antifungal secondary metabolites have always been the prevalent source for drug development, exemplified by the echinocandins and polyene drug classes. Yet, the golden age discovery platforms were abandoned due to compound rediscovery and its own economic costs.

Study: In an effort to revisit the original success stories, we combined the traditional approach of screening for antifungal secondary metabolites with high-throughput advances in sequencing, genome mining, and metabolic landscape, relying on the large phytochemical library.

Results: We found several hits and a fungal metabolite which showed antifungal activity. This compound was isolated, identified, and characterized. The compound was further evaluated for its antifungal activity in vitro and in vivo models.

Discussion: The results suggest that this small-molecule antifungal agent has potential clinical applications. Further studies are needed to fully understand its mechanism of action and its safety profile.

Conclusion: The discovery of this antifungal metabolite highlights the potential of revisiting traditional sources for novel drug candidates.