OptiBiotix - The Promise of the Human Microbiome

Modifying the human microbiome for the prevention and management of human disease



BETTER SCIENCE, BETTER HEALTH

Commercial Update 2024

- 1. The Story So Far quick review for new investors
- 2. The rationale behind selling final products and e-commerce
- 3. The science behind the story of SlimBiome
 - a. Increasing consumer interest in appetite control to support weight management
 - b. Comparison with anti-obesity drugs
- 4. Building a global brand
 - a. Asia Pacific
 - b. India
 - c. USA
- 5. E-commerce
- 6. Changing Income streams
- 7. Second generation products brief update commercial progress/ sensitivities
- 8. Summary





The Story So far

History

OptiBiotix Health (OPTI) listed on AIM Aug 2014 at 8p per share (Mk Cap £5.3m)

- May 2024 SP 18p (125% 个), Mk Cap £18m (240% 个)
- One of best performing AIM shares in 2023

OPTI has 3 subsidiaries

- OptiBiotix Ltd: 100% owned Prebiotic subsidiary
- SkinBiotherapeutics plc (SBTX): 13% owned Skin Health subsidiary
 - ✓ Listed on AIM in 29th March 2019
 - ✓ £5.5m of SBTX shares sold by OPTI since SBTX listing from £700k 'investment'
 - ✓ Value of current holding = £3m
- ProBiotix Health plc (PBX): 44 % owned Probiotic subsidiary
 - ✓ Listed on AQUIS market March 30th 2022
 - ✓ £10.25m dividend issued to OptiBiotix shareholders on PBX listing.
 - Value of current holding = $(0.44 \times £5.1m) = £2.2m$

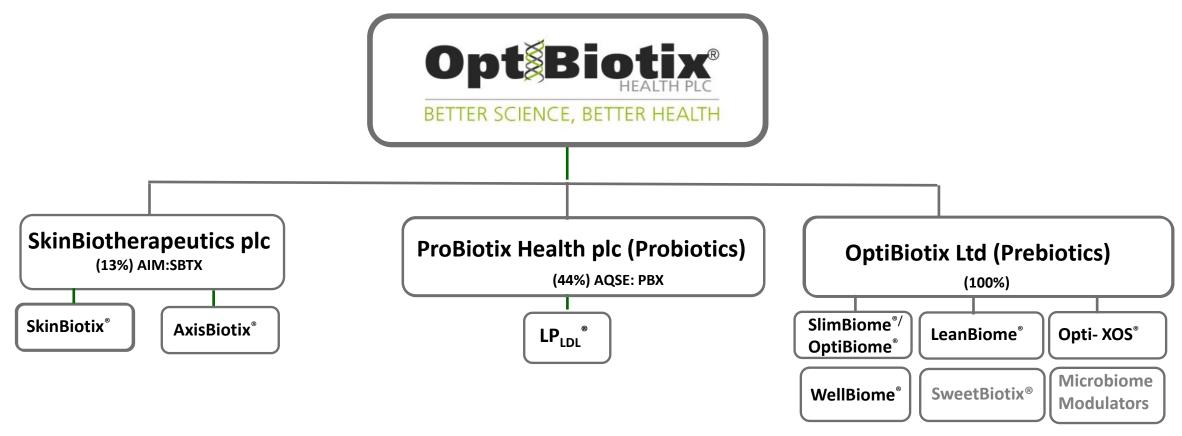
Best performing AIM shares in 2023

Company	Year-to-date performance (%)	Subsector	
Plexus Holding	1180	Oil Equipment and Services	
Empire Metals	394	Gold Mining	
RTC	206	Business Training and Employment Agencies	
Windar Photonics	137	Electronic Equipment – Gauges and Meters	
Hotel Chocolat	136	Food Products	
Mycelx Technologies	128	Waste and Disposal Services	
Software Circle	126	Printing and Copying Services	
Yu Group	120	Multi-Utilities	
Celadon Pharmaceuticals	116	Cannabis Producers	
Corcel	116	General Mining	
OPG Power Ventures	116	Conventional Electricity	
Kooth	114	Consumer Digital Services	
Cornerstone Fs	104	Transaction Processing Service	
Malvern International	100	Business Training and Employment Agencies	
OptiBiotix Health	98.1	Biotechnology	
Inspecs	97.7	Medical Supplies	
Ilika	95.9	Electrical Components	
sтм	89.7	Asset Managers and Custodians	
City Pub	88.3	Restaurants and Bars	
Metals Exploration	87.8	General Mining	
Table: Shares magazine. Source: Sharepad, data to	o 27 November 2023		





