



GLOBAL WELLNESS
SUMMIT 2017



DNA Testing:

Understanding Results and Exploring Opportunities

Ali Mostashari, PhD, CEO, LifeNome Inc., U.S.



The Age of Personalized Wellness

Artificial Intelligence, Genomics, and the Data-driven Health and Wellness Revolution



Ali Mostashari, Ph.D.
CEO, LifeNome



GLOBAL WELLNESS
SUMMIT

A PARADIGM SHIFT IS BREWING IN WELLNESS

JUST WITHIN THE PAST 3 YEARS...



Personal Biological
Data (DNA +
Microbiome)

+



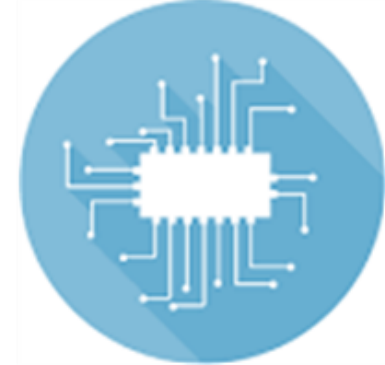
Personal
Physiological Data
(Wearables)

+



Personality Data and
Behavioral Science

+



Artificial Intelligence
and Machine Learning

ADVANCES IN SCIENCE AND ARTIFICIAL INTELLIGENCE HAVE ENABLED
TRUE PERSONALIZATION OF WELLNESS PRODUCTS AND SERVICES

DEMAND FOR PERSONALIZATION PASSING TIPPING POINT

WOULD CHOOSE A BRAND OVER ANOTHER IF THEY PROVIDED ME THE FOLLOWING PRODUCTS AND SERVICES THAT ARE PERSONALIZED FOR ME BASED ON MY DNA....

71%

SUPPLEMENTS

57%

**CORPORATE
WELLNESS**

55%

**WEIGHT LOSS
AND FITNESS**

54%

**SKIN CARE/
COSMETICS**

42%

FRAGRANCES

Source: LifeNome – Columbia University U.S. National Survey of Attitudes Towards DNA-based Personalization, July 2017

BIOLOGY: ULTIMATE FRONTIER OF WELLNESS

PERSONALIZATION

U.S. Consumers with DNA Data

1 Million (2014)
3 Million (2015)
5 Million (2016)
9 Million (2017)
15 Million (2018)
25 Million (2019)
40 Million (2020)

GLOBAL WELLNESS ECONOMY: \$3.7 trillion in 2015



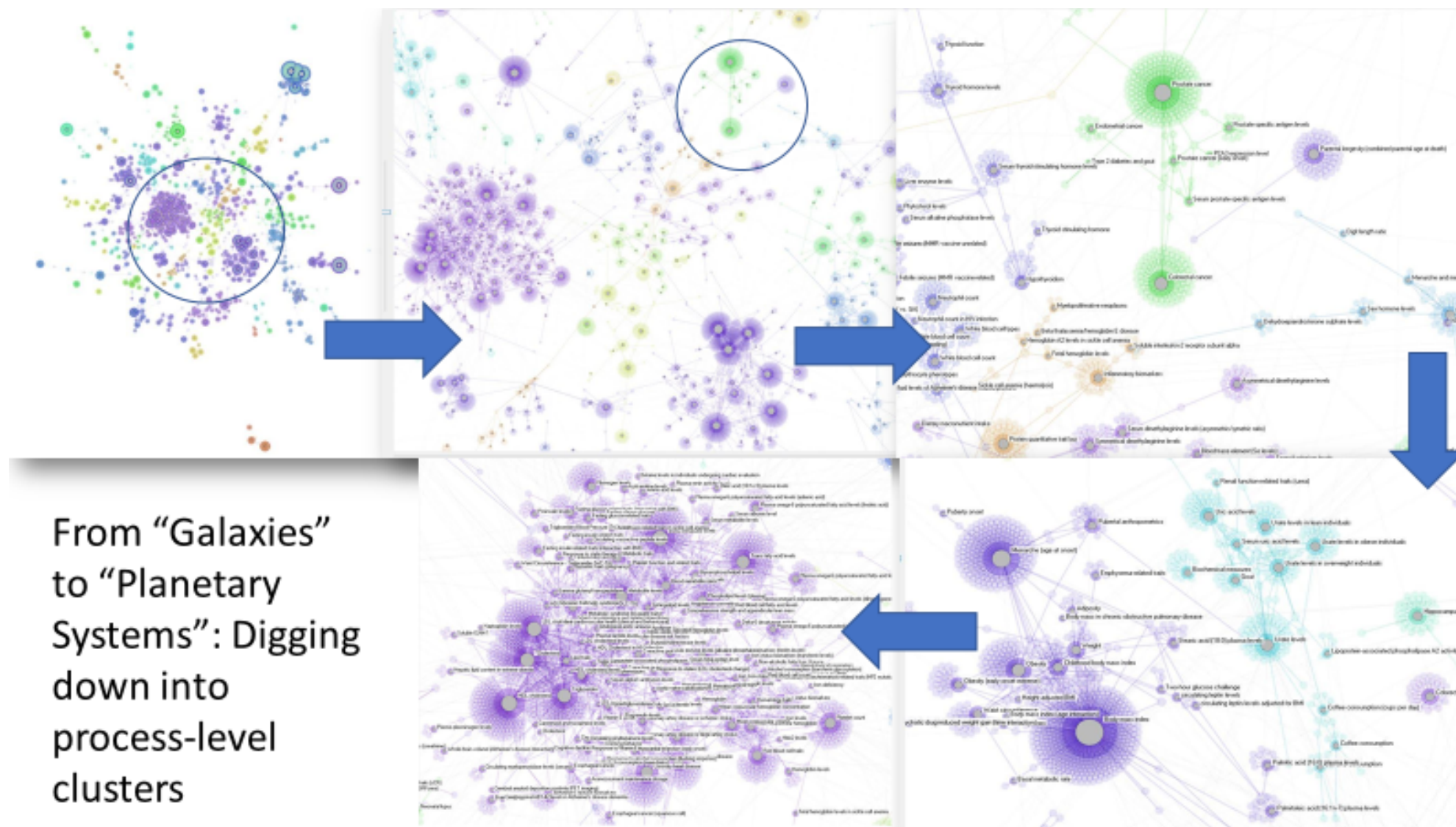
Note: Numbers may not add due to overlap in segments.

