Robley Dunglison, 1798-1869: The Preeminent Medical Author of Mid-Nineteenth-Century America

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The preeminent medical author of mid-nineteenth-century America

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Much of the information about Robley Dunglison is found in his “Autobiographical Ana.” The word “ana” is a commonly used suffix, as in “Osleriana,” and includes the sayings of a person, his notes, literary trifles, or gossip.

During the early nineteenth century Europeans commonly judged American medicine inconsequential. In the Edinburgh Review of 1820, an Anglican clergyman wrote, “What does the world yet owe to American physicians or surgeons?” But within the next two decades that question was answered by notable advances in medicine made by Americans. Nevertheless, the U.S. journal, The Medical Record, reported that between 1859 and 1869 Europeans had published more than four thousand works in all branches of medicine compared to five hundred for Americans.

*The significant contributions made to medicine by Americans in the early 1800s include: William Beaumont’s studies on gastric physiology during the 1820s and 1830s; William Wood Gerhard and Alfred Stille of Philadelphia made the clinical distinction between typhus and typhoid fever in the 1830s; Oliver Wendell Holmes elucidated the epidemiology of childbed fever in 1843, five years before Hungarian Ignaz Semmelweis; ether anaesthesia was introduced in the 1840s, and before that, advances in general surgery were made by John Warren, Valentine Mott, and Philip Syng Physick; and notable steps in gynecology were made by Ephriam McDowell, Nathan Smith, and James Marion Sims.*
Robley Dunglison at the peak of his successful career in Philadelphia. Courtesy of Historical Collections & Services, Claude Moore Health Sciences Library, University of Virginia. This portrait may also be seen at http://iris.lib.virginia.edu/speccoll/prints_large/prints20051.jpg.
However, one physician in America, Robley Dunglison, a naturalized Englishman, singlehandedly helped to correct that imbalance. During the mid-nineteenth century he wrote scores of journal articles and published a dozen medical texts that received considerable acclaim. Dunglison's literary output became legendary. He was said to be "the most voluminous writer of the age; ... more copies of his works issued from the press ... than those of almost all the medical writers of the Union put together." He if all 152,000 of his published "volumes were placed on a single shelf, would reach more than half a mile." Six of his medical texts went through numerous revisions and printings. His medical dictionary, continued through twenty-three editions (1833–1901), lives on in spirit today through its successor, Stedman's Medical Dictionary.

Dunglison's career offers a picture of American academic medicine of the mid-nineteenth century. His life—with the focus on his writings, and the influences on them—can conveniently be divided into four geographic parts: England, Virginia, Baltimore, and Philadelphia.

**Dunglison in England, 1798–1826**

Robley Dunglison grew up in the Lake District of England in the town of Keswick, home of the lyrical poet Samuel Coleridge. As was then usual, his medical education began with apprenticeship to a local "surgeon of repute." At age seventeen he moved to London to become the assistant to Charles T. Haden, an obstetrician who was among the first in England to employ Laënnec's stethoscope. Dunglison then attended medical lectures in London, Edinburgh, and Paris for two years.

In 1818 Dunglison qualified as a surgeon and an apothecary (a doctor who prepared his own prescriptions). He was allowed to practice only general medicine, but he found this "distasteful," and he was determined to specialize. Although he needed a medical degree, none was then offered to students in London. He therefore followed the usual practice of obtaining one in abestinea from the University of Erlangen in Germany, which he received after submitting a proper fee and a thesis, "De Neuralgia." He planned to restrict his medical practice to obstetrics and the diseases of women and children.

During this period, Dunglison was a regular correspondent to several English medical journals, had translated and revised several French medical texts, and published his first book, *Commentaries on the Diseases of the Stomach and the Bowels of Children*, a treatise that favored aggressive therapy and contained one of the first discussions of intussusceptions. He became a member of prominent medical societies in England and France.

Dunglison's promising future in London medicine was altered by events abroad. Thomas Jefferson had long been interested in the practice and teaching of medicine. After
completing his second term as president in 1809, he focused the final seventeen years of his life on higher public education and the founding of the University of Virginia with a medical school.\textsuperscript{6} By 1824 the University buildings he had designed at Charlottesville were nearing completion, and he sought six teachers, including a professor of Anatomy and Medicine. Reluctant to recruit from American universities because he did not wish to deprive them of their best faculty, he instead sent a recruiter to England and Scotland to seek men “possessed of a ‘due degree of science, talent for instruction and correct habits and morals.’”\textsuperscript{199} Among the candidates was twenty-six-year-old Robley Dunglison. He was reported to Jefferson as being a “very intelligent and laborious gentleman and a writer of considerable eminence in various medical and anatomical subjects.”\textsuperscript{199} The young physician was offered a chair in Anatomy, Surgery, Physiology, Materia Medica, Pharmacy, and the History of the Theories of Medicine. As Oliver Wendell Holmes remarked about another multifaceted professorship, young Dunglison’s appointment was hardly a “chair” but more like a “settee.”\textsuperscript{4p500} The offer included a salary of $1500, plus fees from students and free living quarters.

