

Specialty ingredients in weight management & metabolic health

#### **OmniActive Evolution**

150+ years strong history in natural products

1857 1970 **>** 1989 1996 Kanji Moorarji begins the **BOI's Oleoresin Plant** Mariwala family re-Joint venture with trade in spices at Angamaly, Kerala acquires McCormick's McCormick USA share in Kancor McCormick 2013 2010 < 2004





OmniActive expands operations globally



OmniActive Health Technologies Incorporated





### Our Vision









# Product | Current | Products









Eye Health

Skin Health





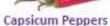












Weight Management

Sports Nutrition



**©**apsimax<sup>™</sup>









### Product Upcoming Portfolio Launches













Management



Control

### 10 more products in development



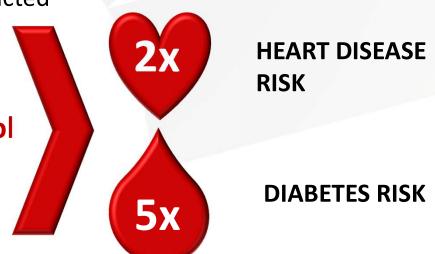


OmniLean The Metabolic Synergizer

# Weight gain, poor dietary choices and a sedentary lifestyle are key predictors for long-term health

#### **Global population stats**

- ~ 40% overweight or obese, ~ 20% obese by 2025
- 25% metabolic health impacted
  - Central obesity
  - Insulin resistance
  - Low HDL-cholesterol
  - Hypertension
  - High triglycerides



Supporting BOTH metabolic health and weight management are key factors for maintaining long-term health and wellness



# We need to target multiple benefits and build a comprehensive solution

#### Weight management

- Restrict calorie intake / absorption
- Increase fat oxidation
- Reduce fat accumulation

#### **Metabolic Health**

- Heart health
- Glucose metabolism









OmniLean: Metabolic Synergizer targeting multiple benefits:





#### From ancient wisdom to modern science

### OmniLean<sup>™</sup> – Optimized Salacia Extract

- Standardized extract of "Salacia plant"
- Woody climbing vine found in India and Sri-Lanka
- Sometimes referred to as Kothala himbutu
- Roots, stems, dried parts of whole plant extensively used in Ayurveda to treat a variety of ailments especially for prevention of diabetes





### Benefits in carbohydrate and fat metabolism

#### Prevent weight gain

- ↓ Fat absorption
- ↓ Fat accumulation
  - ↓ Food intake
- ↓ Carb absorption
- ↑ Improved lipid metabolism

#### **Healthy Glucose**

↓ Carb absorption

↑ Carb / glucose metabolism

↓ Insulin resistance /

improve insulin sensitivity

### Healthy Cholesterol

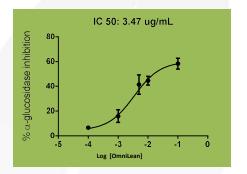
Improved lipid metabolism / profile

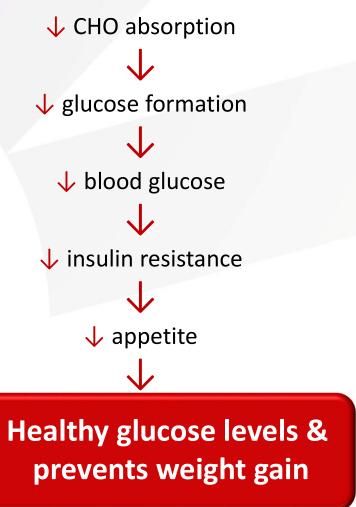


## Lower carbohydrate absorption: Manage weight & healthy glucose levels

#### **Alpha-Glucosidase Inhibition**

- Alpha-glucosidase: Brush border enzyme located in the small intestines
- Breaks down starch and disaccharides to glucose
- Inhibiting alpha-glucosidase activity slows down glucose absorption and reduces impact of carbohydrates on blood sugar and insulin



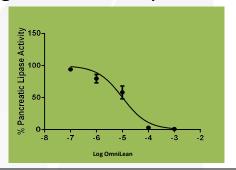




# Lower fat absorption: Manage weight & healthy lipid levels

#### **Pancreatic Lipase Inhibition:**

- Pancreatic Lipase: Secreted from the pancreas
- Hydrolyzes (breaks down) dietary fat
- Converts triglyceride substrates found in ingested oils to monoglycerides and free fatty acids
- Inhibiting the breakdown of dietary fats slows the absorption and subsequent storage into the body



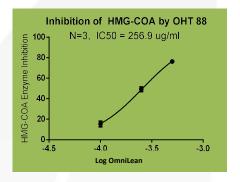
↓ fat absorption ↓ fat molecule size ↓ bad lipids ↓ fat storage **Healthy lipids & prevents** weight gain



