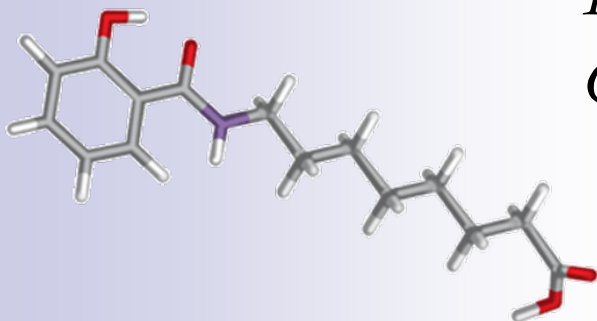


Emisphere Technologies, Inc. - Business and Financial Highlights

Michael R. Garone

Interim Chief Executive Officer

Chief Financial Officer & Corporate Secretary



Safe Harbor Statement

The statements in this release and oral statements made by representatives of Emisphere relating to matters that are not historical facts (including without limitation those regarding the timing or potential outcomes of research collaborations or clinical trials, any market that might develop for any of Emisphere's product candidates, the sufficiency of Emisphere's cash and other capital resources and its ability to obtain additional financing to meet its capital needs) are forward-looking statements that involve risks and uncertainties, including, but not limited to, the likelihood that future research will prove successful, the likelihood that any product in the research pipeline will receive regulatory approval in the United States or abroad, the ability of Emisphere and/or its partners to develop, manufacture and commercialize products using Emisphere's drug delivery technology, Emisphere's ability to fund such efforts with or without partners, and other risks and uncertainties detailed in Emisphere's filings with the Securities and Exchange Commission, including those factors discussed under the caption "Risk Factors" in Emisphere's Annual Report on Form 10-K for the fiscal year ended December 31, 2010 (file no. 000-17758) filed on March 31, 2011, Emisphere's Quarterly Report on Form 10-Q for the quarter ended March 31, 2011, filed on May 10, 2011 and Emisphere's Quarterly Report on Form 10-Q for the quarter ended June 30, 2011, filed on August 9, 2011.

Not Too Long Ago . . .

- \$38.7 million annual burn rate
- Focus was on pure research
- Took on high risk, high cost projects with insufficient funds (i.e., insulin and heparin)
- Built an expensive and inadequate infrastructure
- Result – little progress towards commercialization

Today

- Burn rate cut from \$38.7 million to under \$8 million
- Streamlined infrastructure
- Implemented outsourcing development strategy
- Targeted research
- Focus on product development
 - Partnerships
 - Internal programs

Recent Accomplishments

- Signed new development deal with Novo Nordisk for oral insulins (\$5 million non-dilutive funding)
- Novo Nordisk initiated Phase I clinical study in GLP-1 (\$2.0 million non-dilutive funding)
- Negotiated the non-dilutive cancellation of \$13 million convertible note with Novartis
- Completed successful clinical trial of B12 Medical Food product

Near Term Potential Milestones

- **Novartis - osteoporosis**
 - 3 – year results of OP trial (4Q2011)

- **Eligen[®] B12**
 - Complete regulatory due diligence, develop regulatory strategy and study design (4Q2011)
 - Pre-IND meeting with FDA (1Q2012)
 - Regulatory pathway decision (1Q2012)

Potential Application of Eligen[®] Technology

- Broadly applicable in a wide range of therapeutic molecules
 - small molecules, proteins, peptides, next-generation bioengineered molecules
- To develop new oral formulations
- To improve bioavailability
- To decrease time to onset of action

Eligen[®] is Compatible with Next Generation Bioengineered Proteins and Peptides

- Next generation biological molecules have many exciting features including
 - Prolonged duration of action
 - Enhanced resistance to enzymic degradation
 - Prolonged residence time
 - Improved toxicology profile
 - Enhanced potency
 - More specific pharmacological action
- **But most rely on administration by injection**
- **Eligen[®] is well suited to use with many novel bioengineered therapeutic proteins and peptides**

