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Disrupting Obesity
with
Targeted Eating™
and Lactova™

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AT Research Partners is an invention origination company focused on the development of intellectual property: www.ATResearchPartners.com

The Obesity Epidemic

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Overweightness is not an invincible predator.

Its causes are in plain sight.

The biology behind hunger.

Perceptions of hunger often manifest as “food noise” in cultures of abundant food.

Eating begets eating.

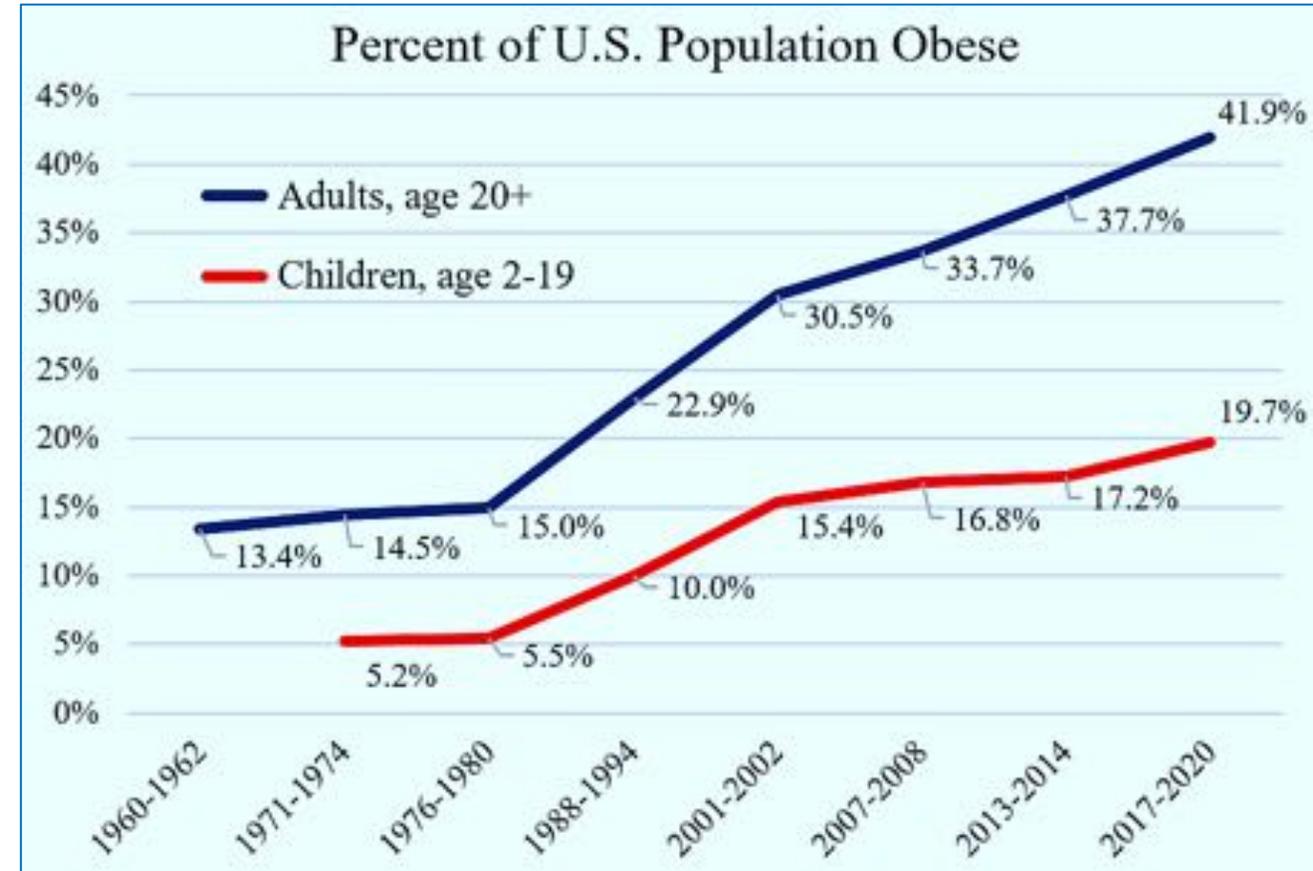


The Obesity Epidemic

- **Evolved with Fitness:** Throughout human history, obesity was rare.
- **“Food Noise”:** Emergence of “food noise” as a treatable condition:
 - ✓ Continuous consumption of rapidly digested foods can enhance hunger.
