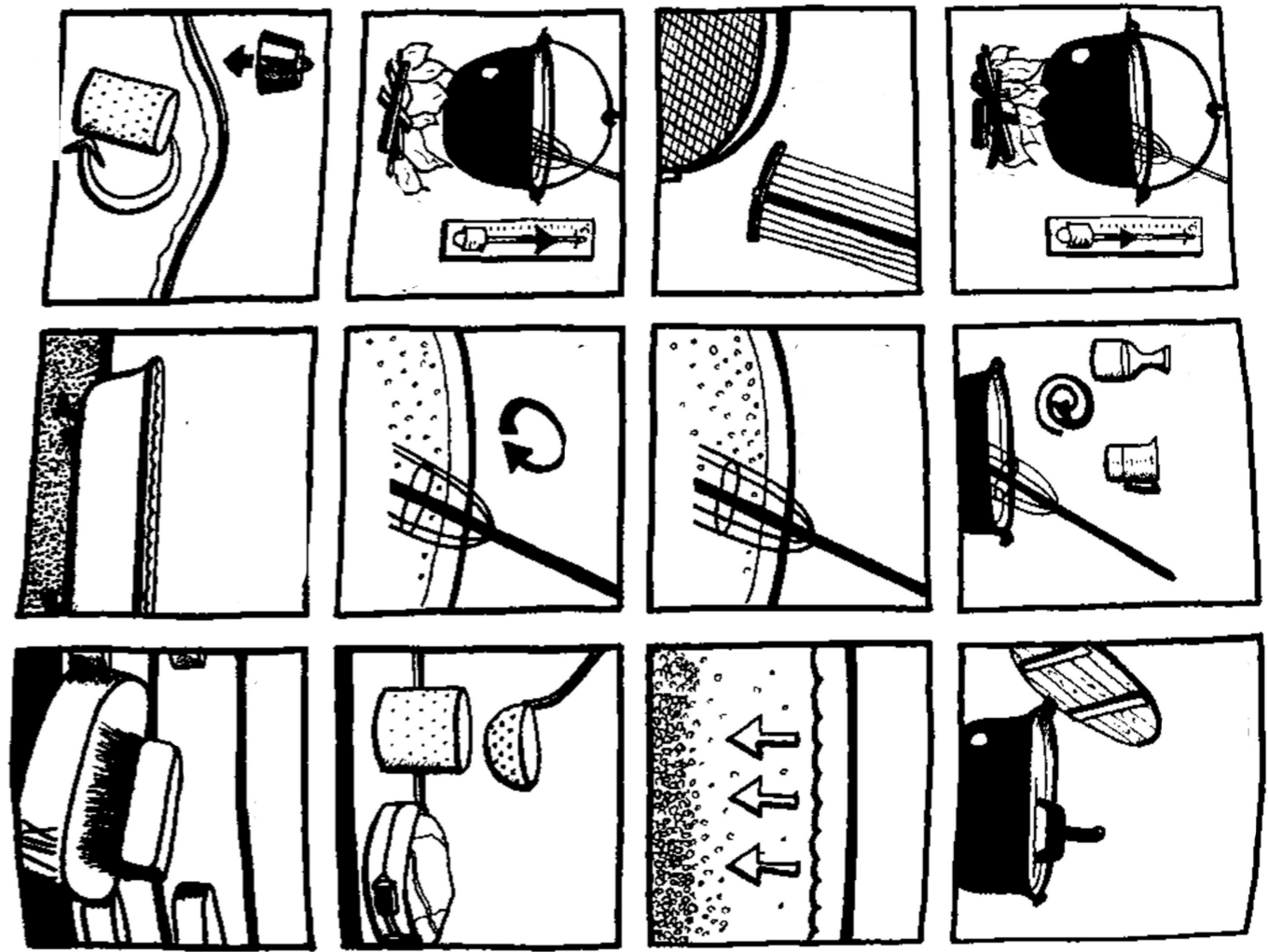
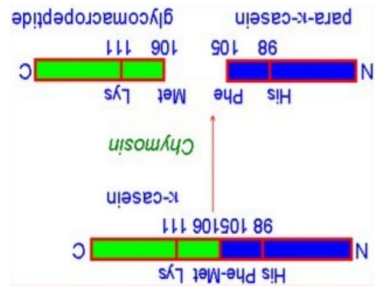
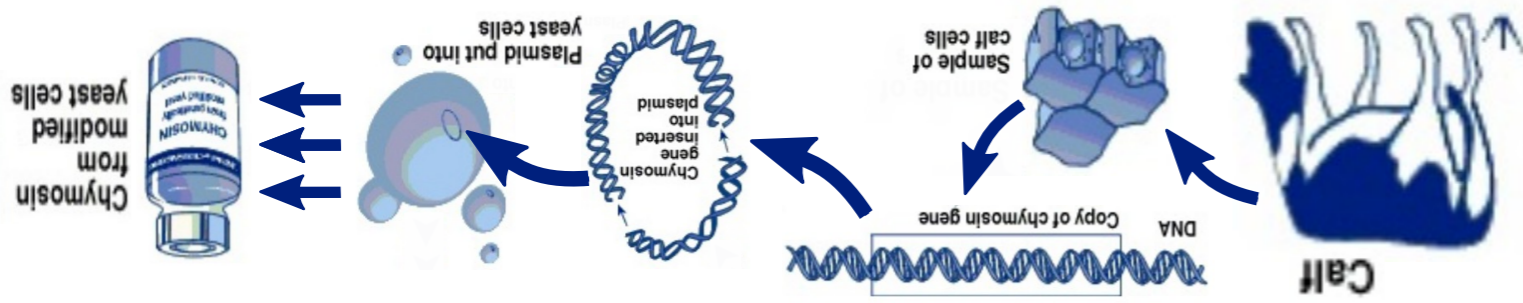


