During its first 35 years, the University of Colorado School of Medicine, like other medical schools, gradually discovered appropriate ways to develop a faculty and structure a curriculum that would best prepare its students to practice scientific medicine. At CU, the process was greatly aided by some extraordinary physicians and surgeons who moved to Colorado because they or a loved one had been diagnosed with tuberculosis.

This handout includes the following:

1. Colorado’s Five Medical Schools, 1881-1910 — pg. 2
2. Highlights of the Development of Scientific Medicine, 1850-1918 — pp. 3-7
3. Deans of the University of Colorado Department of Medicine and Surgery and School of Medicine, 1883-1945 — pg. 8
4. CU School of Medicine Faculty during selected years:
   - 1883-1884 — pg. 9
   - 1890-1891 — includes information on admission and curriculum, pp. 10-14
   - 1895-1896 — pp. 15-17
   - 1908-1909 — pp. 18-20
   - 1917-1918 — pp. 21-24
5. Base Hospital No. 29, London, 1918 — pp. 25-26

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1 This presentation is dedicated to the memory of Dr. Matthew Henry Gardiner, who received his MD in 1895 from the University of Colorado. Dr. Gardiner died of typhoid fever on March 18, 1896, while serving as head resident physician at Denver’s Arapahoe County Hospital. Dr. Gardiner died despite the efforts of two of his CU professors — Drs. Herbert W. McLauthlin and Herbert B. Whitney, the latter a well-respected diagnostician.

Dr. McLauthlin’s report on what happened to Dr. Matthew Gardiner is found in the Transactions of the Colorado State Medical Society for 1896, pp. 156-157.

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Colorado’s Five Medical Schools — 1881-1910

Three medical schools opened during the 1880s, and then two more opened in 1894 and 1895.

1. **1881 — University of Denver and Colorado Seminary Medical Department**
   - came to be called the Denver College of Medicine, officially in 1899
   - became the Denver and Gross College of Medicine following a merger (1902)
   - merged with the University of Colorado School of Medicine (1910)

2. **1883 — University of Colorado Department of Medicine and Surgery** (Boulder)
   - became the University of Colorado School of Medicine (1891)
   - moved from Boulder to Denver (1925)
   - moved from Denver to the Anschutz Medical Campus in Aurora (2004)

3. **1887 — Gross Medical College** (Denver)
   - merged with the DU’s Denver College of Medicine to become Denver and Gross College of Medicine (1902)
   - merged with the University of Colorado School of Medicine (1910)

4. **1894 — Denver Homeopathic College**
   - became the Denver College of Physicians and Surgeons (1908) and closed (1909)

5. **1895 — Western Institute of Osteopathy** (Denver)
   - became the Bolles Institute of Osteopathy (1899)
   - became the Colorado College of Osteopathy (1901)
   - was absorbed by the American School of Osteopathy in Kirksville, Missouri (c.1909)

During the late 19th and early 20th centuries, some of Colorado’s more educated and socially prominent citizens preferred to consult homeopathic physicians, who by the turn of the century were often treated as colleagues by “regular” physicians. By about 1910, many homeopathic physicians had accepted “regular” medicine and abandoned homeopathy.

Flexner’s *Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching* — which was probably the single most important factor in professionalizing medical education in the United States — changed almost everything for medical schools. Of the 155 medical schools that Flexner and his assistant visited, he recommended that 27 remain open.
1850s: Jacalyn Duffin (History of Medicine, 2010, pg. 126), wrote that the top drugs and treatments used or sold in various medical practices during the 1850s were these:

- Quinine — the common antimalarial drug until the 1940s
- Opium — used as a sedative and tranquilizer
- Venesection — surgical cutting of a vein
- Tartar emetic — used as an emetic and expectorant to produce sweating and to treat certain diseases, despite its toxic side effects
- Calomel — mercury chloride taken internally, used as a laxative and disinfectant; also used to treat syphilis
- Ipecac — used as a syrup to induce vomiting
- Cupping — suction applied to the skin; believed to mobilize blood and promote healing
- Iron — used to treat anemia
- Jalap — a plant; WebMD website: “Despite serious safety concerns, this medicine is used to empty and cleanse the bowels (as a cathartic or purgative), and to increase urine flow to relieve water retention (as a diuretic).”

1851: Hermann von Helmholtz (1821-1894) invented the ophthalmoscope.

1853: Dr. Alexander Wood invented the hypodermic needle, and French surgeon Dr. Charles Gabriel Pravaz invented his “Pravaz syringe” in 1853 as well.

1853-1856: What Florence Nightingale did during the Crimean War—the practices and procedures she and her team developed — became the foundation of modern nursing and hospital design.

1858: University of Berlin pathologist Rudolf Virchow, MD, 37, demonstrated that the cell is the center of disease processes, displacing the humoral theory of disease that had long been accepted.

1862: Louis Pasteur disproved the theory of the spontaneous generation of organisms by proving that airborne bacteria play a role in fermentation — establishing the discipline of bacteriology and made a major contribution to the eventual acceptance of the germ theory of disease, which he proposed in 1880.

1863: Dr. Hermann Brehmer of Görbersdorf, Silesia (Germany) opened his Brehmerschen Heilanstalt für Lungenkranke — Brehmer’s Sanatorium for Lung Diseases — where he made sure that his patients got plenty of high-altitude fresh air and good nutrition surrounded by a pine forest. Inhaling the turpentine fragrance from pine trees had long been considered to have healing qualities.

Because his success rate was better than had been seen, Brehmer’s fresh-air-and-abundant-food approach to the treatment of tuberculosis was adopted in Colorado (beginning about 1890) and other high-altitude regions, where a patient’s lungs got more exercise because of the air’s reduced oxygen content.
1863: The War Department published this general order: “Medical Directors of Armies in the field will forward, direct to the Surgeon General, at Washington, duplicates of their reports to their several Commanding Generals, of the killed and wounded, after every engagement.”

Based on these reports, US Army Surgeon General Joseph K. Barnes published *The Medical and Surgical History of the War of the Rebellion. (1861-65)* in 6 volumes (1870). Along with Joseph Lister’s 1867 introduction of the procedures that established modern antiseptic surgery, the book was a major factor in the development of modern medicine and surgery.