 - ✓ A daily, hearty meal reaching distal end of small intestine can stimulate GLP-1 and perceived satiety.



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Fryar, C.D., Carroll, M.D. and Ogden, C.L., 2018. Prevalence of overweight, obesity, and severe obesity among children and adolescents aged 2–19 years: United States, 1963–1965 through 2015–2016.

A Long History without Obesity

The Obesity Epidemic

Our History of Healthy Weight

- Human evolution over the last 300,000 years.
- No evidence of “obesity” genes; excess energy is stored as adipose tissue by *everyone*.

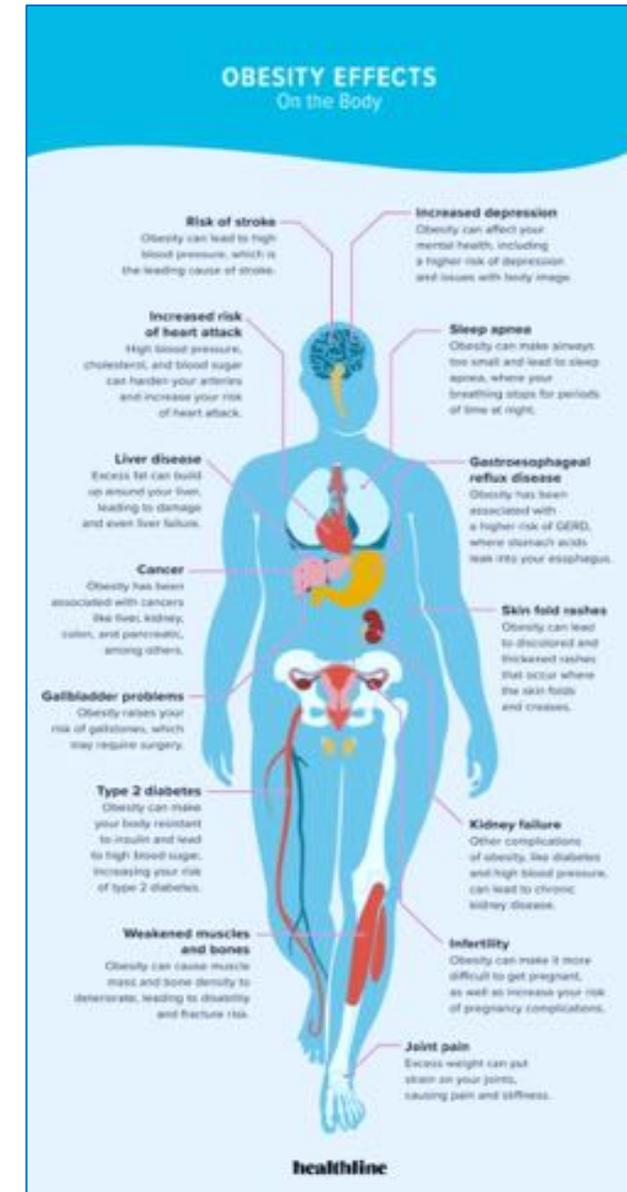
Mitochondria: Our Health at the Cellular Level

- Our mitochondrial biology evolved for scarcity, not feasting.
- The abundance of food is disrupting our cellular homeostasis and dysregulating our DNA.



