



# Ms gene and Mr gene: Microbial-mediated spatiotemporal communication between plants

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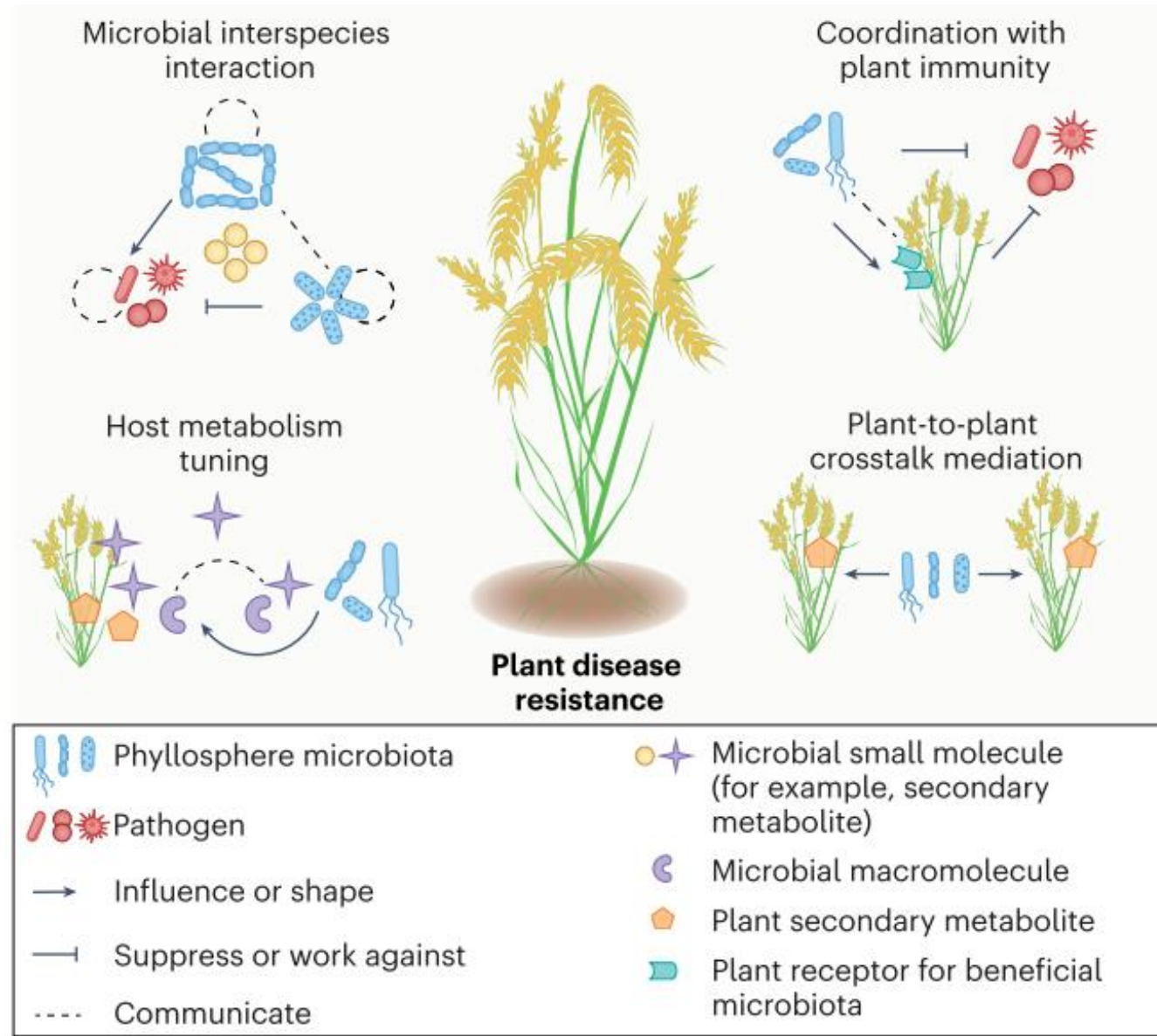
