

## **Characterization of hyphal growth and fungal network of *Podospora anserina***

The overall thematic of “Biologie et Biotechnologie des Champignons” (B2C) team is to understand how fungi are able to grow and to spread in a highly competitive environment. In this context, one of our research projects is to study how hyphal growth and fungal network set up, especially under various constraints. It is known that fungal networks lead to a very efficient exploration of the surrounding environment (at a microscopic scale) but also provide a very effective way to colonize spreading areas (at a macroscopic scale). In collaboration with LIED physicists, we then developed a system of making observations and collecting data, allowing a dynamic observation of hyphal growth and fungal network at microscopic and macroscopic levels. Here we present some promising experiments based on the observations of the development of filamentous fungus *Podospora anserina* in standard conditions and under various environmental constraints.