

## Designer proteins for the mass food market



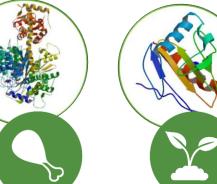
# **Amai:** Fixing our food system, one protein at a time Combining Computational Protein Design with Precision Fermentation

# Non-Sweet pipeline Computational phase

Meat

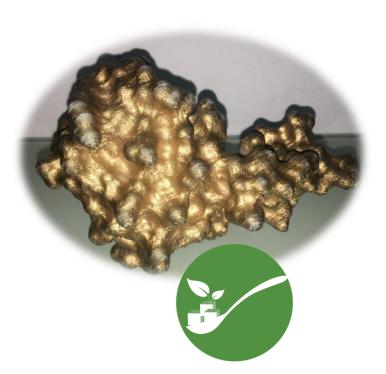


Milk





**Sweet**Close to market









√ Stable (T, pH, fat)



**✓** Cost-effective



✓ Digestible



√ Hypoallergenic



✓ Sustainable



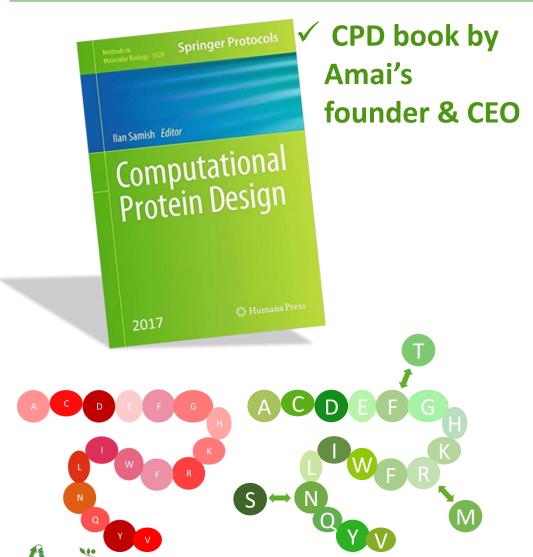
✓ Environmentallyfriendly



**✓** Proprietary



# **Amai:** Fixing our food system, one protein at a time Combining Computational Protein Design with Precision Fermentation







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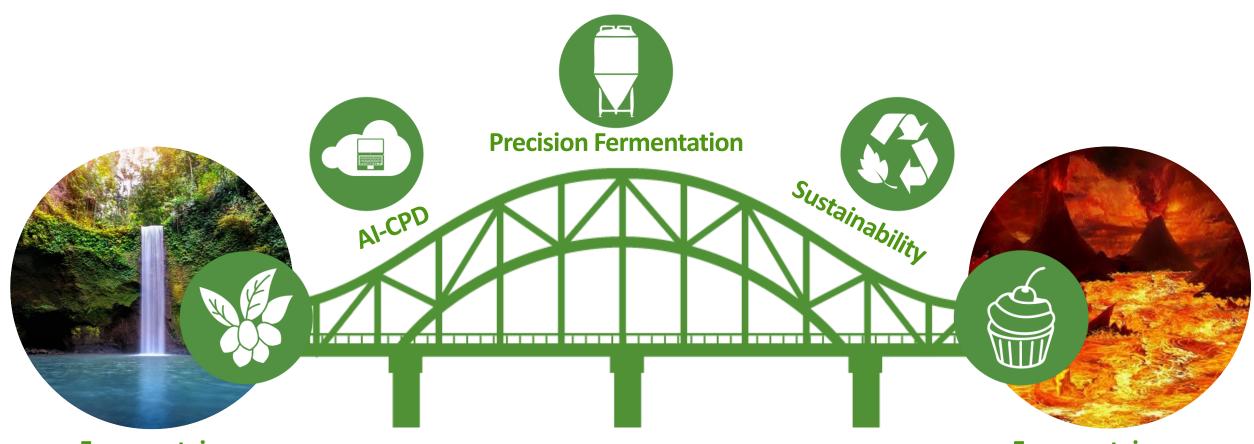
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## Bridging the gap:

How can we fit proteins to the mass food market?