With this income guaranteed, Dunglison was finally able to marry the daughter of a London apothecary-doctor, Harriette Leadam. Shortly thereafter, in October 1824, the two sailed from London on an “old log”\textsuperscript{1p21} of a ship with rotten sails. The voyage to Norfolk, usually made in less than fifty days, took sixty because of foul weather. When the Dunglisons failed to arrive as expected, Jefferson feared they had been lost at sea. The mid-February mud on the treacherous Virginia roads further delayed them from reaching the village of Charlottesville. But on the morning of February 14, 1825, the eighty-two-year-old ex-President rode to the Stone Tavern where the young couple was recovering. He greeted them warmly and bemoaned their perilous voyage across the Atlantic and wretched coach ride across Virginia.\textsuperscript{1p21–22}

**Dunglison in Virginia, 1826–1833\textsuperscript{1p22–26}**

The Dunglisons settled into one of the ten faculty residences (pavilions) of the central buildings at the new University of Virginia. Classes began in March 1825 with sixty-eight students. Twenty were enrolled in the School of Anatomy and Medicine under Dunglison, the sole medical professor. During the first session of ten and a half months, Dunglison delivered two-hour lectures three days each week on six subjects: Physiology, Pathology, Therapeutics, Obstetrics, Medical Jurisprudence, and the History of the Progress and Theories of Medicine.\textsuperscript{5,7}

In early 1826 Jefferson established a small dispensary, where on three afternoons a week anyone could be vaccinated gratis, and where, for a registration fee of half a dollar, “free persons, disordered in body, topically or generally,” were given medical advice and “aid in surgical cases of ordinary occurrence.” Students could “examine the patients by the pulse” and “ask of them such questions as the professor shall think pertinent and shall permit.”\textsuperscript{7p22} Since their two-year education under Dunglison was largely theoretical, each moved on for a year or so to obtain clinical experience at a large hospital in an East Coast city.

Dunglison’s contract with the university forbade him to earn money from a private medical practice. Thus he was not a potential competitor to the local physicians, who might otherwise have opposed the new medical school. Medical professors of that time were not paid salaries, but survived on student fees and income from attending the sick. The prestige of being associated with a medical school (albeit without pay) enhanced their local reputations and, in turn, their medical practices. With the restriction in his contract and his university salary, Dunglison became the first full-time medical professor in the United States.

During Dunglison’s eight years at the University of Virginia, he pursued the writing career which in London had brought him to the attention of Jefferson. A syllabus of his lectures on medical jurisprudence, including such subjects as “the treatment of accidental poisoning and of suspended animation,” was his first book published in America.\textsuperscript{5p900}

In 1831 Dunglison contracted with a Philadelphia publisher to write a text on physiology. He faulted the European works used then in this country for lacking clarifying illustrations;\textsuperscript{a} a

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\textsuperscript{a} European physiology texts used in the United States in the early nineteenth century included those by John Bostock (London & Edinburgh), Anthelme B. Richerand (Germany), and Francois Magendi (France).
deficiency he addressed in his *Human Physiology, Illustrated by Numerous Engravings* (1832). Ultimately, eight editions (1836) and over eleven thousand copies were published, making it for a time the country’s major physiology text. Because Dunglison was the first to organize and teach this science in a systematic way and to give it a distinctive place in the medical school curriculum here, he earned the title of the “Father of American Physiology.”

William Osler praised *Human Physiology* for its “many nice trimmings in the shape of good stories.” Perhaps what Osler really liked were the book’s thirteen quotations from Shakespeare, three from Byron, and many others from European and classical authors. Latin was employed when delicate sexual matters were discussed.

A third book, *A New Dictionary of Medical Science*, eventually became Dunglison’s most notable work. In America he had become “impressed with the great want of a [current] Medical Dictionary.” The dictionary by Englishman Robert Hooper was then commonly used in the United States, but it had not been updated for over a decade. Dunglison’s entry into the field of medical dictionaries began with an erudite, multilingual work published in early 1833 by a Boston firm. Because it was bound in two volumes, it was not convenient to use and sold few copies. The great appeal and fame of this work came with later editions.

