David Hosack, MD, and Rutgers

The Politics of Medical Education in the Nineteenth Century

HENRY H. SHERK, MD

n the morning of July 11, 1804, Dr. David Hosack sat in a rowboat with his patient as they rowed across the Hudson River from Manhattan to Weehawken, New Jersey. The patient, Alexander Hamilton, enjoyed excellent health at that moment, but within the next hour, he would receive his fatal injury at the hands of Aaron Burr. Hamilton and Hosack possibly felt little apprehension, however, during the journey across the Hudson because Burr had previously fought in only one duel while Hamilton had the experience of eighteen such "interviews." Hamilton seemed calm as they landed at the foot of the Palisades, and he climbed agilely up the talus slope to the flat ledge, half way to the top, where men in those days settled matters of honor with guns and swords. Just before the face-off, Hamilton sighted his pistol on imaginary targets in preparation for the event, but, to his and the witnesses' surprise, his quick first shot was wild. This left Burr with a loaded pistol just ten steps away. He took cool and steady aim at Hamilton's midsection and fired. The bullet entered Hamilton's liver and lodged in the spinal column, apparently producing a spinal cord injury. He dropped, rather than sank, to the ground, and as Hosack rushed to him, his first words were "this is a mortal wound Doctor." Burr started to walk toward Hamilton but his seconds restrained him, allowing Dr. Hosack and Hamilton's attendants to carry Hamilton down to the rowboat, which conveyed them across the river to New York. Hamilton died in agony about thirty hours later. Dr. Hosack records that he provided treatment with laudanum and cooling baths, but there was little else that he could do. 2, 3, 4

The fact that David Hosack had been called upon by Alexander Hamilton to accompany him on this journey reveals the importance of Dr. Hosack's medical reputation at that time. As the only physician present at the duel, he would have cared for Burr had the outcome been reversed, and, indeed, he would have treated them both had they injured each other. David Hosack, therefore, had been selected as the best physician to have on hand for a potentially fatal duel between two of the most important men in the United States, a former secretary of the treasury (Hamilton) and a former vice president (Burr). Both were former officers with extensive combat experience in the Continental Army. Burr had come within one vote, in the U.S. House of Representatives, of becoming president, and Hamilton, as a member of President George Washington's cabinet, was the architect of the new government.

For Hosack, the Hamilton–Burr duel provided another level of recognition as one of the most important younger and up-and-coming physicians in New York. However, he showed little restraint in discussing his treatment of Hamilton's wounds, both in conversation and in the press. He also served as a pall-bearer at the funeral, an event that provided him even greater exposure given the extravagance and the large attendance. In addition, he submitted to Hamilton's executors a substantial bill: "fifty dollars, to attendance and during his last illness." ⁵ Later, and characteristically, he did

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not allow his friendship with Hamilton to stand in the way of an amicable relationship with Aaron Burr.

Three years after the duel, Thomas Jefferson's administration tried Burr for the capital crime of treason, and, even though the court acquitted Burr,

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he found it expedient to leave the country for a while. Lacking the necessary funds, he asked Dr. Hosack for a loan. Hosack apparently complied readily and possibly understandably, since the public outrage over the duel had affected the reputation of all concerned.²

David Hosack's self-serving actions in this matter, as well as in subsequent events, can possibly be understood in light of his origins and his background. He was born in 1770, the oldest son of parents who favored him at the expense of his younger siblings. 6 He spent his youthful and most impressionable years in New York City, which was suffering under the British occupation during the years 1777-1786. The city was in chaos as a result of the occupation. The population dropped from twenty thousand to ten thousand, and the British disrupted completely the social and institutional fabric of the city. Spies, counterspies, rumors, comings and goings of troops and ships, and the anything-goes mentality must have affected Hosack deeply. The selfishness and cynicism he later demonstrated may, in fact, have had its roots in his experiences during those years.⁷

Hosack decided, during that time, that he

wanted to become a physician and determined that he would enroll in Kings College in New York (later to become Columbia College). Little remained of that institution late in the occupation because the British had confiscated the buildings and disbursed the faculty. Only one professor of Latin and Greek, one professor of French, and one physician remained. Lack of qualified instructors and machinations over the awarding of the MD degree soon led Hosack to drop out of Columbia and enroll as a medical apprentice with a well-known New York physician, Dr. Richard Bayley.