For a protein, nature is heaven

For a protein, the mass food market is hell



## **Plants:**





# Milk:



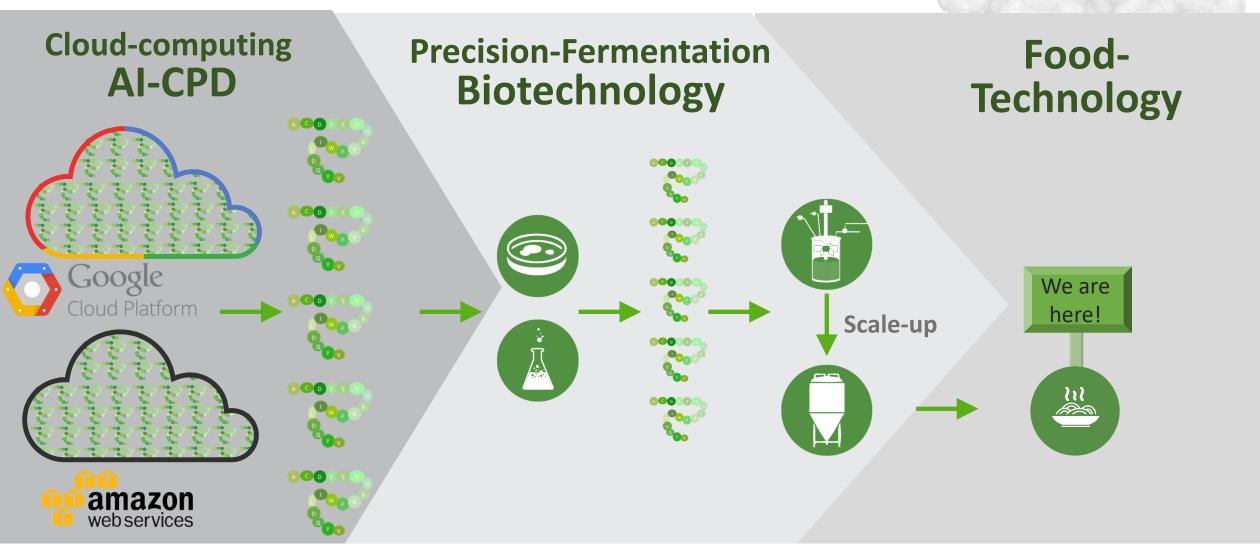


#### The first use-case: The first healthy, tasty & market-fit sweetener





25 people (and growing)9 PhDs, 70% female



Combining the benefit of computation and biotechnology with the oldest technology of brewing



#### The Amai-sweetened Food & Beverages













ketchup

#### Tasted by

- ✓ Over 3,000 people.
- ✓ Big-corporate super-tasters
- ✓ Expert supertaster panel

Beverage (Lemon, Whip cream strawberry, cranberry)

Tea





Sweetened beer (non-alcoholic)



Yogurt



Chocolate

#### **Collaborations:**











## (Super) tasting our future: Amai's expert panel





## The world's heaviest problem



#### Sugar overconsumption is a leading UN-SDG threat





















THE LANCET

Leading global health threat

CREDIT SUISSE

Sugar tax is needed



Effects numerous SDGs



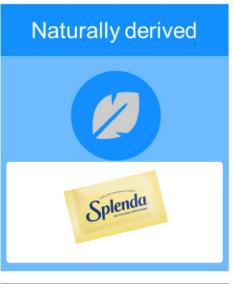
Quantitative impact plan is available upon request

