Medical School Syllabus
The School of Medicine of the New York Medical College
An Introduction to the History of Medicine for Medical Students
Spring Semester 2017

Edward C. Halperin, MD, MA Course Director
Contact Information:
Dr. Halperin: 914-594-4900; Edward_halperin@nymc.edu
Office of Medical Education: 914-594-3900
Student Affairs Office: 914-594-4497
Student Health Services: 914-594-4234

Student Class Representative: TBA

Required Textbooks and Movies
The textbooks and films have been ordered and will be available in the College Bookstore and also are available on Reserve in the Health Sciences Library:
- Movie: Something the Lord Made on DVD (Library Reserve DVD WG 220 S693 2004)
- Movie: A Matter of Life and Death on two DVDs (Library Reserve DVD WZ 40 M435 2004)

Required Movies
The DVDs have been ordered and should be available in the College Bookstore; as above. You might wish to buy your books and movies on-line or via used book/video on-line sources. You might wish to share in the cost of the movies with other students by splitting the cost among several of you, or you can watch the movies at the library where they are on reserve. Groups can reserve the Novitch Computer Lab for viewing.

Format
The course meets for eight sessions, one hour per session, plus two scheduled examinations.

Readings
All readings for this course will be from Nuland (as above) and Bliss (as above) plus the movies.

Course Materials
Students are expected to prepare for each course meeting by reading all assigned readings and watching the movies before each session.
Learning Management System (LCMS+)

New York Medical College makes extensive use of the Learning Management System (LCMS+). A valid NYMC network login is required to access the website.

LCMS Contact: edtech@nymc.edu

Course Objectives

This course will introduce students to the history of medicine from the ancient world to modern times. By the end of this course the student will:

a) Develop an appreciation of the key personalities and trends in the evolution of modern medicine;

b) Gain an understanding of alternative views of medicine in the non-western world;

c) Identify key individual contributors to medical knowledge, the context of their discoveries during their time in history, and their modern legacy.

Objectives for Each Class Session

Session 1
- To understand the various ways in which one can approach medical history
- Survey the contributions of Ancient Egyptian and Greek Medicine and the contributions of the School of Hippocrates

Session 2
- Review the scientific contributions of Galen, Avicenna, and Rhazes in the context of their times

Session 3
- Study William Harvey and the discovery of the blood’s circulation
- Learn about the origins of cardiac surgery

Session 4
- Learn about famous photographs, maps, pictures and diagrams in medicine and how to appreciate medical artifacts

Session 5
- Understand how the bodies of the poor and marginalized were used for anatomic dissection

Session 6
• Review the role of white physicians in American slavery and the medical origins of the Holocaust

Session 7
• Study the role of women in medicine through the story of Florence Nightingale and the portrayal of women in anatomic illustration

Session 8
• Discuss the place of faith-based hospitals in American health care.
• Study the history of American medical anti-Semitism

These objectives support the following school-wide educational themes/objectives:

• **Patient Care and Professionalism**
  a. The ability to care for patients in a compassionate way, consistently demonstrating respect for the privacy and dignity of all patients.

  b. A commitment to promote patient and community health.

  c. Knowledge of the unique problems facing special populations and special occupations.

• **Medical Knowledge and Scientific Foundations of Clinical Practice**
  a. Knowledge of the basic biomedical and psychosocial mechanisms of disease, including key genetic, environmental, microbiologic, nutritional, immunologic, social, and epidemiological factors.

  b. Knowledge of drugs used in the management of medical problems.

• **Continuous Personal Learning and Improvement**
  a. The ability to access and utilize the full range of information resources available to physicians, including library resources available electronically such as the Internet, databases, email, and other media.

• **Practicing in a Complex Healthcare System**
  a. Knowledge of the social and political forces that have shaped the medical profession in the U.S.

**Student Responsibility**
It is the student’s to read and understand this syllabus. Should you have any questions about this document, please speak to or email Dr. Halperin.

**Office Hours**
Dr. Halperin will have office hours for this course weekdays from 12-1 pm

**Schedule Changes**
Changes to the schedule will be communicated via email or orally during class sessions. However, students are expected to check the calendar and LCMS regularly if they are uncertain about class times.