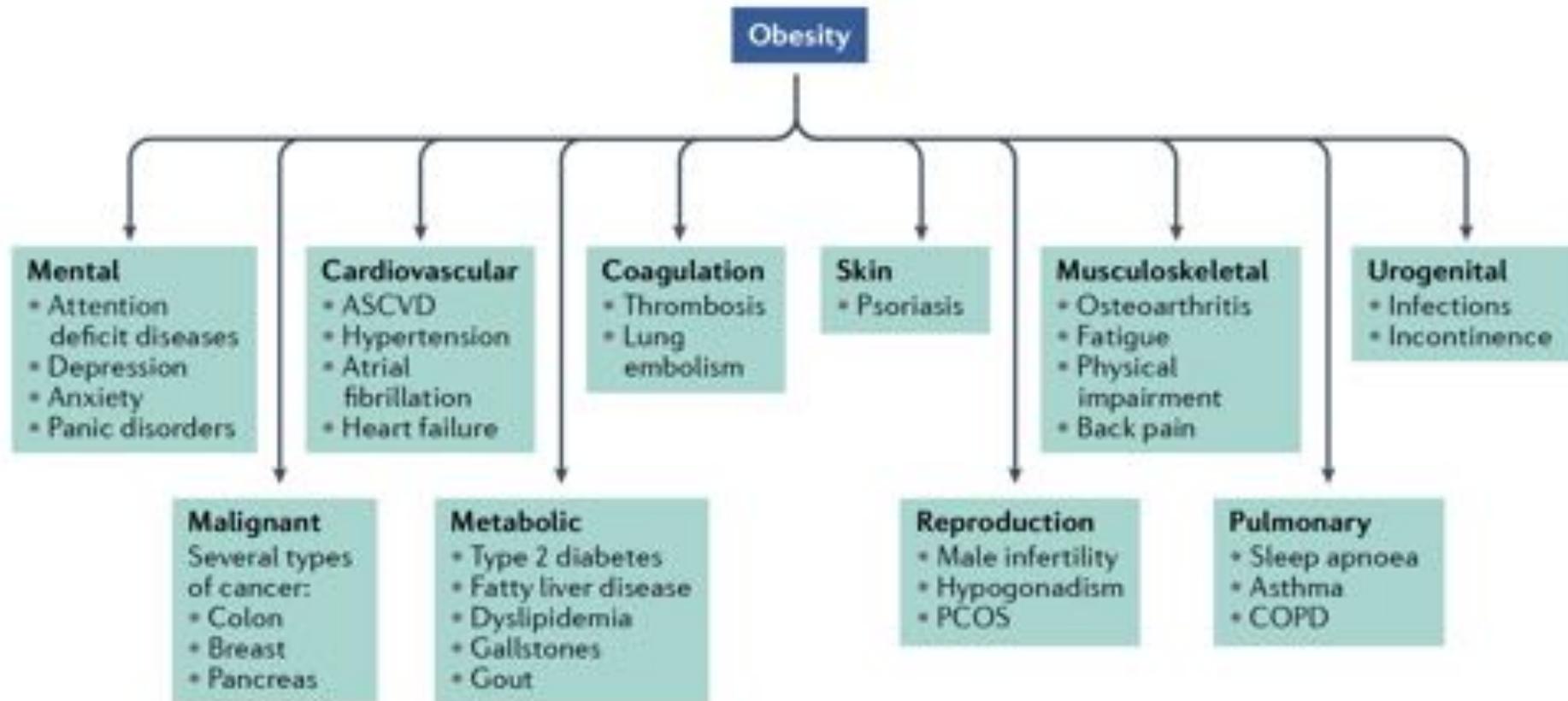
Evolution vs. Eating

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The Obesity Epidemic

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Müller, Timo D., et al. "Anti-obesity drug discovery: advances and challenges." *Nature Reviews Drug Discovery* 21.3 (2022): 201-223.