**Jefferson’s influence on Dunglison’s medical philosophy**

Soon after their first encounter Thomas Jefferson enlisted Dunglison as his personal physician. The aging ex-President had a pressing medical problem: strangury and dysuria due to urethral obstruction from prostatic hypertrophy. Dunglison taught his patient how to insert a urethral catheter and how to pass bougies of increasing size. Jefferson recorded thirty visits from his new physician in one six-month period.

During their sixteen-month association, Dunglison regularly attended the Sage of Monticello, often dined with him, and soon came to revere his patient and host. Politics was never discussed, but Dunglison absorbed Jefferson’s conservative views on medicine.

Jefferson had adopted the ideas of French philosophers belonging to the Idéologic School, an outgrowth of the Revolutionary Period in France. The Idéologues challenged conventional beliefs in religion, politics, economics, science, and education. Notable among them was a personal friend of Jefferson, Pierre Cabanis (1771–1802), who wrote several tracts on medical education, including *Du Degré de Certitude de la Médecine*, 1797. Like many of the Idéologues, Jefferson was a

Deist and viewed theology as quackery of the mind. Similarly, he called medical theories “charlatanerie of the body.” Like Cabanis, he derided the various systems of medicine then practiced. He viewed medical theories and sectarian schools of medical thought as ephemeral and felt that physicians should be familiar with the successive theories of medicine from Hippocrates to the present to appreciate their transitory nature.

Jefferson was also among the first in early nineteenth-century America to challenge the conventional physic of his day. Although a close friend of Benjamin Rush (1745–1813), Jefferson criticized Rush’s practice of copious blood-letting and his aggressive use of calomel and jalap (an extract of the root of the Mexican morning glory, *Ipomoea purga*). Jefferson never allowed members of his family or his slaves to be bled. Instead of the “heroic” therapy typical of Rush’s medical approach, Jefferson believed in the innate healing power of the body—the *vis medicatrix naturae* of Hippocrates. Jefferson advised,

I would wish the young practitioner, especially, to have deeply impressed on his mind, the real limits of his art, and that when the state of his patient gets beyond these, his office is to be a watchful, but quiet spectator of the operations of nature, giving them fair play by a well-regulated regimen.
Jefferson's conservative medical notions contrasted with Dunglison's initial beliefs, which Dunglison had expressed in his first book, published in London before his move to Virginia. *Commentaries on Diseases of the Stomach and Bowels of Children* received a lengthy, eleven-page critique in 1824 by an anonymous reviewer who wrote, "we regard Dr. Dunglison as too partial to purgatives of the drastic kind, particularly scammony, calomel, and aloe." A decade later in 1833, having reflected on Jefferson's medical views, Dunglison stated his revised medical philosophy in his parting address to the University of Virginia medical students:

It has always been my anxious endeavor ... to separate fact from hypothesis, and to attempt to exhibit it, as far as it is capable of being exhibited, as a demonstrative science. I have ever recommended you ... to avoid being wedded to any exclusive sect or system ... to discard all blind empiricism, and where you are in doubt rather to give the patient the benefit of the doubt [rather] than to risk his safety by the rash administration of [some drastic medicine].

**Dunglison in Baltimore, 1833–1836**

Within a few years Dunglison acquired a national reputation from his articles and letters in American medical journals. He was awarded an honorary degree of Doctor of Medicine by Yale College and was elected to the American Philosophical Society, the most prestigious such organization in the United States. After the death of Jefferson, discipline among the University of Virginia students broke down for a period, making life for the faculty both unpleasant and even hazardous. The buildings also were not well maintained; the roof in Dunglison's pavilion leaked, threatening the health of his family, which now included three children. Dunglison received academic offers from medical schools in Philadelphia and Cincinnati, but finally accepted a professorship at the Medical College of the University of Maryland in Baltimore.

Unlike his arrangement at the University of Virginia, Dunglison did not receive a salary in Baltimore. Instead his income depended solely on fees from students enrolled in his classes. Teaching from 120 to 180 or more students each year, with each student paying $40 for the two courses he taught, his annual income would have been $4800 to more than $7200, much more than the $3000 he had received in Virginia, which had included his base salary and student fees.

Dunglison soon concluded that his colleagues in Baltimore "were by no means equal as teachers." Few were men of letters, and "almost all were occupied with their dignified calling more as a means of sustenance than as a noble science." Furthermore, the college proved to be uncongenial because of hostility between the trustees and faculty. Dunglison sought to resolve these conflicts, but ultimately "despaired of seeing a permanently large school established in Baltimore," and so turned his attention to writing. During his three years in Baltimore he completed two new medical texts while adding a son to his family.