Overview: Multiple positions in the microbiome field



OptiBiotix identified as a key player in the microbiome space in industry reports (sees - https://www.openpr.com/news/2004286/what-s-driving-the-human-microbiome-market-size-key-players;



Company Vision & Strategy In an evolving microbiome landscape

Strategic

- To develop clinically proven products and ingredients which modify the human microbiome to prevent & manage human disease
- Create multiple technology platforms to reduce investor risk and the opportunity for multiple revenue streams and tradeable assets
- Development focused on value adding activities
 - Create value by building scientific and clinical evidence base (human studies) for product differentiation and on pack health claims
 - ✓ Gain support and endorsement of world leading Key Opinion Leaders present at publications, international conferences
- Build portfolio of strong IP (50 patents & 74 trademarks) double IP (patents & trademarks) valuable asset

Commercial

- Partner mix: portfolio of smaller quick to market partners and larger partners in key markets (Asia, USA) who enter market once
 product credibility and interest established
- Provide early B2B sales with lower risk first generation products whilst in parallel de-risking the more highly innovative products (SweetBiotix, Microbiome modulators)
- Build ingredient 'intel inside' and brand awareness of functional ingredients (SlimBiome, WellBiome) with distributors as a steppingstone to <u>final product 'solutions' provider</u>
- In 2023 recovery year focus on USA, and Asia, and e-commerce channels to reduce partner dependency and increase margin



Commercial Strategy: The rationale behind moving towards being a Finished product provider

Multiple opportunities with OptiBiotix functional ingredients as the 'intel inside' numerous products building the brands and then moving to provide final products





Example Margins by sales channel

The tables below represents how margins vary by sales channel. In practice costs vary by batch (yield, size), and location. Sales price varies by volume and territory

	Cost (£)	Sale (£)	Margin (£)	Margin (%)
Ingredient to Distributor/ Contract manufacturer	8	30	22	73
Final Product to Distributor	3	10	7	70
Final Product to large retailer	3	6	3	50
Final Product via ecommerce	3	30	27	90

- 1. Selling final product leads to 2 sales: the ingredient which goes in the final product and the product sales
- 2. Distributors bring local knowledge of markets, regulations, and customer network but OPTI loses visibility, brand may be damaged/misrepresented or dependent on the partners (often changing) priorities.
- 3. Large retailers bring volume, a large customer base, and brand credibility but are very demanding and have poor payment terms (90days+)



Examples – distributor/retailer challenges - misrepresentation, typical retailer terms



【東森】世界專利Slimbiome爆燃美孅速崩晶萃-獨 - YouTube

View from 6.55 mins

Typical payment terms

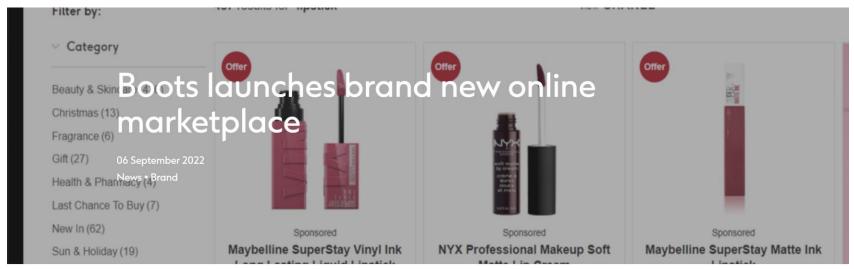
The Customer shall make payment to the Supplier in respect of each invoice validly issued by the Supplier (subject to any deduction or set off of any sums owed to the Customer by the Supplier) within 90 days following the end of the month in which the Customer received the invoice, but time for payment shall not be of the essence of the Contract.

to time. The Supplier is not entitled to suspend deliveries of the Goods as a result of any sums being outstanding.

The Customer shall be entitled, at any time, to cancel its offer to purchase or acquire all or part only of the Goods and to terminate the Contract in whole or in part by giving notice to the Supplier at any time prior to delivery or performance, in which event:



Partners Changing Priorities



Boots delays major change to its website - and shoppers won't be happy

Boots announced the plans last year and said the marketplace would be an opportunity for third-party brands of any size to list their products on Boot's website

By Ruby Flanagan, Money Reporter
10:50, 18 Sep 2023 | UPDATED 11:07, 19 SEP 2023











Boots has delayed its plans for its own online marketplace which was meant to launch in spring of this year.

The **health** and **beauty** retailer announced the plans last year and said the marketplace would be an opportunity for third-party brands of any size to list their products on Boot's website. However, plans for the new marketplace have been halted for now and pushed back.