Source: Global Wellness Institute, Global Wellness Economy Monitor, January 2017



**GLOBAL WELLNESS
INSTITUTE™**

AI + BIOLOGICAL DATA + BEHAVIORAL DATA= PERSONALIZED WELLNESS



PERSONALIZATION EXAMPLE: NUTRITION



Generic
User



Dr. Raya
Khanin
Co-Founder
of LifeNome



Dr. Ali
Mostashari
Co-Founder of
LifeNome



Nutrition Facts

Lean Shake, Swiss Chocolate - GNC

Total Lean

Serving Size: 2 scoops (48g)

Amount Per Serving

Calories 180 Calories from Fat 25

% Daily Value*

Total Fat 2g 4%

Saturated Fat 0g 2%

Cholesterol 5mg 2%

Sodium 300mg 12%

Potassium 0mg 0%

Total Carbohydrates 30g 10%

Dietary Fiber 8g 32%

Sugars 5g

Protein 9g

Vitamin A 20%

Vitamin C 50%

Calcium 50%

Iron 20%

* Percent Daily Values are based on a 2000 calorie diet.

Nutrition Facts

Total Lean, Lean Shake, Swiss

Chocolate - GNC

Serving Size: 2 scoops (48g)

Amount Per Serving

Calories 180

% Daily Value*

Total Fat 2g 3%

Saturated Fat 0g 2%

Cholesterol 5mg 3%

Sodium 250mg 14%

Potassium 0mg 0%

Total Carbohydrates 30g 12%

Dietary Fiber 8g 32%

Sugars 5g

Protein 9g

Vitamin A 20%

Vitamin C 35%

Calcium 34%

Iron 13%

* Percent Daily Values are based on a 2000 calorie diet.

Nutrition Facts

Lean Shake, Swiss Chocolate - GNC

Total Lean

Serving Size: 2 scoops (48g)

Amount Per Serving

Calories 180 Calories from Fat 25

% Daily Value*

Total Fat 2g 6%

Saturated Fat 0g 4%

Cholesterol 5mg 3%

Sodium 300mg 25%

Potassium 0mg 0%

Total Carbohydrates 30g 12%

Dietary Fiber 8g 32%

Sugars 5g

Protein 9g

Vitamin A 20%

Vitamin C 48%

Calcium 25%

Iron 20%

* Percent Daily Values are based on a 2000 calorie diet.

PERSONALIZATION EXAMPLE: DIET AND WEIGHT LOSS



9 Million

U.S. Consumers with
DNA Data by end of
2017

72% Interested in DNA-based Weight
Loss and Nutrition Personalization

(Source: Columbia University-LifeNome
National Survey 2017)



33%

Increase in Weight Loss
Effectiveness

Over 12 months given same calorie
restrictions for individuals on DNA-
based weight loss compared to
Individuals on generic diets

(Source: University of Trieste Study, 2014)



30%

Increased adherence to
recommendations

for individuals on DNA-based
nutrition advice compared to those
on generic advice

(Source: University of Trieste Study, 2014)

