

## Natural Health Product for the Prevention of Mood Disorders

### Market Need

Depression can be brought on by prolonged periods of sad mood, including early postpartum. For example, postpartum blues, a syndrome of sadness that occurs in 75% of new mothers, can progress to postpartum depression, which is the most common complication of child bearing, with a prevalence rate of 13%. The pervasiveness of major depression is 4.0% in Canada and 3.9-4.2% in the United States. It is estimated that by 2020, depression will be the second leading cause of illness worldwide. Many drugs have been developed to alleviate symptoms, but there is no effective natural therapy that prevents the onset of depression stemming from a triggering event such as postpartum blues. In 2015, the postpartum market comprised 4M births in the US, 0.4M in Canada and 3.6M in 6 major European markets (UK, DE, FR, IT, ES, PL). In these regions, around 6M new mothers are affected with baby blues of varying intensity and over 1M go on to develop postpartum depression.

### Technology Description

Elevated levels of the protein monoamine oxidase A (MAO-A) are found during early postpartum. MAO-A removes the brain chemicals serotonin, dopamine and norepinephrine, and high levels of MAO-A result in abnormally low levels of these neurotransmitters, which causes sad mood/depression. These results are based on the original work and discoveries by Dr. Jeffrey Meyer, the inventor of the present technology. To counter the excessive removal of these brain chemicals during early postpartum, our CAMH clinician has developed a nutraceutical product that contains a specific combination of ingredients that replaces the brain chemicals that are removed by MAO-A.

### Stage of Development

- Completed breast milk safety studies for both amino-acid constituents
- Open clinical trial evidence demonstrates the efficacy and safety of the nutraceutical
- Completed a market research study in 1030 pregnant women in US and CA to determine purchase intent and pricing sensitivity, using a choice-based conjoint design. Demographic information of those likely to purchase and a conjoint simulator are available
- A randomized controlled trial is underway at CAMH with preliminary results expected in Q3



### Advantages

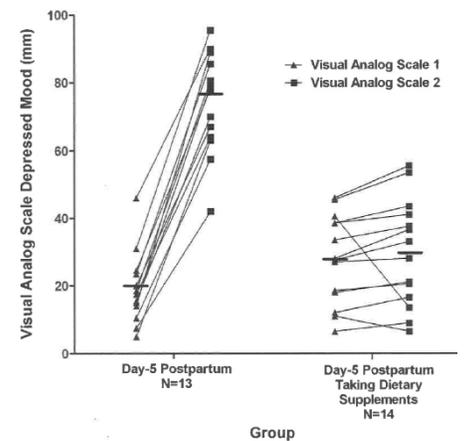
- Administration of the nutraceutical between day 3 and day 5 postpartum significantly prevents vulnerability towards sad mood (effect size 2.9, n=20 vs 21)
- Sole science-based, clinically validated preventive solution for postpartum blues
- The formulation is comprised of natural ingredients and is safe for use by breastfeeding mothers

### Notable Publication(s)

- Sacher et al. (2010) Arch Gen Psych/JAMA Psychiatry 67(5): 468-74
- Dowlati et al (2014) Arch Womens Ment Health 17(6) 541-548
- Dowlati et al. (2015) Eur Neuropsychopharmacol 25(6): 779-787
- Dowlati et al. (2017) PNAS vol. 114 no. 13: 3509-3514

### Intellectual Property

Issued patent in the US; Pending applications in CA, EU and US



### FOR MORE INFORMATION CONTACT

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