

The Balchem Beat

Prototypes at IFT 2023

Frozen desserts & ice cream

Choline & brain development

Understanding Gen Z

Trends 2023 – focus on fiber

Upcoming events





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Balchem Human Nutrition and Health Innovative Prototypes Showcased at IFT 2023

Balchem Human Nutrition and Health had a strong presence at the 2023 IFT. A true collaboration across Powders & Cereal, Flavors & Encaps and Minerals & Nutrients, the booth showcased seven consumer insight driven prototypes, featuring key HNH brands. Samples of the non-beverage prototypes are available. **Request sample here!**









This year's prototypes included:



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Requisite Women's Gummies

Ferrochel[®], VitaCholine[®], Albion[®] Minerals Calcium Citrate Malate and Magnesium Lysinate Glycinate



Power Boost Immune Shot

K2VITAL[®] and Albion[®] Minerals Zinc **Bisglycinate Chelate**



UpLift **Mood Melts**

Pea Protein Isolate, VitaCholine[®], Albion[®] Minerals Zinc Bisglycinate Chelate, Dimagnesium Malate, Iron Taste-Free



MindFuel Cognition Beverage

Milk Protein Isolate 90, Insta Inulin LWA, Milk Stabilizer, VitaCholine®, Albion[®] Minerals Iron Taste-Free, Magnesium **Bisglycinate Chelate**



Accentuate Beauty Stick Pack

lerzee™ CWS 50-Sunflower. OptiMSM®, Albion[®] Minerals Zinc Bisglycinate Chelate, Copper Bisglycinate Chelate, Selenium Glycinate



LiveWell Longevity Beverage

Milk Protein Isolate 90, VitaRite™ D, Insta Inulin LWA, Milk Stabilizer, Albion[®] Minerals Calci-K[®], VitaCholine[®], K2VITAL[®] DELTA, OptiMSM[®], VitalBlend[®] MCT NG



UpCharge Bar

Ferrochel[®], VitaCholine[®], Albion[®] Minerals Calcium Citrate Malate and Magnesium Lysinate Glycinate

Learn more how Balchem Human Nutrition & Health can delight and nourish and inspire your next product innovation. Click Here.



















Came Apple pie

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Frozen Dessert and Ice Cream Solutions

Summertime is Giving Fun Vibes



What better way to have a happy summer than eating ice cream! Ice cream and other frozen dessert treats are not only a great way to stay cool and refreshed this summer, but also provide pleasurable moments. Our INjoy™ Flavor Systems can present exciting and new twists to ice cream bases. Then, enhance your frozen treats with INhance™ Variegates. Add various textures like crunchy, creamy, or a velvety mouthfeel. Want some flavor inspirations?

Check out our latest TrenDish™ ice cream and variegate flight.











Choline's role in brain development

University of North Carolina scientists discover new insights on choline's role in brain development – Balchem sponsored research. It is well established that choline plays a critical role in brain and spinal cord development*; however <u>new research from the University of North Carolina Nutrition Research Institute (UNC NRI)</u> provides exciting new insights into the mechanism behind this important relationship.

This work was led by the lab of <u>Isis Trujillo-Gonzalez, PhD</u>, Assistant Professor of Nutrition at UNC NRI, and was sponsored in part by Balchem. The research team fed mice either low, adequate, or high choline diets during pregnancy and examined the effects on brain development in the mouse pups.

They found that when pregnant mice were fed low choline diets specifically, their pups experienced significant dysregulation of tissue differentiation in the brain – in other words, the developing neurons were not maturing in the right place and/or at the right time.

Since choline plays a role in a process called methylation – an important molecular tool by which your body controls growth and development – the team looked at whether a specific methylation mark in the fetal brain was impacted (Trimethylated Histone H2 Lysine 27 - or H3K27me3). Their work found that low choline decreases the level of this methylation marker in the developing brain, triggering a series of detailed events which ultimately lead to disrupted brain development.



This work will be presented at the <u>Nutritional</u> <u>Immunology Across the Lifespan Conference</u>, sponsored by FASEB, from Jul 30-Aug 3, 2023. Balchem is a Gold Sponsor for the event.

"Our research helps lay the foundation for expanding our understanding of the different benefits that choline may provide during pregnancy. We thank the team at Balchem for their support and look forward to our continued collaboration", says Dr. Trujillo-Gonzalez.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.