OptiBiotix Scientifically Validated Ingredients – Its all about timing and trends

OptiBiotix uses a systematic, pharma-based approach to develop Microbiome based ingredients with known mechanism of action, published scientific and clinical studies, and health claims.

First generation – products in market

- SlimBiome®/OptiBiome® Managing hunger and appetite
- LeanBiome®/SportsBiome® Lean athletic body composition differentiation
- WellBiome® Health and wellbeing: Gut Health/Microbiome

Second generation – next generation products launching in 2024

- SweetBiotix
 Sweet fibres replacing sweetness and sugar
- Microbiome Modulators Synergistic synbiotics

SweeBiotix and MicroBiome Modulators: Rapidly evolving area and commercial activity. Future Updates



The Science behind the story



- Clinical Studies
- Regulatory Approvals
- On Pack claims
- International Awards

Growing interest in products which impact on hunger and appetite since launch of anti-obesity drugs. Both SlimBiome and the GLP1 agonists regulate the insulin response and moderate appetite by slowing down stomach emptying and reducing food intake

4 weeks SlimBiome® vs placebo showed:

- Increase in the feeling of fullness
- Reduction in food & sweet cravings
- Impact on food choice:
 - Lower fat intake
- No side effects



Double blind, placebo controlled, 4-week, human intervention study in healthy, overweight to obese women given nutritional advice



Proceedings of the Nutrition Society (2018), 77 (OCE4), E229

4vi: 00.1017/50029665118002355

Summer Meeting, 39-12 July 2018, Getting energy bulance right

Preliminary investigation into the effects of SlimBiome on food cravings and responsiveness to the food environment in healthy overweight and obese women following standard nutritional advice

I. Achebe¹, H. Brennan¹, S. Kolida², S. OHara², H. Lightowler¹ and L. Ahlstrom *Oxford Brookes Centre for Nutrition and Health, Oxford Brookes University, Oxford, OX3 0BP, UK and ²OptiBiotix Health PSc, Healington, York, YO10 5DG, UK.

The prevalence of obesity is rising, with current UK statistics indicating that 68% of men and 58% of women are classified as over weight or obene¹³. Consequently, effective weight management is of increasing importance and considerable attention is being placed on the use of functional ingredients in foods that are less energy dense and more satisfaing. The aim of this study was to investigate the to the use of intercense ingredense in south that are one energy covers and more standing. He are not that study was no investigate one effect of Similiarium, a connectually available product, on food cravings and the reprosimence of individuals to the food environment, which are characteristic associated with hunger. The overweight and observement for distributions advice. Similiarium contains fibre (placomannant, prehistor, and chromism, which have been shown to increase satisfy and reduce energy intake, hunger and fit cravings in overweight and obser adults."

A double-blind, randomized, placebo-controlled study was conducted in 20 overweight and obese women over a 4-week period. Inclusion criteria included women aged 18-65 years, with a body man index between 25-35 kg/m², no significant health problems, and no bistory of dieting within the month prior to starting the study. Participants attended three study visits at week 0, week 1 and week 4. At week 0 they were randomly assigned to receive the test drink or placebo and were instructed to consume the drink three times a day for 4 works. At each visit, participants rated subjective sensations of appetite before and after consuming the test drink or placebo and completed the Control of Eating Questionnaire (Coff.Q6⁽¹⁾ and the Power of Food Scale (FOF)⁽²⁾. During the work 0 t, standard nutritional advice based on the Eat Well Guide was provided to all participants. Differences in week 0 and week 4 POF Scale scores for both groups were assessed using Wilconce signed-rank tests. Differences between group work 4 Coffio scores erre assessed using analysis of covariance (ANCOVA), including baseline scores from week 0 as covariates

For the CoTKQ, ratings in response to 'How hungry have you fift?' at week 4 were significantly lower in the treatment group com-pand to the placebo group (P=0-054). No significant efficiences were observed between the groups at week 4 for CoTKQ dates assent significances; or strength of Good carnings (P=0-05 for all items). For the POF Soals, access decreased significantly after the 4-week stervention period in both the placebo group (P = 0.035) and the treatment group (P = 0.007).

Is conclusion, subjective feelings of hunger measured by the CoTIQ were significantly reduced in women who consumed StimBiome compared to placebo. Although cravings appeared to subside most in women consuming StimBiome, no significant difference was son compared to placebo. This may be due to both groups becoming less responsive to the food environment, a characteristic shows to predict strength of and ability to resist cravings⁽¹⁾.











