

IWC
PARIS
2008



5th International Whey Conference

WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

DEVELOPING WHEY-BASED INNOVATIVE BIOACTIVE INGREDIENTS



Éric Simard, Ph.D.
Vice-President, Operations
BiolActis, Canada

Modus Operandi

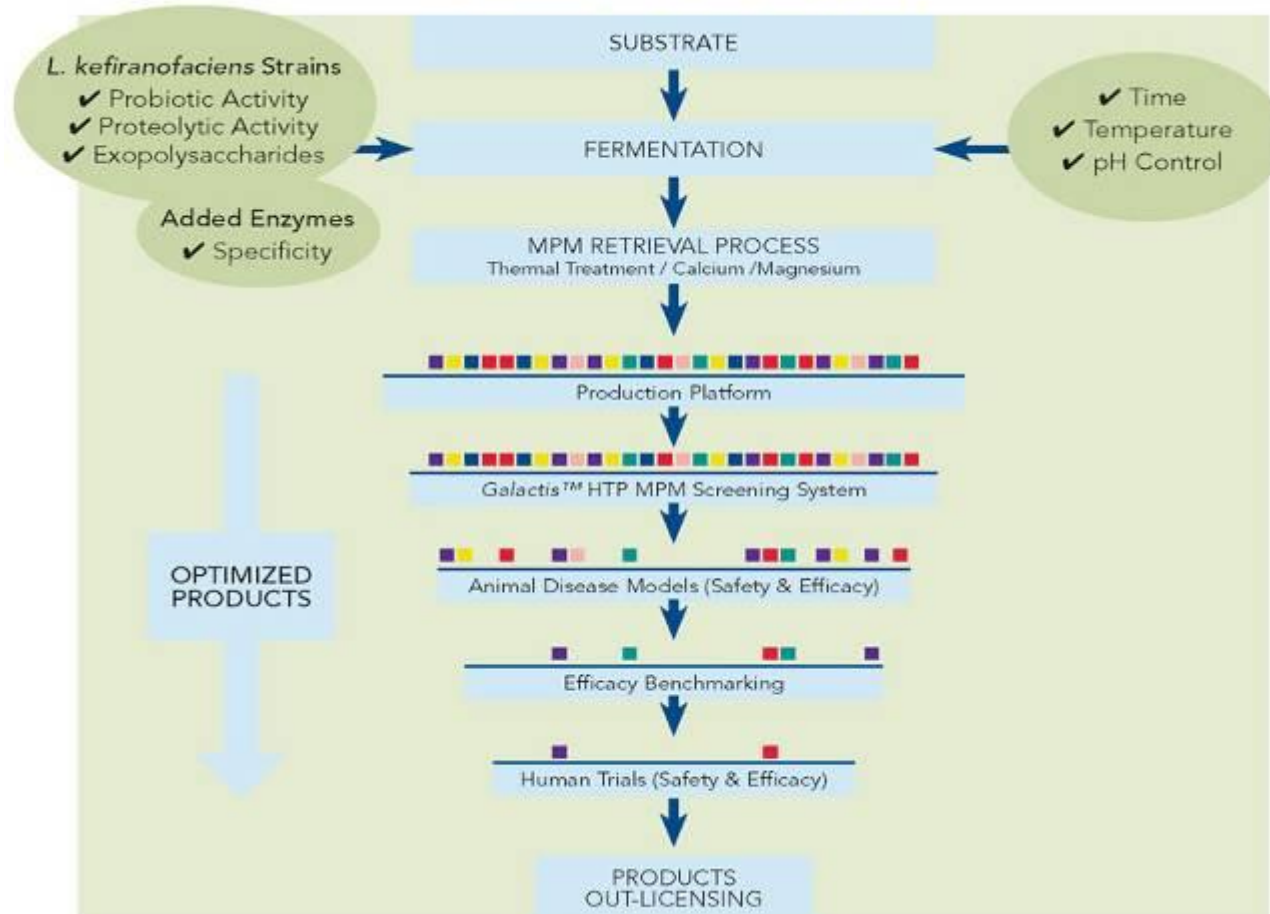
- § BiolActis commercializes innovative and clinically proven Whey-Based Bioactive Ingredients promoting homeostatic regulation of complex metabolic disorders.
- § BiolActis develops MPMs (Multi Plex Matrices) capturing metabolic disorders by hitting several action mechanisms and biochemical pathways.



WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

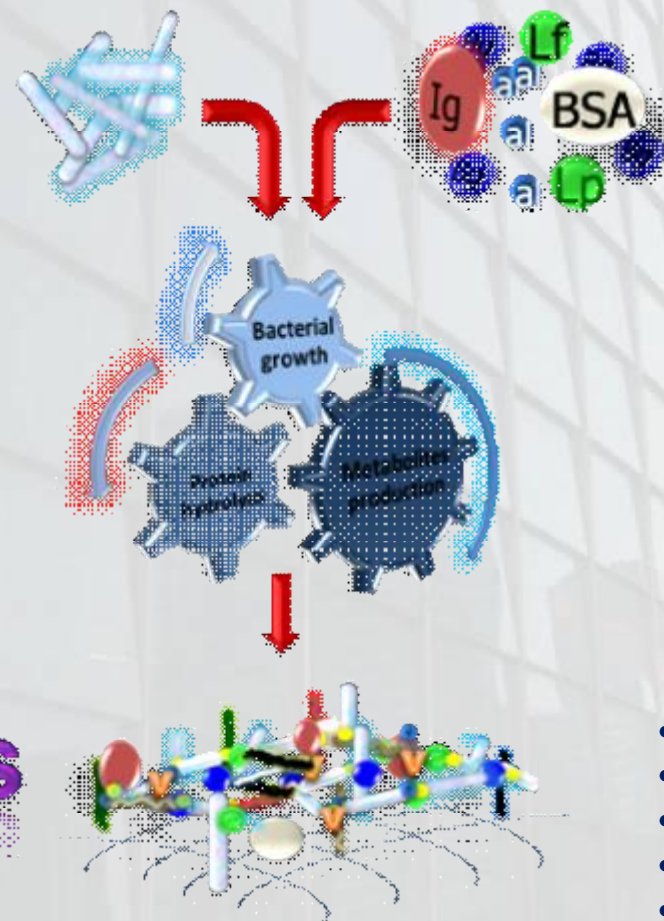
Valactis™ : integrated product development process

The Valactis™ Platform Technology



WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

Proprietary Production Process



MPMs

§ Fermentation process

§ Patented Strain:
Lactobacillus
kefiranofaciens R2C2

§ Original complex
biological mixtures
classified as MPMs
(Multi Plex Matrix)

