

# HOW AI TAKES ON CANCER

Scientists have been using two main forms of clinical data to predict cancer outcomes: images (either photographs, as in the case of skin cancer, or pathology slides) and -omes of various sorts. Applying ever-more sophisticated machine learning approaches to these datasets can yield accurate diagnoses and prognoses, and even infer how tumors evolve (yellow arrows). Now, scientists are finding that images can predict -omics (blue arrows). Combining the two data sources gives researchers even better predictions of how long a cancer patient will live (thick purple arrows). The ultimate goal of these algorithms, currently under development in basic biology labs, is to help doctors select treatments and forecast survival.