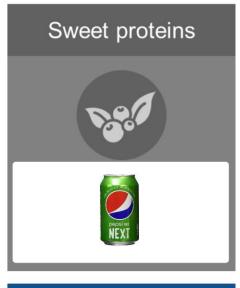


# Many routes to sugar reduction solutions: No magic bullet. Not good for >30% reduction





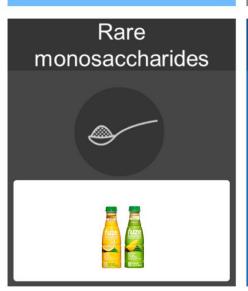


















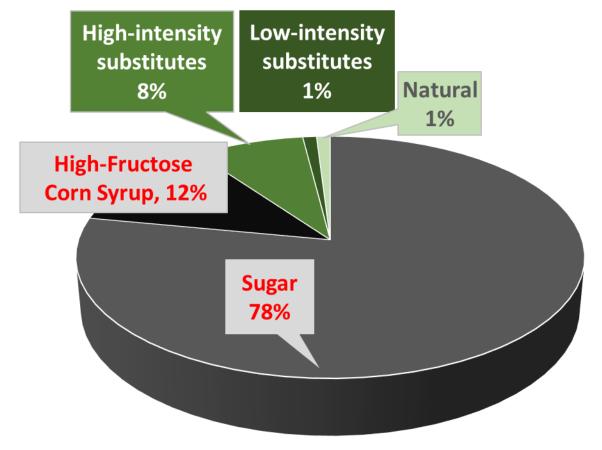
luxresearch 2018

#### The \$90B sweetener market is mainly ...sugar

#### Substitutes: Not tasty, not healthy

**Sugar: Not healthy** 







"There is a dearth of evidence on the potential adverse effects of low-calorie sweeteners"

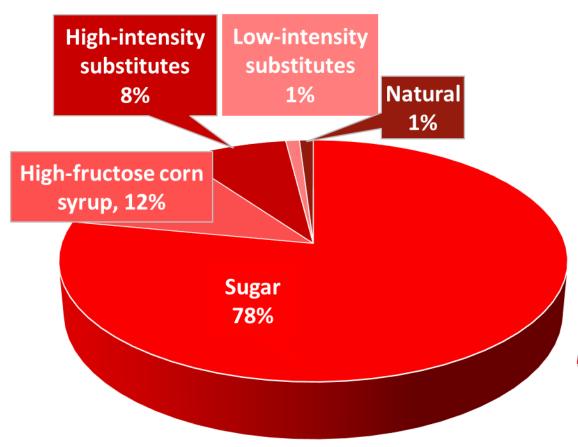
Circulation 2018;138:e126-e140



### The sweetener market: \$90B

**Sugar: Not healthy** 





#### Substitutes: Not tasty, not healthy

Microbiome, Liver, Kidneys



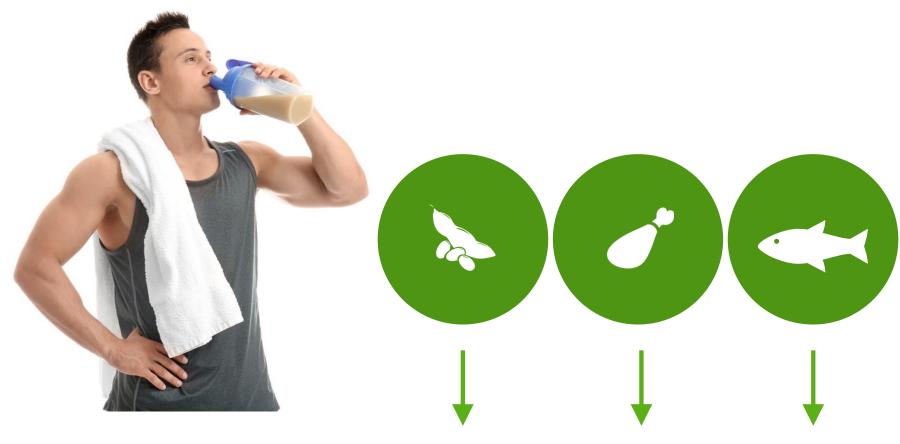
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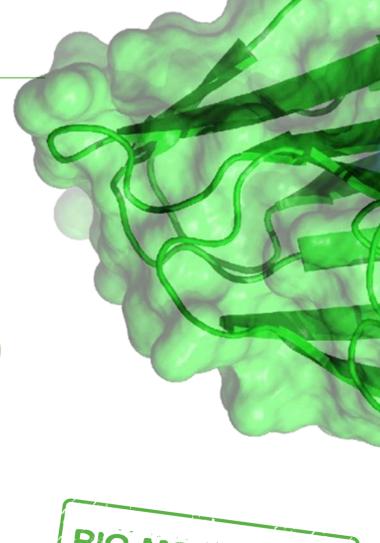
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### Proteins are healthy big molecules



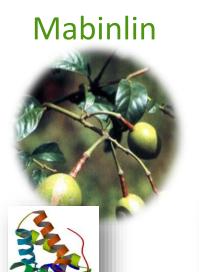




**Building body muscles and tissue** 



#### **Sweet Proteins**













up to 3,000X

Sweeter than sugar

# Healthy

- ✓ No insulin response.
- ✓ No calories.
- ✓ No effect on microbiome, liver, kidneys.