§ Multiple metabolic
impacts

- Bacteria
- Metabolites
- Calcium
- Whey proteins
- Peptides

IWC
PARIS
2008

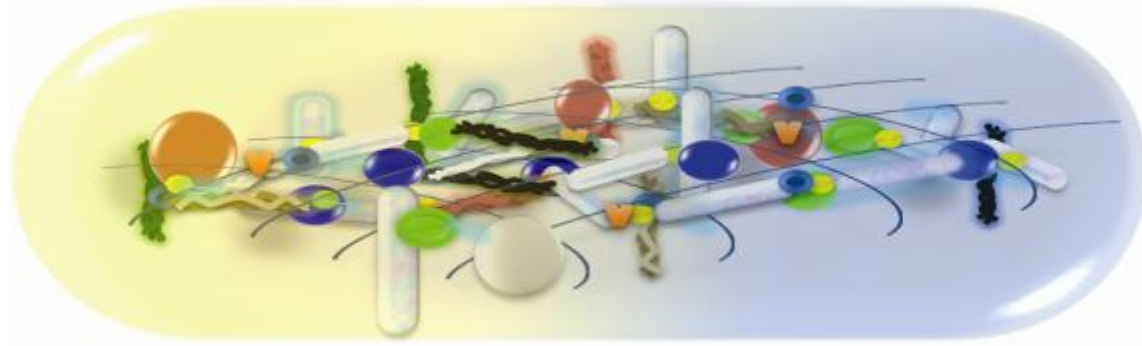


5th International Whey Conference

WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

BiolActis

Proprietary Products Delivery Systems



MPM cream



MPM powder



MPM capsules



MPM tablets

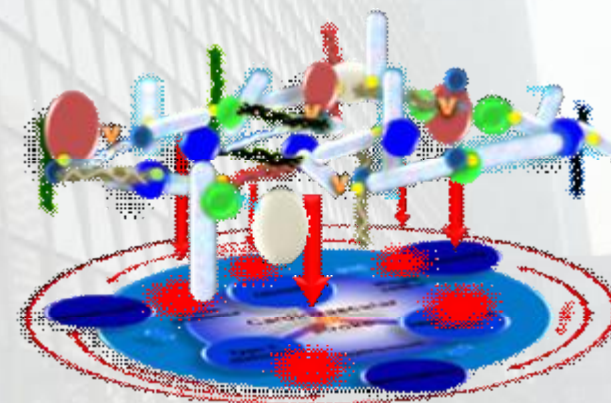
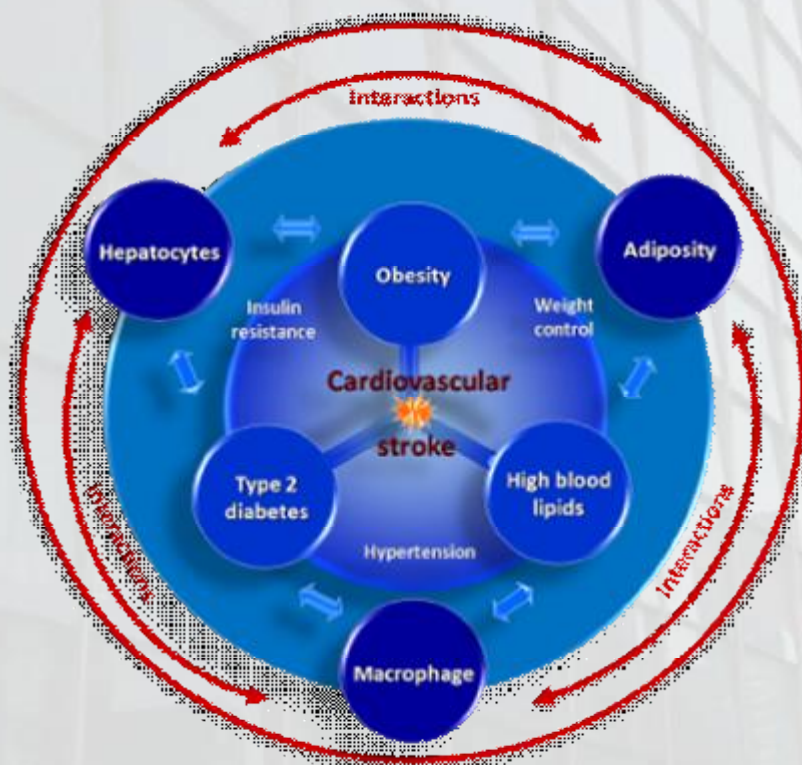
**Stable Products
at room temperature**

WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

Whey Product Applications

10 years of R&D

- § Weight control
- § Hyperlipidemia
- § Immune system
- § Hypertension
- § Diabetes
- § Inflammatory process

