

## Photographs and Image Sequences (Primary Source Materials, Part of HAL-01251319 and HAL-01253250)

Notes: These illustrations are not essential to the main flow of the study report but constitute supplementary information on reconstituted kefir grains, and should be referred as part of the original full-text report. All photographic records were created during the study period from August 2012 until November 2012 (using an experimental culture model [ECM] system) and continuing through December 2015 (using routine milk culture conditions). A Sony digital camera, Model DSC-W350 was used for image acquisition. For readability, only representative images are shown here.

**Illustrations 1–53:** Transitional forms of newly-discovered, reconstituted kefir grains in an ECM system. Individual kefir grains are molded into many life forms that are under continuous growth and deformation. Note the matched regions between forms that can be found in the numerous image-series taken on various days or weeks apart. After giving close attention to structural elements, the reader should be able to identify the linkage between the forms for any given grain. Some images illustrate dynamic scenes containing moving grains in different orientations.

**Illustrations 54–63:** Propagating kefir grains in milk culture system originating from reconstituted kefir grains. Complex macrostructures were observed with many interesting morphological features laying the foundation for the next generations of grains. The last image show partially dehydrated grains preserved in powdered milk before freezing; these grains have remained viable for at least 18 months.

### Illustration 1



Illustration 2



### Illustration 3



**Illustration 4**





Illustration 5



**Illustration 6**



## Illustration 7



## Illustration 8





**Illustration 9**



**Illustration 10**



**Illustration 11**



## Illustration 12



**Illustration 13**

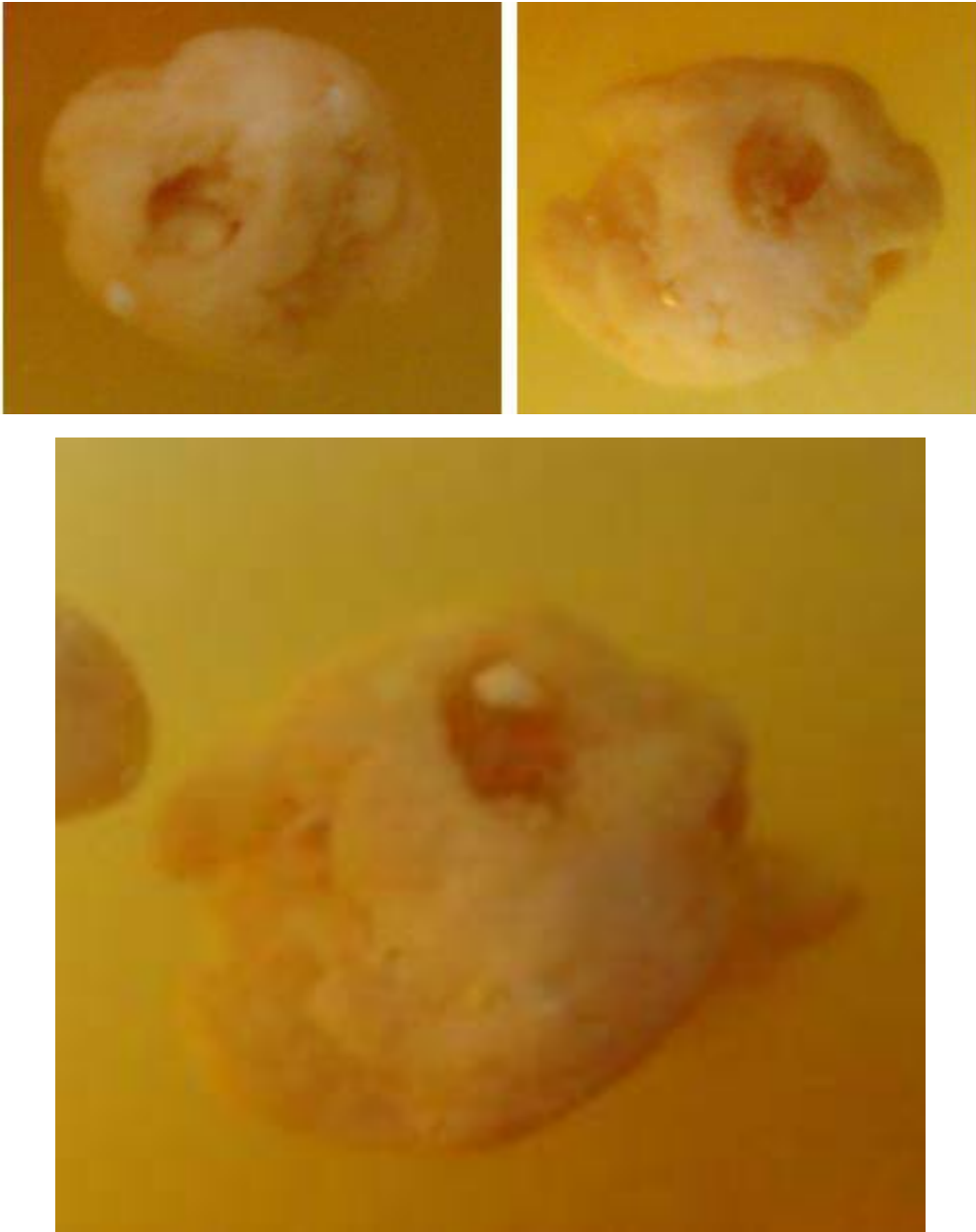




**Illustration 14**



**Illustration 15**



**Illustration 16**



Illustration 17

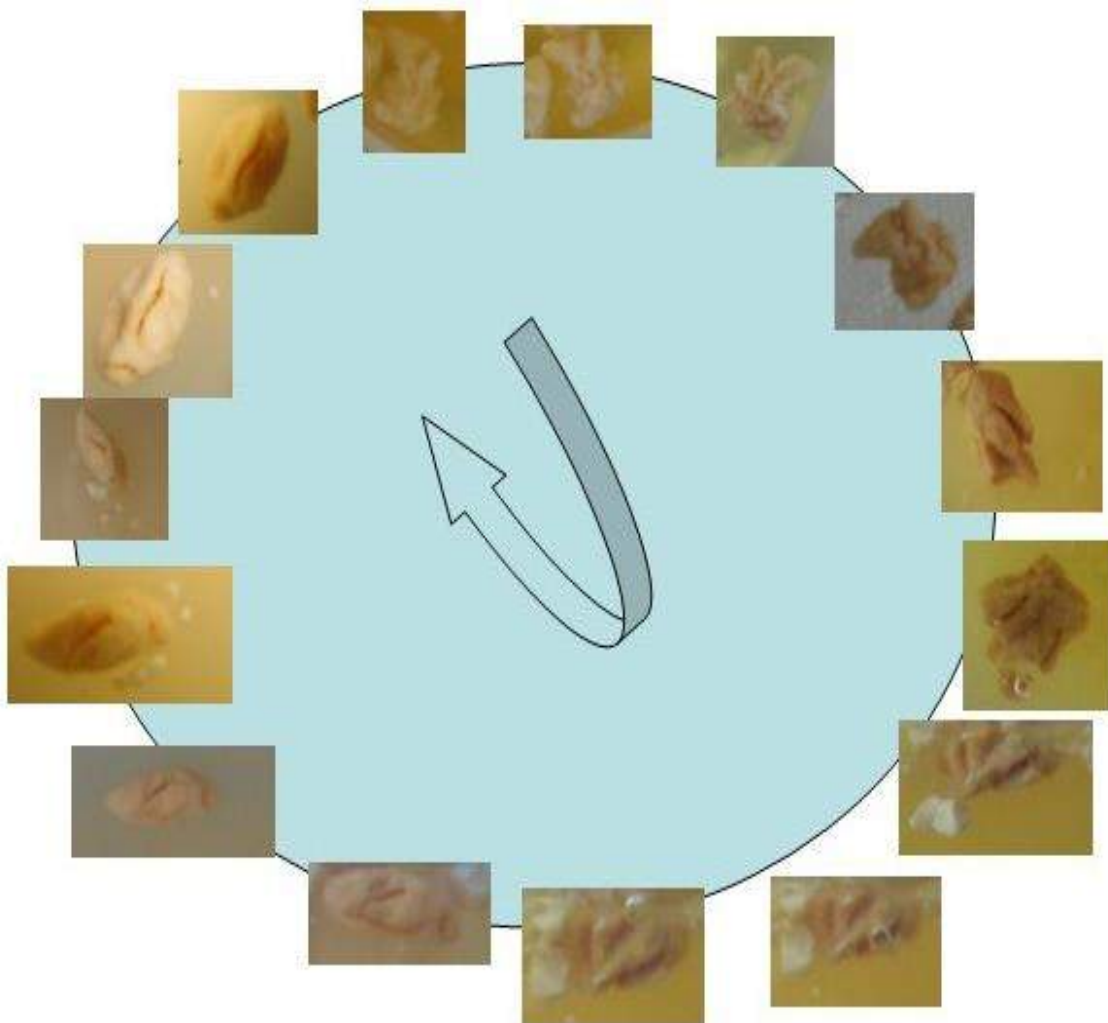
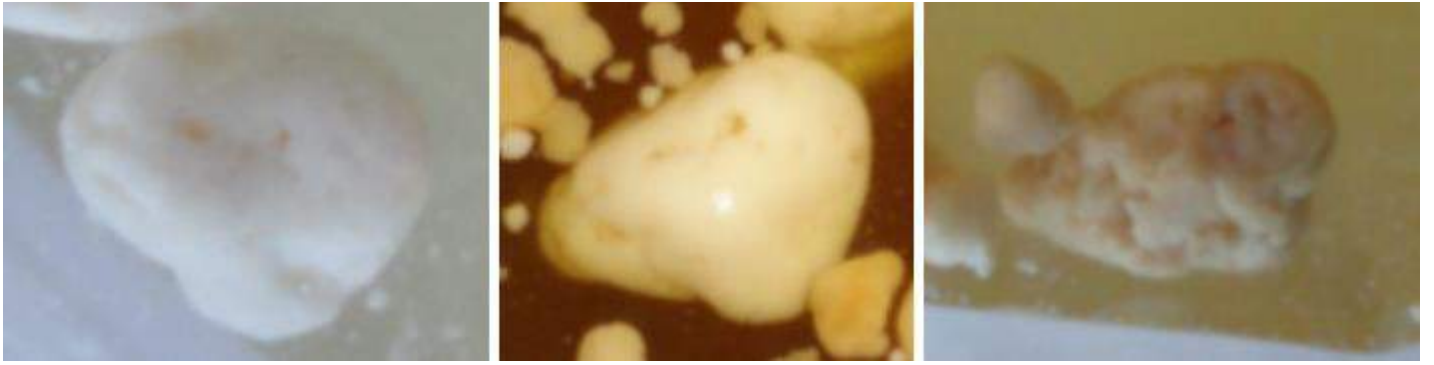