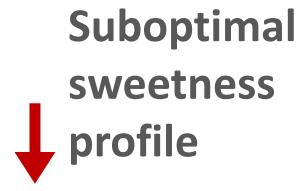


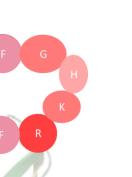
#### Sweet proteins are not fit for the food industry























#### **CPD & biotechnology answer the challenge**

**Much cheaper** than sugar Low cost

**High** stability







- Stable to pasteurization
- Long shelf-life

Optimal sweetness profile



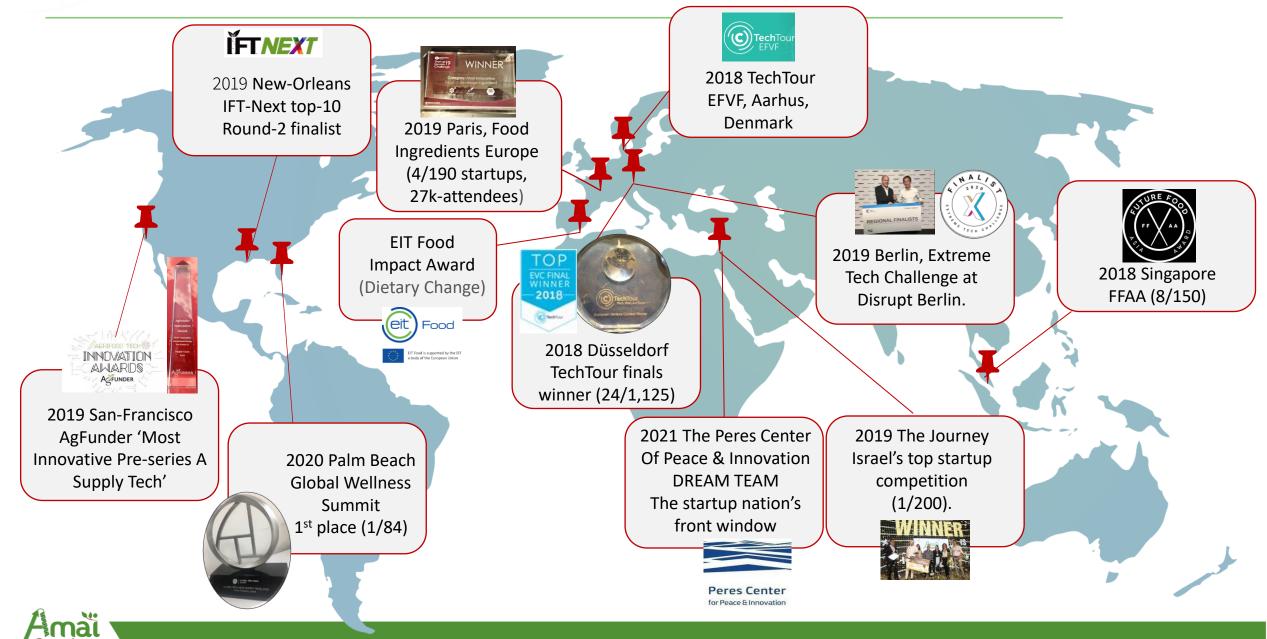


- Sugar-like taste
- Synergy with e.g. stevia





### Global Awards & Recognition: Professional & Impact



#### The Amai Investors, BoD and SAB

#### **Board of Directors**



**Rick Greubel BoD Chair** 





Dr. Ilan Samish **Director** 



**Dr. Amir Guttman Director** 



**Shahar Florence Director** 



Mor Assia Director





**Lewis Tepper** Director

Aston **Partners** 



Vanessa Bartram **Observer** 



### **Tyson**











## **Strategic Advisory Board**



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**SGInnovate** 



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**Japan Israel Partners Dragones Venture** 