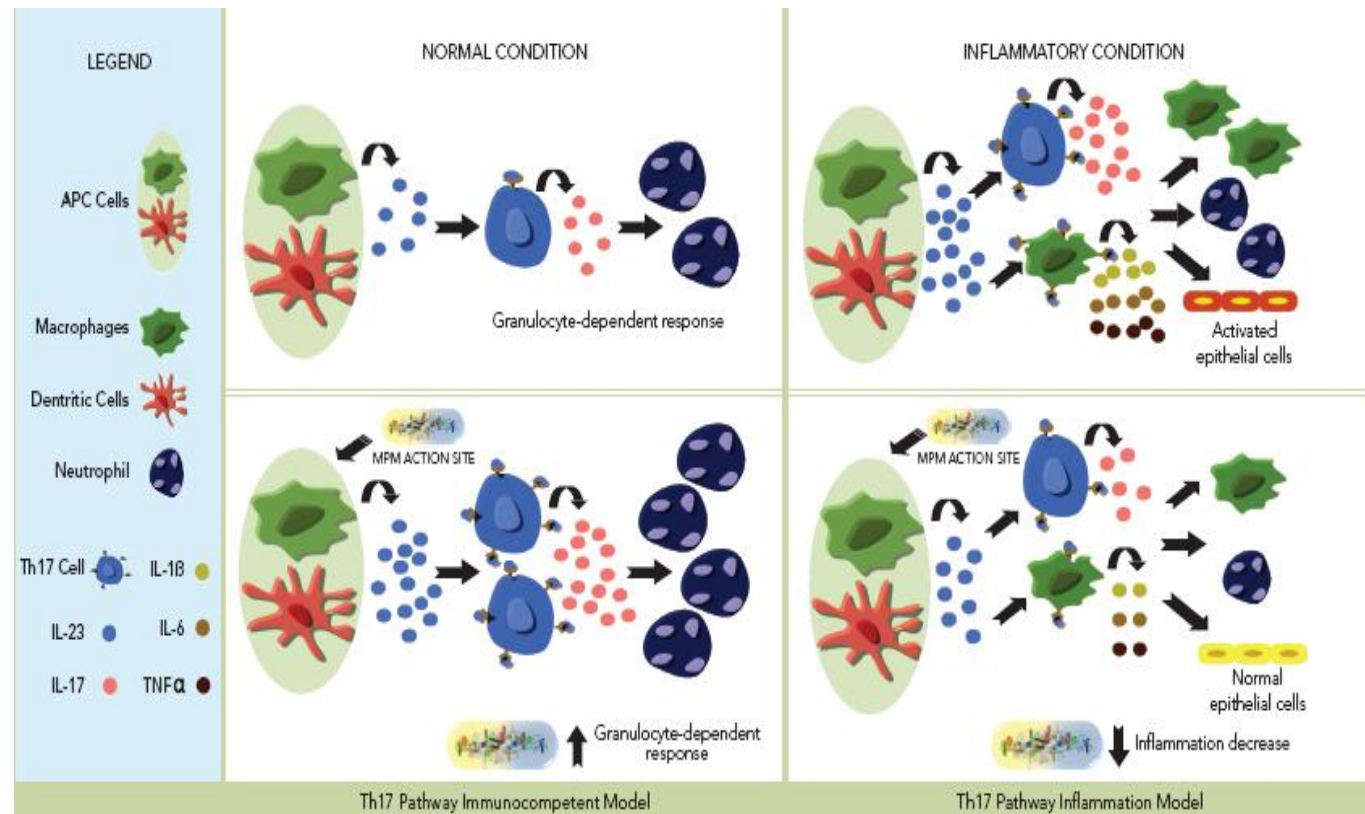




WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

Patented MOA Applications

Th17 modulation pathway





WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

Products Pipeline

MPM Complex	Indications	Discovery	Safety	Phase I	Phase II	Comm.
MPM-FB036	Metabolic Syndrome Metabolic Impact					
MPM-SL095	Hyperlipidemia Cholesterol Balance					
MPM-FL0507	Type II Diabetes Glucose Balance					
MPM-PC010	Immune Stimulation					
MPM-TH50907	Wasting Syndrome (AIDS)					
MPM-R14H00	G.I. Diseases					
MPM-DM0809	Skin Diseases					
MPM-TH21007	Inflammatory Processes					

WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

Business Strategy



§Apply a “Pharmaceutical Strategic Approach” with strong I.P. protection (Patents), scientific credibility (Clinical Trials) focusing on well established market needs (Obesity, Metabolic Syndrome, Cardiovascular Health, Diabetes, Immune Support and Intestinal Health).