Illustration 18





**Illustration 19**



## Illustration 20



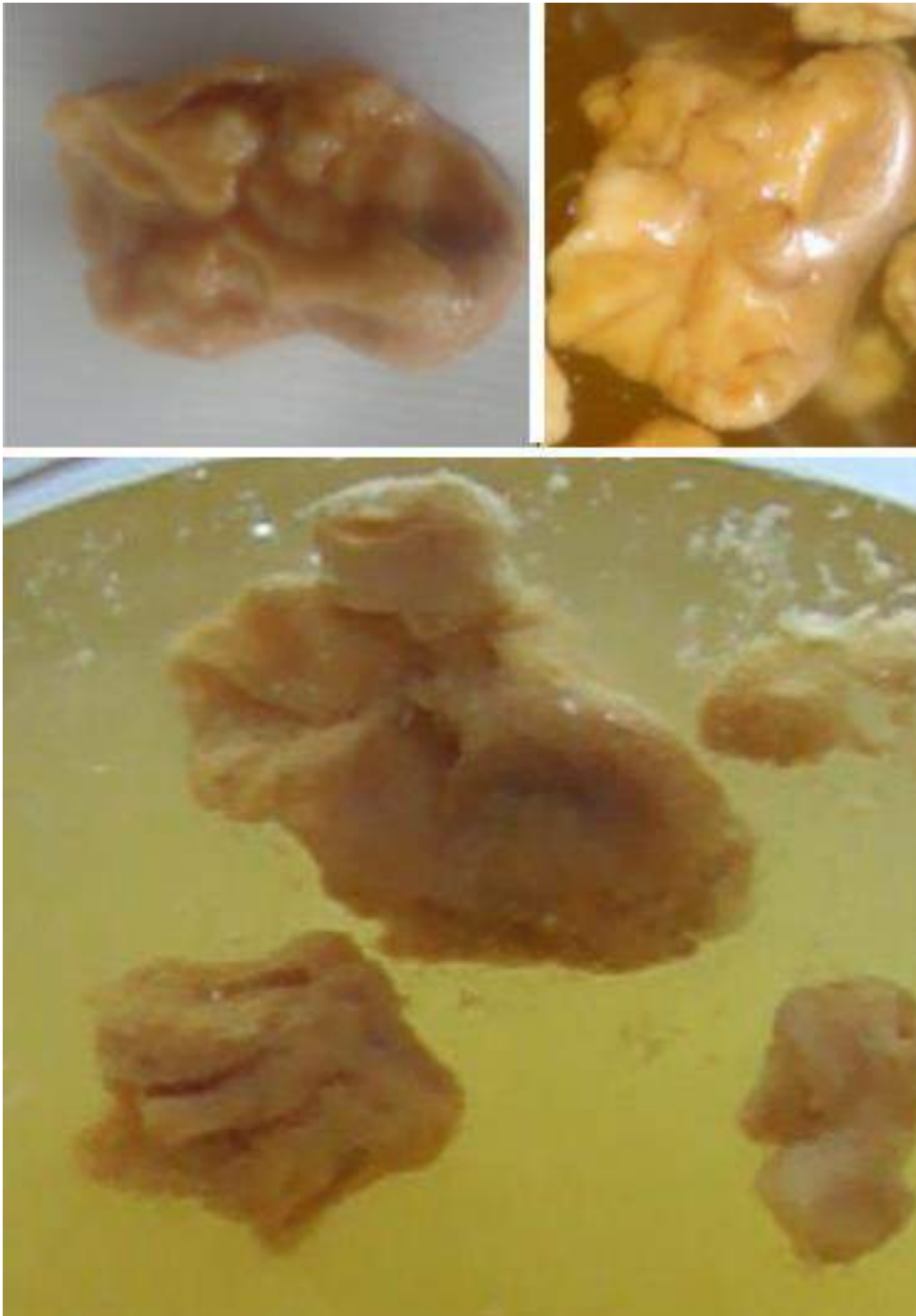
**Illustration 21**



Illustration 22

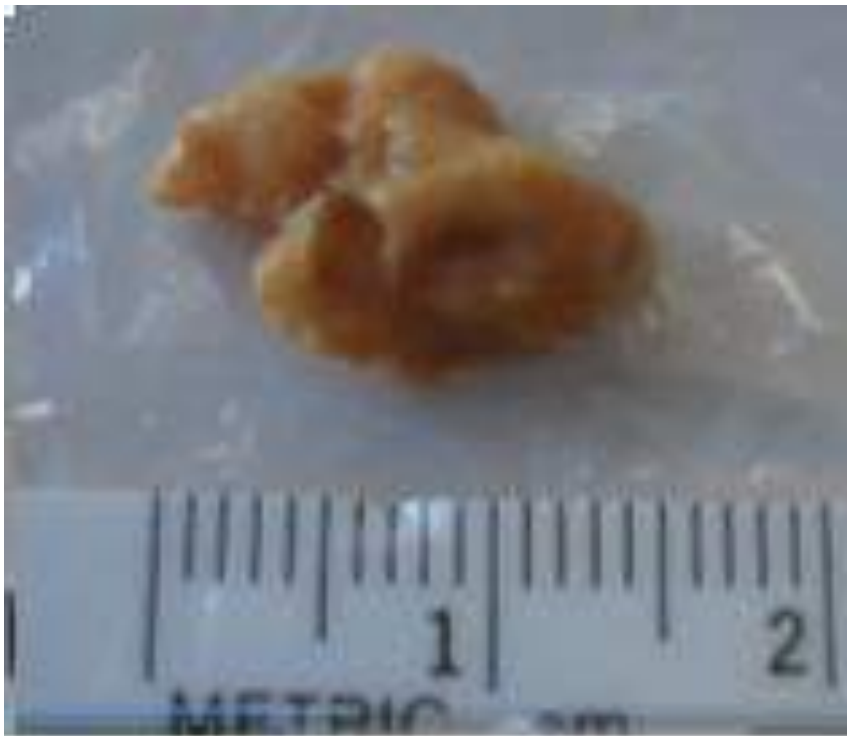


**Illustration 23**





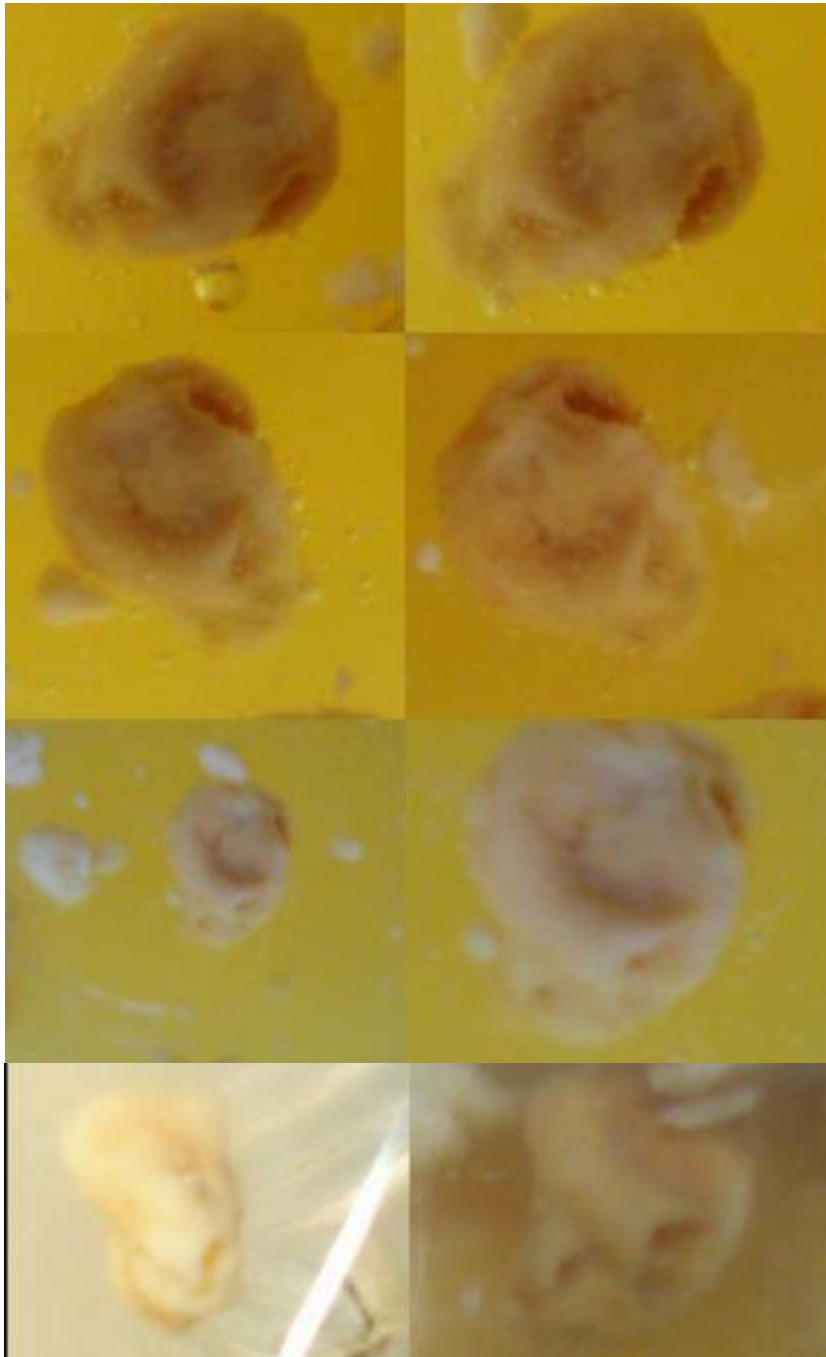
