

Allonnia's Chuck Price on the Biotechnology Revolution Transforming Critical Mineral Processing

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March 20, 2025 – A biotechnology revolution in mineral processing is unfolding, led by [Allonnia LLC](#), as Chief Commercial Officer Chuck Price described in an interview with [InvestorNews.com](#) host Tracy Hughes at PDAC 2025. Price explained that Allonnia has developed innovative biotechnological methods to efficiently separate rare earth elements from mine-impacted waters using specially engineered proteins. These proteins are attached to beads within columns, allowing them to selectively capture rare earths from low-concentration streams. “We’ve discovered proteins with an affinity for particular rare earths,” Price explained, noting that Allonnia is actively working with mining companies to scale this process economically.

In addition to rare earth extraction, Price highlighted Allonnia’s breakthrough biotechnology called D-Solve™, designed to enhance copper, nickel, and lithium extraction processes. D-Solve™ employs microbes isolated from mine sites to produce bio-generated solutions capable of dissolving impurities—or gangue minerals—from mineral concentrates. According to Price, this technology significantly enhances the purity and output of existing mines without requiring extensive infrastructure changes, calling it “a game changer.” He emphasized, “You can improve the purity, get more value, improve production rates, and not have to build an entirely new mineral processing flow

sheet,” underscoring the economic and environmental advantages of Allonnia’s innovative approach.

Price further emphasized the environmental benefits of Allonnia’s biotechnological methods, describing them as having a “low cost and low CO2 impact.” He pointed out that Allonnia’s solutions not only optimize mining operations with a minimal footprint but also have the potential for carbon sequestration, effectively creating a net-negative greenhouse gas impact. Supporting this claim, a recent [demonstration](#) of the D-Solve™ process at SGS’s facility in Ontario successfully increased nickel grade by 18% while reducing magnesium impurities by 40%. Price indicated Allonnia’s plans to scale up these innovations with pilot testing at mining sites later this year, validating the potential for sustainable, cost-effective, and high-efficiency mineral processing.

To access the complete interview, [click here](#)

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About Allonnia

Allonnia is a bio-ingenuity company dedicated to extracting value where others see waste. We believe elegant solutions to the world’s biggest problems will be found in the world’s smallest organisms. We’re pioneering novel approaches and imaginative combinations in biotechnology and engineering to solve waste challenges in nature, using nature.