How a one-in-a-billion genetic disorder may lead to new ways to treat obesity and diabetes

Abby Solomon suffers from a one-in-a-billion genetic syndrome: After just about an hour without food, she begins to starve…[But as soon as she] nibbles a few bites, she feels full, so she ends up consuming very few calories. At 5 feet 10 inches tall, she weighs 99 pounds.

Now 21 years old, she is one of the few people in the world to survive into adulthood with neonatal progeroid syndrome, a condition that results from damage to the FBN1 gene. This mutation mangles noses and eyes and destroys the layer of fat under the skin so that even teenagers look middle-aged.

[However,] her painful body may hold the clues to a lifesaving treatment for millions of people with obesity and diabetes…By observing her, scientists can see how a hormone deficiency affects a living person, from her thoughts to her liver function.
…

[Clues from examinations have] led Dr. [Atul] Chopra and his colleagues to their discovery of the blood-sugar-regulating hormone, which they named asprosin. Ms. Solomon's natural asprosin deficiency keeps her on the brink of starvation, but Dr. Chopra's hope is that an artificial compound that blocks asprosin could be used as a treatment for obesity. He and his team have already tested such a compound on mice, and found that it can reverse insulin resistance and weight gain.
Dr. Chopra believes asprosin is an unusually promising hormone for drug development "because we have a living, breathing human who has the natural depletion of this hormone in her blood."

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: The Thin Gene