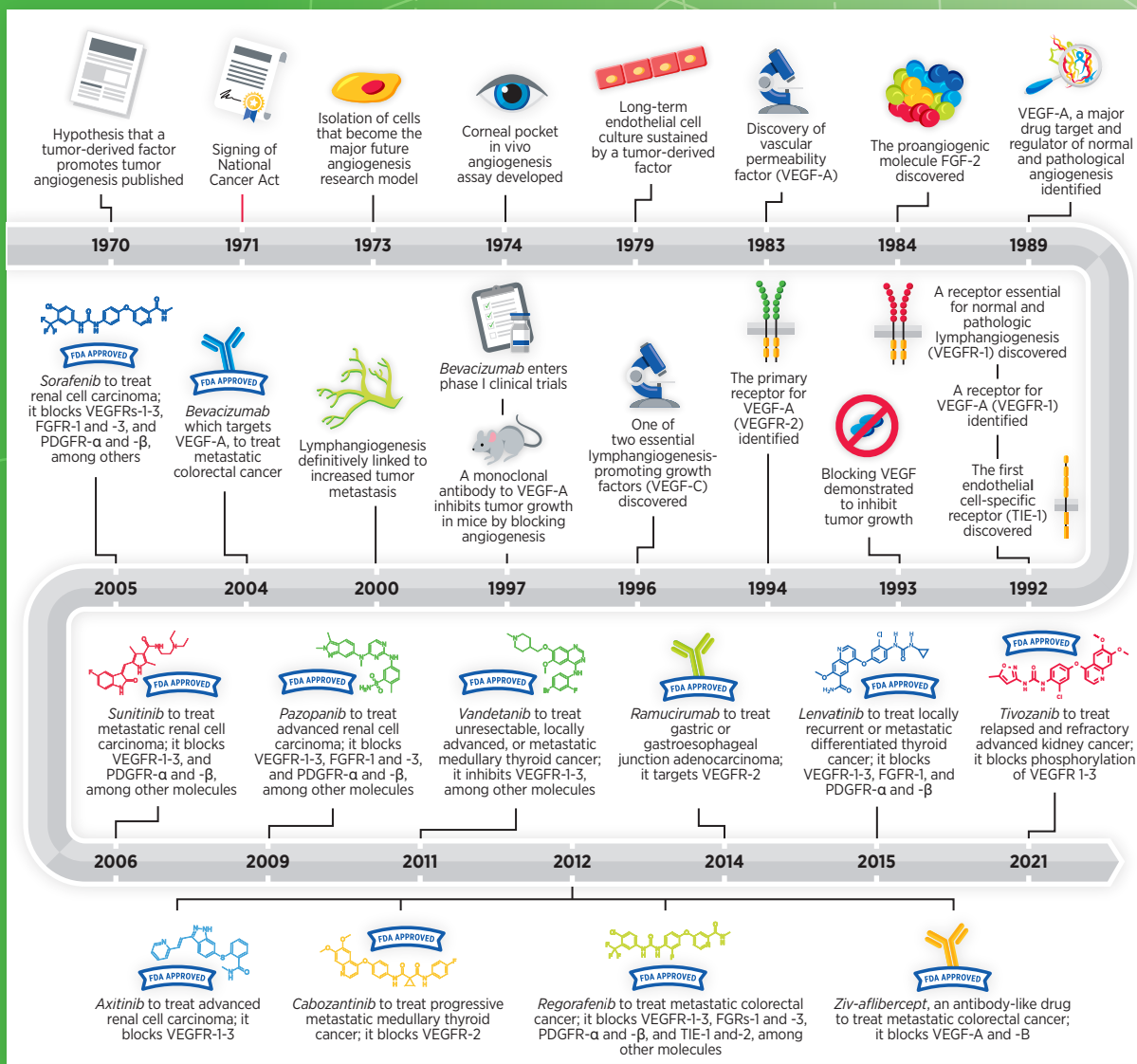


FIGURE 21

NATIONAL CANCER ACT
50 YEARS
 1971-2021

TARGETING TUMOR'S BLOOD SUPPLY TO CURE CANCER: MILESTONES FROM THE PAST 50 YEARS



Since the hypothesis 50 years ago that tumors secrete a factor that enhances formation of new blood vessels (angiogenesis) in and around the tumor tissue, breakthrough discoveries have fueled the development of molecularly targeted therapeutics that inhibit tumor angiogenesis and result in tumor shrinkage and/or elimination. Since 2005, the U.S. Food and Drug Administration (FDA) has approved 12 such anticancer therapeutics, also called antiangiogenic agents. Bevacizumab (Avastin) was the first of these drugs to be approved in 2004, and

tivozanib (Fotivda) was the most recent, in 2021. Research into angiogenesis under both normal and pathological conditions, including cancer, helped identify many of the molecular regulators of these processes, and these regulators are the specific targets of the 12 antiangiogenic agents. The year when each of these therapeutics was first approved is indicated on the timeline; however, most of these agents received approval from FDA for the treatment of additional cancers in subsequent years.