1865: Jean-Antoine Villemin, MD, 38, of the Hôpital d’instruction des armées du Val-de-Grâce in Paris demonstrated that tuberculosis is an infectious disease.

1867: Joseph Lister of the University of Glasgow introduced sterilization and the procedures that established modern antiseptic surgery and significantly reduced the secondary infections that were so deadly during the US Civil War, for example.

1876: Prussian bacteriologist Robert Koch isolated the anthrax bacterium (*Bacillus anthracis*).

1876: When Dr. Joseph Lister died in 1912, Denver ophthalmologist Dr. Edward Jackson — who had received his MD in 1878 from the University of Pennsylvania — wrote about the radical change in surgical procedures that had taken place in 1876, during his own time in medical school.

When the students of medicine in the University of Pennsylvania came back to the surgical clinics at the University Hospital, in the fall of 1876, a new thing greeted them. The smell of carbolic acid was in the air, and one or more steam atomizers were buzzing in the operative arena, with an attendant or interne watching, or occasionally adjusting it to make it do its duty. When the operation was begun the cloud of carbolized watery vapor was turned upon the field of operation, on the hands of the surgeon, and his assistants, and incidentally on their faces and eyeglasses, which from time to time needed to be wiped clear of the mist.

Professor D. Hayes Agnew’s old black frock coat, bearing many stains from former service, was gone. Instead, we saw a long white operating gown that swathed him from neck to heels and wrists: and which he found sometimes awkward, so that he had to appeal for assistance to readjust it. (*Colorado Medicine* Apr 1912, pg. 110)

Just the previous month, Professor Hayes Agnew had attended the International Medical Congress that had been held in Philadelphia during the Centennial Exposition. Professor Joseph Lister had led the section on surgery.

1879: In Washington, the Library of the Surgeon General’s Office, directed by John Shaw Billings, began publishing the *Index Medicus*, which attempted to be a comprehensive catalog of medical periodical literature. In 1880, Billings began publishing the critically important *Index-Catalogue of the Library of the Surgeon-General’s Office*. 
1880: Karl Joseph Eberth (1835-1926) of the University of Zurich described a bacillus that he thought was the cause of typhoid fever. In 1884, Georg Gaffky (1850-1918) — one of Robert Koch’s assistants in Berlin — reported that he had isolated Eberth’s bacillus (Salmonella typhi) in 26 of 28 cases of typhoid.

1881 — The University of Denver and Colorado Seminary Medical Department opened.

1882: Robert Koch (1843-1910) — a 37-year-old who worked in Kaiser Wilhelm’s Imperial Health Office in Berlin — read a ten-page paper titled “Die aetiologie der tuberculose” (The Etiology of Tuberculosis) to the Physiology Society of Berlin on March 24, 1882. In it, Koch demonstrated that a pathogenic bacterial species subsequently called *mycobacterium tuberculosis* caused tuberculosis, which was therefore an infectious and contagious disease.

He began by reminding the audience of terrifying statistics: "If the importance of a disease for mankind is measured by the number of fatalities it causes, then tuberculosis must be considered much more important than those most feared infectious diseases, plague, cholera and the like. One in seven of all human beings dies from tuberculosis. If one only considers the productive middle-age groups, tuberculosis carries away one-third, and often more."

Koch’s lecture, considered by many to be the most important in medical history, was so innovative, inspirational and thorough that it set the stage for the scientific procedures of the twentieth century. He described how he had invented a new staining method and demonstrated it for the audience. Koch brought his entire laboratory to the lecture room. . . .

One important scientist in the audience was Paul Ehrlich (Nobel Laureate in Physiology or Medicine in 1908) who later confessed, "I hold that evening to be the most important experience of my scientific life." When Koch ended his lecture there was complete silence. No questions, no congratulations, no applause. The audience was stunned. Slowly people got up and started looking into the microscopes to see the TB bacteria with their own eyes.

(“Tuberculosis — Robert Koch and Tuberculosis — Koch's Famous Lecture” nobelprize.org, February 18, 2013)

Robert Koch — the first to demonstrate the link between germs and disease — was awarded the Nobel Prize in Physiology or Medicine in 1905 "for his investigations and discoveries in relation to tuberculosis." His discovery marked the beginning of the modern treatment of tuberculosis. Robert Koch knew that because he was initiating a revolution, he had to be perfectly clear: “the tubercle bacillus is not only a cause of tuberculosis but the only cause of the same, and without the tubercle bacillus tuberculosis is not possible."

1883 — The University of Colorado Department of Medicine and Surgery opened.

1883: Theodor Albrecht Edwin Klebs (1834-1913) identified the bacterium *Corynebacterium diphtheriae* (a.k.a., the Klebs-Löffler bacillus), the etiological cause of diphtheria.

1883: Robert Koch isolated the bacterium *Vibrio cholera*, some strains of which cause cholera.
1885: Louis Pasteur administered the first inoculation for rabies on July 6, 1885. Despite the legal risk to himself because he was a microbiologist, not a licensed physician, Pasteur inoculated a nine-year-old boy who had been bitten by a rabid dog.

1885: Dr. Edward L. Trudeau opened his Adirondack Cottage Sanitarium in Saranac Lake, New York. It became a model for best tuberculosis treatment practices nationwide, including in Colorado.

1887—Gross Medical College opened in Denver.

1887: Samuel Siegfried Karl Ritter von Basch — who taught experimental pathology at the University of Vienna — invented the sphygmomanometer, the instrument used to measure blood pressure.

1890: German physiologist Adolf Emil von Behring, MD, professor of hygienics at the University of Marburg, discovered the diphtheria antitoxin. The antitoxin began to be used in Denver in November 1894.

1893: The first open-heart surgery was performed by surgeon Daniel Hale Williams, MD, the first African-American cardiologist. He repaired the torn pericardium of knife-wound victim James Cornish, who fully recovered about 55 days later.

Dr. Daniel Williams performed the surgery at Chicago’s Provident Hospital, which he had founded in 1891 as the first hospital in the nation that wasn’t segregated.

1894—Denver Homeopathic College opened.

1895—The Western Institute of Osteopathy opened in Denver.