**Illustration 24**



**Illustration 25**



Illustration 26



**Illustration 27**



**Illustration 28**



**Illustration 29**

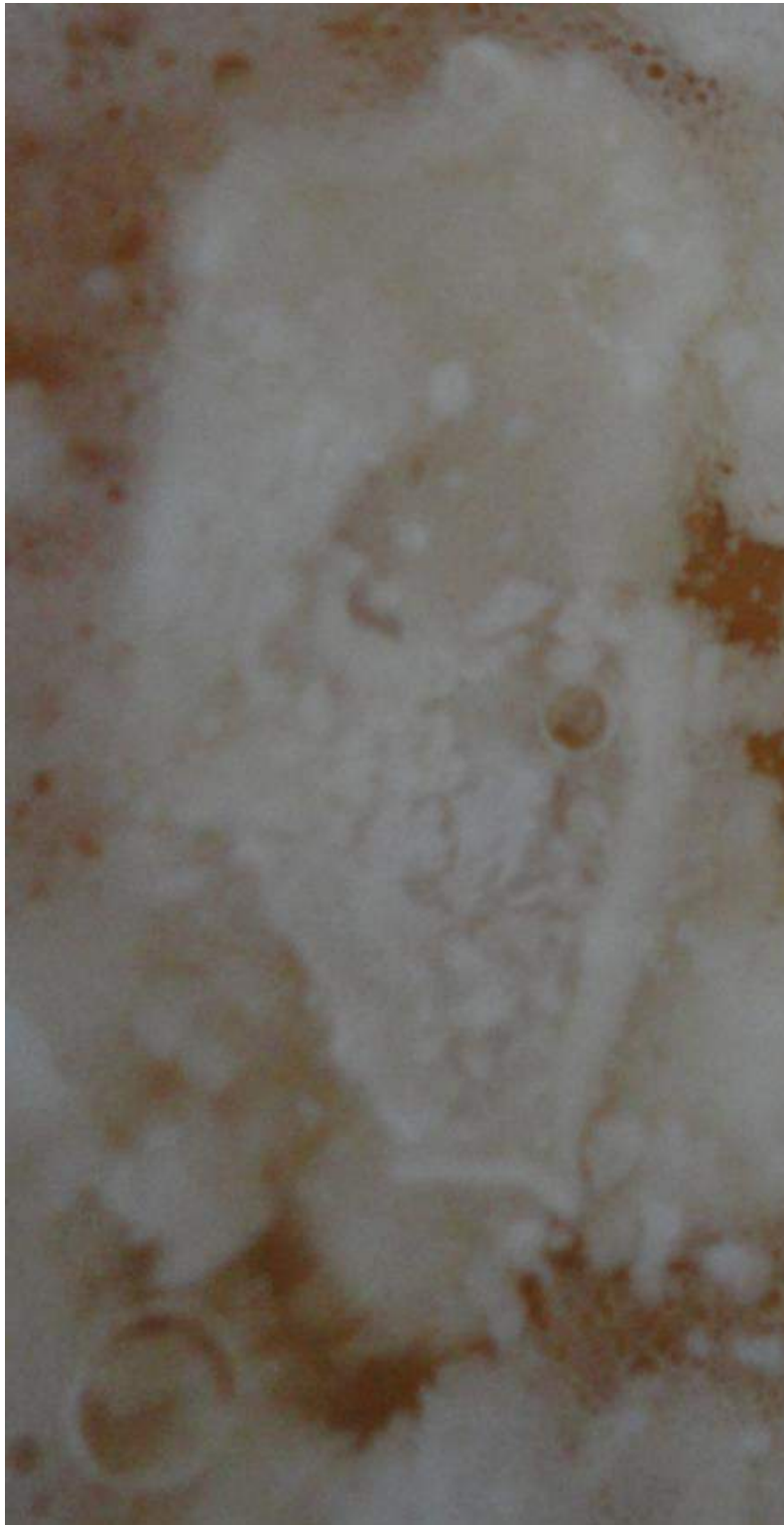




