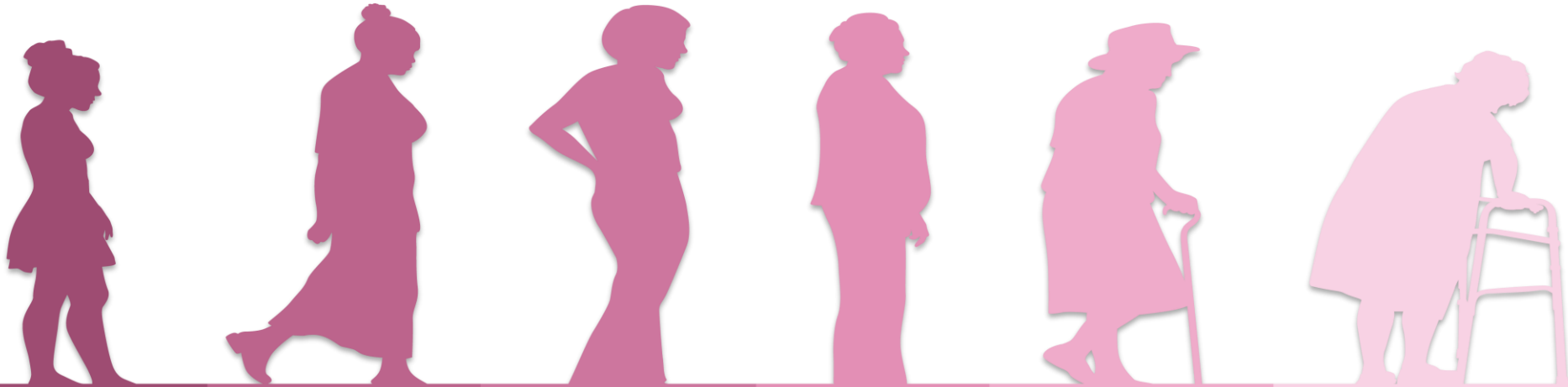


# A Novel Look at Women's Health

Featuring Gencor Pacific Ingredients

Presenter: David J Foreman RPh  
The Herbal Pharmacist®



# Key Areas of Concern: Women's Health

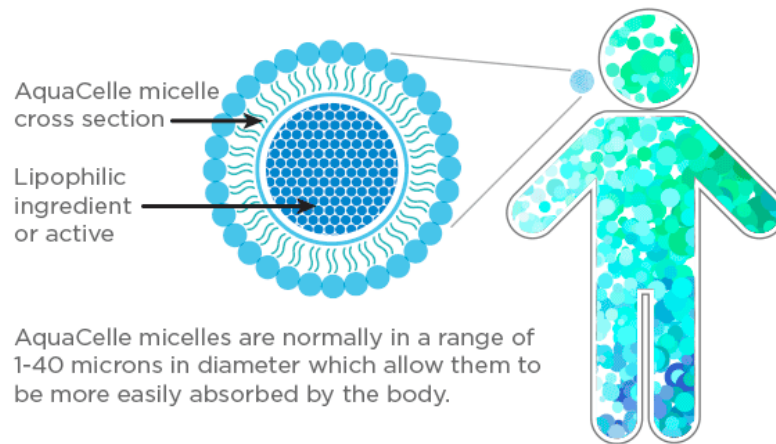
- **Cardiovascular Health**
  - Leading cause of death in women globally
- **Sexual and reproductive health**
  - Often overlooked but critical for overall well-being
  - Not prenatal and menopause, but Menstrual health ingredients
- **The Active Woman**
  - Maintaining vitality and mobility with age
- **Mental Wellness**
  - Hormonal fluctuations can impact mood and cognition

# Cardiovascular Health

- Key Nutrients:
  - Aquacelle® Omega-3: Supports heart health with enhanced bioavailability.
  - Aquacelle® CoQ10: Promotes energy production and heart muscle function.
  - HMRlignan®: Aids in maintaining healthy cholesterol levels.



**AquaCelle<sup>®</sup>** is a patent-pending, clinically validated self-micro-emulsifying drug delivery system (SMEDDS) specifically designed to increase the bioavailability of lipophilic actives.



AquaCelle micelles are normally in a range of 1-40 microns in diameter which allow them to be more easily absorbed by the body.