§Prioritize a pivotal ‘Low risk - High reward’ Clinical Development leading quickly to a Phase II product and to a commercial product claiming a unique market positioning as Functional Food or Dietary Supplement

§Follow a fast-track regulatory pathway for a rapid route to market

§Apply a co-branding commercial strategy through Distribution/Licensing Partnerships with companies dedicated to offering wellness in the Food and/or Pharma Industries



WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION



Clinical Development: CardiolActis™ Human Trial

Synopsis

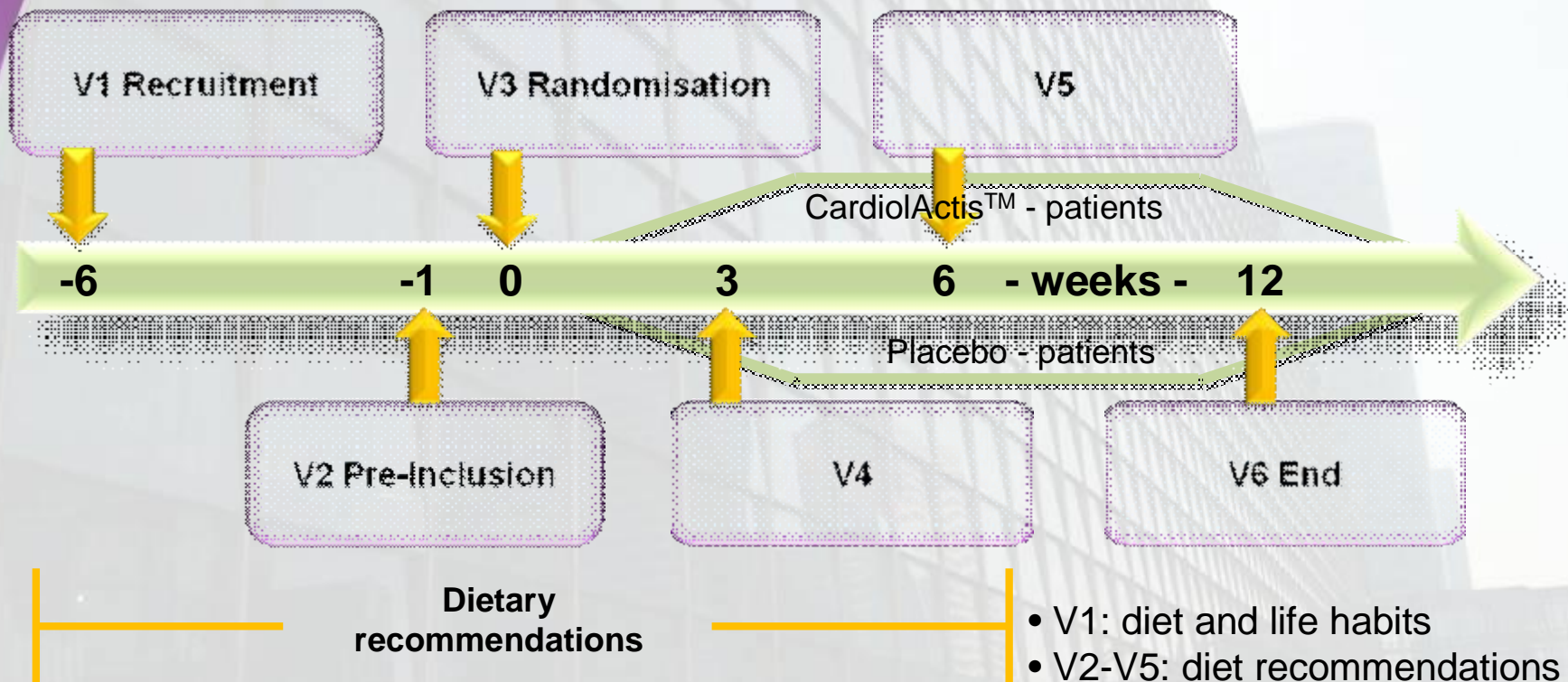
- § Dr. Heiner Berthold, PI, Germany
- § Dr. Mark Pierce as Medical Advisor
(ex Senior VP at Pfizer USA)
- § Double-blind, placebo-controlled, randomized,
multi-centered (9), parallel group design
- § 12-weeks, 165 patients randomized, 135 evaluables
- § Assumption: $\Delta = 10\%$ Placebo vs Verum regarding
LDL change, $SD = 20\%$, Alpha 5%, power = 80%
- § LDL-Chol. as the primary end-point and 12
secondary end-points (obesity-related)
- § IPCC (Iso - protein, calcium and caloric) placebo;
with same content in dairy calcium and minerals



WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

Clinical Development: CardiolActis™ Human Trial

§ Run-in details :
 ☐ Juice formulation 250ml/twice a day
 ☐ IPCC Placebo





Clinical Development: CardiolActis™ Human Trial

§ Summary: press release in preparation

General

- n Primary end-point was met (statistically significant)
- n Physiological benefits observed as early as 3 weeks
- n Lipid reduction associated with CV risks
- n Positive impact on the Homa Index (diabetes) and on natural defences
- n More effective for a BMI > 25 kg/m² population

Implications / Applications

- n Indicates the likelihood of success of the ongoing trial (syndrome "X")
- n Double punch effect on blood lipids (LDL-TG)
- n Potential reduction of type II diabetes incidence
- n Immune modulation
- n Supportive of the multiple metabolic impacts of BiolActis products

IWC
PARIS
2008



5th International Whey Conference

WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

BiolActis

The Systemic Inflammation Highway



WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

Co-branding Commercial Strategy

From Research

Multi Plex Biologics
capturing
Metabolic Homeostasis



To Products



To Consumers

Potential Distribution Channels

- ★ • Food (Functional Food)
 - ★ • Pharmaceutical (OTC)
 - ★ • Health Food (Dietary Supplements)
 - ★ • Practitioners/Naturopaths (OTC & Medical Food)
 - ★ • Multi Levels (Dietary Supplements)
-
- ★ Channels with International Sales & Marketing structures
 - ★ Channels with Regional Sales & Marketing structures

IWC
PARIS
2008



5th International Whey Conference

WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION



Co-Branding Business Strategy



IWC
PARIS
2008



5th International Whey Conference

WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION



Co-Branding Business Strategy



IWC
PARIS
2008



5th International Whey Conference

WHEYVOLUTION

WHEYVOLUTION

WHEYVOLUTION

WHEYVOLUTION

WHEYVOLUTION

BiolActis

Co-Branding Business Strategy



IWC
PARIS
2008



5th International Whey Conference

WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

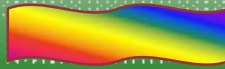


Co-Branding Business Strategy

Enterolactis™

MPM-R14H00

Gastrointestinal Balance
Metabolic Management



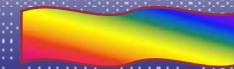
Nature's Pharma

60 Capsules

Glucolactis™

MPM-FL0507

Glucose Balance
Metabolic Management



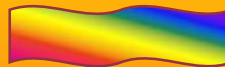
Nature's Pharma

60 Capsules

Cardiolactis™

MPM-SL0905

Cholesterol Balance
Metabolic Management



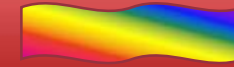
Nature's Pharma

60 Capsules

Modulactis™

MPM-TH21007

Immuno Balance
Metabolic Management



Nature's Pharma

60 Capsules

Commercial Viability

- § *Be applicable in different product classes and networks* *a*
- § *Be applicable in the best Functional Food categories* *a*
- § *Be in the best Health Market positioning* *a*
- § *Build Corporate and product credibility* *a*