PERSONALIZATION EXAMPLE: SKIN CARE

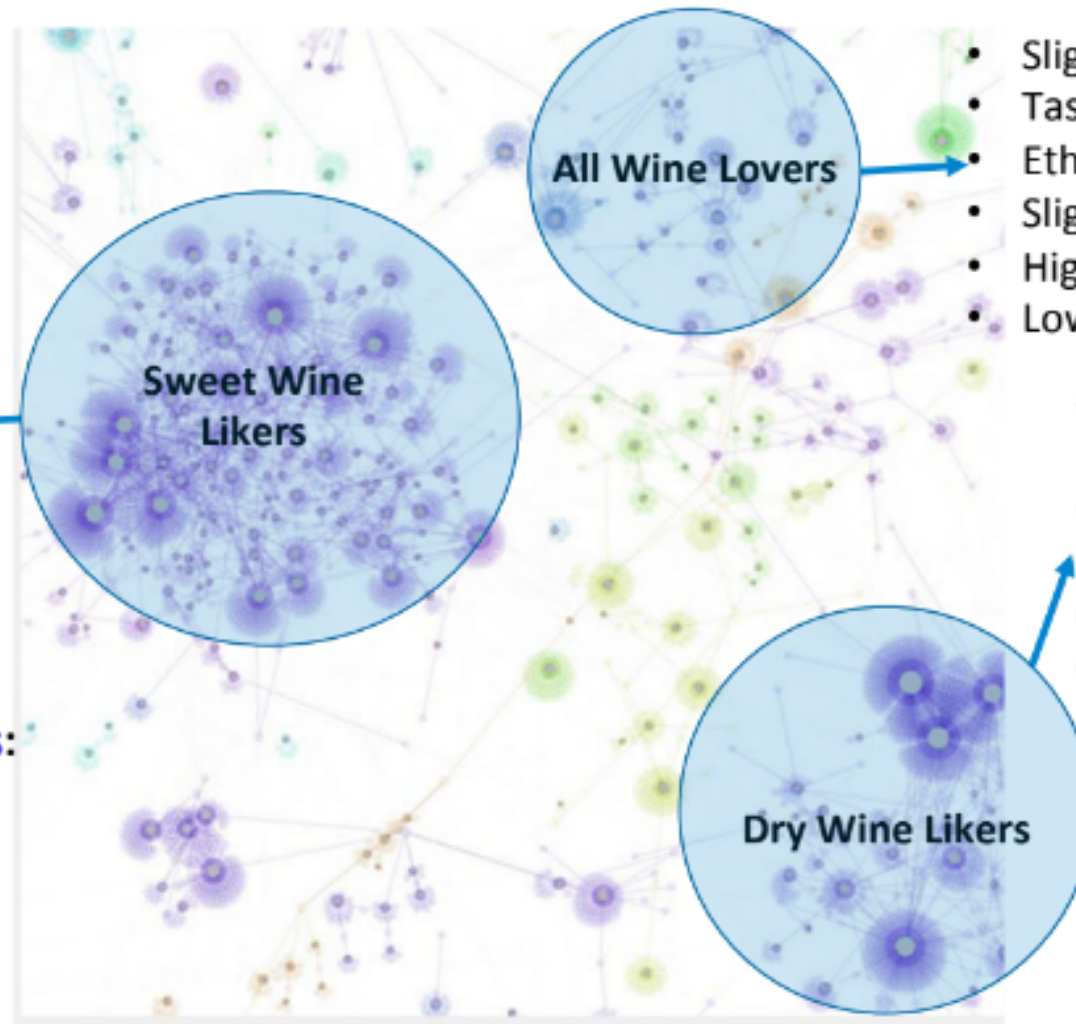


Willa's Genetic Skin Profile			
Increased collagen breakdown			×
Decreased pollution defense	×		
Decreased skin detoxification			×

PERSONALIZATION EXAMPLE: PRODUCT PLANNING AND MARKETING

- SuperTasters (Genetic Bitter Taste Sensitivity)
- Younger
- More Female
- Ethnically Diverse
- Lower alcohol tolerance
- Lower alcohol addiction tendency

Factors that determine our taste and smell preferences:
Genetics, Gender, Age, Life stage, Peer feedback, Socioeconomic status, Geography, Culture



GOING BEYOND FADS: SCIENCE MATTERS

IN THE NEXT 1-3 YEARS...

PERSONALIZATION WILL TAKE THE MARKET BY STORM,

POOR (SUPERFICIAL APPLICATION OF) SCIENCE (PARTICULARLY PART OF THE GENETIC FRENZY) WILL DETERIORATE PUBLIC TRUST AND FIZZLE OUT.

AFTER THE INITIAL GOLD RUSH PERIOD...

WHAT MATTERS LONG-TERM IS **PROOF OF EFFECTIVENESS AND VALIDATION.**

AND FINALLY....

**WAITING OUT TO SEE IF
SOMETHING IS A FAD OR A
PARADIGM SHIFT IS RISKY
BUSINESS.**

**FIND SUBSTANTIVE DISRUPTORS
AND CREATE PARTNERSHIPS
WITH THEM.**





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