Dr. Bayley conducted lectures and demonstrations in a vacant room at New York Hospital. The demonstrations included anatomical dissection of bodies, which grave robbers and medical students procured by disinterring the recently deceased. On one occasion, public outrage over this practice led to the gathering of a large crowd outside Dr. Bayley's dissecting rooms. One of the students taunted those gathered by waving an amputated arm and hand at them through an open window. The famous "Doctors' Mob" rioted and attacked the students injuring a number of them, including David Hosack.⁸

Hosack decided to leave New York after that episode, and he transferred to the College of New Jersey in Princeton, complaining that Columbia was "too aristocratic." (The College of New Jersey was not renamed Princeton University until 1896.) After he won an AB degree there, Hosack returned to New York.

In New York, Hosack enrolled in the private medical school of Dr. Nicholas Romayne who lectured "brilliantly and extemporaneously equally well on anatomy, chemistry, botany, the practice of medicine, and the aphorisms of Hippocrates." Hosack's restless quest for knowledge and recognition, however, led him to abandon Romayne's instruction in medicine and take himself and his ambitions to Philadelphia, where he enrolled in the medical school of the University of Pennsylvania. While there, he earned his degree in medicine, fell in love, and married. A baby son soon followed,

but his overweening ambition caused him to leave his wife and child for two years (1792–1794). He had determined that preeminence in New York medicine could only come with the cachet of having trained abroad, preferably in Britain, and ideally at the medical school in Edinburgh. In essence, he abandoned his young wife and baby son to achieve these goals. That the little boy died in his absence does not appear to have caused him remorse or guilt, and while in Britain, Hosack achieved all that he had hoped for and more. ¹⁰

In addition to pursuing his studies in medicine, he found time to visit with and rekindle relationships with his Scottish cousins in Elgin. While hobnobbing with these well-to-do relatives, he apparently felt put down by their stylish display of familiarity with the natural sciences, especially botany. His wanderings with them through their extensive gardens, and those of their friends, must have created a wave of envy and a sense of being an unfinished arriviste because he immediately began to immerse himself in the works of Linneaus and Peter Kalm, the Swedish botanists, as well as those of John Bartram of Philadelphia, Alexander Garden of Charleston, and Cadwallader Colden of New York.

Upon his return to America in 1794, Hosack announced that New York needed a botanic garden and set out to create one. His energy and persuasiveness helped him convince enough supporters to contribute to the acquisition of a large parcel of land that was well north of the city but still on Manhattan Island. He then plunged into the development of an extensive collection of plants and trees and named the project The Elgin Botanic Garden, after his relatives' establishment in Scotland. During this time, he wrote and published a book on botany and actively supervised the development, growth, and maintenance of the garden. In later years, as his fortunes waxed and waned, he found it necessary to give up the garden, though for a considerable amount of time, he could not find a buyer because the garden was considered to be too far from the city. Today, the land is occupied by Rockefeller Center. Sloping down from the Prometheus fountain toward Fifth Avenue, in the area of the Channel Gardens and the skating rink, there is a plaque that reads:

In memory of David Hosack 1769–1835 botanist, physician, man of Science and Citizen of the World on this site he developed the famous Elgin Botanic Garden 1801–1811 for the advancement of medical research and the knowledge of plants.¹¹

Eventually, however, Columbia College acquired the property.

This effort in the botanic sciences led to his appointment as professor of botany at Columbia College in 1795 and in the next year, 1796, to the post of professor of materia medica. All the while, during his public display of pro bono involvement in the Elgin Garden and the pursuit of excellence in academe, Hosack worked aggressively to build a very large and lucrative practice. The yellow fever epidemic of 1798, in this regard, was a godsend. Dr. Hosack ostentatiously disagreed with the

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bleeding and purging techniques advocated by Dr. Benjamin Rush in Philadelphia, but he was careful to write Dr. Rush privately to say that he still regarded him as a close friend and colleague. He told Dr. Rush that he intended nothing personal and that his almost contumacious public allegations

were only a fellow scientist stating his opinion. Dr. Rush, after all, had been a signer of the Declaration of Independence and was a cofounder of the medical school in Philadelphia; maintaining cordial relations with this medical icon had considerable value.

Dr. Hosack stayed in New York during the epidemic and did indeed expose himself to the possibility of dying from the disease. In fact, 2,068

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people did die from it, and in the month of August 1798, one half of the cases of yellow fever had a fatal outcome. Washington Square became a Potters Field and Dr. Hosack's "sudorific treatment" seemed to have been ineffective in preserving his patients' lives. Nevertheless, his presence in the city, his energy, and his efforts made him very visible, and so it seems natural that this brilliant young physician should, a few years later, attend the principals in the Alexander Hamilton–Aaron Burr affair.

