

Requirements for Revised (Corrected) Article

- Corrections specified by reviewers and/or the editorial board must be fully implemented. If necessary, the article should be re-read and corrected.
- After corrections, **three files** (four in necessary cases) should be **uploaded**:
 - i) Corrections should be highlighted in red (by selecting "Font Color-Red" under Home-Text Color) and uploaded to the system as a PDF titled "**Manuscript with Indicated Corrections**".
 - ii) After corrections, the article without marked corrections should be uploaded to the system as a Word document titled "**Revised (Corrected) Manuscript**".
 - iii) A letter detailing the corrections made in accordance with the reviewer report should be prepared and uploaded to the system as a PDF titled "**Corrections Letter**". This letter should specify what and how corrections were made based on the journal editorial board's or reviewers' reports.

Your article will be returned or rejected if these three files are not uploaded.

- iv) If your article is derived from a thesis, congress presentation, etc., this should be explicitly stated in a document uploaded to the system as a PDF titled "**Article Source**".

Example of correction indications: How to make corrections:

- If one or a few words are corrected and/or added, the area spanning one or two words before and after the corrected area should be highlighted in red.
- If an entire sentence is corrected and/or added, the entire sentence should be highlighted in red.
- If a paragraph is corrected, the entire section should be highlighted in red. In summary, even the smallest changes or corrections in the revised (corrected) article should be indicated.

Example Manuscript:

2.1. Discovery of Microorganisms

The discovery of microorganisms has paralleled the invention and development of the microscope. Around 1658, Athanasius Kircher used a microscope to observe tiny creatures in spoiled milk and meat, although he could not see bacteria due to the limited magnification of his microscope. In 1664, Robert Hooke described the structure of molds. However, the first person to likely see different types of microorganisms (especially bacteria) was Antony Leeuwenhoek, who used a microscope with a magnification of over 300x. Leeuwenhoek examined bacteria in saliva, rainwater, vinegar, and other materials. **As a result, he classified the living organisms he saw into three morphological groups: spherical or cocci, cylindrical rods or bacilli, and spirals. He also described them as motile organisms. He regarded these organisms as part of the animal kingdom (1676-1683).** Due to the lack of better microscopes at the time, Leeuwenhoek's observations remained valid for the next 100 years in scientific research. In the 19th century, the industrial revolution led to **more advanced** and easier-to-use microscopes, allowing many living organisms to be examined and described. 1830 Ehrenberg used the term bacteria and proposed at least 16 species within four genera. In 1875, Ferdinand Cohn developed the first bacterial classification system and discovered spore-forming

bacteria. By the mid-19th century (1840), the discovery of the electron microscope enabled the visualization of viruses, which resemble bacteria.

2.2. Origin of Microorganisms

Following Leeuwenhoek's discovery, although there was not much focus on observational activities, some scientific views noted that many different objects were observed by enthusiasts to be teeming with small animals. At that time, society was at the beginning of the Renaissance period and the idea known as experimental philosophy. The theory of 'spontaneous generation' (the appearance of living organisms in non-living matter) was supported by many educated and elite individuals. The idea of spontaneous generation was that life could arise from non-living matter, as seen with maggots appearing on decaying meat. However, around 1665, an experiment showed that if insects were allowed to contaminate rotting food, maggots appeared in the meat and fish used in the experiment. Proponents of spontaneous generation argued that maggots could not reanimate on their own (biogenesis). **However, maggots were found during abiogenesis (spontaneous generation). In 1749, Turbevill Needham demonstrated that maggot-like organisms appeared in boiled meat or broth kept in a sealed container. Lazzaro Spallanzani (1765) conducted an experiment where he sealed a container of boiled meat broth to prevent contamination by microorganisms. This experiment disproved Needham's theory. During this time, Antoine Lavoisier and his colleagues identified that some organisms needed oxygen. Spallanzani's theory suggested that non-spontaneous microbial life did not require oxygen. However, it was later shown that spontaneously generated organisms did need oxygen. Subsequently, Schulze (1830) analyzed air passed through acid, Theodore Schwann (1838) passed air through a hot tube, and Schröder (1854) used air filtered through cotton and observed no bacterial growth in boiled broth. Finally, Louis Pasteur (1861) demonstrated that bacteria in airborne dust could contaminate boiled broth, leading to organism growth. These controlled experiments successfully disproved the theory of spontaneous generation. John Tyndall (1870) showed that microorganisms did not grow in boiled broth stored in a dust-free environment.**

Correction letter: Corrections for Reviewer 1:

1. On page 5, the sentence "**when it arrived, was identified**" should be corrected (as the reviewer mentioned). Correction: On page 5, the correction specified by the reviewer was made as follows: "**when it arrived, the reports were delivered to the relevant department**". All corrections should be explained in this manner. In addition to the corrections requested by the reviewers and/or the editorial board, any corrections identified during your review of the article should also be made and clearly indicated.