FAST FACTS

Issues at Hand

1. Treatment of primary brain tumors and brain metastases has been hindered by the blood–brain barrier, a protective layer of interlocking cells that protects toxins and other infectious agents from entering brain tissue.

2. Last fall, researchers noninvasively breached the blood–brain barrier in a human for the first time. The focused ultrasound technique allowed chemotherapy to cross the barrier, but breaches also may temporarily allow viruses and bacteria into the brain.

3. Other therapeutic approaches — such as the use of engineered liposomes to transport agents across the barrier, and combinations of immunotherapies — have shown promise for the treatment of patients with primary or metastatic brain tumors.