Novartis Pharma AG

Oral Salmon Calcitonin

■ Oral Salmon Calcitonin

- Osteoporosis
- Osteoarthritis

■ Three Phase III Clinical Trials

- Osteoporosis trial – 3 years; 4,500 patients
- 2 osteoarthritis trials – each 2 years; approximately 1,000 patients

■ Planned Filing – 2011 for OP product

■ U.S. Market

- Osteoporosis – 11.2 million patients; \$8 billion global market
- Osteoarthritis – large, unfulfilled market opportunity

Oral Salmon Calcitonin

Osteoporosis

- Large unfulfilled market opportunity – 10 million individuals diagnosed in the U.S. Additional 34 million with low bone mass. 55% of individuals age 50 and over are at risk
- Significant questions remain about existing and emerging therapies (e.g., safety of bisphosphonates)
- No oral calcitonin product available – current nasal product limited use and acceptance
- Phase III study scheduled to be completed second half 2011
- Emisphere entitled to royalties on future product sales

Oral Salmon Calcitonin

Osteoarthritis

- No known treatment modality as disease modifying
- 27 million individuals estimated to have osteoarthritis in U.S.
- Known incidence has increased by over 30% in last 10 years
- Large unfilled market opportunity

Oral Salmon Calcitonin

Osteoarthritis

■ First Phase III study results

- 2/3 co-primary end points met
- Pain and function targets met
- Joint space narrowing not met
- MRI versus X-ray

■ Second Phase III study status

- 1 year interim analysis – no reason to continue for efficacy
- Continuation at Novartis' discretion
- 2 year first interpretable results – primary and secondary endpoints not met

■ Program under review by Novartis

Novo Nordisk A/S

Development Programs for Treatment of Diabetes

- Oral GLP-1 analogues & oral insulins
- Growing and critical market for diabetes care
- Estimated 23 million individuals in the U.S. with 18 million diagnosed
- Oral treatment still the long sought goal

Novo Nordisk A/S

■ Oral GLP-1

- Phase I – initiated January 2010 (\$2 million milestone)
- High levels of collaboration
- Extensive transfer of information and knowledge
- **Emisphere entitled to**
 - **Up to \$87 million potential product development and sales milestones**
 - **Royalties on potential future product sales**

Novo Nordisk A/S

■ Oral Insulins

- Feasibility work underway – initiated January 2011 (\$5 million milestone received December 2010)
- Agreement the result of close collaboration, knowledge of the Eligen[®] Technology and its potential applications
- **Emisphere entitled to**
 - **Up to \$57 million potential product development and sales milestones**
 - **Royalties on potential future product sales**