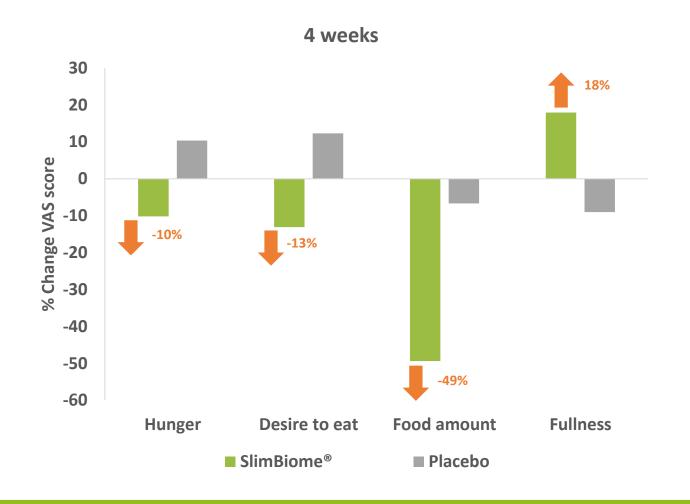






SlimBiome® impact on cravings and food choice: hunger and fullness

- Decrease in cravings for sweet and savory foods
- Decrease in hunger
- Decrease in desire to eat (appetite)
- Decrease in amount of food ingested
- Increase in fullness

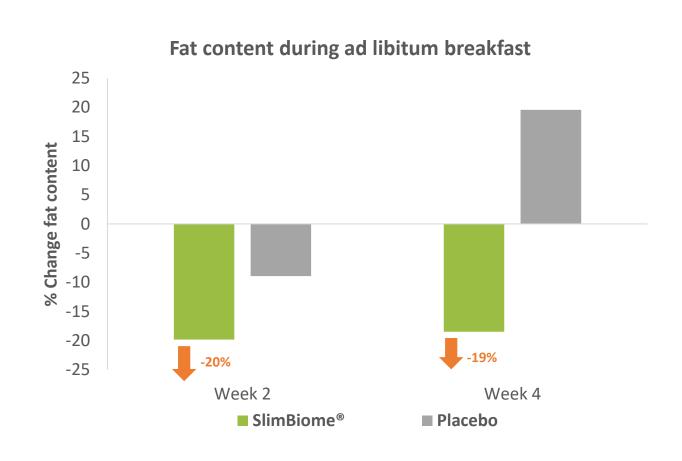




SlimBiome® impact on cravings and food choice: fat intake

- On visit days, volunteers took active or placebo 30min prior to breakfast
- Choice and amount selected and consumed was recorded and nutrient content calculated during each visit
- % change vs baseline
- Change in not just the amount but type of food people ate
- Volunteers ate less fatty food and calorie intense food

SlimBiome changes not just how much food you eat but the type of food you eat.





Human intervention study: Meal replacement shake and bars

Open label, 4-week, human intervention study, in healthy, overweight to obese females, on the effect of SlimBiome® as the active ingredient within a calorie control program

4 weeks SlimBiome® vs baseline showed statistically significant:

- Weight loss
- Blood pressure reduction
- Craving reduction
- Mood improvement
- Gut microbiome diversity improvement
- No side effects







Human intervention study: Meal replacement shake and bars

Open label, 4-week, human intervention study on healthy, overweight to obese females, on the effect of **SlimBiome**® as the active ingredient within a calorie control program

Statistically significant changes:

- 9 out of 10 users lost weight
- 10 out of 10 users saw a reduction in hip circumference
- 10 out of 10 users saw a reduction in waist circumference
- 9 out 10 users reduced % body fat
- 9 out 10 users reduced fat mass



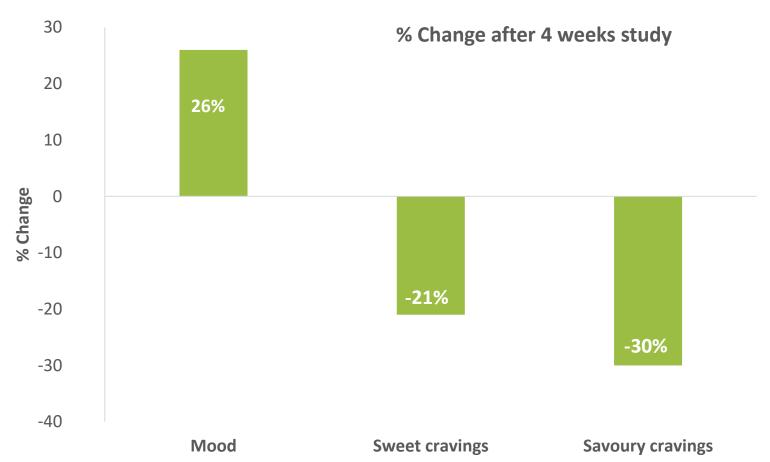




Human intervention study: Meal replacement shake and bars

Statistically significant changes in:

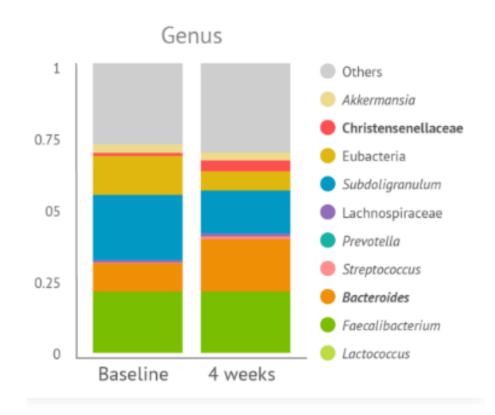
- Mood
- Sweet cravings
- Savoury cravings







SlimBiome® favors a resilient and diverse gut microbiome



Significantly improved gut microbiome diversity, specifically in groups associated with lean body composition¹:

- Christensenella
- Bacteroides

Lower abundance have been associated with high BMI

High gut microbiome diversity²:

- is correlated with gut and overall health and wellbeing
- increases the resilience of healthy states
- can protect against disease





^{1.} Keleszade et al (2020). JFF. 74:104157

^{2.} Lozupone, C., Stombaugh, J., Gordon, J. et al. Diversity, stability and resilience of the human gut microbiota. Nature 489, 220–230 (2012). https://doi.org/10.1038/nature11550

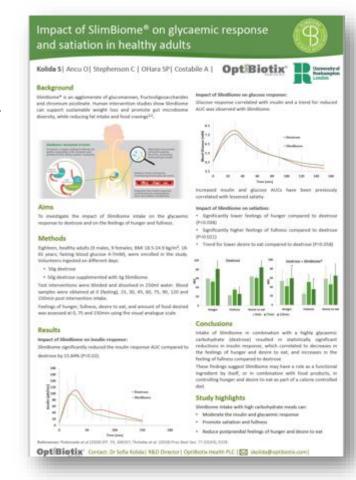
SlimBiome® on hunger and fullness

Double blind human intervention, 18 healthy adults (BMI 18.5-24.9 kg/m²; 18-65 years; fasting blood glucose 4-7mM) <u>ingested 50g dextrose and 50g dextrose with 3g SlimBiome.</u>

Findings over 150min post intake show significant impact on:

- Hunger
- Fulness
- Insulin response





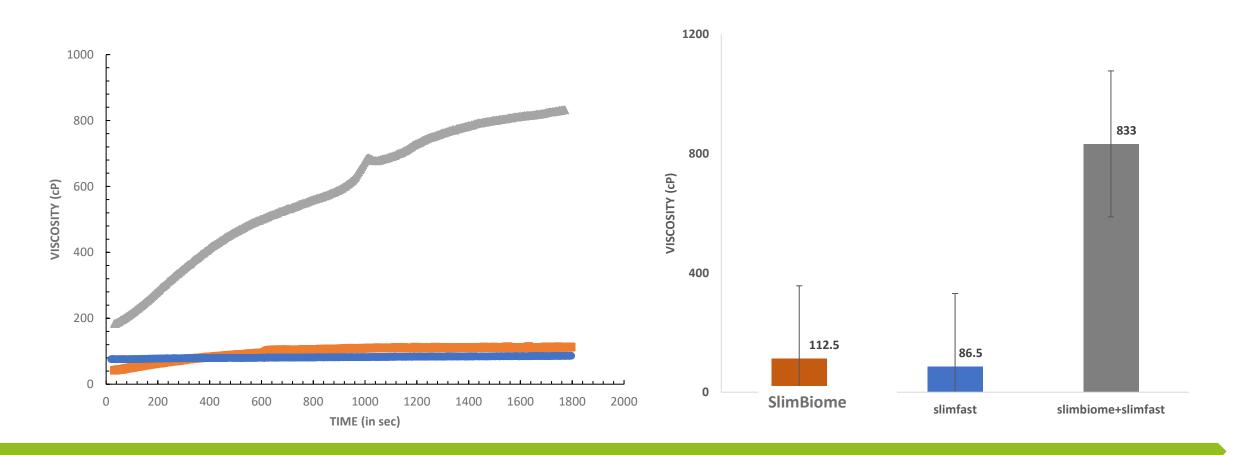


SlimBiome® on hunger and fullness: satiation parameters

- Significantly lower feelings of hunger compared to dextrose (P=0.038)
- Significantly higher feelings of fullness compared to dextrose (P=0.021)
- Trend for lower desire to eat compared to dextrose (P=0.058)