 **AquaCelle<sup>®</sup>**

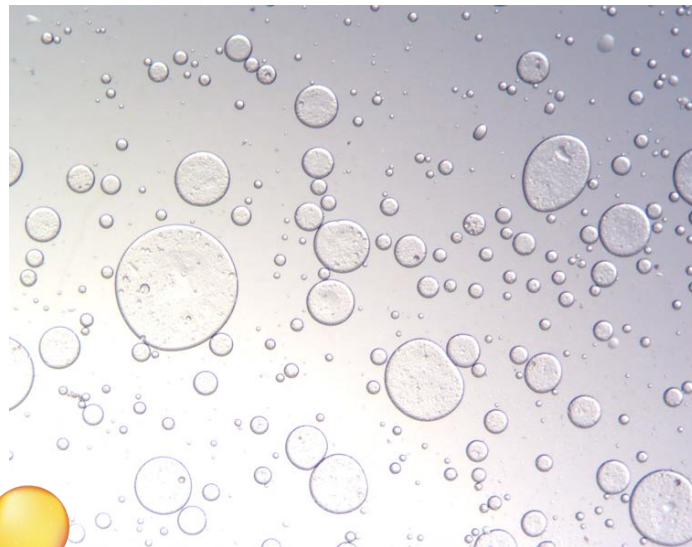
### **AquaCelle<sup>®</sup> Study:**

AquaCelle<sup>®</sup> groups significantly **increased CoQ10 concentrations up to three-times** that of the standard CoQ10 supplement.

**Ubiquinone with AquaCelle achieved an equivalent absorption to ubiquinol.**



- AquaCelle® can increase the absorption of omega-3s by up to **3 times**
- One gram of typical 18:12 fish oil supercharged with AquaCelle® would be equivalent to 3x 1gram capsules or **9 anchovies**.



# Sexual & Reproductive Health

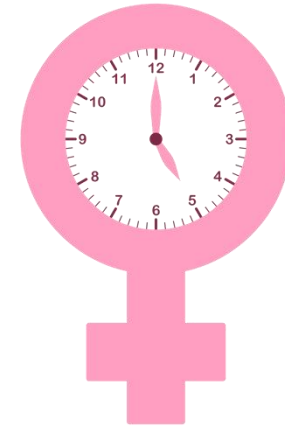
- Key Nutrients:
  - Libifem®: Clinically studied for improving female sexual health and libido.
  - Levagen®+: Clinically studied to help ease acute menstrual discomfort.



# Libifem®



- 2 Studies
  - Sexual Health
  - Menopause
- Effects
  - Increases sexual arousal
  - Increases sexual desire
  - Reduced Menopausal Symptoms (Hot flashes and night sweats)
  - Improves other symptoms (Increasing)
    - Physical, Psychosocial & Sexual Functioning
- Dose: 600mg



Chronic stress can cause the body to produce too much cortisol, which makes the testes less responsive to luteinizing hormone (important for testosterone production). This leads to lower testosterone and impacts estrogen and progesterone levels. Some of the physical changes associated with menopause, especially hot flashes, can be difficult to cope with and impair sleep, which also leads to more stress.



## Levagen® +

- Menstrual Cramp Study
- Effects
  - Safe, innovative, and effective supplement ingredient to ease acute menstrual discomfort.
  - Significant pain reduction was observed at multiple time points post-dosage.
- Dose: 300mg





# Active Female

- Key Nutrients:
  - **HydroCurc®**: Promotes joint health and reduces age-related inflammation.
  - **Levagen®+**: Supports joint health and reduces inflammation.
  - **LANDKIND® Pure Salidroside**: Energy, Performance and Muscle Health
  - **AquaCelle®**: CoQ10: Enhances cellular energy and reduces oxidative stress.
  - **ActivAMP®**: Enhances metabolism and supports healthy aging.



