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New York: Today, sun, then cloudy, high 38. Tonight, a period of rain and snow, low 33. Tomorrow, decreasing clouds, brisk, high 42. Yesterday, high 29, low 19. Weather map, Page B8.

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FIFTEEN CENTS

CRYPT OF HONORED SCIENTIST DESECRATED

HEATHER PRATT

PARIS — 20, June 1940 German occupiers of Paris violate the resting remains of Louis Pasteur, the father of Microbiology (2).

Joseph Meister, the first person to ever receive a Rabies vaccine by Pasteur and gatekeeper to the Institut Pasteur, defended Pasteur's crypt. When faced with death by the NAZIS, Meister committed suicide instead of desecrating his hero's remains. Irregardless, the NAZIS inhumanely broke into Pasteur's crypt (1).

Louis Pasteur, the only child of a poor tanner, was born in Dole, France (1). This remarkable man, coming from humble beginnings, revolutionized the world of science and



French Scientist Louis Pasteur (1822 – 1895)

medicine; a man who deserves such honors as being appointed the Grand Officer of the Imperial Order of the Legion of Honour in 1878 (2), while also receiving the Leeuwenhoek Medal in 1895 (3).

Pasteur's record is impressive! His most memorable discoveries

include Pasteurization – the heating of foods to remove dangerous germs – and disproving the erroneous concept of spontaneous generation. Yet his most extraordinary contribution is the Germ Theory of Disease! As a result of the Germ Theory of Disease, anthrax and rabies have been a

scare of the past, and hospitals are cleaner and safer than ever!

WHO WAS PASTEUR

Louis Pasteur was raised a poor child. His father worked as a tanner in Louis' childhood hometown near Arbois, France. Pasteur was an average student during his elementary education who preferred fishing and drawing to scientific studies. In college he continued to draw, focusing mainly on portraits. He was skilled enough to be listed in two known compendia of XIX C. Artists. (1)

Louis' poorly educated father would not allow his only son to become an artist: he had other plans that included academia. Louis showed interest in chemistry and other sciences, while also showing much

potential. His headmaster at the Royal College in Besançon suggested Pasteur apply at the prestigious Ecole Normale Suprieur (5).

He continued his education in chemistry and worked for his doctorate in the laboratory of Antoine Balard. He married Marie Laurent. In 1846 he was appointed Dean and Professor of Chemistry at the Faculty Sciences in Lille, France (1). After an active and prosperous 46 years Pasteur suffered his first stroke. In 1895, after having multiple severe strokes, our great hero passed away at the age of __. Great sorrow and lamentations were felt throughout the world! Thousands walked in the burial procession to his resting body in the Notre Dame Cathedral in Paris. Later his body was moved to a crypt within the Institute named after him—Institut Pasteur.

A CLOSER LOOK INTO HIS SCIENTIFIC ACCOMPLISHMENTS

Indeed, if Pasteur was considered a great professor, he was evenmore considered a great scientist. At the beginning of his career, while working for his doctorate, Pasteur outsmarted the scientists of the day by proving that two chemically identical crystals have distinctitve characteristics (2). Pasteur learned that organic compounds were asymmetrical and thus indicative of life (1). This man in his early twenties invented stereochemistry, the science based upon the how the spatial arrangements of chemicals influence its chemical and physical properties (4).

Pasteur's life continued and he became a professor in Lille, France. He reached out to the local community and offered his scientific expertise in any area he could help. One of his

student's father implored Pasteur's help in producing alcohol: too often it would turn to acid! Unfortunately the entire alcoholic community was suffering economic loses (1). Pasteur happily obliged to help.

Despite the thought of the day—vibrations caused spoilage—Pasteur thought yeast caused fermentation and bacilli (rod-shaped) germs caused spoilage. Asymmetrical crystals within the liquid meant living organisms made them. This proved that alcohol was made by yeast (1).

"IMAGINATION SHOULD GIVE WINGS TO OUR THOUGHTS BUT WE ALWAYS NEED DECISIVE EXPERIMENTAL PROOF, AND WHEN THE MOMENT COMES TO DRAW CONCLUSIONS AND TO INTERPRET THE GATHERED OBSERVATIONS, IMAGINATION MUST BE CHECKED AND DOCUMENTED BY THE FACTUAL RESULTS OF THE EXPERIMENT."
—PASTEUR (6)

From there he could advise the beer-maker on how to save his product: HEAT! Heat kills microbes and so by heating food such as alcohols and milks one could prevent spoilage.

From there Pasteur could use his knowledge on germs to disprove spontaneous generation. Popular belief held that organisms could arise spontaneously, for example is was widely thought that fly maggots came from spoiled meat. Curious if germs were always in the air or just present sometimes in solutions, Pasteur conducted a simple experiment testing spontaneous generation. Through the use of a swan-neck flask, Pasteur proved that spoilage only happened when liquid was exposed to dust and germs, not just air (5). The importance of this discovery cannot be stressed enough: the Germ theory of disease is one of the most important scientific discoveries (7).