Dunglison's new appointment in Baltimore included teaching hygiene. Because he felt that no "suitable" textbook was available in English, he set about writing his *Elements of Hygiene* (1835). It treated the influence of seasons, climate, and geography on health, and even devoted one chapter to "the effect of draining a malarious soil." As he did with physiology, Dunglison was the first to teach the subject of hygiene in a systematic way in American schools, as was being done in France, Germany, and Italy.

In the second edition, *Human Health* (1844), Dunglison's focus changed somewhat. He added to the book discussions of food, sleep, clothing, bathing, exercise, and "Corporal, Intellectual and Literary Pursuit," reflecting the growing public interest in dietetics and hygiene by the general population. He stressed the common-sense notion that prevention is preferable to any treatment.

**Dunglison in Philadelphia, 1836–1869**

It seems fitting that Dunglison, having begun his academic life in America at Thomas Jefferson's Academical Village in 1826, would conclude it decades later at Jefferson Medical College. In his "Autobiographical Ana" he explained that he moved to Philadelphia, then the mecca of American medical education, because he despaired of its future in Baltimore. In addition, his income at the University of Maryland had not matched his expectations. During his first year in Philadelphia he proudly reported that he had earned nearly $4000. A close friend later related that "it was not until after [Dunglison] had reached his fortieth year [1838] that his pecuniary circumstances became easy." This was largely due to the growing income from his medical texts.

In 1836 Philadelphia had two medical colleges: the University of Pennsylvania, founded in 1765, and the smaller upstart Jefferson Medical College, founded in 1825 by a contentious surgeon, Dr. George McClellan (1798–1847). Ill will existed between the two, fostered by competition for paying students.

Ill will also flourished in Jefferson. In Baltimore Dunglison had acquired the reputation as an academic peacemaker. Within Jefferson he served as a neutral figure for the two rival faculty factions, whose animus for each other was fanned by McClellan. In short order during 1840 Jefferson's trustees fired a pair of fractious professors (including McClellan), another died, and two others resigned, leaving only Dunglison and two colleagues of the original eight to teach. Owing to the weakened faculty, the class of 1840/41 numbered just 163, less than half of its peak of 364 five years before. Dunglison directed the hiring of new professors. Five years later the 1846/47 class numbered 493, making Jefferson the largest medical school in

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the country at the time. During the next decade yearly enrollment averaged over 500 students and the number of graduates each year ranged between 178 and 270.\textsuperscript{197,94} Dunglison also helped ease some of the conflicts with the medical college at the University of Pennsylvania, arranging for medical students from both schools to share patients at the several hospitals in Philadelphia.\textsuperscript{1920–21}

In 1855 Dunglison was appointed dean of Jefferson, a position he held until a year before his death in 1869. The famous surgeon Dr. Samuel Gross praised Dunglison, while noting his failings:

timidity and a spirit of conservatism . . . at variance with the requirements of the age . . . It was a maxim with him to let well alone. He saw no necessity for any change in the curriculum of instruction of our schools. He always thought that seven chairs were quite enough, that it was unwise to reduce the number of didactic lectures, and that an independent board of examiners . . . was not adapted to the wants of this country.\textsuperscript{95312}

Although Dunglison’s main efforts in Philadelphia were academic, he was also concerned with the general medical and public health of the city. He promoted the program of vaccination for smallpox and helped obtain a supply of effective vaccine. As one of the attending physicians at the Philadelphia General Hospital, Dunglison was responsible for its population of “lunatics.” At the time in Philadelphia the Almshouse-Blockley had “120 cells, with posts and rings to shake the maniacs.”\textsuperscript{19126} In 1838 Dunglison wrote a report urging the establishment of “an Asylum for the Insane Poor of the Commonwealth.”\textsuperscript{19108–10} Only years later was this realized.

