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## Twelve ideas you should know about Louis Pasteur

*Pasteurization*, a technique that brings milk to a temperature between 55°C and 75°C for 17 seconds, in order to eliminate pathogenic microorganisms without affecting the natural flora; it is one of the greatest discoveries of Louis Pasteur, our guest, 200 years after his birth.

- 1 | Louis Pasteur, the scientist who discovered how to fight microbes, was born in a small town called Dole, in Burgundy, France, on December 27, 1822, into the home of Jeanne-Étiennette Roqui and Jean-Joseph Pasteur, a tanner and former sergeant in Napoleon's army.
- 2 | He was not a good student in natural sciences, yet he became the French chemist who taught us to wash our hands to fight microbes and who made great and important contributions to science, especially chemistry and microbiology.

**Pasteur never shook hands with anyone, not even kings, because he was afraid of contracting a disease from contact.**

- 3 | From a young age, he showed aptitude for artistic work such as painting. As a very young boy, he produced a series of portraits of his family that revealed his keen eye for precision and detail.

**4** | At first, he wanted to be an art teacher, but in 1842, after having worked as a teacher at the Royal School of Besançon, and at the insistence of his father, he graduated from high school with a “mediocre” grade in Chemistry.

**5** | His father sent him to the École Normale Supérieure in Paris, but not for long, since he decided to go back to his native land; later on, he would return to Paris. He went through the École Normale Supérieure and became a Physics teacher at the Lycée de Dijon, though what he wanted was to be a chemist.

**Napoleon III suggested that he expand his research on wine. Good French wine was appreciated in Europe, but the producers lost money because the bottles got damaged.**

**6** | In 1847 Pasteur graduated as a doctor in Physics and Chemistry at the École Normale in Paris and became an assistant to his teacher, the chemist Jean-Baptiste Dumas.

**7** | Between the years 1847 and 1853, he was a Chemistry professor in Dijon and then Strasbourg; there he met Marie Laurent, the university president’s daughter, whom he married in 1849.

**8** | From his marriage he had five children, three of them died very soon from typhus and two survived to adulthood: Jean-Baptiste and Marie-Louise.

**9** | Louis Pasteur was dean of the University of Lille in 1854. At this time, he decided to study the problems of the irregularity of alcoholic fermentation.

**His own words are read on his tombstone: *Happy is he who carries with him an ideal, an internal god, be it the ideal of the country, the ideal of science or simply the virtues of the Gospel.***

**10** | He discovered that food spoiled over time due to exposure to other living organisms, and an example of this was what happened with the wine business, because until then people had believed that life appeared spontaneously, for example, that worms were born from dead meat. Thus, he formulated the “germ theory of disease”.

**11** | In 1857 he held the position of director of Scientific Studies at the École Normale of Paris, whose laboratory he directed from 1867. From its creation in 1888 and until his death he was director of the Institute that bears his name.

**12** | Louis Pasteur died on September 28, 1895, at the age of 72, of cardiorespiratory arrest. France treated him as a national hero and therefore he was buried in Notre-Dame Cathedral.

These twelve ideas facts about the life of **Louis Pasteur** resulted from an exhaustive search in different sources of public domain. The text was prepared, reviewed and approved by the Editorial Committee of Revista Ingenio.