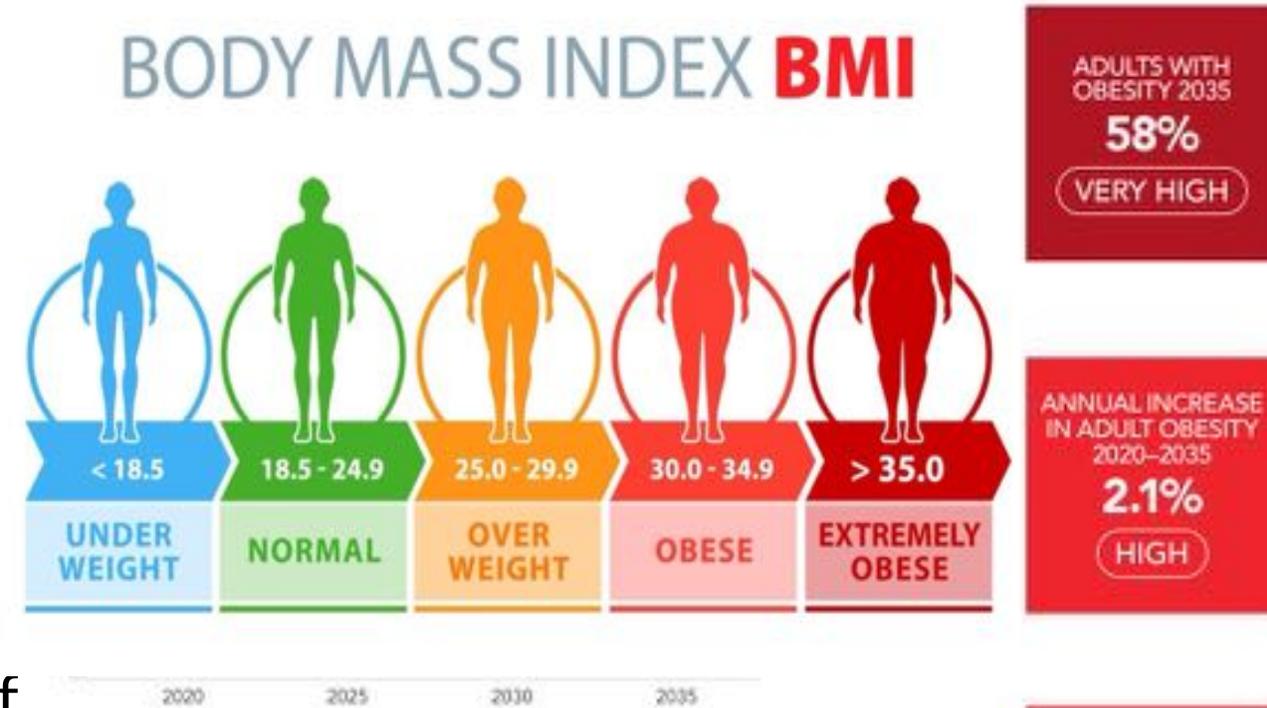
Obesity leads to co-morbidities – and it complicates management of multiple diseases, thereby increasing risks of unfavorable outcomes, as recently and tragically demonstrated in the COVID-19 pandemic.



The Problem

- 2.1% – gradual, but compounding trend in obesity and its complications
- By 2035 – nearly 3 of 5 people will be obese in the US.
- Annual US cost projections exceed \$190 billion for treatment of related illnesses.
- Up to 4 billion people face actuarial loss of 5 to 20 years' longevity – exceeding impact of all other pandemics, combined.

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Projected Rates of Obesity by 2035

World Obesity Federation. (2023). World Obesity Atlas 2023. World Obesity Federation. [https://s3-eu-west-1.amazonaws.com/wof-files/World_Obesity_Atlas_2023_Report.pdf].

Solution: Targeted Eating™ & Lactova™

A Breakthrough Approach

Targeted Eating™

- Naturally reverses obesity
- A daily “feast” – not a list of forbidden foods or calorie counts
- Consistent with cellular circadian rhythm, free of “food noise”



Lactova™

- Newly patented nutraceutical
- Safely converts tryptophan to serotonin for natural appetite appeasement.
- Enables transition to daily unrestricted, satisfying meals.