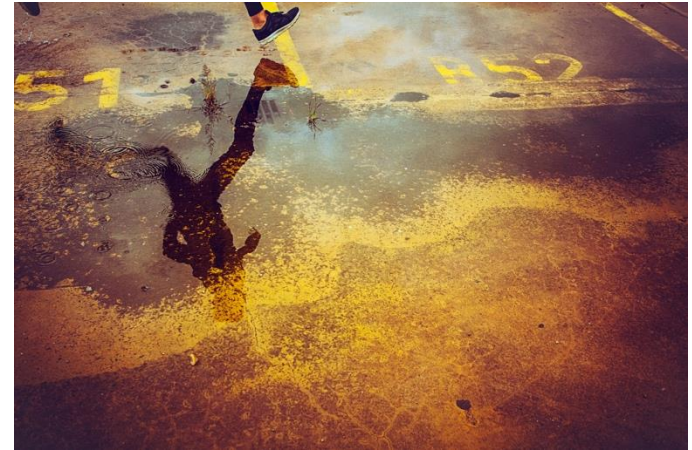
## Physical

- Improved Exercise Recovery
- Decrease Muscle Soreness
- Cardiovascular Health
- Relief of joint pain with a statistically significant difference compared to placebo in two weeks for morning joint pain
  - Works Fast (5-days)
  - Well Tolerated

## Cognitive

- Increased BDNF
  - BDNF may enhance memory and learning

**Small Daily Dose = 500mg**



## LipiSperser<sup>®</sup>: Technology Advancements

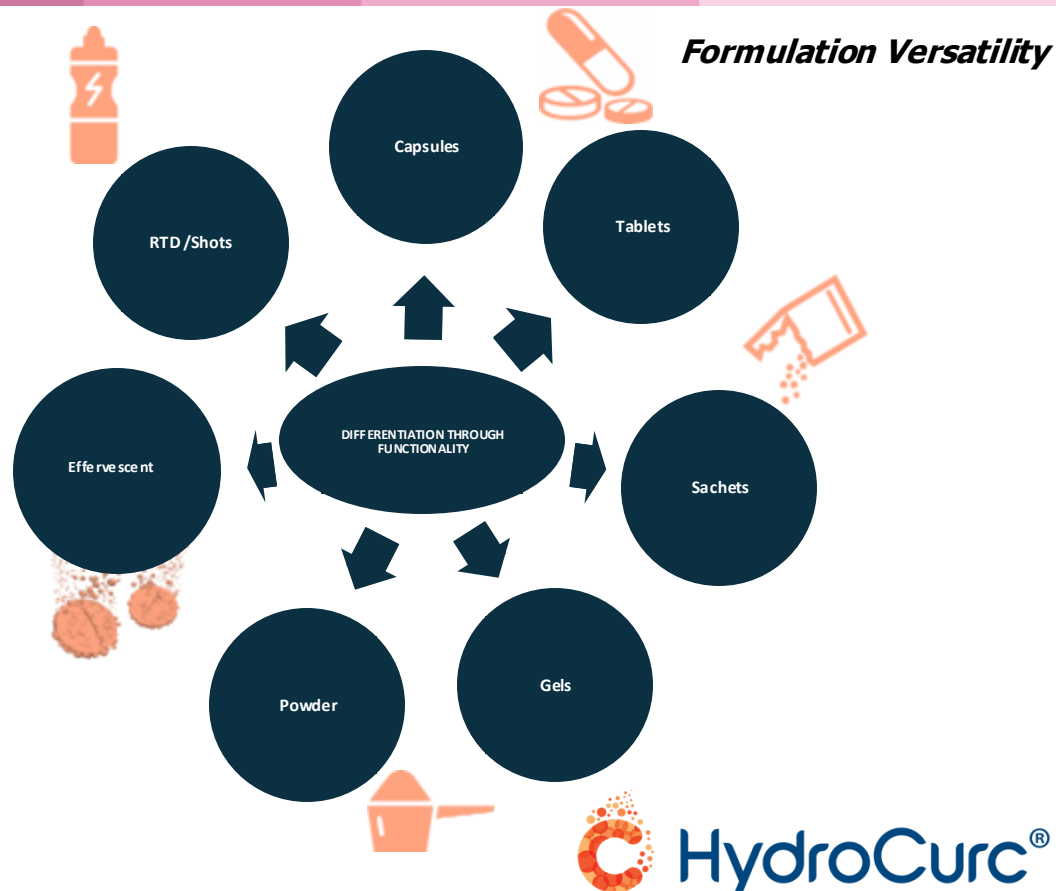


Standard curcumin in  
water: poor solubility

HydroCurc<sup>®</sup> in water  
**100% dispersion**

Repulsive forces between the particles prevent agglomeration or aggregation, allowing CWD Powders to have proper particle dispersion.