1895: Wilhelm Conrad Röntgen of the University of Würzburg discovered, quite by accident, that X-rays could be used to photograph the bones and internal organs of living patients — thereby revolutionizing the practice of medicine. X-rays became essential for diagnosing tuberculosis, and in 1901, Wilhelm Röntgen was awarded the first Nobel Prize in Physics for his discovery.

1896: Harvard University announced that beginning in 1901, applicants for admission to its medical school must have a college degree.

1900: In September, Major Walter Reed, MD, 49, who was working with the US Army Yellow Fever Commission in Cuba, announced that yellow fever is transmitted by mosquitoes.

1901: Karl Landsteiner, 33, of the University of Vienna, distinguished the main human blood types, which in 1905 led to the first successful direct blood transfusion by George W. Crile, MD, professor of clinical medicine at Western Reserve University in Cleveland.

1906: Bacteriologist August von Wassermann, MD (1866-1925), and his colleagues at the Robert Koch Institute for Infectious Diseases in Berlin developed an antibody test for syphilis.
1907: German bacteriologist Paul Ehrlich, MD (1854-1915), escalated his work on a model for *in vivo* staining as an experimental therapy — a major contribution to the development of chemotherapy.

1910: Arsenphenamine — discovered in 1907 by German bacteriologist Paul Ehrlich (1854-1915) and sold starting in 1910 by Hoechst AG under the trade name *Salvarsan* — was the first organic anti-syphilitic, a great improvement over the inorganic mercury compounds that had formerly been used to treat syphilis.

1912: On February 10, 1912, Sir Joseph Lister — who had so effectively championed antiseptic surgery and the use of sterilized instruments — died at his country home in Walmer, Kent, at age 84. Denver surgeon William W. Grant, MD:

It was my pleasure and opportunity to spend the year of 1889 in the hospitals of Europe. Two or three days of every week for several months, I visited the wards of King’s college in the company of Sir Joseph Lister, listening, seeing and profiting by his conversation and work. . . . As an operator, he was not prepossessing, nor smooth, nor seemingly easy and free in his detailed work. He impressed one as nervous and fidgety, and as if he needed no assistants, for he did everything himself—even to picking up every instrument; but when the operation was finished, it was so thorough as to disarm all criticism.

He was one of the kindest and gentlest men I ever [knew], and so attentive and considerate of strangers, that no one could leave him and ever forget the sweetness and modesty of his nature, and his enthusiastic devotion to the new principle of surgery, which he had given to the profession. . . .

It was the great French scientist, Louis Pasteur, which stimulated the creative genius of Lister, who applied the knowledge to the practical art of surgery. He was also strengthened and sustained in his work and conclusions by the investigations of Professor John Tyndall in physics, and especially his researches on dust and disease. (*Colorado Medicine* Apr 1912, pp. 109-110)
Deans of the University of Colorado
Department of Medicine and Surgery (1883-1891) and School of Medicine (1891ff.)

1. **1883-1887** — Joseph A. Sewall, MD (Harvard, 1852), PhD (Chemistry, Harvard, 1860)

2. **1888-1892** — James Henry Kimball, MD (Harvard, 1867)

3. **1892-1895** — Jeremiah T. Eskridge, MD (Jefferson Medical College, Philadelphia, 1875)

4. **1895-1897** — Clayton Parkhill, MD (Jefferson Medical College, Philadelphia, 1883)

5. **1897-1907** — Luman M. Giffin, MD (Rush Medical College, Chicago, 1875)

6. **1907-1915** — William Page Harlow, MD (University of Michigan, 1899), AB (Geology, University of Colorado, 1907)

7. **1916-1925** — Charles N. Meader, MD (Harvard, 1910)
CU School of Medicine Faculty
1883-1884, 1890-1891, 1895-1896, 1898-1899, 1908-1909, and 1917-1918

1883-1884 Faculty — University of Colorado Department of Medicine and Surgery

Charles Ambrook, MD (University of Michigan, 1870)
- Instructor in the Theory and Practice of Medicine, 1883-1886
- Secretary of the Colorado State Board of Health

Patrick V. Carlin, MD (Denver College of Medicine, 1882)
- Demonstrator of Anatomy and Assistant to Chair of Experimental Physiology, 1883-1884.
- Dr. Carlin had left medical school at the City University of New York to move to Colorado with his brother, who had been diagnosed with a pulmonary disease.

James Henry Kimball, MD (Harvard, 1867)
- Secretary of the Medical Faculty, 1883-1884
- Professor of Physiology, Material Medica, and Therapeutics, 1884-1892
- Acting Dean, 1888-1892

James I. McFarland, AB
- Instructor in Botany, 1883-1884

Joseph A. Sewall, MD, PhD (both from Harvard, 1852 and 1860)
- President of the University, 1877-1887
- President of the Board of Regents, 1881-1886
- Professor of Chemistry and Metallurgy, 1877-1887

William R. Whitehead, MD (University of Pennsylvania, 1853)
- Professor of Anatomy and Surgery, 1883-1886
- Dr. Whitehead had moved Denver in 1872, hoping to improve the health of his wife and son.

Looking ahead — during its second school year (1884-1885) the University of Colorado Department of Medicine and Surgery had a new three-year curriculum—instead of the four-year curriculum that had originally been adopted—and some new faculty members:

- Dr. George Cleary (MD Bellevue Hospital Medical College, New York, 1868) was professor of ophthalmology and otology
- Dr. Thomas H. Everts (MD University of Michigan, 1855) was professor of obstetrics and diseases of women
- Dr. Herbert Weston McLauthlin (MD Harvard, 1882) was professor of pathology and histology
1890-1891 Faculty — University of Colorado Department of Medicine and Surgery

James H. Kimball, MD (Harvard, 1867)
- Secretary of the Medical Faculty, 1883-1884
- Professor of Physiology, Material Medica, and Therapeutics, 1884-1892
- Acting Dean, 1888-1892

Herbert Weston McLauthlin, MD (Harvard, 1882)
- Professor of Pathology and Histology, 1884-1885
- Lecturer, 1885-1886
- Denver Health Commissioner, 1885-1887
- Arapahoe County Physician, 1886-1891
- Professor of Obstetrics and Diseases of Women and Children, 1886-1893
- Professor of Materia Medica, Therapeutics, and Clinical Medicine, 1893-1894
- Secretary of the Medical School, 1893-1896
- Professor of the Principles and Practice of Medicine and Clinical Medicine, 1894-1897

