Phytoremediation from research to commercialization: pros and cons. (S11-ma112233-Oral)

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Abstract:

Due to its cost-effectiveness and environment-friendly nature, phytoremediation has becoming popular for remediating soils that were contaminated with organic and metal contaminants. Many plants can be used to remediate soils contaminated with organic contaminants via biodegradation, whereas hyperaccumulating plants need to be applied to remediate metal contaminated soils via phytoextraction. Over 400 hyperaccumulating plants have been identified for accumulating large amounts of Ni, Cu, Cd, Zn and etc. Recently, our research group has discovered the first known arsenic hyperaccumulating plant, commonly known as Chinese Brake fern. This presentation will document the unexpectedly discovery of this plant and look at the potential of this plant for phytoremediating arsenic contaminated soils and waters. The processes of filling a patent, the consequences of having a patent, the pros and cons of commercializing an idea, and the balancing act of conducting scientific and applied research will all be discussed

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