GRUNDRZEPT FÜR'S KÄSEN



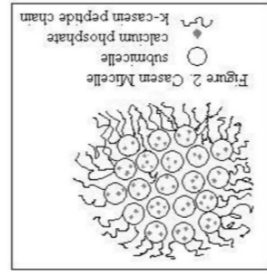
Recombinant production of Chymosin (FPC)



Rennet/rennet is a complex of enzymes produced in the stomachs of ruminant mammals. Chymosin, its key component, is a protease enzyme that curdles the casein in milk. This helps young mammals digest their mothers' milk. Rennet can also be used to separate milk into solid curds for cheesemaking and liquid whey. Phytic acid, derived from unfermented soybeans, or fermentation-produced chymosin (FPC) may also be used. Vegetable rennets are also suitable for vegetarians.

Chymosin aka FPC aka Rennet aka Lab

What is Milk? What is Cheese?
 Milk is a pale liquid produced by the mammary glands of mammals. It is the primary source of nutrition for infant mammals before they are able to digest other types of food. Dairy farms produced about 730 million tonnes of milk in 2011, from 260 million dairy cows.
 Cheese is a food derived from milk that is produced in a wide range of flavors, textures, and forms by coagulation of the milk protein casein. It comprises proteins and fat from milk, usually the milk of cows, buffalo, goats, or sheep.



Cheese & CRISPR Workshop

10 Feb 2017 @ BioClub - Tokyo

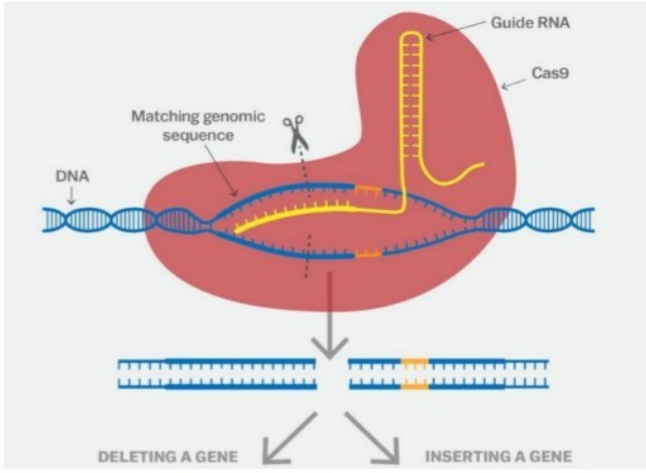
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Introduction

We are hosting you for an evening of discussions and hands-on experiments bridging topics of traditional fermentation (cheese making) and modern biotech tools of gene-editing (eg. the CRISPR-Cas9 system). Chrisper-Chäsli is an attempt to demystify the current hype around gene-editing technologies and speculate about how we can integrate them into public use, play, food and games for a better world.

DIY CRISPR - CHÄSLI



Traditionally cheese is made from cow milk and curdled using rennet, an enzyme (chymosin) extracted from the cow's stomach. Enzymes such as the chymosin or the Cas9 molecules, the latter is the current superstar in gene-editing, are nowadays produced recombinantly in other easy-to-use lifeforms. This means the gene for the enzyme has been inserted into so called "cell-factories", like yeasts or bacteria, which then expresses and produces large quantities of it.

WE HAVE ALWAYS BEEN BIO-HACKERS

HACKTERIA.ORG LIFEPATCH
 Open Source Biological Art citizen initiative in art, science and technology