George Cleary, MD (Bellevue Hospital Medical College, New York, 1868)
- Professor of Ophthalmology and Otology, 1884-1885
- Lecturer on Ophthalmology, 1885-1886
- Professor of Surgery, Ophthalmology, and Otology, 1886-1890
- Professor of Ophthalmology, Otology, and Laryngology, 1890-1892

Luman M. Giffin, MD (Rush Medical College, Chicago, 1875)
- Professor of Anatomy and Physiology, 1886-1897
- Treasurer of the Medical School, 1894-1897
- Dean of the Medical School, 1897-1907
- Professor of Anatomy and Physical Diagnosis, 1897-1901
- Professor of Anatomy and Clinical Surgery, 1901-1902
- Professor of the Principles of Surgery and Clinical Surgery, 1902-1907

Charles Skeele Palmer, PhD (Johns Hopkins, 1885)
- Professor of Chemistry
- Professor Palmer was president of the Colorado School of Mines (1902-1903)

Charles Richard, MD, US Army (“Military Post near Denver,” i.e., Fort Logan)
- Professor of Surgery, 1889-1891

John Gardiner, BSc (University of London)
- Professor of Biology and Histology, 1889-1898

James M. North, AM, LLB
- Boulder County Judge
- Lecturer on Medical Jurisprudence, 1887-1892
Horace O. Dodge, MD (Chicago Medical College, 1868)
- Lecturer on Pathology and Clinical Medicine, 1890-1891
- Professor of Physical Diagnosis, Hygiene, and Clinical Medicine, 1891-1892
- Professor of Physical Diagnosis and Hygiene, 1892-1894
- Professor of Materia Medica and Therapeutics, 1897-1900
- Dr. Dodge served in the US Army during the Civil War

Jeremiah T. Eskridge, MD (Jefferson Medical College, Philadelphia, 1875)
- Lecturer on Nervous and Mental Diseases, 1890-1891
- Professor of Nervous and Mental Diseases, 1891-1894
- Dean of the Medical Faculty, 1892-1895
- Professor of Nervous and Mental Diseases and Medical Jurisprudence, 1894-1896
- Dr. Eskridge had moved to Colorado Springs in August, 1884, in attempt to improve his health. After the problem with his lungs improved, he moved to Denver in 1888

Herbert B. Whitney, MD (Harvard, 1882)
- Lecturer on Physical Diagnosis, 1890-1891
- Professor of the Diseases of Children, 1892-1896
- Professor of Physical Diagnosis and Diseases of Children, 1896-1897

Gustave Beauregard Blake, MD (University of Colorado, 1886)
- Demonstrator of Anatomy, 1887-1891

Neil Macphatter, MD (Trinity Medical College, Toronto, 1880), LRCP, LFPS
- Lecturer on Abdominal Surgery, 1890-1891
- Professor of Gynecology and Abdominal Surgery, 1891-1894

In addition to his MD, Dr. Neil Macphatter had received the Licentiate of the Royal College of Surgeons in Edinburgh (LRCP, 1881) and the Licentiate of the University of Glasgow’s Faculty of Physicians and Surgeons (LFPS, 1881). In 1897 Dr. Macphatter was awarded the Fellowship of the Royal College of Surgeons (FRCS).
Requirements for admission to the medical department for the 1890-1891 academic year:

All students entering this department will be required to pass a satisfactory examination in English grammar, arithmetic, geography, outlines of United States history and elementary physics. A student who presents a diploma or certificate of graduation from a literary or scientific college, or a high school, shall be exempt from this preliminary examination.

In English, students must be able to recognize the parts of speech, to apply the rules of syntax, to decline nouns and pronouns, to compare adjectives and adverbs, to conjugate verbs, to distinguish principal clauses from subordinate clauses, to determine whether a given clause is used substantively, adjectively or adverbially, and to write a short letter in due form with proper spelling, punctuation, and arrangement.

The examination in arithmetic will include common and decimal fractions, great common divisor, least common multiple, percentage, involution, and evolution.

Those proposing to enter at an advanced standing will also be examined in such studies as have been pursued previous to their admission.

SEXES.

By the provision of the law for the government of the University, both sexes are received upon equal terms.

REQUIREMENTS FOR GRADUATION.

1. The candidate must be of good moral character and have attained the age of twenty-one years.

2. He must present evidence of having studied medicine for at least three years under the direction of a regular graduate or practitioner of medicine in good standing, and of having attended three full courses of lectures, the last of which must have been at this school.

3. He must write a thesis on a medical subject and present it to the secretary at least one month before the close of the session.

4. He must present evidence of having dissected the whole human body.

5. He must pass the required examination before the Faculty.

FEES.

There is an annual matriculation fee of five dollars, and a demonstrator’s fee of five dollars. Non-residents of Colorado pay an additional annual fee of ten dollars. The graduation fee is twenty dollars and is not returnable. All fees are payable in advance.
COURSE OF STUDY.

The course of study consists of a graded course of three years, of nine months each, and the studies are so arranged as to be pursued in the following order.

First Year — Anatomy and dissection, chemistry, physiology, histology, materia medica, therapeutics, and medical botany.

Second Year — Anatomy and dissection, chemistry, physiology, materia medica, therapeutics, pathology, practice of medicine, surgery, obstetrics, physical diagnosis, ophthalmology, otology, and clinical medicine.

Third Year — Practice of medicine, surgery, obstetrics, diseases of women, diseases of children, therapeutics, ophthalmology, otology, laryngology, clinical medicine and surgery, clinical gynecology, hygiene and public health, medical jurisprudence, nervous and mental diseases, physical diagnosis, physiological and medical chemistry.

The 1891-1891 Catalogue and Announcements then specifies the offerings and requirements in chemistry, histology, pathology, nervous system, practical anatomy, and hospital and clinical instruction. There is also a list of textbooks and the weekly class schedule on the next page.