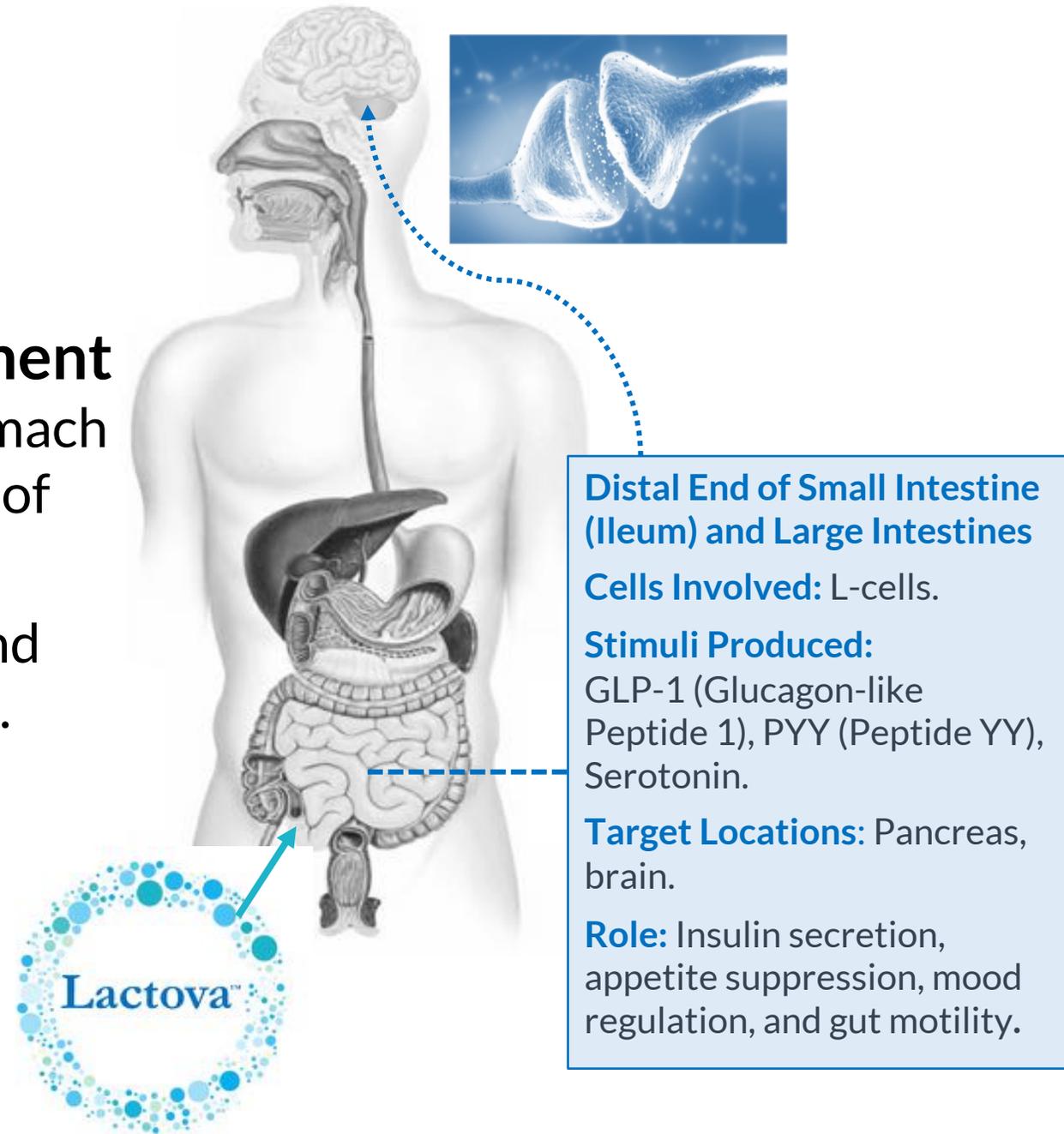
Lactova Patent No. 11,771,125 (Issued 10-03-2023.) “Concentrated Nutritional or Supplemental Compound for Intestinal, Gut-Brain Axis and Neurobiological Homeostasis through Calibrated Absorption Including Neurotransmitter or Any Equilibrating Compound Release to Treat or Mitigate Disease and Co-morbidities, Particularly Obesity and Malnourishment.”
Lactova is a trademark of AT Research Partners

Solution: Lactova™

How it works...