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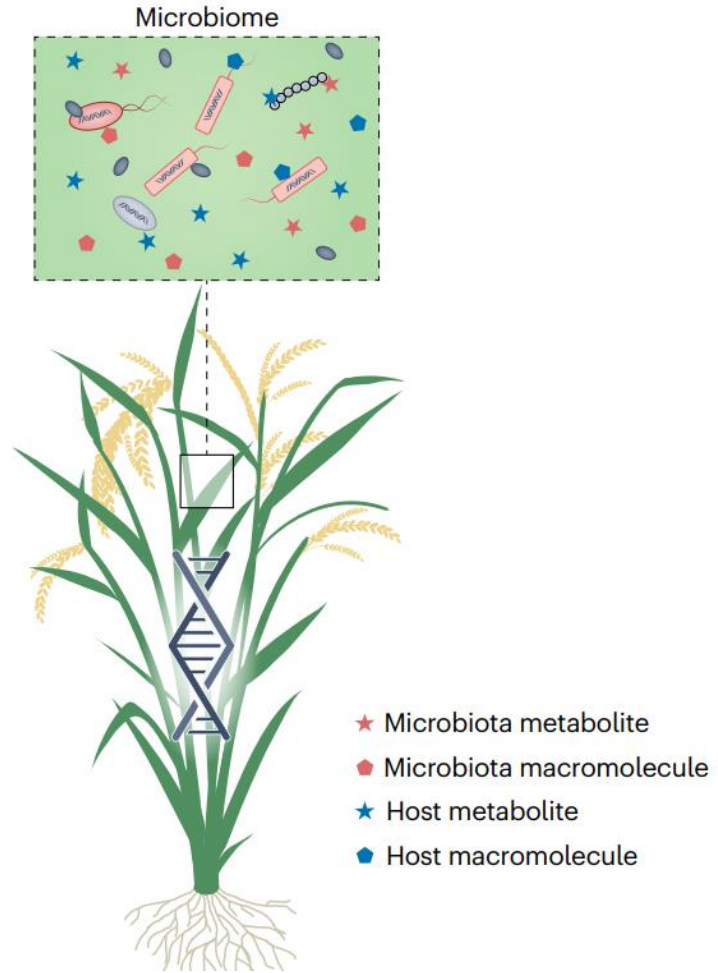
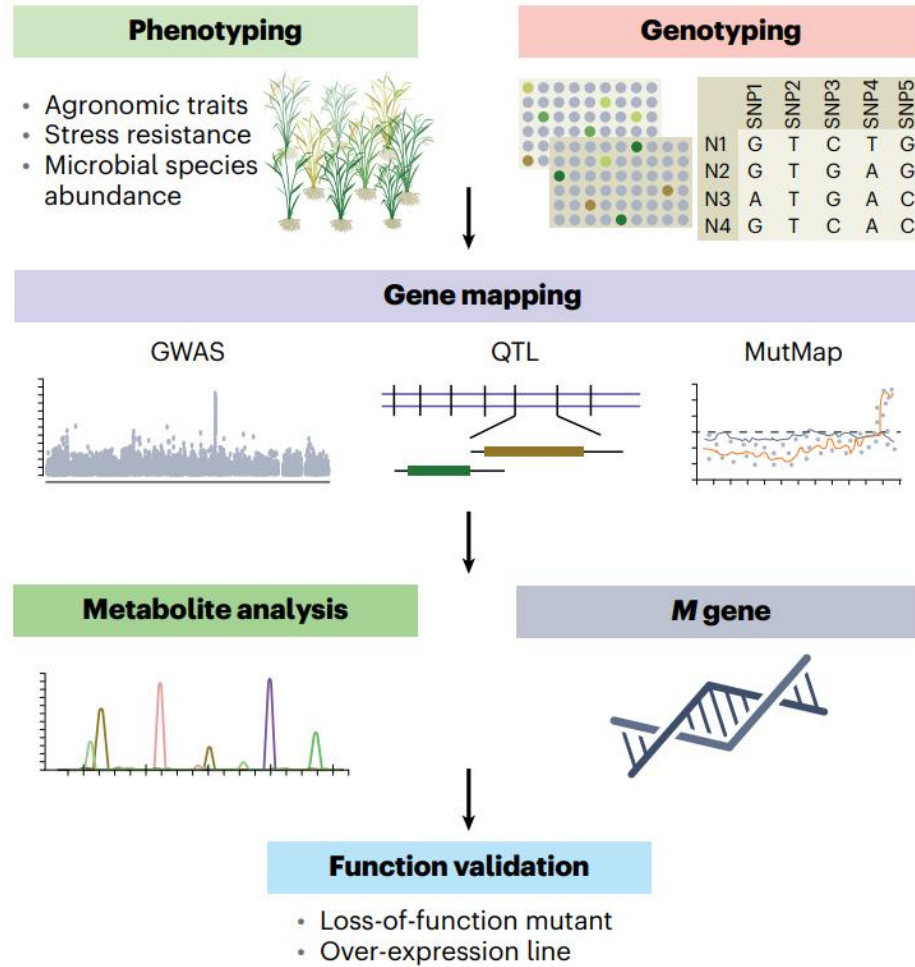