**Evaluation**
The grade for this course will be determined by the following:

- **Quiz** on 4/25/17 (20%): Covers sessions 1-3
- **Paper** (20%): must be uploaded to LCMS by 5PM on 5/26/17
- **Final Exam** on 6/5/17 (60%): Covers sessions 1-8

**Grading**
Honors will be awarded for a course grade of 90%-100%; high pass 85%-89%, pass is 70%-84%, and fail is < 69%.

**Examinations**
The quiz and final examination will consist of multiple-choice questions, which will be drawn from class sessions and the required readings. Following the examination, student scores will be posted as soon as feasible. The mean and range of scores will be provided. Final grades also will be posted.

You are required to make every effort to take the quiz and final examination when administered. If you must miss the examination because of an illness, accident or other unavoidable circumstances, you must notify Dr. Halperin or the Office of Medical Education as soon as possible and prior to the examination. If prior notification is not possible, you must notify Dr. Halperin within 48 hours of the exam or a grade of zero will be entered for the examination. In either case, a written explanation must be presented to Dr. Halperin within seven days of the exam. Make-up quiz/exam will be scheduled by Dr. Halperin as soon as feasible.

**Biographical Essay (Paper)**
Students will be required to write a 2 page, double-spaced, #12 font biographical essay as if you are writing text for Illustrated Minute Biographies. I have attached two
samples to this syllabus. In the biographical essay, you must describe your subject’s family origins, place and date of birth, education, medical and scientific contributions, the historical, social, and cultural context of their life and work; the date and place of death; and a concluding few sentences on their historical legacy. Unlike the samples, there must be proper references in the body of the text to a reference list at the end of the essay. There should be 3 references, not more than one of which should be internet/web sites. Consult the reference librarians in the Health Sciences Library for assistance. See Appendix A for a list of subjects from which to select your essay subject. The biographical essay should be submitted electronically to LCMS no later than 5 pm on 5/26/17. It will count for 20% of the final grade. See the grading rules on page 8.

Instructions for uploading assignments can be found on LCMS here:
https://lcmsplus.screenstepslive.com/s/user_manual/m/19077/l/310732-students-how-do-i-turn-in-a-longitudinal-event-assignment

Challenge to questions
Students who want to challenge individual exam questions or discuss alternative answers or to correct grading errors should submit written comments to Dr. Halperin within 48 hours of the date the grades are returned.

Academic Dishonesty Statement
Faculty will actively proctor examinations and take other actions as necessary to maintain the integrity of the overall instructional process. Academic dishonesty is defined in the Code of Student’s Rights and Responsibilities. Students are also expected to adhere to the guidelines defined by the Honor Code of the School of Medicine. The faculty will submit to the Dean of Student Affairs all reports of incidents of student academic dishonesty. Students determined to have engaged in dishonest activity will receive a failing grade for the entire course.

Student Code of Academic Integrity and Professionalism
http://www.nymc.edu/universitypolicies/StudentCodeofAcademicIntegrityandProfessionalism.html

Disabilities Statement
If you have a disability and need reasonable modifications to complete assignments and otherwise satisfy course criteria, you will be asked to supply a letter from the Student Affairs Office or other documentation to assist in planning any changes required in the exam procedure or instructional activities. The severity of disability and appropriate means of accommodation must be established in consultation with the Dean of Student Affairs. The Dean of Student Affairs will advise the Department concerning procedures to be followed and will arrange to administer the written exams when appropriate. You are required to meet with Dr. Gladys Ayala before March 27, 2017, to discuss and plan specific accommodations.
Online Course Evaluation
The School of Medicine requires all students to complete online evaluations for required courses and clerkships. The information provided by these course evaluations is used by the Office of Medical Education to evaluate the educational program. All students in the History of Medicine course are required to submit an online evaluation promptly after the course ends.

Severe Weather Policy for Regular Classes
The School of Medicine follows the College’s policy regarding delayed class schedules. For example, when the start of classes is delayed until 10:00 AM, first year classes will begin at 10:00 AM with the courses normally scheduled for that time slot. Instructors and students will make arrangements for making up the classes that are missed. When the college cancels classes because of severe weather, classes for first year students will be cancelled and rescheduled by the departments. Should classes be delayed or cancelled on the date of the final examination, students are advised to check e-mail often, since notification of any change in the final examination time/date will be communicated via e-mail.