**Illustration 30**



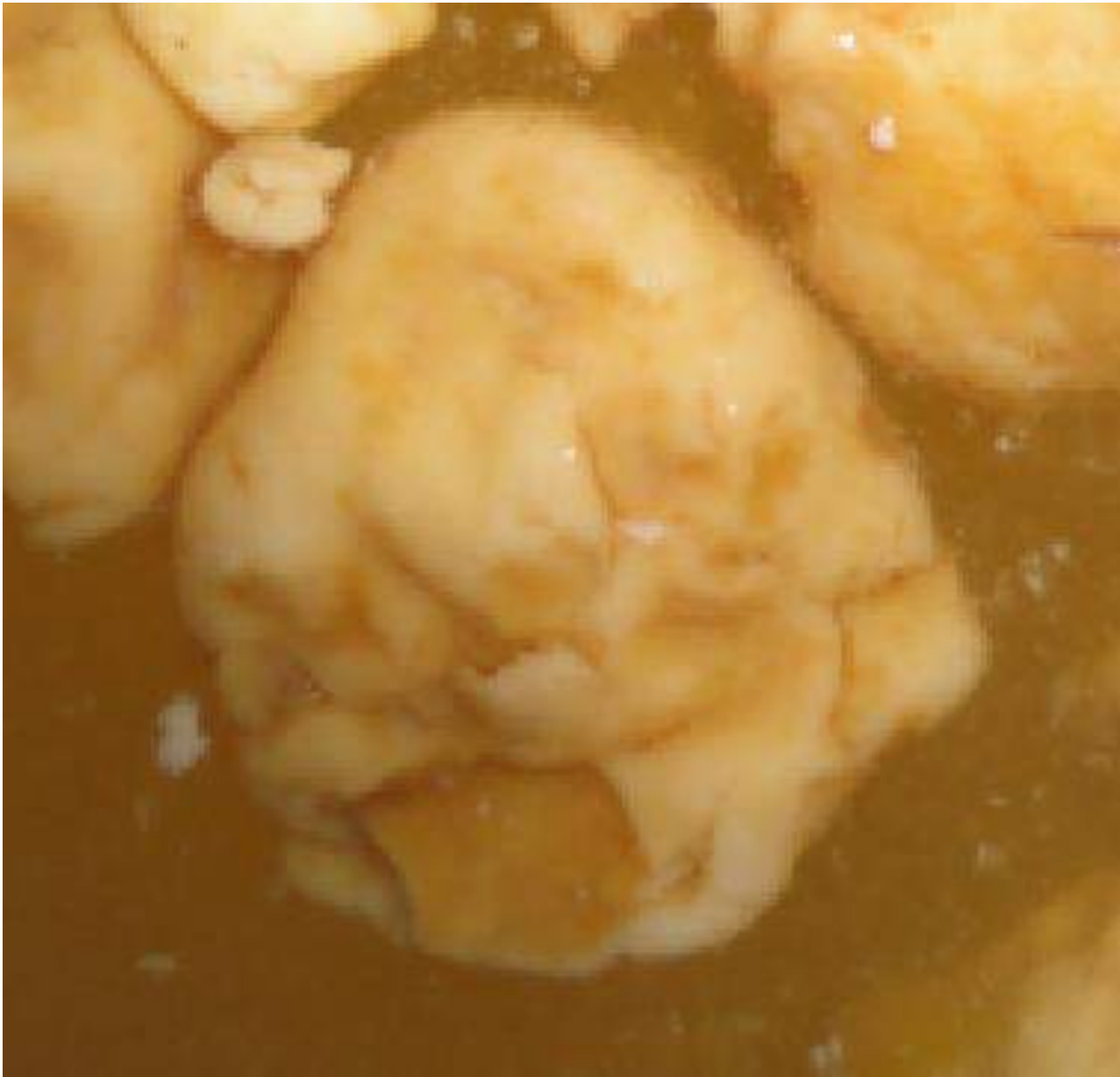
**Illustration 31**



**Illustration 32**



**Illustration 33**



**Illustration 34**





**Illustration 35**





Illustration 36



**Illustration 37**



**Illustration 38**