Summary of SlimBiome Compared to anti –obesity drugs

	SlimBiome®	GLP-1 Agonists
Natural or Synthetic	Natural.	Synthetic.
Side effects	No side effects observed in human studies or consumer feedback.	Several side effects listed by manufacturers and regulatory agencies.
Regulates insulin response	Yes.	Yes.
Slowing down stomach emptying	Yes.	Yes.
Feeling of fullness	Yes.	Yes.
Reduces cravings	Yes.	Yes.
Weight management	SlimBiome® has observed significant reductions in weight loss, whilst maintaining muscle mass in human studies. It contains ingredients which have an approved health claims for weight loss.	Approved for treatment of excess weight by the European Medicines Agency and FDA.
Gut health	SlimBiome® improves gut microbiome diversity, promotes health positive bacteria helping to support gut health.	Common adverse effects of GLP-1 agonists include nausea, diarrhea, stomach pain vomiting and constipation.
Food or Drug	Food.	Drug.
Prescription	No.	Yes.
Application	Food supplement.	Injectable/ tablets in some countries
Cost	<mark>£.</mark>	ffff.





Building a Global Brand - Its all about The Product

Partnerships around the world



Asia Pacific (Distributors)

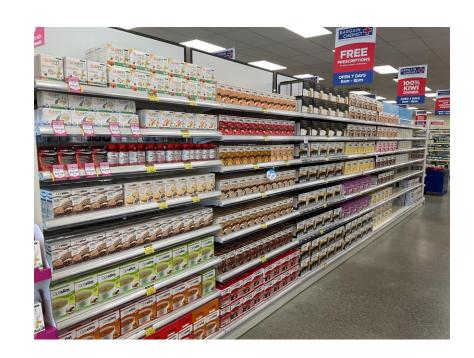
- Australia/New Zealand (Maxum, OptiPharm, Brenntag)
- Vietnam (Nasol)
- Malaysia (NexusWise)
- Philippines (CTC)
- Indonesia (Colorindo)
- Thailand (Bonanza)

The OptiPharm OptiBiome Success Story



OptiPharm

- 26 year old Australian Company
- Optislim brand is Australia's weight loss category leader
- Trusted and well recognized for delivering weight loss solutions that work
- Large retail brand presence growing e-coomerce
- Sold in over 24 pharmacy chains and Costco in Australia
- Expanded to NZ and Thailand
- SlimBiome changed to OptiBiome to comply with local legislation





OptiPharms - OPTIMAN, OPTIWOMAN





Optiman

Optiman shakes make it easy to get to a healthier you! We only put the good things in so you don't have to do the guesswork, simply shake and go.

Each delicious shake is a nutritious meal packed with essential vitamins and minerals and a massive 30g of protein per serve! Specifically tailored for the protein needs of men to maintain muscle mass.

Optiman will keep you full and reduce your hunger cravings whilst reducing your calorie intake. Optiman will also improve your gutbiome thanks to the prebiotic fibre, OptiBiome - we know it's good, it was developed by leading UK universities and it's won awards.

Available in Chocolate, Caramel, Coffee, Vanilla and Variety Pack.









30g Protein

Gluten Free

Low Sugar Low Fat

5 STAR Health Logo









Partial meal replacement



Ready Meals with SlimBiome sachet: Costco Australia



Optislim



Optislim HEALTHY

Thai Pumpkin & Coconut with

Conjac Noodles

















Revenue potential 2024 ~ £270k pa (from stock)

NPD: Opportunities for a SlimBiome sprinkle



Asia product launches through our agent NutraConnect

Asia: High growth markets with large

populations: Vietnam 100m,

Indonesia: 275m

Vietnam (NASOL) – FANU meal replacement



Malaysia (NexusWise)







FITMIX Drinks



ROSMAR Drinks

Philippines (CTC)



ASIAFIT Drinks



SLIIMING K

YR1 Revenue potential ~£125K-£150K



Thailand (Bonanaza)





India

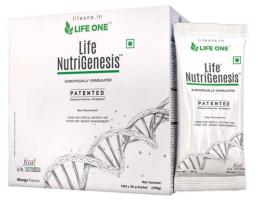
Products in the market - India...