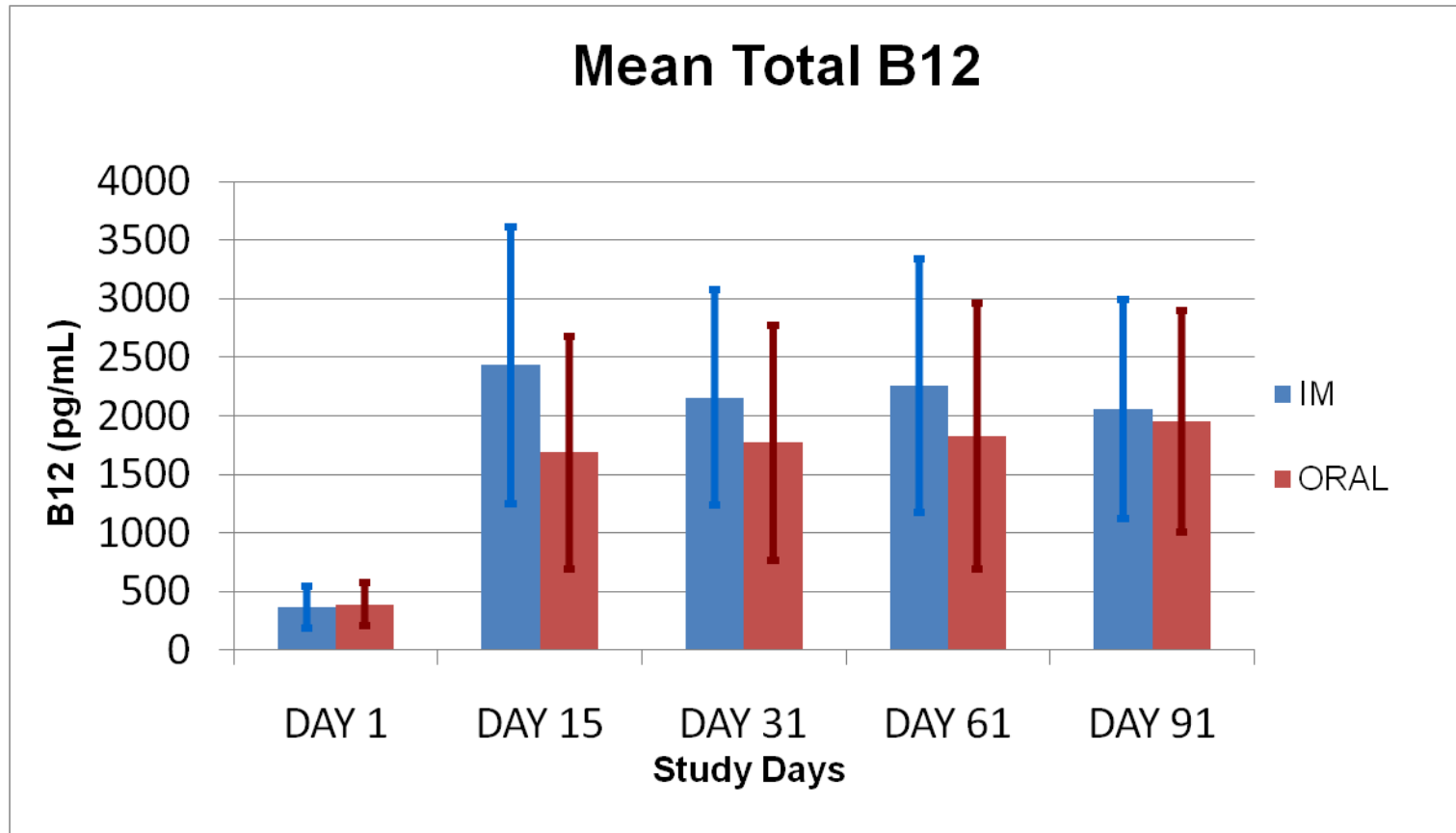
Eligen[®] B12 Development

- Patent life influences regulatory and commercial pathways
 - Combination SNAC/B12 patent granted through October 2029
- Regulatory development – NDA versus Medical Food product development pathways under evaluation
- An NDA may provide
 - Greater market acceptance
 - Better medical insurance reimbursement
 - Higher price
 - Drug product drives increased potential value
- Commercial development – partner versus “go-it-alone” commercial pathways under evaluation
 - 30 to 40 million injections given annually in the U.S.

Eligen[®] B12 Efficacy Study Results

- At day 15 – B12 and active B12 levels returned to normal range with both formulations
- Normal range maintained at all intervals to day 91
- Homocysteine and MMA biomarkers decreased comparably by both treatments
- Eligen[®] B12 was well tolerated with no adverse events

B12 Clinical Trial



Eligen[®] B12 Development

- Next steps – SNAC/B12 patent life
 - Application proceeding
 - If granted, NDA pathway might be optimal
- Next steps – regulatory strategy
 - Complete regulatory strategy due diligence and study design
 - Pre-IND meeting with FDA
 - **NDA versus medical food decision**
 - Initiate clinical trial (NDA)
 - Prepare for launch of medical food product

Business Development Initiatives

- **Potential opportunities to expand existing partnerships**
- **New development opportunities**
- **New applications for the Eligen[®] Technology**