**Illustration 39**



Illustration 40





Illustration 41





**Illustration 42**



**Illustration 43**



**Illustration 44**



## Illustration 45



**Illustration 46**

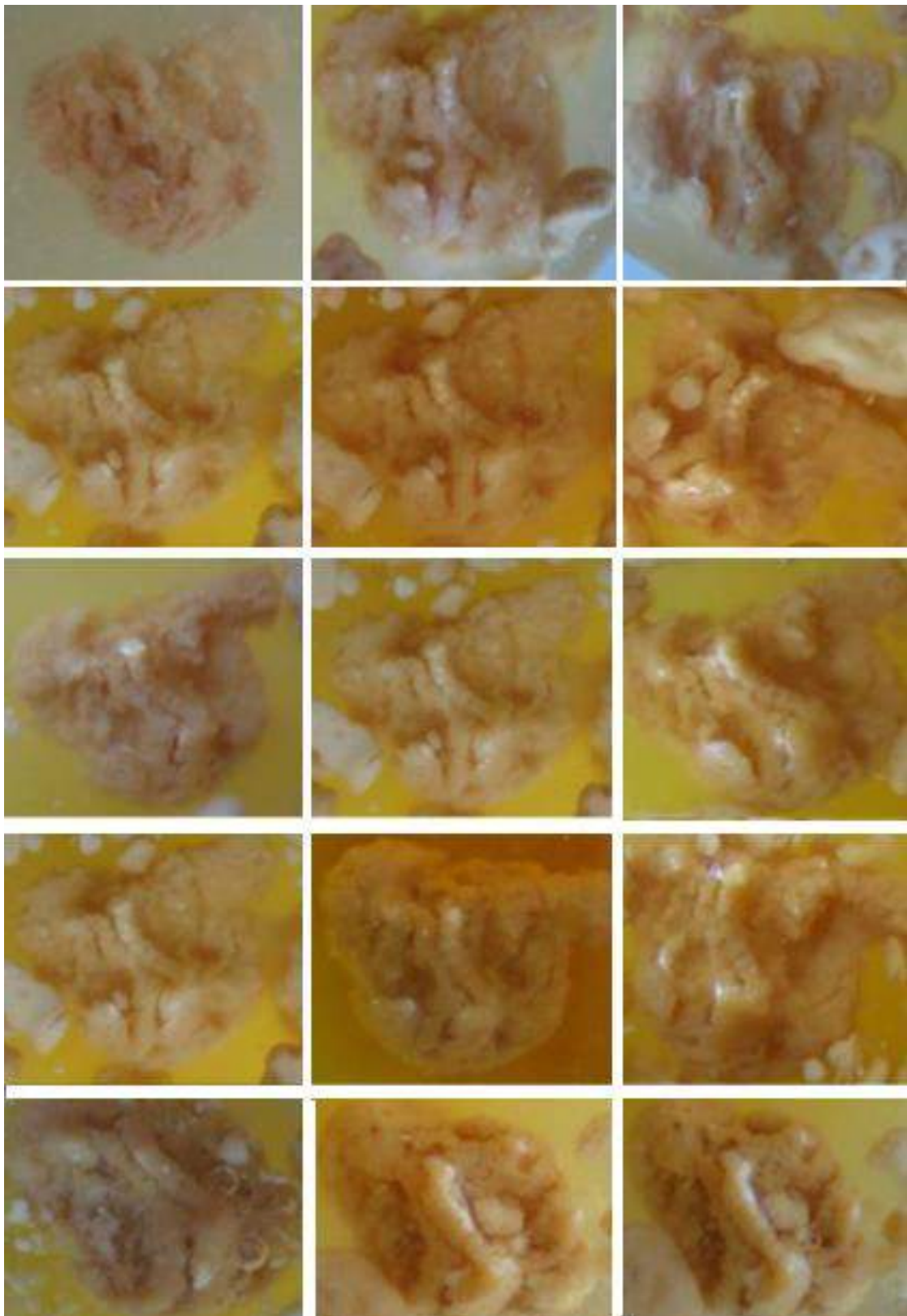


Illustration 47

