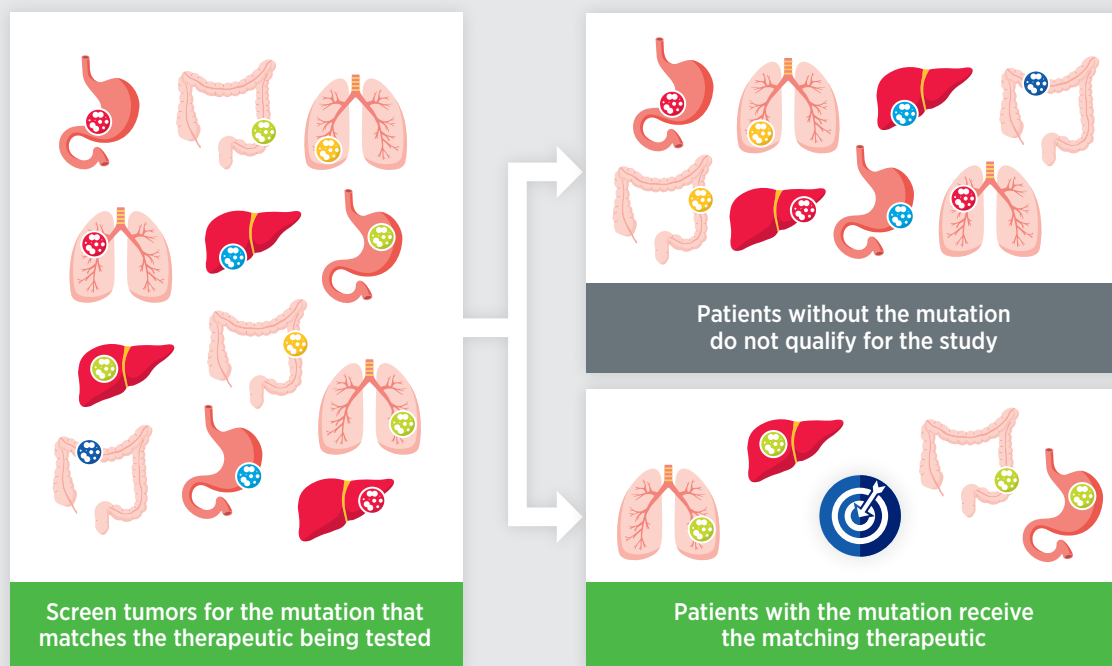


FIGURE 18

## MASTERING CLINICAL TRIAL DESIGN

### Basket Trials



Recent advances in our understanding of cancer biology have led to new ways of designing and conducting oncology clinical trials. One of the new approaches is to use a master protocol to answer multiple questions within a single overall clinical trial. Basket trials are one type of master protocol clinical trial. In the basket trial depicted here, one drug is being tested against liver, lung, colon, and stomach cancers characterized by a particular genetic mutation (green dots). This precision approach expedites the clinical testing of new anticancer therapeutics by matching the treatment with the right patients at the start of the trial. The result of this strategy is streamlined clinical studies that

reduce the number of patients who need to be enrolled in the trial before safety and efficacy of the tested anticancer therapeutic is determined, and/or decrease the length of time it takes for a safe and efficacious new anticancer therapeutic to be tested and made available to patients. The National Cancer Institute–Molecular Analysis for Therapy Choice (NCI-MATCH) trial is one example of a basket clinical trial design. The NCI-MATCH trial is the first national-scale precision medicine trial that incorporates centralized diagnostic testing and dozens of treatment options in parallel. Patients enrolled in the NCI-MATCH trial are assigned to receive treatment based on genetic mutations present in their tumors.