In addition to the list of classes, there was this note:

After November 1, Practical Anatomy, Tuesdays and Saturdays, 2:00 to 4:00 — Dr. Blake

After February 1, Medical Jurisprudence, Wednesdays, 9:20 to 10:00 — Judge North

After January 10, Hygiene

Isaac C. Dennett, PhD, listed on the next page, was professor of Latin in the CU Department of Philosophy and the Arts.
### Monday

<table>
<thead>
<tr>
<th>Time</th>
<th>Lecture</th>
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<tbody>
<tr>
<td>8:15 – 9:00</td>
<td>Dr. Giffin, Anatomy</td>
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<td>9:00 – 10:00</td>
<td>Dr. Dodge, Clinical Medicine and Pathology</td>
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<tr>
<td>10:00 – 11:00</td>
<td>Dr. McPhatter, Abdominal Surgery</td>
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<td>11:00 – 12:10</td>
<td>Dr. Eskridge, Nervous and Mental Diseases</td>
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<td>2:00 – 4:00</td>
<td>Dr. Gardiner, Histology</td>
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### Tuesday

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<tr>
<td>8:15 – 9:00</td>
<td>Dr. Giffin, Physiology</td>
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<tr>
<td>9:00 – 12:10</td>
<td>Dr. Cleary, Ophthalmology, Otology, Laryngology, Rhinology.</td>
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<td>2:00 – 4:00</td>
<td>Dr. Palmer, Inorganic Laboratory</td>
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### Wednesday

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<tr>
<td>9:00 – 10:00</td>
<td>Dr. Palmer, Inorganic Chemistry</td>
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<tr>
<td>10:00 – 12:10</td>
<td>Dr. Richard, Surgery and Hygiene</td>
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<td>2:00 – 4:00</td>
<td>Dr. Palmer, Organic Laboratory</td>
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### Thursday

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<tr>
<td>9:00 – 10:00</td>
<td>Dr. Palmer, Organic Chemistry</td>
</tr>
<tr>
<td>10:00 – 12:10</td>
<td>Dr. McLaughlin, Obstetrics, Diseases of Women and Children</td>
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<tr>
<td>2:00 – 4:00</td>
<td>Dr. Palmer, Inorganic Laboratory</td>
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### Friday

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<tr>
<td>8:15 – 9:00</td>
<td>Dr. Dennett, Special Latin</td>
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<tr>
<td>10:00 – 11:00</td>
<td>Dr. Kimball, Materia Medica and Therapeutics</td>
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<tr>
<td>11:00 – 12:10</td>
<td>Dr. Kimball, Theory and Practice of Medicine</td>
</tr>
<tr>
<td>2:00 – 4:00</td>
<td>Dr. Gardiner: Histology</td>
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1895-1896 Faculty — University of Colorado School of Medicine

The entire faculty of medicine at the University of Colorado, from the 1896 report of the Colorado Superintendent of Public Instruction:

William J. Baird, MD (University of Maryland)
- Assistant to the Chair of Physiology, 1895-1896
- Instructor in Pathology and Experimental Physiology, 1896-1897

G. Melville Black, MD (Bellevue Hospital Medical College, New York)
- Lecturer on Ophthalmology, Otology, Laryngology, and Rhinology, 1891-1892
- Professor of Laryngology and Rhinology, 1892-1897

John Chase, MD (University of Michigan Department of Medicine)
- Professor of Ophthalmology and Otology, 1892-1897, 1900-

Henry C. Crouch, AB (Yale), MD (University of Göttingen, 1880)
- Lecturer on Bacteriology, 1893-1894
- Lecturer on Bacteriology and Hygiene, 1894-1895
- Clinical Lecturer on Diseases of the Stomach, 1895-1896
- Professor of Bacteriology and Hygiene, 1896-1897
- Dr. Crouch, who had come to Colorado because of his tuberculosis, was one of the nation’s pioneers in bacteriology. Tuberculosis limited his physical activity but he made important contributions by means of his research. He died of pulmonary tuberculosis at age 40 in Denver on April 20, 1898.

Jeremiah T. Eskridge, MD (Jefferson Medical College, Philadelphia, 1875)
- Lecturer on Nervous and Mental Diseases, 1890-1891
- Professor of Nervous and Mental Diseases, 1891-1894
- Dean of the Medical Faculty, 1892-1895
- Professor of Nervous and Mental Diseases and Medical Jurisprudence, 1894-1896

Earl Hamilton Fish, MD (Denver College of Medicine, 1893)
- Assistant to the Chair of Surgery, 1894-1897

John Gardiner, BSc (University of London)
- Professor of Biology and Histology, 1889-1898

Josiah N. Hall, BS, MD (Harvard, 1882)
- Lecturer on Materia Medica, Therapeutics and Clinical Medicine, 1893-1894
- Professor of Materia Medica, Therapeutics and Clinical Medicine, 1894-1897

Cass C. Herrington, LLB
- Lecturer on Medical Jurisprudence, 1895-1897
Samuel D. Hopkins, MD (University of Pennsylvania, 1893)
- Lecturer on Medical Chemistry and Urinary Analysis, 1894-1895
- Lecturer on Medical Chemistry, Urinary Analysis and Toxicology, 1895-1896

Edward Jackson, AM, MD (University of Pennsylvania, 1878)
- Special Lecturer on Physiological Optics, 1895-1896
- Professor of Ophthalmology, 1905-
- Dr. Jackson moved from Philadelphia to Denver because of his wife’s tuberculosis.