# Introduction

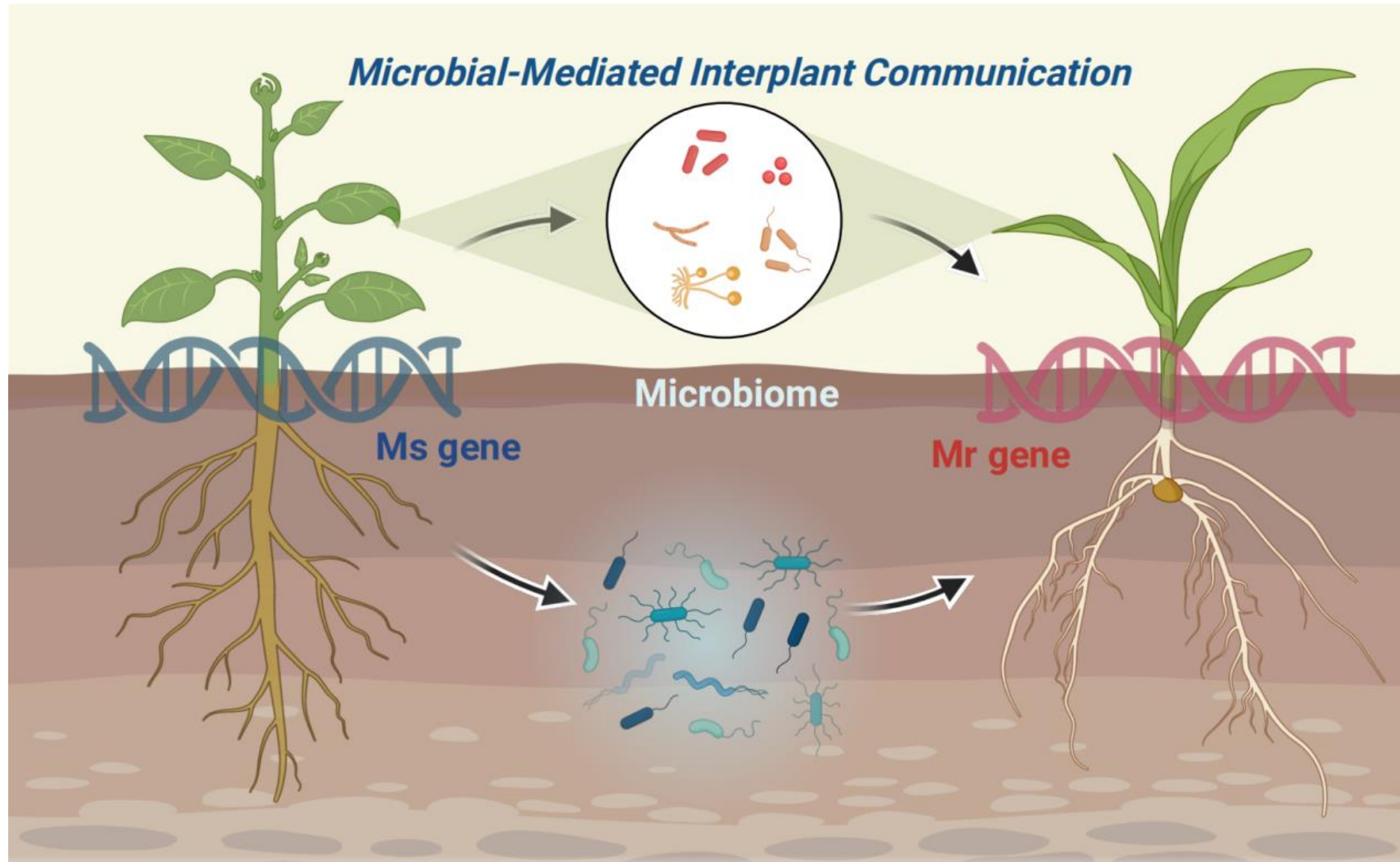




# Introduction

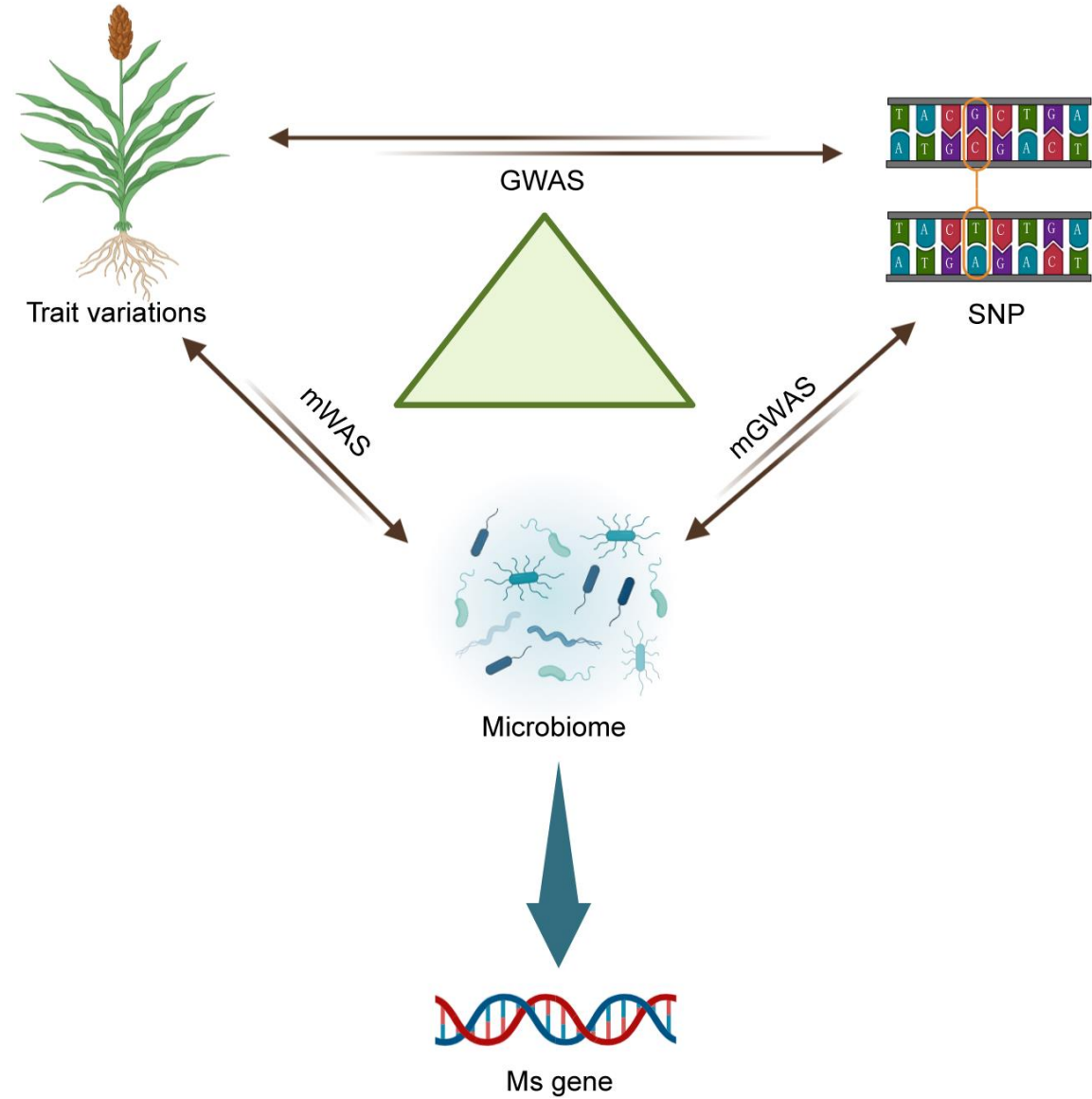


# Abstract

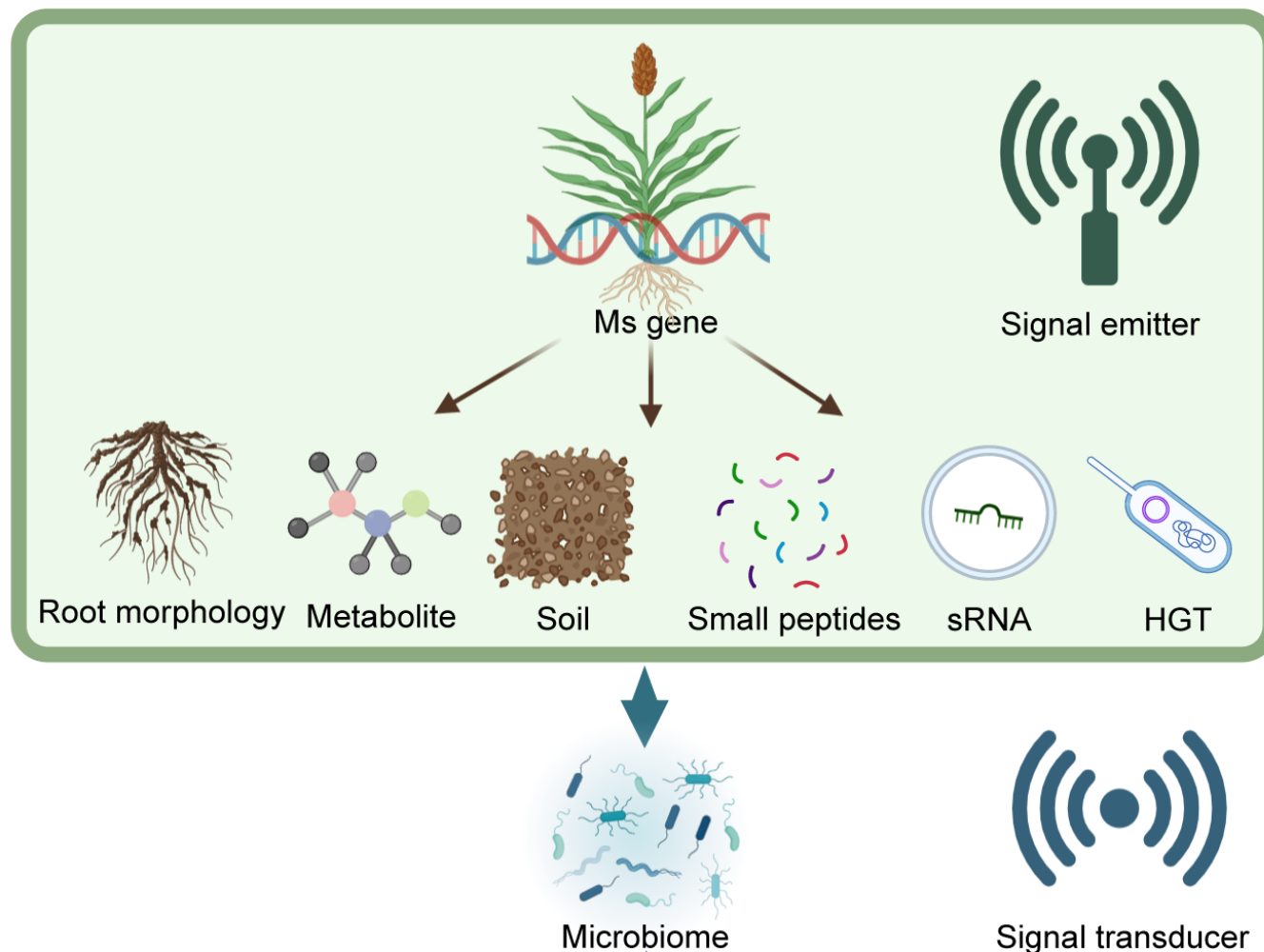




# Identify Ms gene

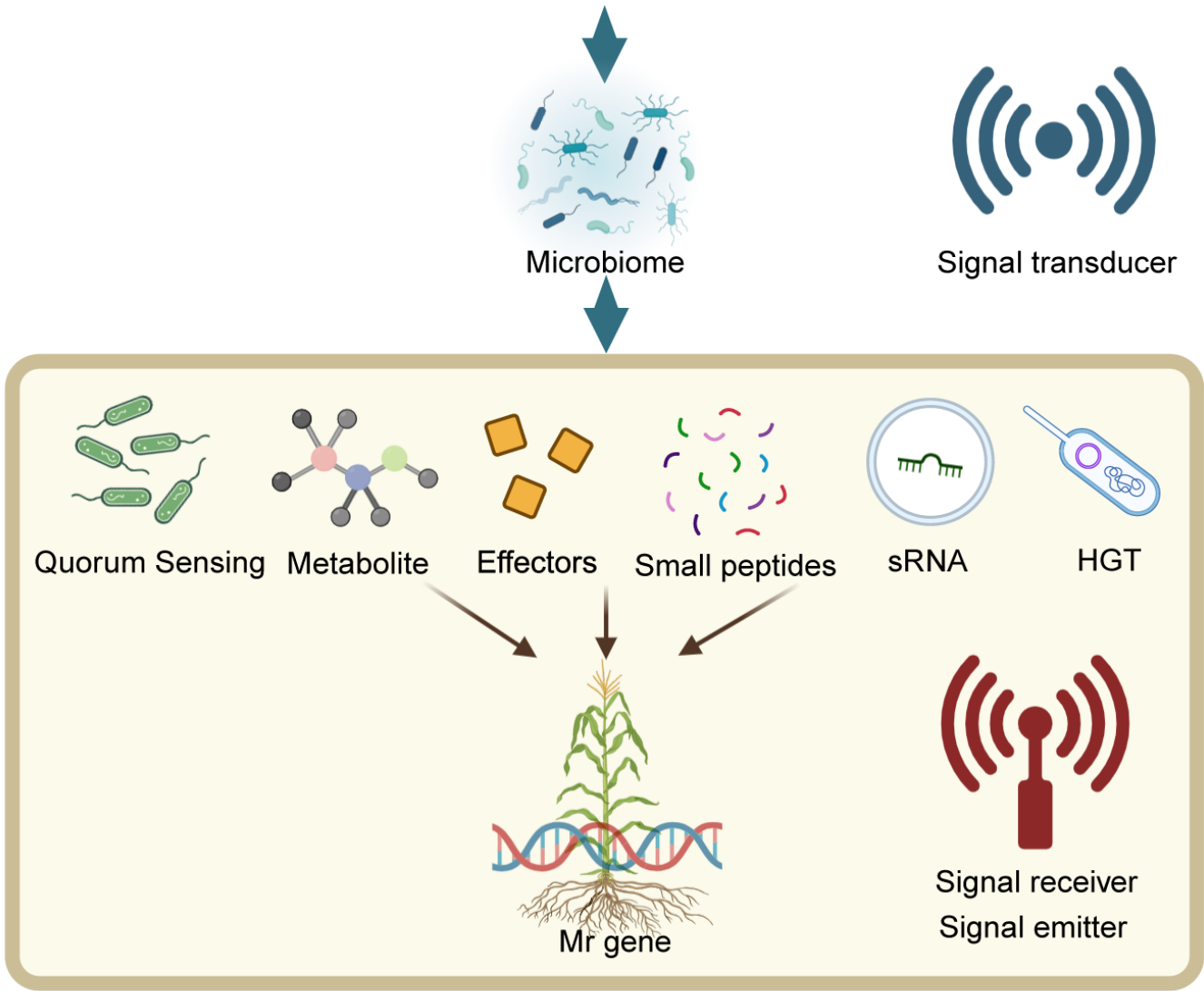


