Slowing the fentanyl opioid epidemic: Accelerating research on vaccines to limit impact of heroin, cocaine and nicotine raise hopes

The federal government recently awarded an additional $14.8 million for research into a monoclonal antibody that would target fentanyl — the nation’s deadliest street drug — by binding to its molecules before they can invade the brain and shut down breathing. Cessation Therapeutics, a North Carolina biotech company, touts its monoclonal antibody as a way both to prevent overdoses and to treat overdoses and opioid addiction.

“It sponges it up — it’s like a Pac-Man,” said Andrew C. Barrett, chief scientific officer at Cessation Therapeutics, which recently began the nation’s first government-approved clinical trial to test in people a monoclonal antibody infusion targeting fentanyl.

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The efforts reflect the urgency of the drug crisis, but that urgency crashes up against a harsh reality: Similar research has been stymied for decades. Research is expensive, and that doesn’t count the cost for a company to bring an antibody or vaccine to market. It is also time-consuming and time-sensitive because the illicit-narcotics landscape evolves quickly, with new synthetic substances surfacing faster than researchers can study them. And skeptics argue that drug users won’t buy in, or will simply switch to other substances — if they can even afford the high price of antibody treatments.

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