Walter A. Jayne, MD (Columbia University College of Physicians and Surgeons, 1875)
- Lecturer on Gynecology, 1894-1895
- Professor of Gynecology and Abdominal Surgery, 1895-1897

Joseph B. Kinley, MD (Chicago Homeopathic Medical College)
- Professor of Comparative Materia Medica and Therapeutics, 1895-1897

Lewis E. Lemen, MD (Missouri Medical College, St. Louis, 1871)
- Professor of Clinical Surgery, 1892-1897

Andrew Stewart Lobingier, MD (University of Michigan Department of Medicine, 1889)
- Professor of Pathology, 1891-1892
- Professor of Pathology and Clinical Surgery, 1893-1895
- Professor of Pathology and Operative Surgery on the Cadaver and Lecturer on Genito-Urinary Diseases and Clinical Surgery, 1895-1896
- Professor of Surgery, 1896-1897
- Professor of Surgical Pathology, 1897-1898
- Professor of the Principles of Surgery and Clinical Surgery, 1898-1902

Herbert Weston McLauthlin, MD (Harvard, 1882)
- Professor of Pathology and Histology, 1884-1885
- Lecturer, 1885-1886
- Denver Health Commissioner, 1885-1887
- Arapahoe County Physician, 1886-1891
- Professor of Obstetrics and Diseases of Women and Children, 1886-1893
- Professor of Materia Medica, Therapeutics, and Clinical Medicine, 1893-1894
- Secretary of the Medical School, 1893-1896
- Professor of the Principles and Practice of Medicine and Clinical Medicine, 1894-1897

John W. O’Connor, MD (Rush Medical College, Chicago, 1879)
- Professor of Railway and Clinical Surgery, 1892-1897

George B. Packard, MD (University of Vermont, 1874)
- Professor of Orthopedic Surgery, 1892-1897

Charles Skeele Palmer, PhD (Johns Hopkins)
- Professor of Chemistry
Clayton Parkhill, MD (Jefferson Medical College, Philadelphia, 1883)
- Professor of the Principles and Practice of Surgery and Clinical Surgery, 1892-1897
- Dean of the School of Medicine, 1895-1897
- Dr. Parkhill, who had studied with Samuel D. Gross, MD (1805-1884) at Jefferson Medical College, moved to Denver in 1885 because of his failing health.

Emley Barber Queal, MD (Medical College of Ohio, Cincinnati, 1890)
- Demonstrator of Anatomy, 1891-1897
- Professor of Physiology, 1897-

Thomas E. Taylor, BA, MD (University of Michigan, 1879)
- Lecturer on Obstetrics, 1892-1893
- Professor of Obstetrics, 1893-

Pembroke R. Thombs, MD (Rush Medical College, Chicago, 1862)
- Director, Colorado State Asylum for the Insane in Pueblo, 1879-1899
- Special Lecturer on Mental Diseases, 1895-1897

Frank Eudoras Waxham, MD (Northwestern University, 1878)
- Special Lecturer on Diphtheria, Croup and Intubation, 1895-1896
- Professor of Medicine, Clinical Medicine and Laryngology, 1898-1899
- Professor of Medicine, Clinical Medicine, Laryngology and Rhinology, 1899-1907
- Professor of Rhinology and Laryngology, 1907-
- Dr. Waxham moved from Chicago to Denver in 1893 because of his wife’s health.

Herbert B. Whitney, MD (Harvard, 1882)
- Lecturer on Physical Diagnosis, 1890-1891
- Professor of the Diseases of Children, 1892-1896
- Professor of Physical Diagnosis and Diseases of Children, 1896-1897

Lt. Col. Alfred A. Woodhull, MD (University of Pennsylvania), US Army
- Special Lecturer on Preventive Medicine, 1895-1896

Hubert Work, MD (University of Pennsylvania)
- Special Lecturer on Some Diseases of the Nervous System, 1895-1897

Dr. John Chase had done postdoctoral studies in ophthalmology and otology in Edinburgh, London and Paris.

Dr. Joseph B. Kinley was later dean of the Westminster University College of Medicine, a homeopathic school at 1440 Glenarm Street in Denver.

Dr. Emley Barber Queal later became an anesthesiologist, and she was president of the Boulder County Medical Society in 1904.
1908-1909 Faculty — University of Colorado School of Medicine

James H. Baker, MA, LLD
• President

William Page Harlow, MD (University of Michigan, 1899), AB (Geology, University of Colorado, 1907) — Boulder
• Dean, 1907-1915
• Professor of Medical Diagnosis

Luman M. Giffin, MD — Boulder
• Professor of Surgery

John Chase, BA, MD — Denver
• Professor of Ophthalmology and Otology

Thomas E. Taylor, BA, MD — Denver
• Professor of Obstetrics

William B. Craig, MD — Denver
• Professor of Surgery

Emley Barber Queal, MD, Boulder
• Professor of Physiology

George H. Cattermole, MD — Boulder
• Professor of Medicine (Pediatrics)

Frank E. Waxham, MD — Denver
• Professor of Rhinology and Laryngology

Francis Ramaley, PhD—Boulder
• Professor of Histology and Embryology

Charles Fisher Andrew, MD — Longmont
• Professor of Materia Medica and Therapeutics

Charles S. Elder, MD — Denver
• Professor of Surgery (Gynecology)
• Leave of Absence, 1908-1909

Newton Wiest, MD — Denver
• Professor of Dermatology

John B. Ekeley, PhD — Boulder
• Professor of Chemistry
James R. Arneill, BA, MD — Denver
  • Professor of Medicine (Clinical Medicine)

Richard W. Corwin, MD, LLD — Pueblo
  • Professor of Surgery

Charles B. Lyman, MD — Denver
  • Professor of Surgery

John M. Foster, MD — Denver
  • Professor of Otology

Edward Jackson, MA, MD — Denver
  • Professor of Ophthalmology

Carroll E. Edson, MA, MD — Denver
  • Professor of Medicine (Theory and Practice)

Edward F. Dean, MD — Denver
  • Professor of Anatomy

Ross C. Whitman, BA, MD — Boulder
  • Secretary of the School of Medicine
  • Professor of Pathology

Arthur L. Kennedy, MD — Denver
  • Assistant Professor of Medicine

Oscar M. Gilbert, MD — Boulder
  • Assistant Professor of Medicine

Alvin R. Peebles, MD — Boulder
  • Assistant Professor of Medicine

Clough T. Burnett, MD — Boulder
  • Assistant Professor of Bacteriology

Eugene H. Robertson, MD — Boulder
  • Lecturer on Electro-Therapeutics

George E. Neuhaus, MD — Denver
  • Lecturer on Neurology and Psychiatry

Edward Delehanty, MD — Denver
  • Lecturer on Neurology
William W. Grant, MD — Denver
   • Lecturer on Gynecology

Theodore D.A. Cockerell — Boulder
   • Lecturer on Evolution

Edward B. Trovillion, MD — Boulder
   • Instructor in Anatomy

Walter W. Reed, MD — Boulder
   • Instructor in Obstetrics

William A. Jolley, MD — Boulder
   • Instructor in Pharmacology

Willard J. White, AM, MD — Longmont
   • Instructor in Hygiene and Medical Jurisprudence

Jacob Campbell, MD — Boulder
   • Instructor in Minor Surgery

John Andrew, BA, MD — Longmont
   • Instructor in Anatomy

Frank R. Spencer, BA, MD — Boulder
   • Instructor in Laryngology and Rhinology; Ophthalmology and Otology

Philip A. Davis, MD — Denver
   • Assistant in Obstetrics

Clay E. Giffin, BA, MD — Boulder
   • Assistant in Surgery

Looking ahead — in 1910, Abraham Flexner published his *Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching*, which found that the University of Colorado School of Medicine was adequate, which was enough to ensure its future, but he said that "the University hospital is entirely inadequate."

