

**TANPOPO: Astrobiology exposure and micrometeoroid capture**

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TANPOPO, dandelion, is the name of a grass whose seeds with floss are spread by the wind. We propose the analyses of interplanetary migration of microbes, organic compounds and meteoroids on ISS-JEM. Ultra low-density aerogel will be used to capture micrometeoroid and debris. Particles captured by aerogel will be used for several analyses after the initial inspection of the gel and tracks. Careful analysis of the tracks in the aerogel will provide the size and velocity dependence of debris flux. The particles will be analyzed for mineralogical, organic and microbiological characteristics. To test the survival of microbes in space environment, microbial cells will be exposed. Organic compounds are also exposed to evaluate the possible denaturation under the conditions. Aerogels are ready for production in Japan. Aerogels and trays are space proven. All the analytical techniques are ready.