Holiday and Inclement Weather Policy (Students- School of Medicine):
http://www.nymc.edu/Medical/Bulletin/HolidayInclementWeather.html

Continuity of Instruction
The College is developing plans for continuity of instruction if and when events occur that would cause or threaten disruption to instructional activities for lengthy periods (two weeks or more). All medical students are urged to sign up for the college’s SEND WORD NOW emergency messaging system which provides instant notification of the College’s alerts and notices.

What is Send Word Now?
Send Word Now is a web-based alerting and response service that enables the college to quickly communicate and respond with students, faculty and staff at the Valhalla campus during an emergency or time sensitive situation. Send Word Now is designed to reach students, faculty and staff within minutes on any device, anytime, anywhere over any type of connection. Students and staff can be prompted to respond in real-time so that the college officials can confirm receipt and automatically drop recipients into a conference call if required.

E-mail a request to William Allison in Security at william_allison@nymc.edu indicating that you need to update or modify your records. Do not e-mail him the actual information. In turn, you
will be e-mailed a recipient-self update e-mail. Follow the instruction to update or modify your information. **It is important that you notify family and significant others that you have registered their telephone numbers and/or emails with the NYMC-Send Word Now emergency alert system. Please be sure to prepare any child who may answer one of the registered phones so that they understand the need to remain calm and to relay the message to you.**

For future reference...many campus-wide policies affecting students, faculty and staff can be found on the College’s Policy Page:  
http://www.nymc.edu/universitypolicies/  

Additional policies and guidelines affecting students in the School of Medicine can be found in the SOM Bulletin located at:  
http://www.nymc.edu/Medical/Bulletin/index.html  

In the event that this course is no longer able to meet face-to-face, students should immediately logon to the LCMS course website Announcements section, where Dr. Halperin will provide instructions for adjustments to the meeting schedule, delivery of instruction, or examination. Students are asked to check the course website regularly throughout any interruption of instruction for update. Dr. Halperin will also use email to communicate regularly with students.  

**Policies and Procedures**  
For information on the following important School of Medicine policies and procedures, visit:  
https://www.nymc.edu/Academics/SchoolOfMedicine/Policies/index.html
**Grading Rules for the End-of-the-Course Paper**

The essay is to be posted electronically by 5:00 p.m. on **5/26/17**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Points</th>
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<tbody>
<tr>
<td>Does the essay describe the subject’s family origins and place and date of birth?</td>
<td>Up to 1 point</td>
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<tr>
<td>Does the essay describe the subject’s education?</td>
<td>Up to 1 point</td>
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<tr>
<td>Does the essay describe the subject’s medical and scientific contributions? How were the discoveries or contributions made, implemented, and disseminated?</td>
<td>Up to 7 points</td>
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<tr>
<td>Does the essay describe the social and culture context of the subject’s life and work? What was the nature of science or clinical medicine during the subject’s lifetime; What was the nature of people’s lives, and the economic and or/political climate?</td>
<td>Up to 4 points</td>
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<tr>
<td>Does the essay describe the date and place of the subject’s death?</td>
<td>Up to 1 points</td>
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<td>Are there a few concluding sentences on the subject’s historical legacy?</td>
<td>Up to 3 points</td>
</tr>
<tr>
<td>Are their proper references in the body of the text to a reference list at the end of the essay?</td>
<td>Up to 1 points</td>
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<tr>
<td>Are there 3 references, not more than one of which are from the internet/web sites?</td>
<td>Up to 2 points</td>
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<td><strong>Total</strong></td>
<td>Up to 20 points</td>
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</table>
Appendix A: >100 Possible Subjects for Biographical Essay (select one individual)