By 1806, therefore, Hosack, no longer a young and up-and-coming doctor, had established a reputation as one of a very few first rank physicians in New York and, indeed, in the United States. This level of repute meant that he could attract apprentices aspiring to a medical career and charge them high fees for the privilege of attending his lectures and demonstrations. Such individuals, during those years, had two choices for progressing toward a medical degree and a license to practice in New York. They could choose to take the course of study directed by a physician such as Dr. Hosack and then submit to an examination offered by the Medical Society of New York. Passing that examination would qualify them to practice in that state. Alternatively, they could gain admission to a degree-granting institution, such as Columbia College, and, upon successfully completing the course of study, they automatically gained licensure.

Popular private physicians such as David Hosack could train only a few students, however, and Columbia College could not graduate enough new doctors to make up for the needs of the growing population. Dr. Nicholas Romayne, therefore, seized the day and founded the College of Physicians and Surgeons as an instrument of the Medical Society of New York, with all 101 of its members serving as its trustees. P. & S., as it was called, soon gained legal recognition from the legislature, and thus qualified as a degree-granting institution. Its graduates could proceed directly into practice with their MDs in hand. Hosack, of course, had a threeway conflict of interest in all of this. He had private students, he served as a trustee of P. & S., and he taught at Columbia. Apparently, unconcerned with the ethical niceties inherent in the conflict, he signed on as a lecturer in surgery, midwifery, and botany at P. & S., thereby triple-dipping in the lucrative market of medical student education. When, however, he demanded a higher faculty rank and, therefore, more money at P. & S., Dr. Romayne refused him, causing Hosack to resign with a public display of anger. Partly as a result of his resignation and partly as a result of the way Dr. Romayne ran P. & S., the school did not prosper. The New York University regents raised student fees to help with the financial shortfall. They also reduced faculty remuneration and curtailed faculty autonomy. Dr. Romayne, then, also resigned, and the regents decided to merge the Columbia Medical School and the College of Physicans and Surgeons.

The merger made the Columbia faculty unhappy and insecure, and, since David Hosack had lobbied behind the scenes for the consolidation of the two schools, the Columbia professors looked for ways to exact revenge. Hosack's lobbying had, in fact, not been inconsequential, since his friend and patient, Mayor Dewitt Clinton, served as one of the principal legal authorities in the decision process. With the completion of the merger, both

faculties (Columbia and P. & S.) accused David of favoring his private students over those he taught at the colleges, and they made it impossible for him to remain at the new institution.¹³

Undismayed by these setbacks, Hosack and a few colleagues moved aggressively to outshine their competitors in the medical-student education marketplace. Hosack's brilliant lectures and the care with which he worked to advance the careers of his students made him the most successful medical educator in the city. However, in 1815, he attempted a new alliance with Dr. Romayne, who seemed willing to appoint Hosack to his new school, which he called The Medical Institute of the State of New York. This institution, however, only survived for about five years. Dr. Romayne attempted to keep it alive by establishing a relationship with Queen's College (later Rutgers), but the perilous financial state of that college and his own declining health led to the closure of The Medical Institution of the State of New York in 1816.¹⁴

Hosack tried again with Columbia and P. & S., but after further conflicts with that institution's faculty, he and his colleagues decided to open their own medical school. They erected a building at 68 Duane Street with their own funds (allegedly) and began to teach their own students. They named the new school The Medical College of New York and enjoyed almost instant success, enrolling the same number or more students than Columbia-P. & S., and they provided them better instruction. Dr. Hosack and his associates realized that their students would not gain licensure unless they could grant them an MD degree from a chartered institution of higher learning. Lacking a charter themselves, they approached Dr. Eliphalet Nott, the president of Union College in Schenectady, New York, but he and his trustees turned them down.15

On September 12, 1826, Hosack wrote to Phillip Milledolor, president of Rutgers College, ¹⁶ in New Brunswick, New Jersey, suggesting that Rutgers establish a connection with The Medical College of New York. Under the agreement, The Medical College of New York would change its name to The Medical Faculty of Rutgers College. This would be done at no expense to Rutgers (Hosack and his associates would pay their own way), but Rutgers would grant an MD degree to Dr. Hosack's graduates. Rutgers had received its royal charter in 1766, and, as a result was called Queen's College, since there already was a King's College (later renamed Columbia College). Queen's College had experienced serious financial problems, however, and ceased operations in 1816. The philanthropy of Colonel Henry Rutgers of New York City revived the institution, and it reopened in 1826 as Rutgers College. However, since Queen's College, now Rutgers, had experience with piratical medical entrepreneurs in the past, it refused Hosack's original request for affiliation. In 1792, for example, Dr. Nicholas Romayne had persuaded the Queen's College trustees to commit to a similar arrangement, but the affiliation lasted only one year. Dr. Romayne tried again in 1814, and he succeeded in obtaining MD degrees from Queen's College for his graduates for a few years, but the relationship ended when Queen's College ceased to operate in 1816.

