

Metaberine: Advancing the Science of Metabolic Health

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As metabolic disorders continue to rise worldwide, the nutraceutical industry is increasingly focused on developing science-backed ingredients that deliver measurable health benefits. Berberine has gained significant attention for its potential role in supporting glucose metabolism and insulin sensitivity, but its poor bioavailability has remained a key challenge. To address this, Zeus Hygia Lifesciences has introduced Metaberine, a next-generation berberine formulation powered by its proprietary

BioSOLVE Technology, designed to enhance absorption and efficacy. In this exclusive interview with NUFFOODS Spectrum, Dr Arunkanth Krishnakumar, PhD, Co-founder and CEO of Zeus Hygia Lifesciences, discusses the science behind Metaberine, the growing relevance of metabolic health ingredients, emerging applications in areas such as PCOS, and the future of clinically validated nutraceutical innovations in global markets.

What inspired Zeus Hygia Lifesciences to develop Metaberine, and what market gaps were you aiming to address with this next-generation berberine formulation?

At Zeus Hygia Lifesciences, we closely track emerging global health challenges and one area that consistently stood out was the growing burden of metabolic disorders, including insulin resistance, obesity, prediabetes, and PCOS. Berberine has long been recognised for its metabolic health potential, but one of the biggest industry challenges has been its poor bioavailability, which often limits absorption, consistency, and clinical outcomes.

This inspired us to develop Metaberine as a next-generation berberine formulation designed to address these limitations through improved delivery and absorption. The idea was not just to create another ingredient, but to develop a science-backed metabolic wellness solution aligned with evolving global consumer demand for efficacy-driven nutraceuticals. We also saw a clear gap in the market for advanced metabolic support ingredients that combine scientific innovation, convenience, and clinical relevance, particularly for consumers seeking long-term metabolic health management rather than short-term solutions.

How does your proprietary BioSOLVE Technology enhance the absorption and efficacy of berberine compared to conventional formulations?

One of the major drawbacks of conventional berberine is its limited absorption in the body, which often requires higher dosages to achieve meaningful efficacy. Our proprietary BioSOLVE Technology was developed specifically to address this challenge by significantly enhancing the bioavailability and delivery efficiency of berberine.

Through Enhanced solubility and improved cellular absorption mechanisms, BioSOLVE Technology helps improve the ingredient's absorption profile, allowing better systemic availability at lower effective dosages compared to standard berberine formulations. This not only supports better efficacy and consistency, but may also help improve consumer compliance by reducing dosage burden.

At Zeus Hygia Lifesciences, our broader focus is on leveraging advanced delivery technologies to improve the real-world effectiveness of nutraceutical ingredients rather than relying solely on ingredient familiarity.

Metaberine is positioned as a metabolic health solution. Could you elaborate on its potential benefits for consumers dealing with insulin resistance, weight management, and metabolic imbalance?

Metabolic health today sits at the centre of several interconnected lifestyle conditions, ranging from obesity and insulin resistance to PCOS and cardiovascular risk factors. Metaberine is designed to support metabolic balance by helping regulate pathways associated with glucose metabolism, insulin sensitivity, and energy utilisation.

For consumers dealing with insulin resistance and metabolic imbalance, the ingredient is being explored for its potential role in supporting healthier blood glucose responses and reducing glucose variability. Additionally, metabolic dysfunction is often closely linked with appetite dysregulation and weight gain, making metabolic support increasingly important in holistic weight management strategies.

Rather than positioning Metaberine as a quick-fix weight loss ingredient, we see it as part of a broader metabolic wellness approach focused on long-term physiological balance and lifestyle management.

How does Metaberine's association with the GLP-1 pathway contribute to appetite regulation and blood sugar management?

The GLP-1 pathway has become an important area of scientific and consumer interest because of its role in appetite signalling, satiety, glucose regulation, and metabolic health. Emerging research around berberine suggests that it may influence pathways associated with GLP-1 activity and metabolic regulation.

Through these mechanisms, Metaberine is being explored for its potential to support appetite control, healthier blood sugar responses, and improved metabolic function. While more clinical work is still evolving in this area, the growing scientific attention around GLP-1-related metabolic pathways highlights the broader relevance of metabolic health ingredients beyond traditional supplementation categories.

At Zeus Hygia Lifesciences, our approach is to continue building evidence-backed formulations that align with evolving scientific understanding and consumer health priorities.

With growing consumer interest in clinically backed nutraceuticals, how do you see the demand for advanced metabolic health ingredients evolving in the US and European markets?

We believe the global nutraceutical industry is moving toward a far more evidence-driven and outcome-oriented phase, particularly across mature markets such as the US and Europe. Consumers today are increasingly informed and are actively seeking clinically supported ingredients that go beyond general wellness claims to address specific health concerns such as metabolic health, healthy ageing, obesity management, and hormonal balance.

Metabolic wellness in particular is becoming a major global category due to rising lifestyle disorders and increasing awareness around preventive healthcare. We see growing demand for advanced ingredients that combine strong scientific backing, superior delivery technologies, clean-label positioning, and measurable efficacy.

For companies like ours, this creates an opportunity to position innovation-led nutraceutical solutions such as Metaberine within premium global wellness markets where consumers increasingly value transparency, functionality, and science-backed differentiation.

Beyond metabolic wellness, Metaberine is being explored for conditions such as PCOS. Could you share more about ongoing research and future application areas for this ingredient?

Yes, there is growing scientific interest in exploring the role of metabolic health ingredients in conditions that extend beyond traditional glucose management. In conditions such as PCOS, insulin resistance often plays a central underlying role, influencing hormonal imbalance, inflammation, weight fluctuations, and related symptoms.

As a result, ingredients that support insulin sensitivity and metabolic regulation are increasingly being studied for their broader applications in women's health and hormonal wellness. At Zeus Hygia Lifesciences, we are actively evaluating potential future applications for Metaberine across areas such as PCOS management, women's hormonal wellness & Metabolic wellness.

Our long-term focus is on building clinically relevant, science-driven nutraceutical solutions that can support multiple aspects of metabolic and lifestyle health while continuing to invest in research, formulation innovation, and global scientific validation.

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