Natural Serotonin Appetite Appeasement

- Designed and administered to bypass stomach acids and reach L-cells at the distal region of the small intestines to stimulate GLP-1
- Natural serotonin bolsters productivity and appeases appetite to facilitate weight loss.
- Lactova™ thus supports transition to circadian rhythm with serotonin-derived satiety stimuli from the gut to the brain.



Market & Competition

- **Market:** Billions in market cap; 21 drug targets from 8 classes of compounds in clinical trials as of 2022
- **Outcomes:** 95% failure rate, comparable to casinos, for portion control and food group dieting
- **Semaglutide (Rx for Type 2 Diabetes):** Serious adverse events, 15% typical loss limit, high cost, supply issues (including lawsuits), and extreme risk of rebound
- **Others:** Orlistat complicated by leakage; amphetamines largely banned; hCG abandoned in vain search for silver bullet



Ward, Z.J., Long, M.W., Resch, S.C., Giles, C.M., Craddock, A.L. and Gortmaker, S.L., 2017. Simulation of growth trajectories of childhood obesity into adulthood. *New England Journal of Medicine*, 377(22), pp.2145-215

Market



\$31.2 Billion / Year



- *“Wall Street projections have estimated the [semaglutide] segment to top out at \$75 billion, possibly concentrated in the top 20 zip codes in America.” (Joseph Goldstein, August 26, 2023)*
- Healthcare cost impact of \$75 billion, assuming \$1,300/month for Semaglutide, could be cut to at as little as ~\$17.3 billion with Lactova at \$1/capsule and up to 10/day, or \$300/month – during weight loss...
- Lactova is a safe, transitional OTC option, not a chronic drug with high risk of rebound.

US / EU:
~18,000 physicians

Per Practice:
1,000 patients/year

Average Daily Revenue:
\$4.75/patient

= \$85,500,000/day

Business Opportunity

Feasibility Study



Criteria

- “Real-world”: Lactova with Targeted Eating assessed in busy lives, families, work
- Included non-diabetic individuals aged 16-64; monitored by RN Study Coordinator
- “Word-of-mouth” recruitment based on participant motivation (i.e., weight loss)
- Undiagnosed lactose intolerance considered; however, none seen in this cohort

Promising Results: Need for Larger Study and Test Marketing

- Participants continuing to lose weight after three months
- Some interruptions in participation, without rebound or other risks vs. slower loss
- Unsustainable vs. funding; inventors' outlays and unpaid volunteers

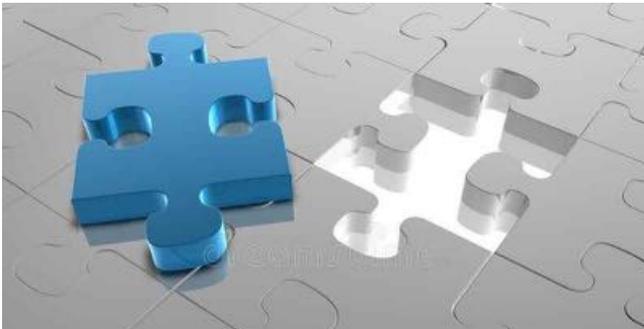
Business Opportunity

Funding / Partnership



Lactova™ will require venture capital funding and a development partnership to bring it to market in the nutraceuticals/weight loss sector.

To discuss this opportunity, contact...



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