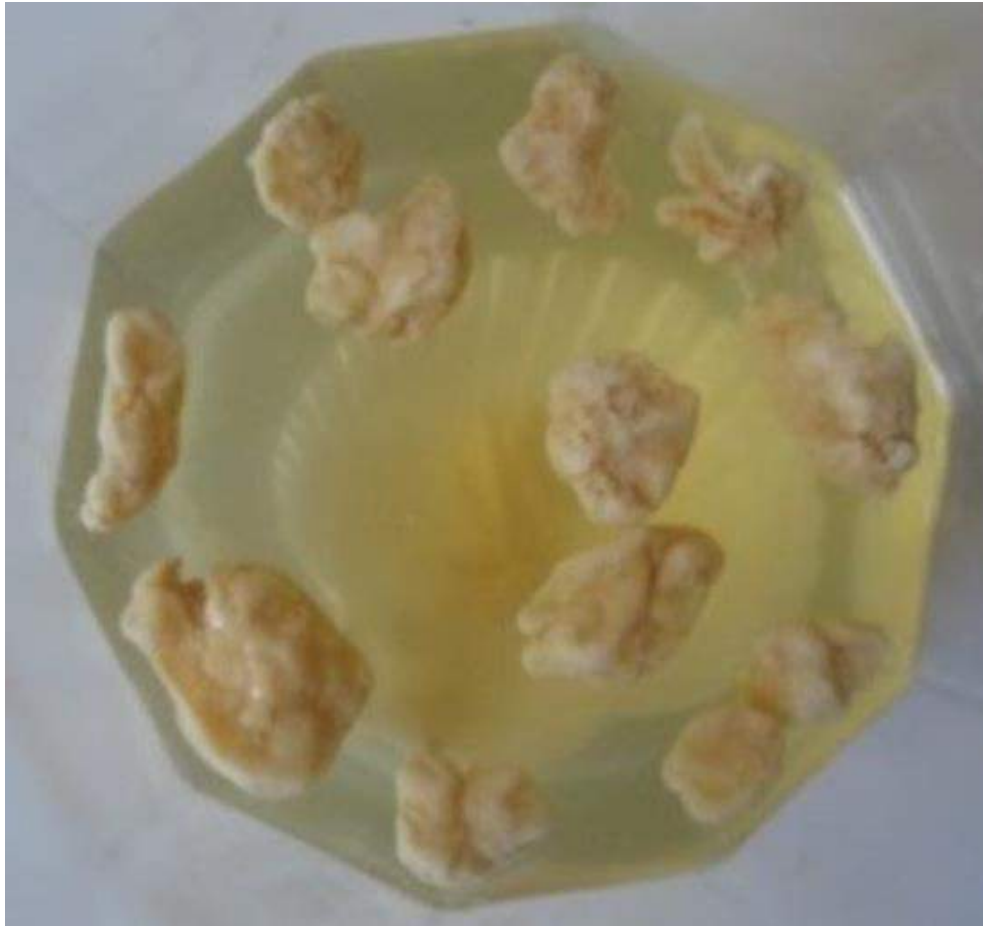




Illustration 48



**Illustration 49**



**Illustration 50**



**Illustration 51**





**Illustration 52**



**Illustration 53**





**Illustration 54**



**Illustration 55**



