One of the largest living organisms in the world is actually a type of fungus called *Armillaria ostoyae*. The largest known specimen is nicknamed the "Humongous Fungus," and it covers almost 4 square miles of the Malheur National Forest in eastern Oregon and is approximately 2400 years old. Most of the time it exists underground as a network of fine filaments called hyphae that grow along tree roots and excrete digestive enzymes. However, this fungus also has the ability to extend rhizomorphs (flat, root-like structures that resemble black shoelaces) to bridge the gap between food sources and expand the fungus's extensive perimeter even further. *Armillaria ostoyae* exists as a thin white fungal layer that spreads underneath a tree's bark. Once under the bark, the tree is unable to move mater and nutrients up the trunk. Many heavily infected or recently killed trees will often form honey mushrooms near the base that usually appear in the fall.

This loss of trees not only effects the forest ecosystem, but also threatens the commercial timber industry as well. Unfortunately, Armillaria is resilient. It can acclimate to a relatively wide range of environmental conditions, and most chemical controls are costly and do not eradicate the fungus entirely. Once the trees have been harvested, re-planting a wider variety of tree species that are more resistant to root disease is another way to manage the problem. This approach helps create a more diverse forest that will be better at defending against a disease or fungus that could destroy whole communities all at once.

https://indianapublicmedia.org/amomentofscience/humongous-fungus

https://www.britannica.com/science/rhizomorph