**= ENHANCED FUNCTIONALITY AND BIOAVAILABILITY**





# Levagen<sup>®</sup> + & Active Nutrition

- **Clinically Proven**
  - **15** Published Studies & **More** Ongoing Studies
  - Studies with PEA (350mg +)
- PEA (**P**almitoyl**E**thanol**A**mide) “enhanced.”
  - PEA is Not CBD
- **Levagen<sup>®</sup> +** is the **highly bioavailable** and **dispersible** form of PEA
  - Patented LipiSpense<sup>®</sup> technology - ***Levagen<sup>®</sup> + significantly increased plasma PEA concentration by x1.75 compared to standard PEA. Rapid absorption and Action Levels peaked 45 minutes post-ingestion.***
  - Endless Application Opportunities



# Key Clinical Studies

## KNEE INFLAMMATION STUDY<sup>1</sup>

8-wk double-blind, randomized, placebo-controlled 111 participants received either:

### Results:

- Dose-dependent improvement across all WOMAC sub-domains:
  - **Joint Pain**
  - **Joint Stiffness**
  - **Joint Function**
- Reduction in anxiety
- Improvement in Quality of Life

## EXERCISE RECOVERY STUDY<sup>3</sup>

A double-blind, randomised, placebo-controlled study to evaluate the effect of orally dosed Levagen<sup>®</sup>+ on exercise recovery.

### Results:

- Reduced lactate levels
- Reduced muscle damage
- Activated the downstream region of the mTOR pathway (Akt/PKB)



## ACUTE JOINT PAIN STUDY<sup>2</sup>

2-week double-blind, randomized, placebo-controlled trial with 80 participants

### Results:

- Significant reduction in Joint Pain score **after Day 3**
- Improvement in **QOL**

### **Effects Summary**

- Reduced total WOMAC score
- Reduced joint pain
- Reduced joint stiffness
- Improved joint function
- Reduced muscle damage
- Supports the reduction of joint discomfort after Day 3
- Improves QOL
- Reduction of headache discomfort

1. Steels, E., Venkatesh, R., Steels, E., et al. A double-blind, randomized, placebo-controlled study assessing safety, tolerability and efficacy of palmitoylethanolamide for symptoms of knee osteoarthritis. *Inflammopharmacol* 27, 475–485 (2019). <https://doi.org/10.1007/s10787-019-00582-9>  
2. David Briskev, Georgia Rodhe, Amanda Rao. The Effect of a Dispersible Palmitoylethanolamide (Levagen+) Compared to a Placebo for Reducing Joint Pain in an Adult Population – A Randomised, Double-Blind Study. *International Journal of Nutrition and Food Sciences*. Vol. 10, No. 1, 2021, pp. 9-13. doi: 10.11648/j.ij.nfs.20211001.12  
3. Mallard, Briskev, Richards, Mills & Rao "The Effect of Orally Dosed Levagen+ (palmitoylethanolamide) on Exercise Recovery in Healthy Males – A Double-Blind, Randomised, Placebo-Controlled Study". *Nutrients* 12.3 (2020): 596

# LANDKIND® Pure Salidroside & Sports Nutrition

## A Unique Value Proposition

### SUSTAINABLE:

- Crafted by fermentation, bypassing the need to harvest the endangered *Rhodiola* species

### PROVEN EFFICACY:

- The only clinically proven **Pure Salidroside** for potential energy metabolism support and mitigation of mood disturbances

### PURE:

- >98% Pure Salidroside with no residual solvents or unwanted compounds

### CONVENIENT:

- Only the best bioactive of *Rhodiola* leaves room for innovative formulas and applications in the Nutraceutical and Sports Nutrition