# Limit cholesterol production: Healthy cholesterol management

#### **HMG-CoA reductase inhibition:**

- Rate-limiting enzyme in cholesterol production
- Reducing HMG CoA reductase activity reduces production of cholesterol



cholesterol production





### OmniLean research indicates efficacy & safety

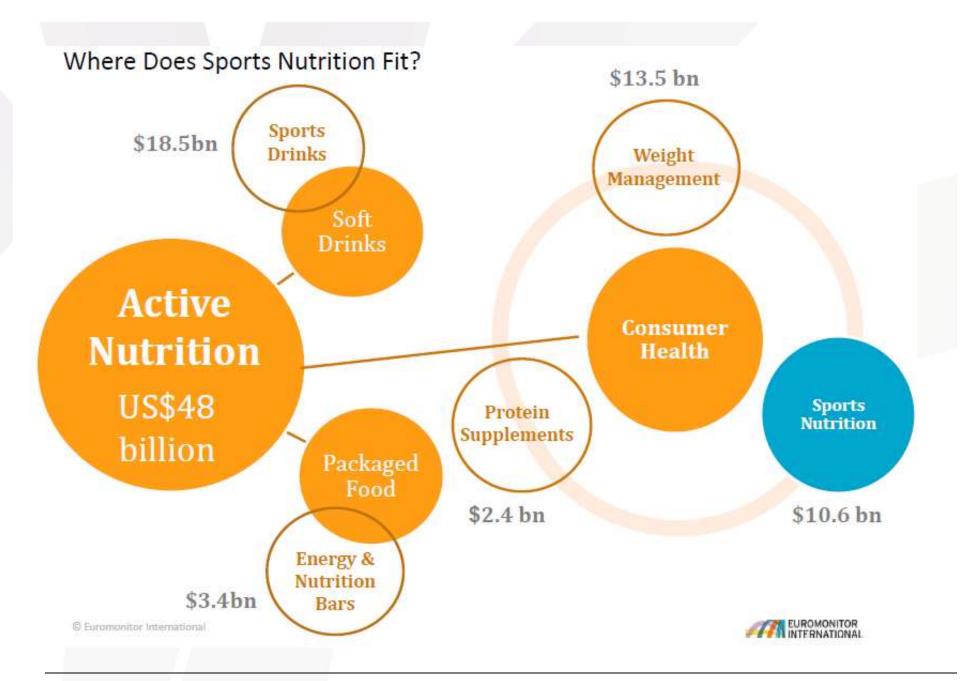
Basic Research	Toxicological	Human Clinicals
<ul> <li>Enzyme Assays         <ul> <li>Inhibition of α-glucosidase, pancreatic lipase, HMG CoA reductase</li> </ul> </li> <li>Nutrigenomics         <ul> <li>↑c/EPB alpha</li> <li>↓ FAS, ACC, PPAR gamma, SCD-1</li> </ul> </li> <li>Animal – C57BL/J mice         <ul> <li>↓ weight gain &amp; food intake</li> <li>↑ lipolysis</li> <li>↓ epididymal fat mass, glycerol &amp; FFA</li> <li>↑ Adiponectin and Ghrelin</li> <li>↓ Insulin and leptin levels</li> <li>↑ slightly GLP1</li> </ul> </li> </ul>	<ul> <li>AMES</li> <li>Chromosomal aberrations</li> <li>Micronucleus</li> <li>Animal studies (2): Safety &amp; Efficacy: 10 week studies         <ul> <li>No mortality or histopathological changes</li> </ul> </li> <li>Animal studies: 14-,28- and 90-day repeated dose studies         <ul> <li>No mortality</li> <li>No histopathological changes</li> </ul> </li> <li>GRAS self affirmation</li> </ul>	<ul> <li>Human Clinicals</li> <li>BIG/OGTT         <ul> <li>Cross over</li> <li>Blood glucose&amp;</li> <li>Insulin: 0 - 180 min</li> <li>↓ AUC glucose; AUC insulin</li> </ul> </li> <li>Satiety (ongoing)         <ul> <li>Cross over</li> <li>VAS satiety scale</li> <li>Biochemical markers of satiety, glucose and insulin</li> <li>↓ AUC glucose &amp;iAUC</li> <li>↓ hunger ↑ GLP-1</li> <li>↓ savory perception at 30,60, 90 and 120 mins</li> </ul> </li> <li>MHS (ongoing)</li> </ul>
<ul> <li>Animal - C57BL/6 mice</li> <li>HFD vs HFD+SCE</li> <li>→ Body weight &amp; Fat mass</li> </ul>		<ul><li>Parallel</li><li>Metabolic health</li><li>markers, body</li><li>composition</li></ul>