Supplements and the Importance of Knowing Gen Z



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Who is Gen Z?

This demographic group spans those born between 1997 and 2012. Gen Z has surpassed Millennials as largest generation in the world!



As Gen Zers transition to adulthood, vitamin, mineral and supplements brands need to engage with this demographic group now:

• GenZers are concerned with health, prioritizing self-care and seeking physical mental wellbeing support, which opens opportunities for VMS innovation.

Ways to win with Gen Z include:

- Appealing to health and wellness consciousness by creating solutions that meet their needs and holistic health goals, such as mental wellness
- Offer a variety of formats, flavors and innovation elements, like unique or portable designs
- Deliver informative websites, genuine social media content and influencer partnerships

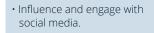
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Gen Z has Nomophobial (Fear of being detached from mobile phone)!

Who is Generation Z (Gen Z)?

- Tech-innate
- Have short attention spans
 With Nomophobia (fear of being detached from mobile phone connectivity)
- Values healthy food
- Super ethical-concious
- Increased awareness on
- mental health
- Community seekers
- Pragmatic
- Dialoguer
- . . .
- Wants uniqueness
 Curious and adventure
- Curious and adventurous

How can VMS-brands connect with Gen Z



• Offer positive nutrition, physical boosts and mental health support.

- Provide authenticity
- Communicate with greater openness
- Deliver new experiences, fun and flavor
- Provide personalisation

Base: US: 2,000 internet users aged 18+. Source: Kantar Profiles/Mintel, November 2021. Source: Mintel, July 21, 2023







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Food & Beverage 2023 Trends

Focus

on Fiber

According to research company Innova, a key trend is increased interest in fiber-rich products including a growing awareness of health benefits associated with fiber consumption; for example: improved digestion, weight management, and reduced risk of chronic diseases.

F&B Fiber Trends 2023



Plant-based diets and cleanlabel preferences drive demand for fiber-rich products



• Whole food fiber, soluble fiber, and prebiotic fiber are some of the most sought-after categories

• Fiber ingredients are being adds into numerous food and beverage products, including non-traditional categories

Source: Innova Global Report: "Established and Emerging Fiber in Food and Beverage"

- Increased awareness is likely driven by consumers' desire to live healthier, which for 61% of global consumers means following a healthy and nutritious diet. Also, the rise of plant-based diets and desire for clean label products have contributed to demand for fiber-rich foods and beverages.
- Fiber ingredients are being incorporated into food and beverage categories including bakery (bread and muffins), dairy (yogurts), snacks (bars and chips) and beverages (fiber-infused juices and functional waters). Trends include increased usage of various isolate soluble fibers, such as chicory root fiber and oligofructose due to prebiotic properties and ability to improve texture and mouthfeel.
- New sources of fiber, such as algae and insect-based ingredients, may emerge as viable options for product development. Additionally, advances in food technology could lead to development of novel fiber ingredients (e.g., algae and insect-based) with enhanced functionality and health benefits.







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Events SEE YOU THFRF

Ohio Valley Section IFT Suppliers Expo (9/14) Booth 55 West Chester, Ohio

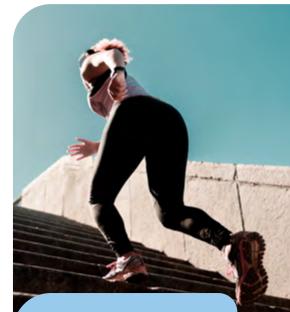
Diet and Optimum Health Conference (9/19-20)Oregon State University | Corvallis, Oregon

7th International Vitamin Conference **Copenhagen**, **Denmark** (9/19-22)Copenhagen, Denmark

Vitafoods Asia, **Bangkok**, Thailand (9/20-23) Bangkok, Thailand

Nutrition Collective: What's in your lunchbox? (Back to school) (9/26) Online

Watch: Spring into Action with OptiMSM®





Webinar WATCH THE REPLAYS

Gaining a **Mental Edge** How VitaCholine[®] Activates the Mind and Propels the Body

Watch the Replay

Spring into Action with OptiMSM® Maintaining Mobility and Joint Health for All Ages

Watch On-Demand





Coming up: Vitafoods Asia 2023

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