

Robotic-Pill Maker Rani Therapeutics Grabs \$53 Million

Technology could eliminate need for many biological drugs to be injected

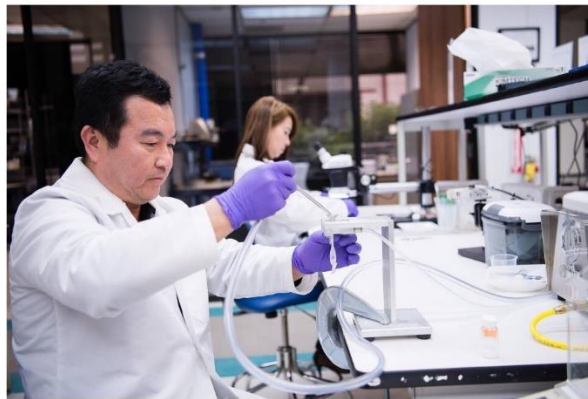
PRO VC NEW MONEY

By *Brian Gormley* 

Investors are giving a \$53 million boost to Rani Therapeutics's quest to spare patients who take biological medicines from injections.

Rani is developing a robotic pill that could enable many biological drugs to be taken orally instead of by injection or infusion. Today, biologics typically can't be taken orally because they would be broken up by chemicals in the stomach and intestines.

Rani's solution is an oral capsule that protects the drug until it is ready to be delivered across the intestinal wall and into the bloodstream. The pills use small needles to inject the medicine into the intestinal wall, which doesn't have pain receptors. This makes the injections pain-free, according to founder and Chief Executive Mir Imran.



Rani Therapeutics scientists

San Jose-based Rani is applying this pill technology to biologics that have come off patent. By incorporating these medications into its pill, it creates a patentable, proprietary product.

Late this year Rani intends to launch clinical trials of a drug for

acromegaly, a condition that results from overproduction of growth hormone by the pituitary gland.

Other products in the works include a bone-building agent for osteoporosis. Rani also [joined](#) with Shire last year to see if its technology can enable the hemophilia A drug

factor VIII to be taken orally instead of by infusion.

Shire is a new investor in this Series D round, which also included return investors AstraZeneca PLC, GV and Novartis AG. Rani has raised \$142 million in total.

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