

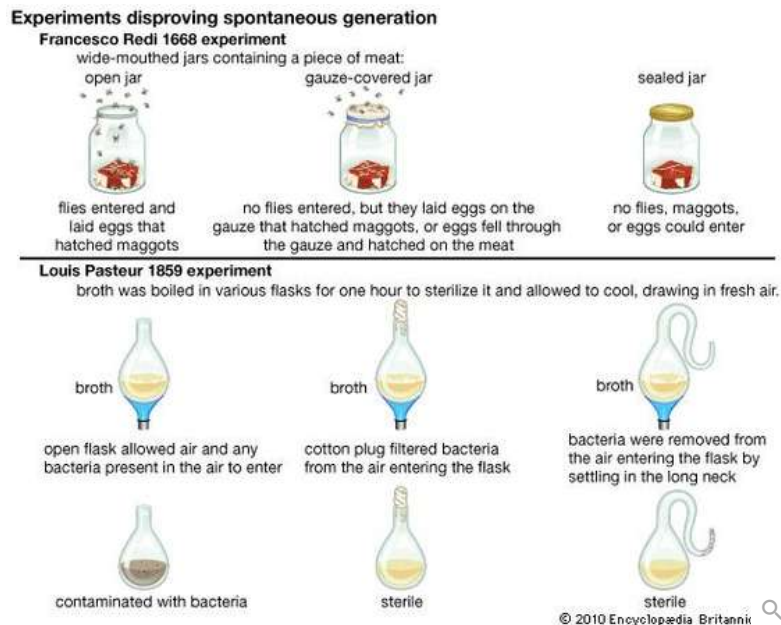


Spontaneous generation

BIOLOGICAL THEORY

WRITTEN BY: [The Editors of Encyclopaedia Britannica](#)

Spontaneous generation, the hypothetical process by which living organisms develop from nonliving matter; also, the archaic theory that utilized this process to explain the origin of life. According to that theory, pieces of cheese and bread wrapped in rags and left in a dark corner, for example, were thus thought to produce mice, because after several weeks there were mice in the rags. Many believed in spontaneous generation because it explained such occurrences as the appearance of maggots on decaying meat.



spontaneous generation experiments

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By the 18th century it had become obvious that higher organisms could not be produced by nonliving material. The origin of microorganisms such as bacteria, however, was not fully determined until Louis Pasteur proved in the 19th century that microorganisms reproduce. See also biopoiesis.

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biology: Spontaneous generation

If a species can develop only from a preexisting species, then how did life originate? Among the many philosophical and religious ideas advanced to answer that question, one of the most popular was the theory of spontaneous generation, according to which, as already...



life: Spontaneous generation

Life ultimately is a material process that arose from a nonliving material system spontaneously—and at least once in the remote past. How life originated is discussed below. Yet no evidence for spontaneous generation now can be cited.

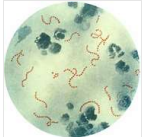


Fermentation and putrefaction were often perceived as being spontaneous phenomena, a perception stemming from the ancient belief that life could generate spontaneously. During the 18th century the debate was pursued by the English naturalist and Roman Catholic divine John Turberville Needham and the...



life: Hypotheses of origins

Life, particularly simple forms, spontaneously and readily arises from nonliving matter in short periods of time, today as in the past. Life is coeternal with matter and has no beginning; life arrived on Earth at the time of Earth's origin or shortly thereafter. Life arose on the early Earth...



microbiology: Spontaneous generation versus biotic generation of life

...influence regarding this concept of spontaneous generation was still felt as late as the 17th century, but toward the end of that century a chain of observations, experiments, and arguments began that eventually refuted the idea. This advance in understanding was hard fought, involving series of events, with forces of...

MORE ABOUT Spontaneous generation

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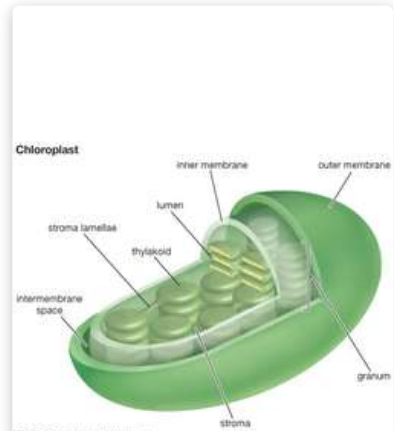
Horse

Horse, (*Equus caballus*), a hoofed, herbivorous mammal of the family Equidae. It comprises a single species,...



Bird

Bird, (class Aves), any of the more than 10,400 living species unique in having feathers, the major characteristic...



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Photosynthesis

Photosynthesis, the process by which green plants and certain other organisms transform light



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