**Andres Perez** 



**Brad Bloom** 



Kristal Golan BayWa Aq

**BayWa** 



WELLtech<sup>1</sup>







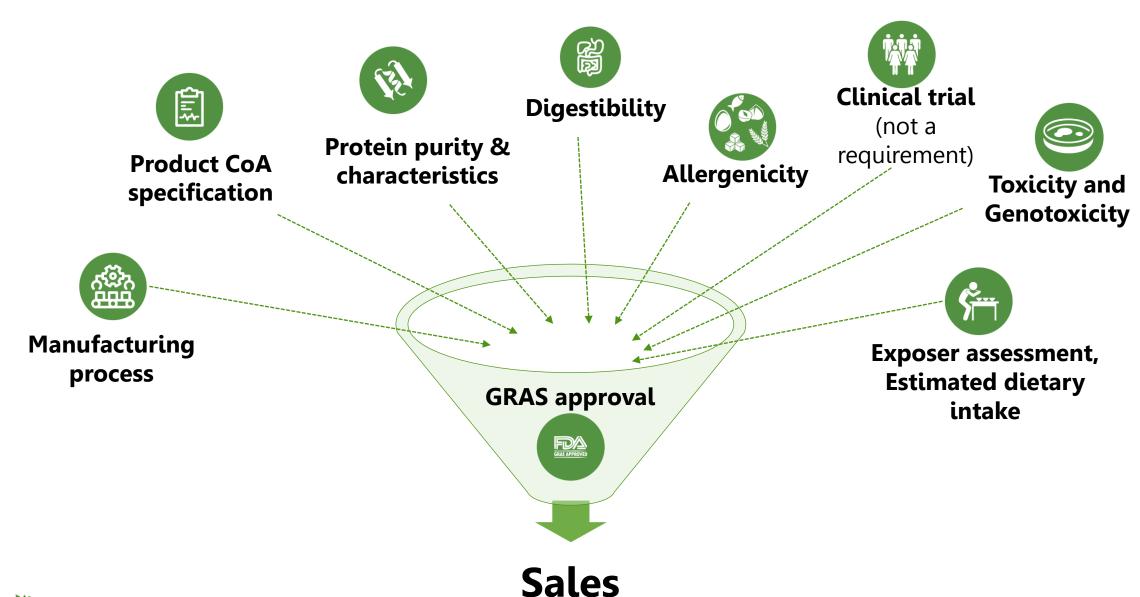


**Partners** 





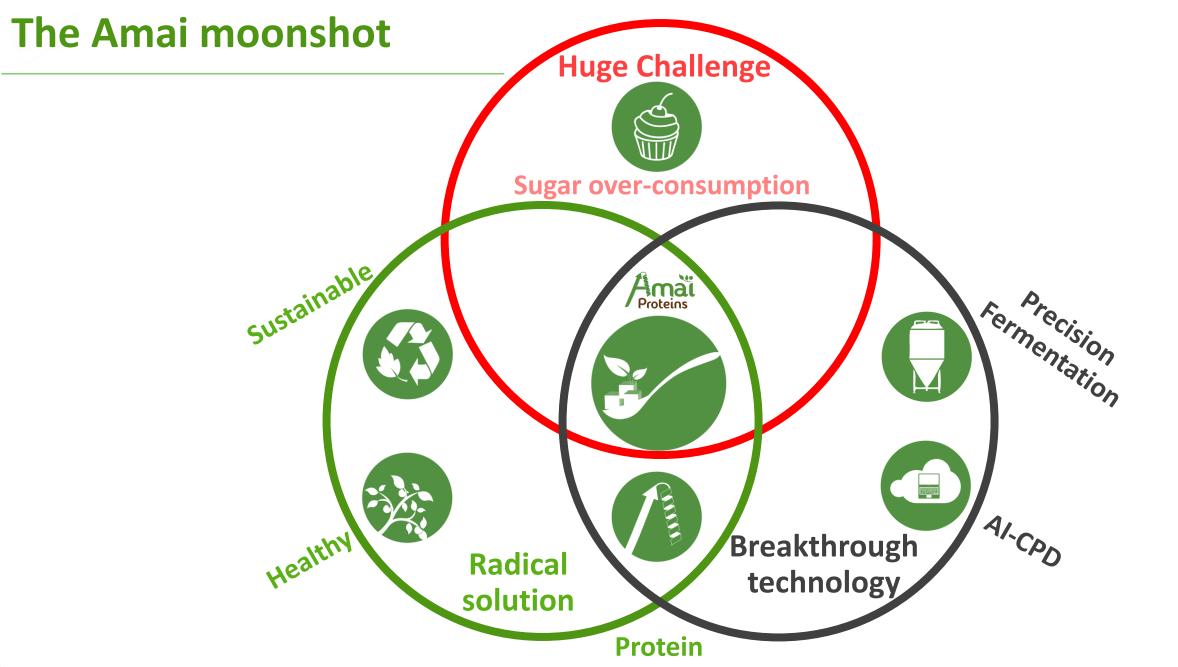
### Regulatory approval path



#### Series B: use of proceeds

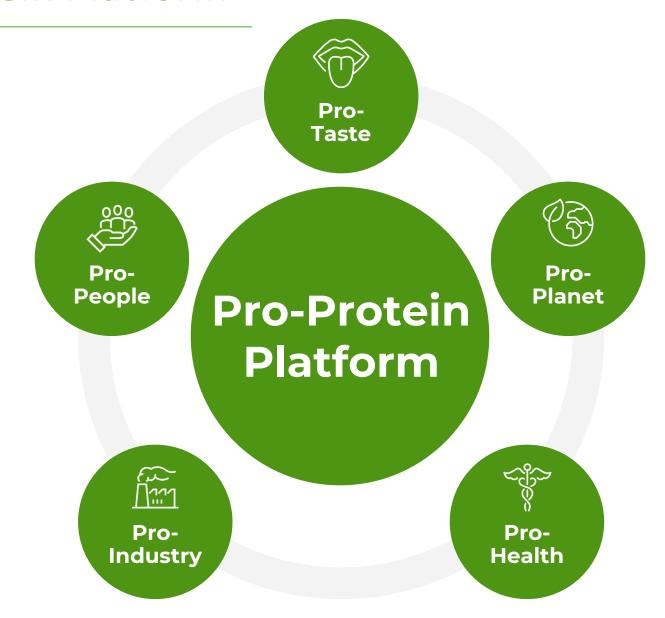
- ✓ Global market launch sales & marketing
- ✓ Expand consumer-packaged goods portfolio
- ✓ Production local production unit and global toll manufacturers
- ✓ Expand sweet protein portfolio
- ✓ Establish flavor house to support global sales