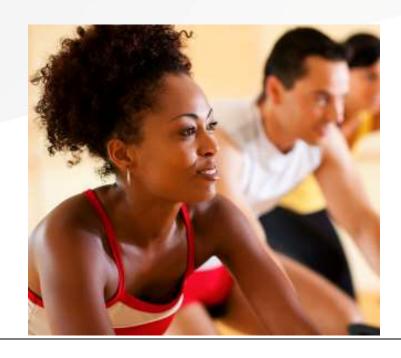
For the "Pro-actives"





# More than 40% of this market is driven by the active lifestyle group, or simply the "ProActives"

- They want to :
  - Enhance their workout
  - Look good and maintain their appearance
  - Maintain healthy body weight
  - Control what they eat
- "Clean" nutrition is important
  - Easily identifiable
  - From natural sources/food
  - Resonates with their lifestyle
  - Well researched, science driven





# ©apsimax —proprietary & exploratory research on Capsaicinoids

### **Capsimax**



Weight Management (Satiety, Metabolic rate, lipolysis)

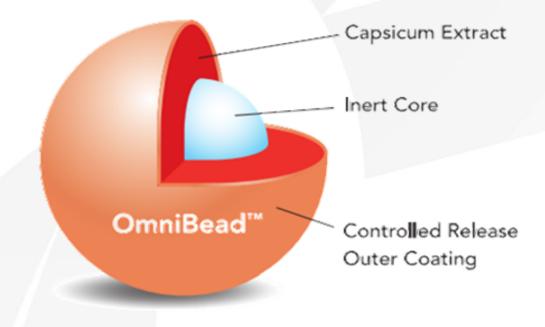
**Sports Nutrition (Endurance, Energy)** 

Cardiovascular Health (Blood Pressure)



### But the problem with capsaicinoids is delivery -

 With Omniactive patented Omnibead coating technology you can enjoy the benefits of capsaicinoids without any burn :

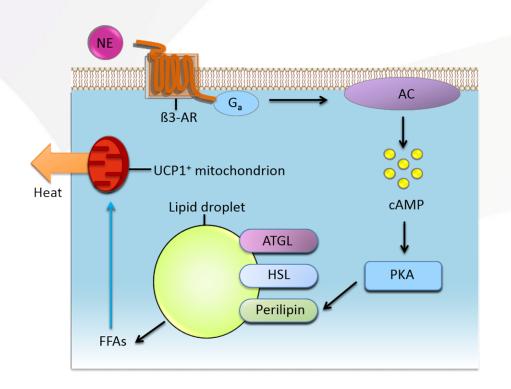


For representative purposes only



### Capsacinoids 101 – Mechanism of Action

**Activates SNS activity** (receptors in brain) Production of norepinephrine and epinephrine Breakdown of fats in adipose tissue (Lipolysis) Increased FFA activate specific thermogenic proteins



Hydrogen ions flood mitochondria producing heat (Thermogenesis)



Turns mitochondria into "heat pumps" to burn off excess FFA



## Study Findings Summary (Human CTs): Capsimax Sports Nutrition End Points (Ingredient alone and in combination)

End points	Capsimax Effects
Workout Intensity During Exercise <sup>1</sup>	<b>^</b>
Plasma Free Fatty Acids <sup>2</sup>	<b>↑</b>
Glycerol <sup>2</sup>	<b>↑</b>
Energy expenditure <sup>3</sup>	$\uparrow$
REE for four hours post-ingestion while supporting increased focus, alertness, and energy as well as decreasing fatigue <sup>4</sup>	<b>^</b>
Calorie burn <sup>4</sup>	$\uparrow$
Metabolic rate <sup>5</sup>	<b>↑</b>
Waist to Hip Ratio <sup>6</sup>	$\downarrow$
Appetite <sup>6</sup>	$\downarrow$

- 1. Open label study, FASEB J 2016, 30(1): LB226
- 2. Bloomer et al. Lipids Health Dis. 2010 Jul 15;9:72
- 3. Ryan et al. J Strength Cond Res. 2009 May;23(3):807-17.
- 4. J Int Soc Sports Nutr. 2013 Apr 30;10(1):25.
- 5. J Strength Cond Res. 2014 Aug;28(8):2154-63
- 6. UMHB study randomized double blinded placebo control (under publication CONFIDENTIAL)



# Capsimax supports energy production for the active lifestyle user

- Just 2 mg capsaicinoids from Capsimax
  - Helps maintain healthy metabolic rate
  - Supports the mobilization of fats for energy production
  - Helps promote thermogenesis
  - Promotes healthy body composition
  - Helps promote satiety to reduce your hunger



## Thank you

For more information, please visit us at

www.omniactives.com