<table>
<thead>
<tr>
<th>Avicenna (Ibn Sina)</th>
<th>Finlay C.</th>
<th>Kaplan H.S.</th>
<th>Reed W.</th>
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</thead>
<tbody>
<tr>
<td>Baltimore D.</td>
<td>Fleming A.</td>
<td>Kelly H.</td>
<td>Sabine A.</td>
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<td>Banting F.</td>
<td>Flexner A.</td>
<td>Koch R.</td>
<td>Salk J.</td>
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<td>Barnard C.</td>
<td>Flexner S.</td>
<td>Laennec R.</td>
<td>Sanger F.</td>
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<td>Barton C.</td>
<td>Flores H.</td>
<td>Lederberg J.</td>
<td>Sanger M.</td>
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<td>Beaumont W.</td>
<td>Folkman J.</td>
<td>Lister J.</td>
<td>Semmelweis I.</td>
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<td>Blackwell E.</td>
<td>Franklin R.</td>
<td>Long C.</td>
<td>Shumway N.</td>
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<td>Blalock A.</td>
<td>Freud A.</td>
<td>Maimonides</td>
<td>Sweet WM.</td>
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<tr>
<td>Burkitt D.</td>
<td>Freud S.</td>
<td>Minot GR.</td>
<td>Sydenham T.</td>
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<tr>
<td>Cannon W.</td>
<td>Galen</td>
<td>Morgagni G.B.</td>
<td>Tausig H.</td>
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<td>Carrell A.</td>
<td>Galton F.</td>
<td>Morton W.</td>
<td>Thomas ED.</td>
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<td>Carvell E.</td>
<td>Goldberger J.</td>
<td>Murray JE.</td>
<td>Vesalius A.</td>
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<td>Cori G.</td>
<td>Gray H.</td>
<td>Nightingale F.</td>
<td>Virchow R.</td>
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<td>Crick F.</td>
<td>Hahmemann S.</td>
<td>Osler W.</td>
<td>Waksman S.</td>
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<td>Curie M.</td>
<td>Halstead W.</td>
<td>Paget J.</td>
<td>Warburg O.</td>
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<td>Cushing H.</td>
<td>Harvey W.</td>
<td>Palade G.</td>
<td>Watson J.</td>
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<td>Cuvier GLCFD.</td>
<td>Hodgkin T.</td>
<td>Paracelsus</td>
<td>Welch W.</td>
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<td>Dandy W.</td>
<td>Holmes O.W.</td>
<td>Pare A.</td>
<td>White P.D.</td>
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<td>Donnell C.H.</td>
<td>Hunter J.</td>
<td>Pasteur L.</td>
<td>Wilkins M.</td>
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<td>Drew C.</td>
<td>Hunter W.</td>
<td>Pauling L.</td>
<td>Wilms M.</td>
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<td>Edelman G.</td>
<td>Jung C.</td>
<td>Pavlov I.</td>
<td>Wood L.</td>
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<td>Ehrlich P.</td>
<td>Jacobi A.</td>
<td>Rhazes</td>
<td>Wunderlich KR.</td>
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<td>Eliot G.</td>
<td>Jacobi M.</td>
<td>Roentgen W.</td>
<td>Yalow R.</td>
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<td>Ewing J.</td>
<td>Jenner E.</td>
<td>Rous P.</td>
<td>Yersin A.</td>
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<td>Young HH.</td>
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<td>Zuckerkandl E.</td>
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<tr>
<td>Date</td>
<td>Time</td>
<td>Topic</td>
<td>Nuland Readings (pages)</td>
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<tr>
<td>Session 1 and 2</td>
<td>3/21/17</td>
<td><strong>What is medical history?</strong></td>
<td>3-60</td>
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<tr>
<td></td>
<td>3:00-4:00 pm</td>
<td>Ancient Egyptian and Greek Medicine</td>
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<td></td>
<td>4:00-5:00 pm</td>
<td>Ancient Roman Medicine and The Golden Age of Islamic Medicine</td>
<td>120-144</td>
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<td>422-456</td>
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<td>Session 3</td>
<td>4/20/17</td>
<td><strong>The Discovery of the Circulation of the Blood</strong></td>
<td>61-119</td>
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<td></td>
<td>3:00 - 4:00 p.m.</td>
<td>The Blalock-Tausig Operation</td>
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<td>Quiz</td>
<td>4/25/17</td>
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<td>Session 4</td>
<td>5/2/17</td>
<td><strong>Arts and Images in the History of Medicine</strong></td>
<td>145-199</td>
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<td></td>
<td>11:00-12:00</td>
<td>Medical Artifacts</td>
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<tr>
<td>Session 5</td>
<td>5/9/17</td>
<td><strong>The Poor, the Black, and the Marginalized in US Anatomic Education</strong></td>
<td>200-262</td>
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<td>11:00-12:00</td>
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<td>Session 6</td>
<td>5/11/17</td>
<td><strong>The Banality of Evil: Slave Medicine and the Holocaust</strong></td>
<td>263-303</td>
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<td>Session 7</td>
<td>5/16/17</td>
<td><strong>Florence Nightingale and Nursing</strong></td>
<td>304-342</td>
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<td>11:00-12:00</td>
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</table>
| Session 8  
5/18 | 11:00-12:00 | The Rise and Fall of the American Jewish Hospital and its relation to medical anti-Semitism | 386-421 | 87-94 | Disc 2 Chapters 11-16 | HALPERIN |
|---|---|---|---|---|---|
| Paper Due  
5/26/17 |   |   |   |   |   |   |
| Final Exam  
6/5/17 |   |   |   |   |   |   |
Hippocrates, son of a physician who claimed descent from the Greek God of medicine, Aesculapius, also gave his name to the oath that all doctors take to this day. He was born in 460 B.C., on the island of Cos, which was sacred to Aesculapius.

