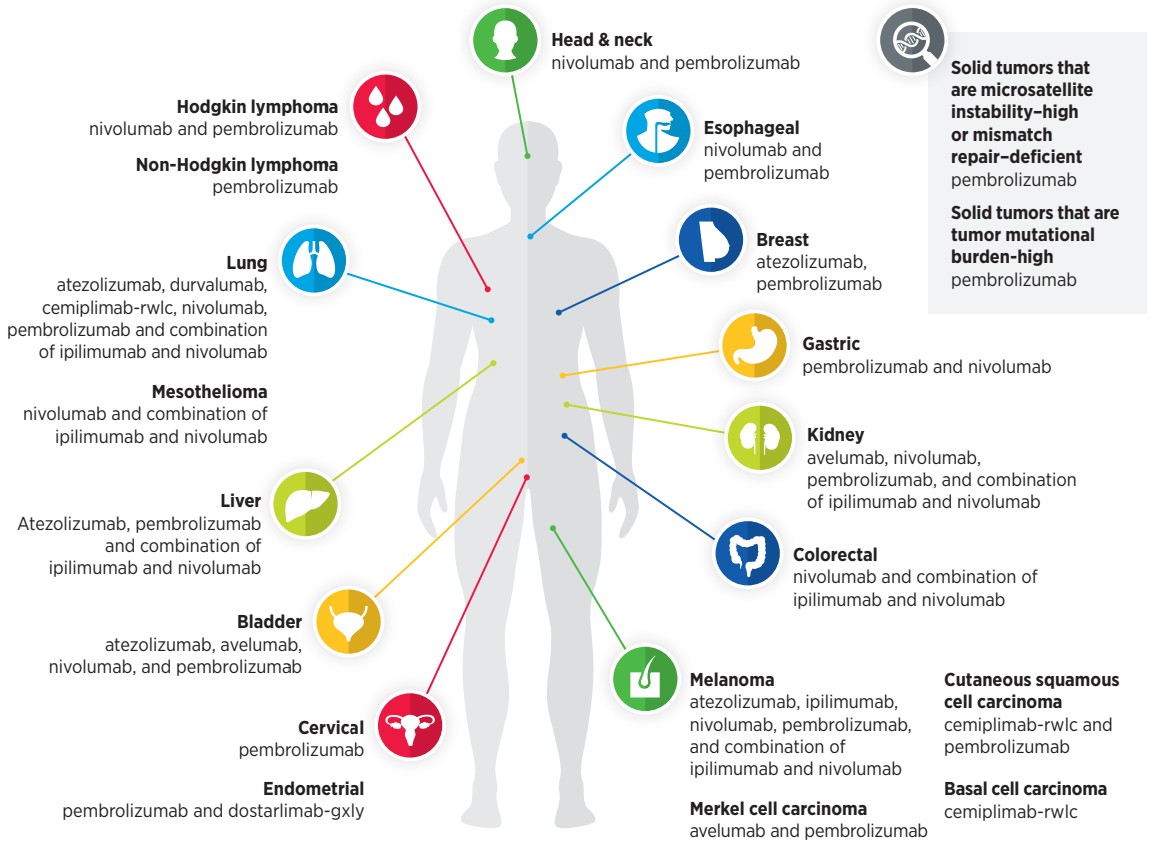
FIGURE 24

GOING DEEP WITH IMMUNE CHECKPOINT INHIBITORS



The first FDA-approved checkpoint inhibitor was ipilimumab (Yervoy), in March 2011, for metastatic melanoma. Another three-and-a-half years passed before a second checkpoint inhibitor, pembrolizumab (Keytruda), was approved, also for metastatic melanoma. Since then, another six checkpoint inhibitors have been approved by FDA and include: atezolizumab (Tecentriq), avelumab (Bavencio), cemiplimab-rwlc (Libtayo), dostarlimab-gxly (Jemperli), durvalumab (Imfinzi), and nivolumab (Opdivo). In addition, FDA has expanded the number of cancer types for which there is at least one checkpoint inhibitor approved. The broad utility of these groundbreaking immunotherapeutics is highlighted by the fact that as of July 31, 2021, one or more checkpoint inhibitors were approved for treating 18 types of cancer and for treating any type of solid tumor characterized by the presence of certain molecular characteristics, including microsatellite instability–high, DNA mismatch–repair deficiency, and tumor mutational burden–high. In addition, with all the checkpoint inhibitors approved for treating multiple types of cancer, there are several cancer types for which there is a great selection of checkpoint inhibitors available as treatment options.