**More than 680 scientific papers on Pubmed being the most studied bioactive of the *Rhodiola* species.**

# LANDKIND® Pure Salidroside



## Key Health Benefits

### ENERGY:

- May potentially enhance oxygen uptake during exercise

### PERFORMANCE:

- May mitigate performance decreases caused by accumulated fatigue

### MUSCLE:

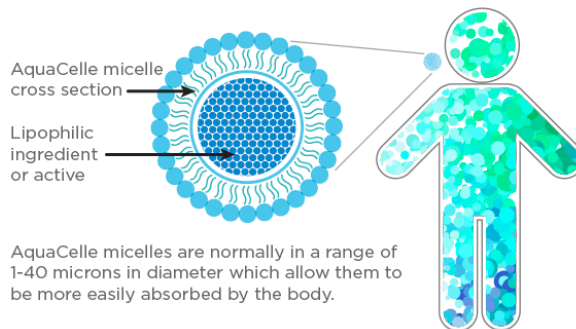
- May support recovery from exercise-induced muscle damage

### MOOD:

- May alleviate mood disturbances, particularly in fatigue, and potentially enhance friendliness



**AquaCelle®** is a patent-pending, clinically validated self-micro-emulsifying drug delivery system (SMEDDS) specifically designed to increase the bioavailability of lipophilic actives.



## AquaCelle® Study:

- AquaCelle® groups significantly **increased CoQ10 concentrations up to three-times** that of the standard CoQ10 supplement.
- **Ubiquinone with AquaCelle achieved an equivalent absorption to ubiquinol.**



# ActivAMP<sup>®</sup> & Athletic Performance



- Compared to the placebo, significant improvement in:
  - VO<sub>2</sub> max (maximal oxygen consumption during exercise)
    - 1.10 ml/kg/min ( $p = 0.001$ )
- Trend towards for significance\* for:
  - O<sub>2</sub> pulse (oxygen consumed per heartbeat)
  - Marker related to endothelial function

\* Significance detected after removal of outliers based upon criteria established by the principal investigator post-hoc

- Compared to the placebo, significant improvements in:
  - 20km time trial performance (decrease)
    - ~ 2 minutes (112 sec) (~ -4%) ( $p = 0.044$ )
  - Oxygen flux per mass (mg) of fresh muscle at baseline (increase)
    - ( $p < 0.05$ )
  - OXPHOS (maximal respiratory capacity in the respirometer chamber) at baseline (increase)
    - ( $p < 0.05$ )
  - FCCP (measurement of electron transport system (ETS) capacity) at baseline (increase)
    - ( $p < 0.05$ )
  - Resting plasma leptin (decrease)
    - ( $p < 0.05$ )
  - Total muscle acetyl-CoA carboxylase alpha (ACC- $\alpha$ ) at baseline (decrease)
    - ( $p < 0.05$ )



- Improved aerobic metabolism in muscle as indicated by changes in:
  - Oxygen Flux
  - OXPHOS
  - FCCP
  - ACC- $\alpha$
- Potentially improved endurance and reward system for exercise as a result of lowering leptin<sup>1</sup>



1. Fernandes, Maria Fernanda A., et al. "Leptin suppresses the rewarding effects of running via STAT3 signaling in dopamine neurons." *Cell metabolism* 22.4 (2015): 741-749.

# Women's Mental Wellness

- Key Nutrients:

Affron®: Natural saffron extract for mood enhancement and stress reduction.

Levagen®+: Proven benefits for Sleep

Aquacelle® Omega-3: Supports cognitive function and emotional balance.

CALMaluma: Impacts mood and stress relief

HydroCurc® + Fe: Increase BDNF



# Mental Wellness Support for Women: Stress and Sleep



## Affron®

- 3 Sleep Studies
- Effects
  - Improves Sleep Quality
  - Improves Restorative Sleep
  - Reduces Sleeplessness
  - Supports Melatonin
  - Safe in 12-16yr old children
- Dose: 14 or 28mg prior to bedtime

**Affron®**

## Levagen®+

- 1 Sleep Study
- Effects
  - Improves Sleep Latency (time to fall asleep)
  - Decreases # of awakenings
  - Increases time sleeping
  - Decrease the time to feel awake in the morning (grogginess)
- Dosing: 350mg 1 hour prior to sleep