The CU School of Medicine had just been given an "A" rating by the American Medical Association, and had just started requiring 60 hours of college credits for admission. Abraham Flexner also concluded that DU's Denver and Gross College of Medicine should merge with CU (which was already being negotiated), and that because Colorado already had twice the national doctor-to-patient ratio, the University of Colorado School of Medicine could safely raise its admission standards.
1917-1918 University of Colorado School of Medicine

Early in 1917, a faculty committee at the School of Medicine distributed a questionnaire to members of the faculty, asking for their opinions about how the school’s management could be improved. On June 15, the School of Medicine announced that all faculty positions were vacant:

... a form of organization has been adopted which provides for the creation of thirteen departments, each in charge of a head of department with the title of professor who shall be responsible for the conduct and personnel of his department. These heads of department together constitute an executive faculty which shall administer the affairs of the school under the statutes of the University. (Colorado Medicine Jul 1917, pp. 199-200)

When the full list of the CU School of Medicine faculty was announced in August, 1917, it was accompanied by this note:

Some members of the faculty are already on active service with the medical reserve corps, and it is probable that others will be assigned to duty in the near future. Provision has been made that such members will be granted leave of absence for the period of their service, returning to their teaching with the termination of such service, and care will be taken to maintain effectiveness of the teaching through the assumption of more work by the remaining members of the faculty and possibly by volunteer assistance. (Colorado Medicine Aug 1917, pg. 230)

The following professors retired in 1917 and were given emeritus status:

1. T. Mitchell Burns, MD, Professor of Obstetrics Emeritus
2. John Chase, MD, Professor of Ophthalmology Emeritus
3. David H. Coover, MD, Professor of Ophthalmology Emeritus
4. William B. Craig, MD, Professor of Surgery Emeritus
5. William H. Davis, MD, Professor of Dermatology Emeritus
6. John M. Foster, MD, Professor of Oto-Laryngology Emeritus
7. Luman M. Giffin, MD, Professor of Surgery Emeritus
8. William P. Harlow, MD, Dean of the School of Medicine Emeritus
9. Walter A. Jayne, MD, Professor of Gynecology Emeritus
10. Francis H. McNaught, MD, Professor of Obstetrics Emeritus
11. George B. Packard, MD, Professor of Orthopedics Emeritus
12. Emley Barber Queal, MD, Professor of Physiology Emeritus
13. Charles B. Van Zant, MD, Professor of Physiology Emeritus
14. Newton Wiest, MD, Professor of Dermatology Emeritus
The University of Colorado School of Medicine announced the following heads of the thirteen new departments in July 1917, and other members of the faculty were announced in August 1917:

1. **Anatomy — Carbon Gillaspie, MD** (University of Colorado, 1905)
   - Harold Tupper Mead, MD, Instructor in Anatomy

2. **Physiology and Biochemistry — Robert C. Lewis, PhD** (Yale)

3. **Bacteriology — Clough Turrill Burnett, MD** (University of Michigan)

4. **Pathology — Ross C. Whitman, AB, MD** (University of Michigan, 1899)
   - Edward R. Mugrage, AM, MD, Instructor in Pathology
   - Charles A. Elliott, MD, Instructor in Pathology

5. **Clinical Pathology — James C. Todd, MD** (University of Pennsylvania, 1900)

6. **Medicine — Dean Charles N. Meader, MD** (Harvard, 1910)
   - Alvin R. Peebles, MD, Professor of Preventive and Experimental Medicine and Director of the Henry S. Denison Research Laboratories
   - Josiah N. Hall, BS, MD, Associate Professor of Medicine
   - Oscar M. Gilbert, MD, Associate Professor of Medicine
   - Frank P. Gengenbach, MD, Associate Professor of Pediatrics
   - Moses Kleiner, MD, Associate Professor of Therapeutics
   - Rudolph W. Arndt, MD, Assistant Professor of Medicine
   - George H. Cattermole, MD, Assistant Professor of Pediatrics
   - Henry Sewall, MD, PhD, Lecturer in Medicine
   - James H. Pershing, AB, Lecturer in Medical Jurisprudence
   - Charles D. Spivak, MD, Lecturer in Dietetics
   - William Wiley Jones, MD (CU, 1909), Instructor in Medicine
   - John Murray Barney, MD (DU, 1902), Instructor in Medicine
   - Frank C. Kennelly, MD, Instructor in Medicine

7. **Surgery — Leonard Freeman, MD** (Medical College of Ohio, Cincinnati, 1886)
   - Frost C. Buchtel, MD (DU, 1901), Assistant Professor of Surgery
   - Arthur Hugo Earley, Lecturer in Rectal Surgery
   - Casper F. Hegner, MD, Instructor in Surgery
   - Clay E. Giffin, MD, Instructor in Surgery
   - Oscar M. Shere, MD, Instructor in Surgery
8. Clinical Surgery — Charles Baldwin Lyman, MD (Harvard, 1886)

- Samuel Fosdick Jones, MD, Associate Professor of Orthopedic Surgery
- Oliver Lyons, MD, Associate Professor of Genito-Urinary Surgery
- Samuel Beresford Childs, AB, MD, Associate Professor of Roentgenology
- Edward F. Dean, MD, Assistant Professor of Clinical Surgery
- Aubrey Hodson Williams, MD (Gross Medical College, 1896), Assistant Professor of Clinical Surgery
- Henry Williams Wilcox, MD, Instructor in Orthopedic Surgery
- John Bramwell Davis, MD (Gross Medical College, 1902), Instructor in Genito-Urinary Surgery