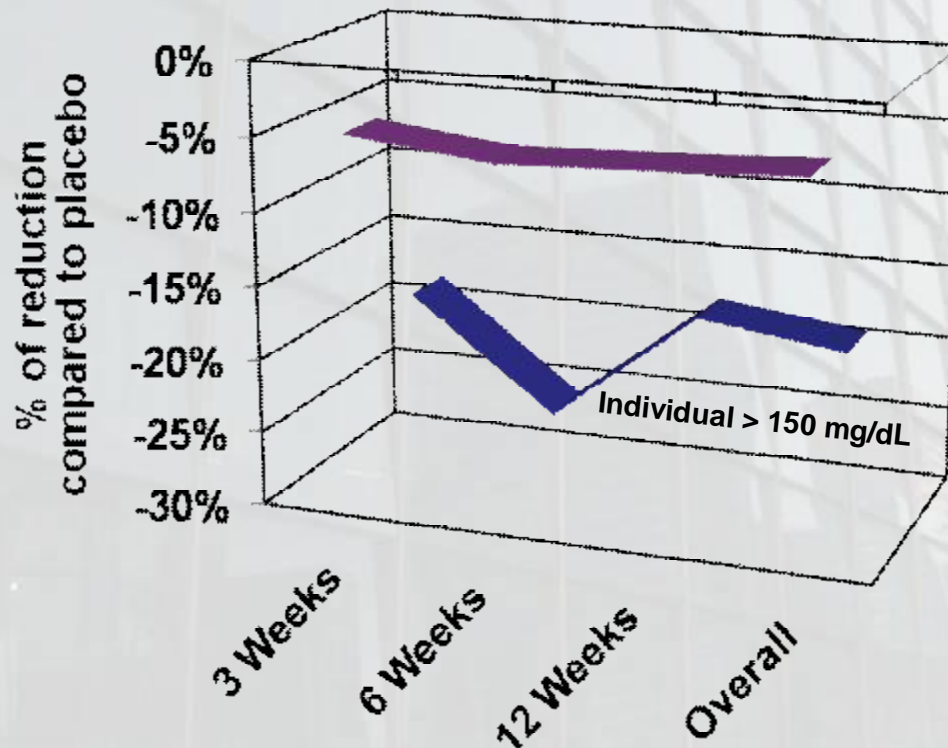
Successful models that we are following:

- § Vegetable sterol : Raisio, McNeil
- § Omega-3: Martek, Reliant (recently bought by GSK)
- § Hoodia gordonii: Phytopharm (partnership with Unilever)



Key Features and Benefits

- Article 13,5 claim: **Cardiolactis™** helps support healthy cholesterol and triglycerides levels.



■ LDL $p < 0,02$

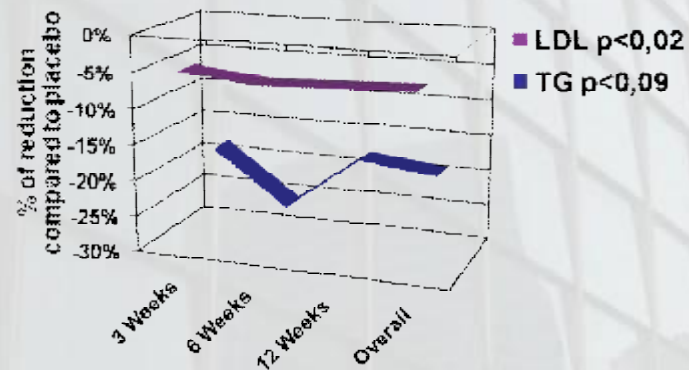
■ TG $p < 0,09$

- ~ Dual action on blood lipids \neq vegetable sterol
- ~ MOA active vs passive \neq vegetable sterol
- ~ Likely to be useful to manage "diabetesity"
- ~ No side effects
- ~ Phase II GCP



WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

Commercial Perspective



- Cardiolactis™ helps support healthy cholesterol and triglycerides levels
- Can be positioned for its METABOLIC BALANCE!





WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION
WHEYVOLUTION

Contact us

www.biolactis.com

Present at IWC 2008:

- **Eric Simard Ph.D. VP Operations**

esimard@biolactis.com

Office: 450-781-1313

Mobil: 514-434-1383

- **Pierre Lemieux Ph.D. CEO**

plemieux@biolactis.com

Office: 450-781-1303

Mobil: 514-824-9902