# From Ms genes to microbes



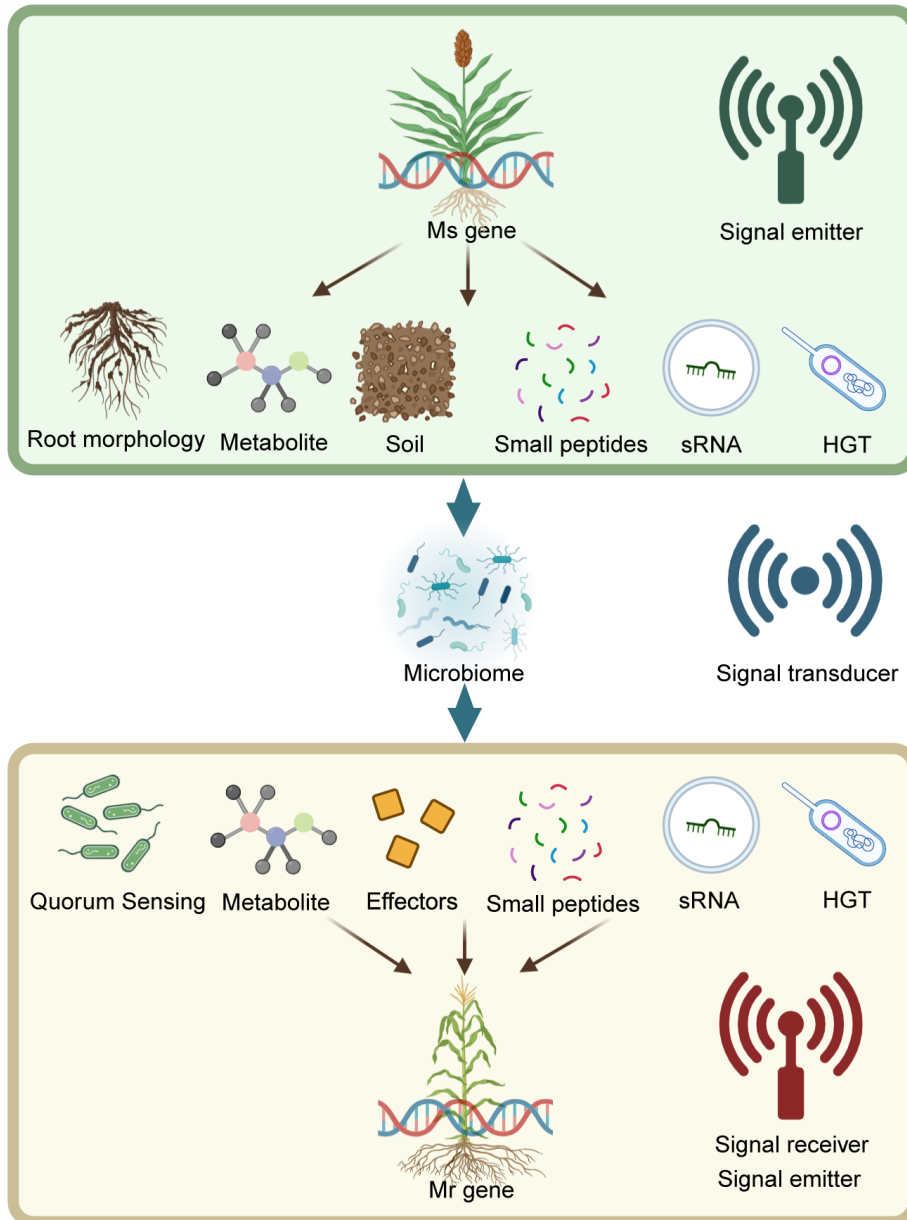
- In the first process, the Ms gene builds a unique plant microbiome by regulating the production of secondary metabolites and influencing the soil environment in which microorganisms live.

# From microbes to Mr genes



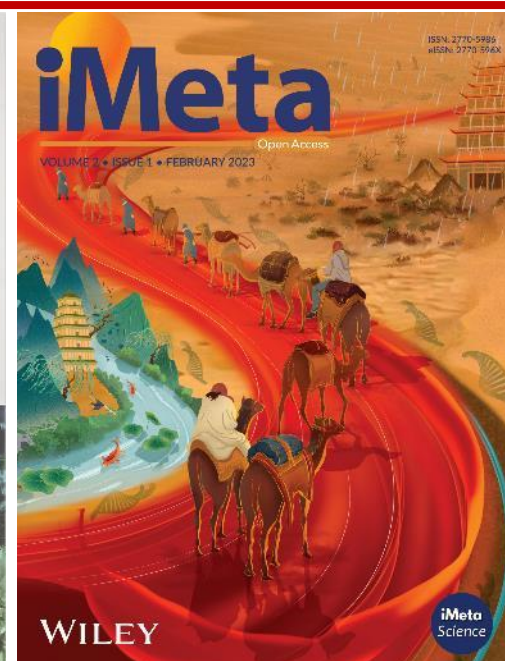
➤ Next, microorganisms capture signals from plants, and then regulate the growth and development of plants themselves or nearby plants by releasing VOCs.

# Summary



- Spatially, microbial-mediated communication between parts of a plant or between plants regulates growth and immunity.
- Temporally, as a component of soil legacy, it regulates the growth and immunity of future plants.
- The method of information exchange between plant-microbe-plant can generate a wide range of cascading effects. The Ms gene serves as a signal emitter, conveying information through the mediation of microorganisms, and the Mr gene, upon receiving and processing the obtained information, carries out the next signal transmission and amplification.

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