

The secret life of newly-formed milk kefir grains derived from freeze-dried microbial cells

This is the last addendum to the study report [<https://hal.archives-ouvertes.fr/hal-01253250>].

The discovery of a whole new generation of kefir grains took place in 2012. The kefir grains were formed *de novo* using a freeze-dried starter of yeasts and bacteria cells (for details of the procedure see above reference). The grains could be distinctly visualized, and many aspects of their daily activities were captured at random moments for up to four months.

This unique collection of photographic images offers a brief glimpse into the diversity of newly-formed kefir grains. The photographs reveal the intimate bonds that unite the grains, very much like a whole community. The author was able to visualize baby grains separated from their mother grains and record continual motions and interactive behaviors between individual grains arranged in pairs or larger formations. The grains produced a delectable beverage with typical fermentation behavior inherent to authentic kefir.

Despite the lack of information regarding microbial composition, there is no doubt that genuine, propagating kefir grains were produced in this study. The author is sharing this work in the hope that this will stimulate further research on kefir grains to help elucidate the various factors that might have contributed to their *de novo* self-assembly formation and interactive behavior patterns.

































































































































