Despite the strong Greek antipathy towards dissection of the human body, Hippocrates with his astonishing accomplishments in the study of anatomy helped carry his colleagues' knowledge to a new high level. Less conventional for the times was his complete denial of superstition regarding disease. He was convinced that all deterioration of the body followed natural laws and had nothing to do with evil spirits—a conviction which had much to do with the release of medicine for real experiment and discovery.

Hippocrates made two main classifications of the causes of disease: (1) seasonal and climatic, and (2) personal, such as mistakes of diet, lack of exercise and the like. He put more faith in proper eating and well organized regimen than he did in drugs or blood-letting, thus fore-shadowing most modern doctors. But in his own practice he did use powerful drugs and leeches.

Hippocrates is supposed to have studied medicine under his father and philosophy under the famed Democritus. He then traveled awhile and returned to practice on his native island of Cos. But modern scholars are certain about very little concerning either his life or his works.

Source of most information regarding Hippocrates, aside from references by contemporaries (two by Plato, one by Aristotle), is the Hippocratic Collection, a group of medical works that began to circulate in the Alexandrian school after 300 B.C. How much of it is truly attributable to Hippocrates, no one knows. But, despite a great deal of error, the Collection has an honest scientific spirit that undoubtedly contributed to the veneration with which Hippocrates has been regarded by members of his profession from the earliest times. One of the most interesting sections of the Collection is "On Wounds of the Head." It contains descriptions of skull operations not greatly differing from those of today.

Hippocrates's age at death has been variously estimated from 85 to 110.
Magician with Microbes

LOUIS PASTEUR

Thus quiet, hard-working French chemist and physicist did his most dramatic work in discovering a remedy for the dreadful disease of rabies. Thousands of human lives have been saved by his patient experimentation and the cry of "Mad dog!" no longer has the power to terrify that it had before his time.

The son of a tanner, Louis Pasteur was born at Dôle, Dec. 27, 1822, and graduated from the Ecole Normale, Paris, in 1847. He first taught as professor of physics at Dijon, then shifted to chemistry at Strassburg, where his chief interest was the "diseases" of beer and wine, long a puzzle to chemists. The exact process of fermentation, its causes and effects were not known, and Pasteur applied himself tirelessly to discover them. Undeterred by the discouragement of friends, he worked till he was sure that minute organisms were the cause. In 1872 he published his famous essay on fermentation, and beer and wine making promptly changed from a haphazard to a scientific activity.

Before this, in 1865, the silk industry of southern France was endangered by a disease attacking silkworms. Pasteur's friend, Dumas, pleaded with him to do something and, though he had never before seen a silkworm, within a few months he discovered the bacilli causing two variations of the disease and suggested curatives that saved the industry. The practical control of anthrax, a devastating animal disease, is also owing to Pasteur, who devised a weakened culture of the bacilli with which to inoculate cattle. Chicken cholera he treated similarly.

Pasteur not only had the enormous patience to develop and experiment with his rabies treatment on dogs, but also the courage to try it for the first time on a human being. In 1885, three years later the Pasteur Institute was founded in Paris and as a result of the spread of such institutions over the world the death rate from hydrophobia is now less than one per cent.

A simple, affectionate, noble man, who believed in hard work and cared nothing for profit, Pasteur lived a happy life with his devoted wife and died at St. Cloud, Sept. 28, 1895.