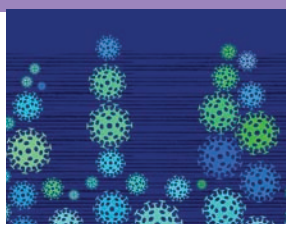
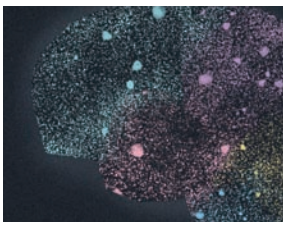
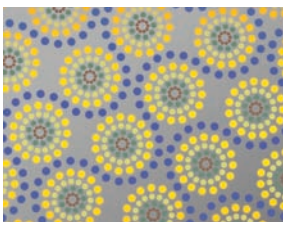
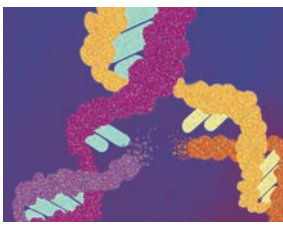
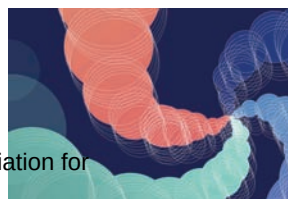
CANCER DISCOVERY

CONTENTS

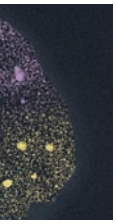
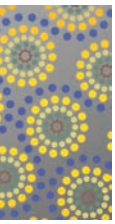
JULY 2020 ▪ VOLUME 10 ▪ NUMBER 7







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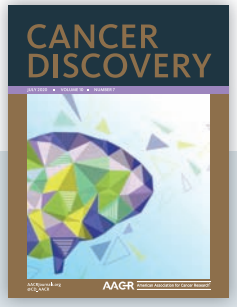

ON THE COVER Because no model is perfect, Pine, Cirigliano, and colleagues sought to characterize four commonly used glioblastoma models: two-dimensional glioma sphere cultures, three-dimensional tumor organoids, glioblastoma cerebral organoids (GLICO), and patient-derived xenografts. GLICOs stood out as most closely resembling primary glioblastomas in several important ways, with closely overlapping transcriptomes and similarities in cell-type composition. GLICOs' ability to recapitulate many aspects of glioblastoma biology depended on the microenvironment: When cultured in two-dimensional conditions, GLICO-derived cells lost many similarities with primary glioblastomas. This work showcases the strengths of GLICOs and provides detailed characterizations of the three other models, providing researchers with data to make informed decisions about which model best suits their purposes. For more information, see the article by Pine, Cirigliano, and colleagues on page 964.