HealthBae – Multilevel Marketing Meal Replacement Shake



Life Nutrigenesis –Multilevel Marketing

Meal Replacement Shake



Anthem Biopharma —Pharma Company
Meal Replacement Shake & Shots



Leeford Healthcare —Pharma Company

Meal Replacement Shake



India: Apollo Pharmacies - Shakes, shots and bars — buying insights







Increased customer base

• 23% new customers added to Apollo with GoFigure launch.

Retention rate

87% customers made repeat purchase

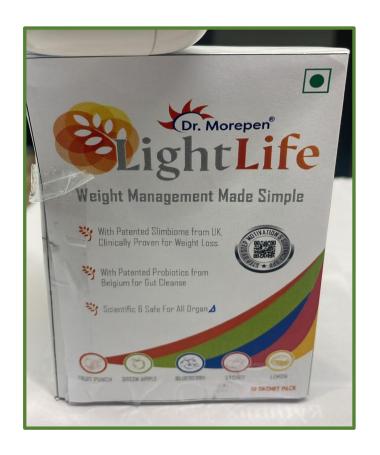
Marketing

- Promoting shots as a high fibre companion purchase to leading Whey protein products (Optimum Nutrition)
- Muscletech and MyProtein include LeanBiome in their Whey protein products
- First example of sale as a separate companion product



New Product Launch – Dr Morepen











Morepen India – Revenue potential based on Morepen sales forecast

OPTIBIOTIX	Y1	Y2	Y3	Y4	Y5
Finished Product					
Revenue from sale to Morepen	£1,215,000	£2,726,460	£4,143,150	£5,404,472	£6,755,590
Ingredient					
Revenue from sale of Ingredient to manufacturer of final product (KAG)	£244,350	£548,321	£833,234	£1,086,899	£1,358,624
Finished Product + Ingredient					
Total Revenue (Ingredient and Final Product)	£1,459,350	£3,274,781	£4,976,384	£6,491,371	£8,114,214
Profit	£634,050	£1,422,808	£2,162,111	£2,820,334	£3,525,417





USA





Sports Nutriotion: Early success with a global leader





Rebranding underway to bring out science and benefits compared to other whey protein compounds

Launch drew 40% new client rate, 20% is considered a success. **** 4.62

81 reviews



Diet Lean ★★★★

Very tasty easily mixed and it's help me lose 7lbs in 10 days etc.

Goes Well With:

With weight training and cardio

09/06/2022 by paul **Verified Purchase**



USA Corporate: Revenue potential for ingredient sale to Companies contract manufacturer

- Global launches are complex as cover multiple territories with different regulatory requirements
- Partner is using own contract manufacturer adds complexity and timescale
- No guarantees until product is on shelves

	Year 1	Year 2	Year 3	Year 4	Year 5
Unit Estimate (30 sachets / box)	300000	550000	750000	900000	1000000
Total volume in Kgs	27,000	49,500	67,500	81,000	90,000
(Revenue)	£573,328	£1,051,102	£1,433,320	£1,719,984	£1,911,094
Profit	£368,128	£674,902	£920,320	£1,104,384	£1,227,094





Ecommerce

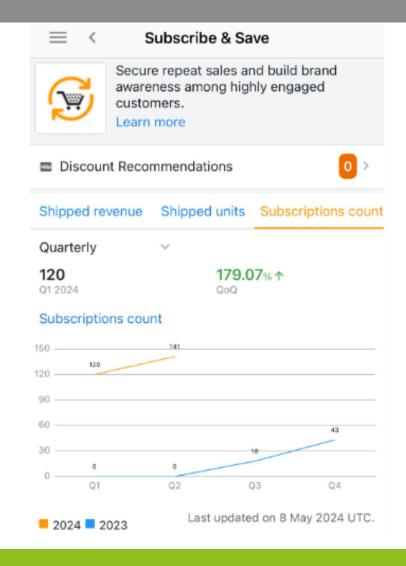
Consumer Health Division – UK/Europe

Amazon UK:

- ✓ Gummies awarded the Amazon Choice Badge Reflects great customer experience, competitive pricing, positive feedback and an overall high-quality product
- ✓ 24% of sales through Prime Subscriptions Strong loyalty after Q1 – Customers happy – 179% increase in Q2
- ✓ Amazon DE Products approved under Fulfilment by Amazon (Prime) – Registering for German VAT
- ✓ <u>Next steps</u> Capitalise on Prime Day Event and go live with Amazon FBA in Germany



√prime





Consumer Health Division – New Opportunities

China (TMall)

- ✓ Sales £20K-£30K pm (largely gummies) move from TIKTOK to TMALL (Alibaba)
- ✓ Adding SlimBiomeX3 (£60per box) and bars (indulgent bar)