In 1854 Dunglison was commissioned to visit homes for the blind in Europe and submit a report with recommendations to the president of the Pennsylvania Institution for the Blind. Dunglison later became chairman of its committee for instruction and supervised the three-volume folio edition of A Dictionary for the Blind (1860). He favored using the normal alphabet in raised letters instead of the Braille system, which was introduced in this country in the early 1840s.\textsuperscript{95305}

In his last several decades of life Dunglison experienced attacks of “an oft-recurring and disabling malady”\textsuperscript{19173} (his dolor atroax, gout\textsuperscript{19192}) and endured “progressive infirmities,”\textsuperscript{19195} mainly arthritis and heart failure. He retired from Jefferson in April 1868 and died on April 1, 1869, at seventy-one. His autopsy revealed a hypertrophied heart, “ossified” coronary arteries, and a calcified, atheromatous aorta.\textsuperscript{95306} Dr. Gross reported that Dunglison’s brain was sound, weighing (before fixation, presumably) fifty-five ounces (two ounces more than “the ordinary average”) and “was composed of the noblest material, arranged like the columns of a Corinthian dome, in the most admirable proportions.”\textsuperscript{95312}

Dunglison: More medical ink

Soon after arriving in Philadelphia Dunglison published General Therapeutics (1837), which was later shrewdly renamed New Remedies (1839). Here he collected “information concerning the remedies of more recent introduction . . . scattered in so many works, that it cannot be accessible to the mass of physicians.”\textsuperscript{19196} He also revised the materia medica of his time by omitting many fanciful, useless, or deleterious agents found in other pharmacopoeias—agents such as water of frog’s spawn, the Theriac of Andromachus, and Rush’s favorite, calomel. In these two works he advocated “a more rational and milder system”\textsuperscript{19996} than the copious blood letting and hypercatharsis (e.g., Rush’s calomelization) typical of the nineteenth-century allopathic school. In Virginia, Dunglison had been accused of being an “inert” practitioner because he did not promote the “energetic and heroic treatment universal there.”\textsuperscript{19198} But later he adopted Jefferson’s expression, “meddlesome medication,” and began to reject the “large and frequently-repeated doses, so much in vogue.”\textsuperscript{95303}

The fifth edition of New Remedies (1846) was enlarged by fifty-four new agents. In its introduction Dunglison noted that modern chemistry has provided new drugs which have the advantage: “when prepared properly—they are not liable to uncertainty in their operation; whilst the various plants . . . are liable to irregularity of action, owing to faults in desiccation, to the season in which they are culled, &c., &c.”\textsuperscript{19199} He stressed the importance of observing the effects of different drugs on the body to understand their modes of action.

In 1839 a Philadelphia company published a second edition of Dunglison’s A Dictionary of Medical Science in a single volume of 600 pages, from which were omitted German synonyms and biographical details. Its sales gradually increased, justifying successive new editions, so that by 1875 over 65,000 copies had been printed.\textsuperscript{19148} In the last edition edited by Dunglison, the nineteenth in 1868, he added 6,000 new words.\textsuperscript{6} Throughout most of the nineteenth century this dictionary was the principal one used by physicians and students in America.

Friends and students in Virginia had given Dunglison the nickname “The Walking Dictionary.”\textsuperscript{19145} Osler called his lexicon “one of my stand-bys.”\textsuperscript{95238} More than a dozen American physicians in the decades after the Civil War sought to copy Dunglison’s success by compiling their own medical dictionaries, but none achieved its popularity. The last edition published under his name in 1901 was edited by Thomas Lathrop Stedman (1853–1938), who a decade later in 1911 presented his own medical dictionary, a lineal descendent of A Dictionary of Medical Science, which has continued (through 2003) for twenty-two editions.

A summary and an appraisal

In addition to his dozen medical texts, Dunglison contributed over forty-five articles to periodicals; edited or
translated ten major books; and edited at various times four medical journals. Dr. Samuel D. Gross penned a maudling nineteen-page "Memoir of Robley Dunglison" a few months after his friend's death and offered in it this panegyric: "a great scholar, an accomplished teacher, a profound physiologist, an acute thinker, a facile writer, a lucid, erudite, and abundant author." He judged Dunglison "a medical philosopher, a savant, rather than a physician," Osler, who taught in Philadelphia several decades later and who had perhaps a more dispassionate view of Dunglison, declared simply that he "had all the [medical] wisdom of his day and generation combined with a colossal industry." 

Today, Dunglison's past academic renown is rarely recalled outside the University of Virginia and Jefferson Medical College. His medical texts were superseded over a century ago. Only his medical lexicon lives on through Stedman's Medical Dictionary. Yet he introduced physiology and hygiene to the medical curriculum in America and began the modernization of the pharmacology texts. He was, in Gross's words, "a reformer of the prejudices of his age."

Dunglison missed the standard immortality in medicine because he made no important discovery (as did Beaumont), his eponymic sign (like the Austin Flint murmur), no therapeutic school (like Rush), nor became the subject of a celebrated painting (e.g., Thomas Eakins's "The Gross Clinic"). However, his "Autobiographical Ana" warrants study today, for it depicts medicine in mid-nineteenth-century America and chronicles the career of its most prolific medical author and medical innovator.

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References

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