**Levagen®+**

# Stress: CALMaluma™

## Caralluma (*Caralluma fimbriata*)

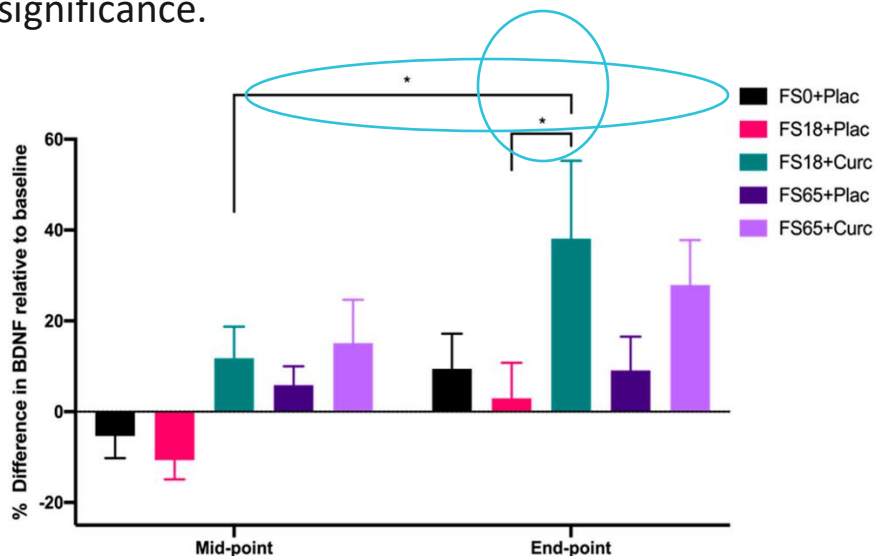
- Supports stress reduction through multiple pathways
- 11 Studies (5 Human, 6 in vivo)
- Effects
  - Reduction of stress, frustration and anxiety
  - Increase in positive experience of emotion (relaxation)
  - Supports healthy cortisol levels
- Use: Neurotransmitter and HPA-axis support
- Dosing: 500mg twice daily



CALMaluma 

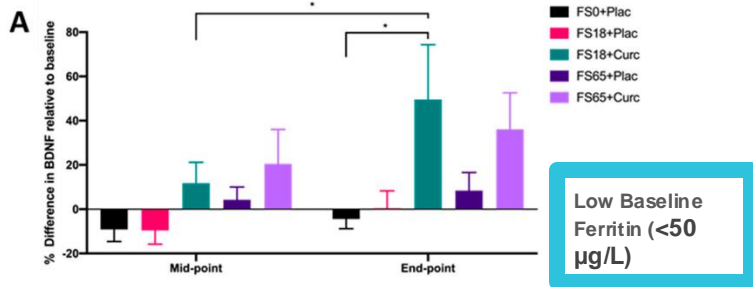
# Cognitive Health: HydroCurc®

- Significant increase (26.34%) in BDNF levels from mid-point to end-point for HydroCurc® + 18mg Iron group
- Significant difference in BDNF levels between HydroCurc®+FS18 and Placebo+FS18 group
  - **34.94% higher in the HydroCurc® group**
- Observable difference in BDNF levels between HydroCurc®+FS65 and Placebo+FS65 groups, but this did not reach significance.



 **HydroCurc**<sup>®</sup>

# Serum BDNF Levels (According to Subgroup)



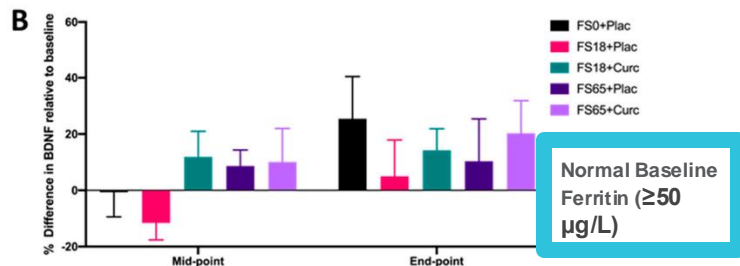
## Low Baseline Ferritin Subgroup

- Significant **increase in BDNF** levels from midpoint to endpoint in the **HydroCurc®+FS18** group
- Significant difference in BDNF levels at end-point between **HydroCurc®+FS18** and **FS0+Plac** groups

○ **53.78% higher in HydroCurc®+FS18**

## Normal Baseline Ferritin Subgroup

- ✓ **No significant differences in BDNF levels were observed between treatment groups, at either time point**







# Get in touch!

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[www.gencorpacific.com](http://www.gencorpacific.com)