**Illustration 56**



**Illustration 57**



**Illustration 58**





**Illustration 59**

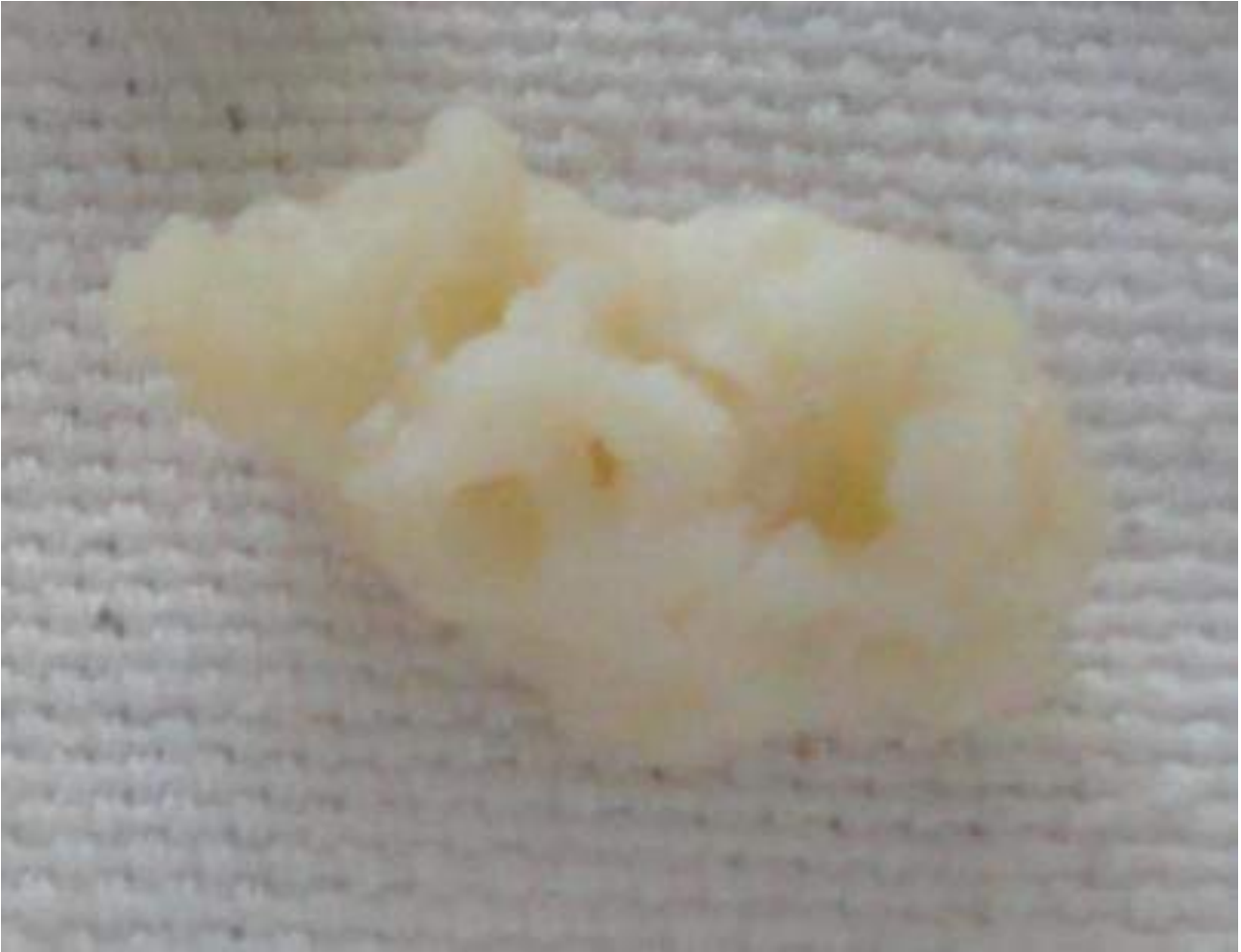




**Illustration 60**



**Illustration 61**



**Illustration 62**



**Illustration 63**