9. Neurology and Psychiatry — George E. Neuhaus, MD

- Howell T. Pershing, MS, MD, LLD, Associate Professor of Psychiatry
- Edward Delehanty, MD, Assistant Professor of Neurology
- George A. Moleen, MD, Assistant Professor of Neurology
- Cyrus L. Pershing, MD, Instructor in Neurology

10. Obstetrics and Gynecology — Clarence B. Ingraham, MD (Johns Hopkins, 1906)

- Cuthbert Powell, MD, Instructor in Gynecology
- Foster H. Cary, MD, Instructor in Obstetrics
- Charles Alonzo Ferris, MD (Gross Medical College, 1901), Instructor in Obstetrics
- Phillips M. Chase, MD, Instructor in Obstetrics

11. Ophthalmology — Edward Jackson, MD (University of Pennsylvania, 1878)

- Melville Black, MD, Associate Professor of Ophthalmology
- Elmer T. Boyd, MD, Assistant in Ophthalmology
- William H. Crisp, MD, D.Oph., Assistant in Ophthalmology
- William Finnoff, MD, D.Oph., Assistant in Ophthalmology
- John A. McCaw, MD, Assistant in Ophthalmology
- William A. Sedwick, MD, Assistant in Ophthalmology
- Hiram R. Stilwill, MD, Assistant in Ophthalmology

12. Otology, Rhinology and Laryngology — Robert Levy, MD (Bellevue Hospital Medical College, 1884)

- William C. Bane, MD, Associate Professor of Oto-laryngology
- Claude Edward Cooper, AB, MD, Assistant Professor of Oto-laryngology
- Frank R. Spencer, MD, AB, Instructor in Oto-laryngology
- Harry L. Baum, MD, Instructor in Oto-Laryngology
- William M. Bane, MD, Assistant in Oto-Laryngology

13. Dermatology and Syphilis — Arthur J. Markley, DDS, MD

- George P. Lingenfelter, MD, Instructor in Dermatology and Syphilis
Dr. Charles Meader was professor of medicine and dean (1916-1925) of the School of Medicine. William Page Harlow, AB, MD, was dean emeritus.

Dr. Ross C. Whitman was professor of pathology and secretary of the School of Medicine, Boulder Division.

Dr. Alvin Roy Peebles—the 33-year-old professor of preventive and experimental medicine and director of the Henry S. Denison Research Laboratories at the University of Colorado—died on October 22, 1917. Dr. Peebles had received his MD in 1906 from the University of Michigan.

The University of Colorado Dispensary had the following departments, each with its own clinical staff, in 1917:

- Dermatology and Syphilis
- Gynecology
- Medicine
- Neurology and Psychiatry
- Obstetrical Outservice
- Ophthalmology
- Orthopedics
- Oto-Laryngology
- Pediatrics
- Surgery
- Tuberculosis
1918 — Base Hospital No. 29, London

Base Hospital No. 29 was organized at Denver City and County Hospital on April 5, 1917.

On July 5, 1917, the US War Department contacted the University of Colorado School of Medicine about its faculty organizing and staffing a base hospital to support the war effort.

The Base Hospital No. 29 staff was mobilized at Camp Cody, New Mexico — 3 miles northwest of Deming, New Mexico — during March 1918. The staff trained there and then at Camp Crane in Allentown, Pennsylvania, until July 5, 1918, when it boarded the Empress of Russia and sailed for England, where the unit received its assignment on July 19, 1918.

The unit from the University of Colorado took over Base Hospital No. 29 from the British. Base Hospital No. 29 was housed in the North Eastern Fever Hospital, Tottenham — about 10 miles north of Buckingham Palace — in the London Borough of Haringey, London N17.

About a dozen faculty members from the University of Colorado School of Medicine — with the support of the Denver chapter of the American Red Cross and with help from some CU medical students as well as physicians and surgeons from outside of Colorado — served in London as medical officers at Base Hospital No. 29 under the general direction of Dean Charles Meader.

Base Hospital No. 29 — which cared for 3,976 patients, of whom 2,351 needed surgery and 1,625 needed medical attention — ceased operations on January 12, 1919, and the staff boarded the Olympic on February 18, 1919. They arrived in the United States on February 24, 1919, and were demobilized at Fort Logan, Colorado, on March 13, 1919.

The issues of Colorado Medicine during the first few months of 1919 list numerous Colorado physicians who were being discharged from military service, and note that at least a few of them had to hurry back to their home towns in Colorado to help deal with the flu epidemic.

Staff at Base Hospital No. 29:

- Lt. Col. John B. Anderson — commanding officer of Base Hospital No. 29
- Lt. Col. John W. Amesse — hospital director and chief of medical section
  - Capt. Amos L. Beaghler
  - Capt. Ranulph Hudston
  - 1st Lt. Thomas M. Kane
  - 1st Lt. Harold G. Macomber
  - 1st Lt. Raymond E. Peebler
- Major Cuthbert Powell — acting chief of surgical section in the absence of Major Edward F. Dean, who had been ordered to assist the evacuation hospitals in France
  - Capt. William M. Bane and Lt. Frank Millett, ear, nose, and throat
  - Capt. William M. Finnoff, eye
- Capt. Oliver Lyons, genitourinary
- Capt. Robert Ferguson
- Capt. Judd H. Kirkham
- 1st Lt. Augustine S. Cecchini
- 1st Lt. Charles C. Cooks
- 1st Lt. Sidney B. Conger
- 1st Lt. Frank Dunkle
- 1st Lt. Howard H. Hamman
- 1st Lt. Wilson K. Hobart
- 1st Lt. Henry O. Wernike
- 1st Lt. F.T. Williams
- Capt. Cyrus L. Pershing and Lt. E.L. Ray — neurology
- Maj. William Whitridge Williams — chief of laboratory staff
  - Capt. Leonard G. Crosby, radiology
  - Capt. Arthur W. Stahl, bacteriology
  - Lt. Albert W. Dewey, pathology