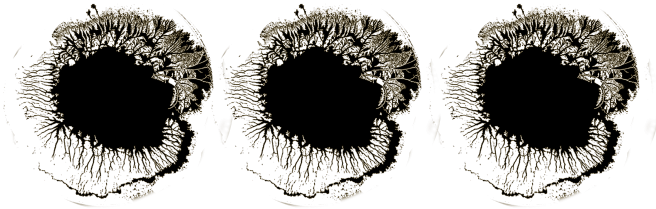


PHYSARUM & I

Experiment Kit



Contents

- 1 huge petri dish with a maze ("Maze" experiment)
- 1 small agar agar petri dish with Physarum Polycephalum sample (needed for all experiments)
- 1 small petri dish with agar agar and the letter "P" written with super nutrient solution ("Physarum writes his name" Experiment)
- 1 Diary (for your thoughts on the organism and the experiments)
- 4 Spatulas (usefull to get Physarum Polycephalum out of the dish, needed for all experiments)
- 1 Falcon tube with oats (that's what Physarum Polycephalum finds yummie, feed him well)

With this small DIY-Kit we provide you all the things you need in order to get comfortable with your new pet, the single celled organism Physarum Polycephalum.

We invite you to try out different experiments and document with your cell phone camera. Do a timelapse video and share it with the world on social media. Please use the tags that you find in your diary.

As Physarum is a living organism and perceives his environment as you do too, maybe in a different way, but he also feels, he is hungry, he wants to move and discover its surroundings and is curious. But there are some specials rules you should never forget. Physarum is like a small Gremlin and if you don't follow the rules, we tell you down below, he will transform into something different:

1. He hates light, especially UV-Light. Never leave him in direct sunlight. It is ok if you keep him exposed to the light in your room for some time. For example, if you want to do the time lapse, you need some artificial light. That is ok! But note he tries to get away from it. If you expose it to UV-Light for to long
2. Don't let it starve. Feed it well with oat flakes. Yes, oat flakes. The ones you probably eat for breakfast. Prepare to share your breakfast with him. He can smell the oat flakes and find the fastest way. Physarum is always very hungry. If he can't find food he will transform.!

3. Don't let him dry out. He loves the moisture and needs it for movement and contractions in its venous system. He also got just like you some sort of blood in its veins, but it yellow and moves back and forth. This flow creates a peristaltic movement. The same movement our intestines do to move the food we consume. If you let it dry out it will transform!

We would like to merge all the samples back in the end, so the slime molds can fuse to one big cell and "tell" each other what they experienced outside of the lab and also learn from each other. To do so we asked you to bring a part of your sample back to the lab at some point. Your sample will meet all the other samples and metaphorically you will meet the people that took care of the sample through your sample. Socializing through the slime mold!

Experiment 1 — MAZE

Welcome to the MAZE experiment. Take the huge petri dish with the maze and have a look. Discover it yourself before and decide which path you want the Slime mold to use. Now place some of the oat flakes provided close to a starting point in the maze. Place some more oats at the finish and if needed some on the way in the middle of the maze. Now take the personal sample of the slime mold you chose in the workshop and place it close to the start. Now it is time to observe it. Take pictures, check every few hours and document. Use your booklet to take notes or draw something. Let it inspire you. We also give ours a name and talk to it. Try it! It needs to get comfortable in its new environment. Physarum Polycephalum feels everything that is happening around him. He noticed you took him to a new home. So, take good care of him. Store him in the dark. But if you like place your cell phone above it and put on an overnight time lapse recording. Like we showed in the workshop. Therefore, you also need to set up some artificial light. That's totally fine for up to 48 h.

Have fun and share your experience with us and also on social media. All the tags and who to tag you will find on the small cards also provided in the kit.

Experiment 2 — PHYSARUM WRITES ITS NAME

Welcome to the PHYSARUM WRITES ITS NAME experiment. Take the small petri dish with the letter “P”. Now take the personal sample of the slime mold you chose in the workshop and place it in the petri dish with the letter at the bottom of the “P”. Physarum now starts to “smell” the super yummie letter “P” and discovers it. He really like the mixture from oats and potatoes. Now it is time to observe it. Take pictures, check every few hours and document. Use your diary to take notes or draw something. Let it inspire you. We also give ours a name and talk to it. Try it! It needs to get comfortable in its new environment. Physarum Polycephalum feels everything that is happening around him. He noticed you took him to a new home. So, take good care of him. Store him in the dark. But if you like place your cell phone above it and put on an overnight time lapse recording. Like we showed in the workshop. Therefore, you also need to set up some artificial light. That’s totally fine for up to 48 h.

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Experiment 3 — A NATURAL HABITAT FOR POLYCEPHALUM

Welcome to the A NATURAL HABITAT FOR POLYCEPHALUM experiment. In this 3rd experiment we invite you to discover the slime mold in its natural habitat. Therefore, take a glas or a small box and collect some natural “ingredients” from around your house or from the parc. Maybe also some insects. Find out what the slime mold might like. You also might wanna try some mushrooms from the supermarket. Build a beautiful home for it! Make him feel comfortable in its new environment. Now it is time to observe it. Take pictures, check every few hours and document. Use your diary to take notes or draw something. Let it inspire you. We also give ours a name and talk to it. Try it! It needs to get comfortable in its new environment. Physarum Polycephalum feels everything that is happening around him. He noticed you took him to a new home. So, take good care of him. Store him in the dark. But if you like place your cell phone next to it

and put on an overnight time lapse recording. Like we showed in the workshop. Therefore, you also need to set up some artificial light. That’s totally fine for up to 48 h.

Have fun and share your experience with us and also on social media. All the tags and who to tag you will find on the small cards also provided in the kit.

SOME LAST HINTS FOR YOU

You will always just use a small part of the slime mold for your experiment. Keep one petri dish with only the slime mold culture in the dark and feed it well, so you will always have some. If you don’t have time at some point to take care of it anymore, you can either put it back to nature or smear it on a piece of paper towel from the kitchen and it will dry out and survive up to 2 years. If you want to wake it up again you just drop some water on it and place food on the agar (find the agar recipe below). Please note, that you have a living organism in your house. You treat it like you would also treat a so called “normal” pet. Be careful and don’t throw it away!

AGAR RECIPE

If you need more agar agar plates use the following recipe:

100 ml distilled or tap water
2 g of agar agar (without sugar)

Mix water with agar and either microwave 1 min at a time, stop and check if its boiling. If its not boiling, microwave it again. Be careful it might cook over fast. Alternatively you could also cook it on your stove. Pour the hot mixture either in a petri dish, or if you have none just use some glassware or what ever you have. Let it cool down until it gets stiff. Voilà, new bed for the slime mold is ready.