Amazon UAE

- ✓ Officially live 13th May 2024
- ✓ SlimBiome X3 and Wellbiome on Prime
- <u>Next steps</u> Increase advertising, add gummies approval

Amazon India

- ✓ Products approved and listed in the back-end system under FBA Prime
- Working on content and keyword optimisation
- ✓ Production ongoing , products will then go live, promotions H2

Amazon US/Walmart US

- √ Amazon US approved for FBA Prime
- ✓ Products have been listed in back-end system
- ✓ **Next steps** US Bank account required to begin selling Under progress





E Commerce Revenue Potential

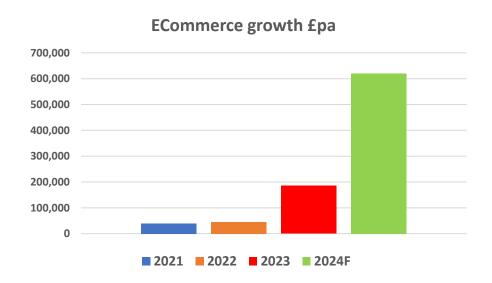
Assumptions:

- 1. No deterioration in global economic environment
- 2. Assumes no delays in launch timings
- 3. Investment in E-commerce channels and products continues to deliver strong growth

Amazon/Ebay/D2C Inready/India

2024	Sales (GBP £)
UK	200,000
ASIA	300,000
UAE	60,000
US	60,000
Ecommerce Total	£620,000

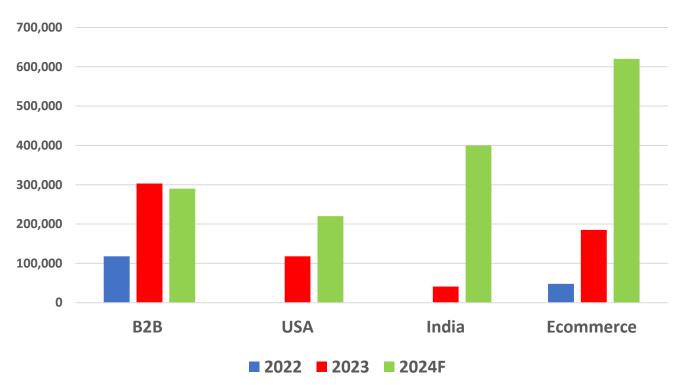
235% increase from 2023





2023 - Strategic shift to Ecommerce, USA, and India





- Excludes license fees & other revenues
- Gradual change in income stream

'second generation to come'



Second Generation Products – sweet prebiotic fibres/ Microbiome modulators

SweetBiotix:

Commercial Status:

- Phased introduction of SweetBiotix® as a bulk sugar replacement substitute followed by partner consumer products
- Preliminary forecasts from DSM-Firmenich, one of its SweetBiotix® partners, of >100,000 metric tonne per annum
- SweetBiotix® included in a finished product for a large global partner with a view for upcoming launch.
- Working with manufacturing supplier to major corporates (10,000 mt per annum)

Microbiome Modulators / Synergistic Prebiotics:

- 7 publications. Joint DSM- Firmenich publication submitted :provide scientific evidence base to support partner discussions and marketing materials for product launches
- Commercialisation of MicroBiome Modulators as a General lactobacillus boost or general health product H2 2024
- A number of discussion underway with global partners news released as confirmed

SweetBiotix and MicroBiome Modulators: Rapidly developing areas of commercial activity.



Summary

Market: OptiBiotix products address markets trends:-

- Consume interest in hunger and appetite control to support weight loss (SlimBiome)
- Gut health/ microbiome (WellBiome/ MicroBiome Modulators)
- Health snacking high protein low sugar snacks (gummies, bars)
- Sugar replacements SweetBiotix

Commercial: First generation products gaining widespread acceptance in global markets with large partners second generation products approaching launch

- SlimBiome: multiple humans studies allowing regulatory approvals for on pack health claims, multiple awards
- Secured deals with major international partners: Apollo, THG, Iovate (Muscletech), Dr Morepen
- Deals with large USA corporates in late stages
- Products entering fast growing Asian markets
- Ecommerce growth aligns with growing trend for on lines sales
- Commercialisation of second-generation products underway with multiple global partners

Financial:

• Company has rapidly growing sales no debt, a strong balance sheet, and multiple plays in the emerging microbiome space





WINNER OF MULTIPLE

Weight Management Awards



Best Functional Ingredient for Health and Wellbeing



Ingredient of the Year Europe Weight Management



Ingredient of the Year Asia Weight Management



Weight Maintenance Ingredient of the Year



