serious problem, in that many animals would succumb to a more severe disease manifested by both gastrointestinal and pulmonary symptoms. Once animals died and their corpses were allowed to disintegrate in a pasture, it was well known that the particular pasture was thereafter suspect, in that the reintroduction of fresh animals in the spring often resulted in the reappearance of the disease. Thus, as a result of Koch's experiments, it was realized that the ability of the microbe to sporulate enabled it to withstand the harsh temperatures and conditions that often occur during the winter months.

Nowadays the livestock industry is protected from anthrax by vaccination. This protection of farm animals extends to farmers and other humans, such as textile workers and vets, so that anthrax infection of humans has become exceedingly rare, especially since the time of Koch. However, what is the situation with an anthrax vaccine for humans? In our country, the only vaccine available is only being administered to soldiers. Since the postal anthrax scare of 2001, the Administration, via the Defense Department ordered all new recruits to receive the vaccine. However, the vaccine is reportedly not 100% effective, requires 6 injections over a period of a year and a half, and is associated with side effects/toxicities that have led some army personnel to refuse it.

Louis Pasteur introduced a live attenuated anthrax vaccine more than 100 years ago. So why is the currently used vaccine so cumbersome and toxic? Also, is the current vaccine similar to the one introduced by Pasteur? Is the vaccine that is used for animals the same as the one used for humans?

When contemplating these questions, I remembered that in 1998, while in France, I happened to read an article in Le Figaro, which announced that the anthrax vaccine introduced by Pasteur in 1881 was in fact not the live attenuated vaccine that Pasteur had suggested he used at the time. Instead, the vaccine was a chemically killed vaccine that had been developed and introduced by one of Pasteur's rivals, a Dr. Toussaint, who was a veterinarian from Toulouse, France.

To understand the implications of the announcement by a leading French newspaper that the icon of the French scientific accomplishment and integrity had committed what amounts to scientific fraud, it is necessary to research the source documents of Pasteur's experiments and publications.

After Pasteur, the chemist, had dispensed with the theories of "spontaneous generation" as responsible for the chemical changes responsible for fermentation of sugar into alcohol in 1857, he went on over the next 20-years to perform a series of careful microbiological experiments in applied science in studies of bacterial contamination confronting the silk worm industry, as well as the wine, vinegar and beer industries, thereby establishing the importance of microbes for everyday endeavors. In the process of doing so, he became almost deified in France, if not the rest of the world as the icon of a scientist.

Thus, in April of 1878, just two years after Koch's revolutionary publication proving the microbiological cause of anthrax, Pasteur presented a "Summary" to the Academy of Sciences, essentially claiming priority of the germ theory of disease [10]. According to Pasteur:

"The only way currently available to science to experimentally prove that a microscopic organism is the cause of both the illness itself and its transmission, is to subject the microbe to serial cultures."

Pasteur then goes on to describe his experiments with the anthrax bacillus, never mentioning that Koch had already demonstrated the culture of the anthrax microbe two years earlier. In concluding, he states that:

"*I ask the Academy not to dismiss these curious results before I demonstrate one important theoretical conclusion. We insist on demonstrating at the start of these studies* (***that are opening a whole new world of knowledge***) *a proof that the cause of transmissible, contagious and infectious diseases resides essentially and uniquely in the presence of microorganisms.*"

Not yet two years later, in February of 1880, Pasteur again presented to the members of the Academy a treatise entitled "*Of Infectious Diseases, Especially the Diseases of Chicken Cholera*" [2].

In this presentation, Pasteur first reminded the members that the theory of spontaneous generation was false, as demonstrated by his very own experiments performed more than 20 years previously. He then set the stage by stating:

"Infectious diseases consist of most of the major disasters, such as smallpox, scarlet fever, rubella, syphilis, glanders, anthrax, yellow fever, typhus, and bovine plague."

Pasteur then discussed the phenomenon of vaccination as introduced by Sir Edward Jenner almost 100 years before as something already known by the common man, and essentially claims immunity for all other microbes for himself:

"*The practices of vaccination and variolization have been known in India for the longest time. Even before Jenner demonstrated the efficacy of vaccinia, people of the countryside*