- ✓ Substantiate R&D pipeline (AI-CPD  $\rightarrow$  screening  $\rightarrow$  scalable production)
- ✓ Produce meat, milk and plant Designer Proteins







#### **The Pro-Protein Platform**

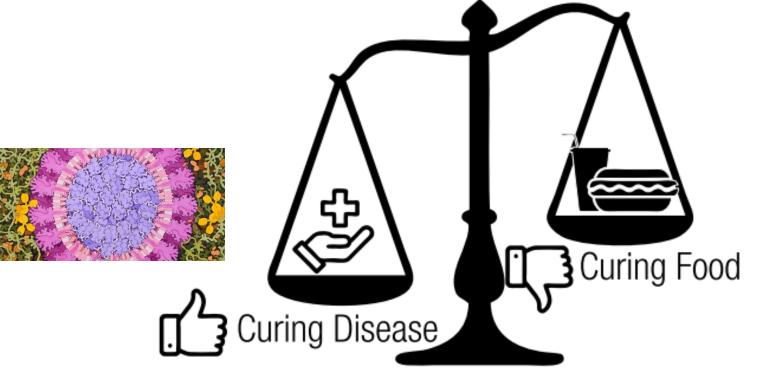




#### Cure our food to save on curing disease!

### **Current state:**

Success in curing diseases but not in curing food







http://scienceforglobalpolicy.org/conference/innovative-foods-ingredients-ifi/



# https://www.amaiproteins.com/

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