The discovery of the Germ theory of Disease opened many new opportunities for disease research. In 1865 he was issued by

After Pasteur's stroke he was partially paralyzed but he still continued research. It's a good thing he did because his most

getting sick was another obstacle. Luckily, Pasteur was on the job! While working one summer of chicken Cholera, Pasteur took a vacation and left the cultures of cholera out in the heat during his absence. When he infected chickens with this heated cholera the chickens lived! He then infected the previously injected chickens and a group of non-treated chickens. Astonishingly the previously chickens survived the virulent injection and the other chickens died: Pasteur had discovered how to make vaccinations! (1)

lethal dose of anthrax while the other 25 would not be vaccinated before the fatal injection. All 25 vaccinated sheep must live and all 25 non-vaccinated sheep must die. Pasteur hastily consented. The experiment was highly publicized and many newspapers, such as this one, kept tabs on the progress. Success: all 25 of Pasteur's vaccinated sheep lived and all other died! The vaccine spread and within 10 years the French economy saved over 7 million Francs! (1)



Louis Pasteur in his laboratory

the French government to research silkworm disease. After three years Pasteur was able to confirm that two bacilli bacteria were responsible for two silkworm diseases (6).

From there Pasteur realized that all disease could be carried by germs. He would counsel surgeons to take extra care in cleaning their tools and their hands before operations to limit the spread of disease to patients (1).

impacting contributions to the scientific and medical communities were made in these later years (5).

Anthrax bacilli were rampantly killing cattle and sheep. To prove that the Anthrax bacillus was truly responsible for the diseased animals, Pasteur conducted a series of diluted plates which proved, beyond doubt, that the bacillus was responsible (1).

But how to prevent the animals from

The constantly inquisitive Pasteur wondered if such vaccinations could be possible with Anthrax. Word spread throughout the world and quickly many people were challenging Pasteur to prove the validity of his vaccinations.

Rossignol challenged Pasteur to conduct a public experiment on 50 sheep: 25 sheep were to be vaccinated prior to an injection of a

"IT WAS," SAYS DUCLAUX, "THE ANTHRAX VACCINE THAT SPREAD THROUGH THE PUBLIC MIND FAITH IN THE SCIENCE OF MICROBES". (1)

At this point of time Pasteur undertook the most spectacular research of all: Rabies. He first hypothesized that rabies was carried in the nerve cord of infected animals, and that the germ causing the disease was too small to see (5). He

grew these microbes in rabbits. To make the vaccine he dried pieces of the rabid rabbits' spinal cord and brain for 12 days in a special vial. To test the vaccinations, Pasteur would inject dogs with daily with a stronger dose each day up to 12 days. At the end of these injections the dog would be resistant to even the most rabid rabies! (1)

As word spread about his conquer over rabies people came begging for vaccines. On July 6, 1885 nine year old Joseph Meister and his mother pleaded for a rabies vaccination: Meister had recently been repetitively bitten by a rabid dog (1). Meister made a complete recovery and the path to human vaccinations for rabies had been opened (5). His brilliance saved countless lives!

IN CONCLUSION

Louis Pasteur, a man of marvel, changed the world for the better. In his short 73 years on this earth he has created

the Germ theory of disease, founded the sciences of stereochemistry and microbiology, minimized the spread of disease in animal and human populations, created immunization by weakened forms of microbes, and created pasteurization to prevent spoilage in food (7).

Throughout his life Pasteur believed in a higher, spiritual calling that transcended his scientific work. He believed an irrepressible chain was pulling him along his destiny: to save the lives of millions! (1)

All of his discoveries point to a singular brilliance, a unique compassion, and perseverance unlike any other.

Life would be greatly dimmer were it not for Pasteur's bright guiding light!

Woe is the day that this great hero is disrespected by the Godless Reich! May God look upon our boys with strength and protection as we rid the world of such evilness!

GOD BLESS AMERICA IN HER TIME OF NEED



Bibliography

1. **Cohn, David V.** The Life and Times of Louis Pasteur. [Online] February 11, 1996. [Cited: September 11, 2008.] <http://louisville.edu/library/ekstrom/special/pasteur/cohn.html>.
2. **Institut Pasteur.** Louis Pasteur's Biography (1822-1895). *Institut Pasteur*. [Online] [Cited: September 24, 2008.] <http://www.pasteur.fr/english.html>.
3. **Goldman, Norman L and Di Salvo, Arthur F.** Leeuwenhoek Medal. *American Society for Microbiology*. [Online] May 2004. [Cited: September 24, 2008.] <http://www.asm.org/microbe/index.asp?bid=27155>.
4. **The American Heritage® Dictionary of the English Language, Fourth Edition.** Stereochemistry. *Dictionary.com*. [Online] 2004. [Cited: September 30, 2008.] <http://dictionary.reference.com/browse/stereochemistry>.
5. **Encyclopedia Britannica.** Louis Pasteur Biography (1822 - 1895). *Biography.com*. [Online] [Cited: September 24, 2008.] <http://www.biography.com/search/article.do?id=9434402>.
6. **Rhee, Seung Yon.** Louis Pasteur (1822 - 1895). *Access Excellence: Resource Center*. [Online] [Cited: October 1, 2008.] http://www.accessexcellence.org/RC/AB/BC/Louis_Pasteur.php.
7. **Chem, Robin.** Louis Pasteur: Chemist (1822-1895). *Lucid Cafe: Library*. [Online] April 2008. [Cited: October 1, 2008.] <http://www.lucidcafe.com/library/95dec/pasteur.html>.