When Queen's reopened as Rutgers in 1826, David Hosack was unwilling to give up after only

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one attempt with Dr. Millerdoler. The second time he left no stone unturned. He persuaded a prominent member of the Dutch aristocracy, General Steven VanRenssalaer, to accompany him on a trip to New Brunswick to appear before the Rutgers trustees. Queen's College had, of course, opened as a school with ties to the Dutch Reformed Church, and VanRenssalaer (of Dutch descent) had donated the funds that the college had used to build a cupola on the college building. Hosack argued before the trustees that the Rutgers' Medical College in New York would enhance Rutgers' reputation, that the anomaly of having the medical school in New York and the college in New Brunswick was no problem, and, at any rate, that it would not cost Rutgers anything. The Rutgers trustees accepted the arguments, and the Medical Faculty of Rutgers College, also known as the Rutgers Medical College, officially came into being on October 26, 1826. It had an all-star faculty consisting of, among others, David Hosack, Valentine Mott, William J. Macneven, and John W. Francis. When the college actually opened in November 1826 at 68 Duane Street it listed 152 enrollees, only nine less than the already well-established Columbia and P. & S. Medical School. At the opening, Dr. Hosack gave a lengthy oration on the lofty aims of the Rutgers Medical Faculty, while at the same time excoriating the entrenched interest at Columbia and their monopoly on medical education, which he later described as "contrary to the free and equal principals of the Constitution."¹⁷

The Columbia-P. & S. faction countered quickly with an article in the New York Post, which stated "we cannot approve the interference of a college of another state in the affairs of this state." At an emergency meeting of the Columbia-P. & S. faculty, one member stated that Hosack's actions in enlisting Rutgers' help constituted "unjustifiable interference in the medical concerns" of New York. 18 In answering a continuous barrage of similar attacks, Hosack stood before the Medical Society of New York to state "preserve us from the Goths and Vandals that would combine their forces to extinguish our efforts in the cause of science and humanity."19 Putting aside Hosack's best efforts, however, the New York legislature, on October 3, 1827, enacted a law requiring that physicians practicing in New York have degrees from New York institutions. Thus, the Rutgers degrees had no

value to physicians graduating from Dr. Hosack's school, if they wished remain in New York.

Again Hosack fought back. He approached the trustees of Geneva College (now Hobart and William Smith colleges) and persuaded them to grant his graduates MD degrees as coming from "The Rutgers Medical College of Geneva, New York." The validity of this degree was upheld by Chancellor James Kent of the University Regents of the State of New York, but the New York legislature refused to sanction the arrangement. In desperation, Hosack changed the name of his medical school to The Manhattan College and went to the New York State Senate for approval of a charter. His appeal, supported by 113 students and 100 physicians active in New York, met with success, and the senate gave him its approval. When the bill went to the lower house on the last day of its session, however, the Columbia-P. & S. faction again counter-attacked. They submitted a statement claiming that Hosack and his associates had taken money illegally from Columbia to erect the building at 68 Duane Street, and, furthermore, that they had taken books (indeed a whole library), equipment, furniture, and apparatus to that location from Columbia without permission. The New York State Assembly, upon receiving this new information, refused to grant The Manhattan College the charter Hosack so desperately needed. Hosack's final attempt before the New York State Supreme Court also failed when that body ruled that the charter rights of Geneva College did not authorize it to establish a medical faculty apart from its location. Formal dissolution of the Rutgers Medical Faculty came on November 1, 1830. 20 The Rutgers Medical College would not become a reality again for a hundred and thirty years.

Hosack survived his medical school by five years. He died suddenly of "apoplexy" on December 22, 1835, having enjoyed in his time many successes but also many bitter failures. His competitors in New York had to acknowledge his intellectual brilliance, in that he had achieved excellence in multiple disciplines. In addition to acquiring his expertise in botany, he had studied

mineralogy while in England, and he created a mineral collection that was later donated to Princeton University. A biographer credits him with the first use of Laennec's stethoscope in New York, and he correctly advocated smallpox vaccination (a controversial issue at that time). He performed surgery successfully, when anesthesia began to appear, and received credit for being the first surgeon in North America to successful ligate the femoral artery in the treatment of an aneurysm. He was the prime mover in the founding of Bellevue Hospital in New York and a founder of the New York Historical Society. After he died, one colleague stated "his house was the resort of the learned and enlightened."²³

Hosack married three times. His first wife died soon after his return from England, and he then married Mary Eddy, the adopted daughter of Caspar Wistar of Philadelphia. Together they had nine children, and when she died, he married a widow, Magdalena Coster of New York.²³

In contrast to his record of achievement, Hosack had qualities that caused many of his contemporaries to dislike him. His ruthless ambition resulted in his being described as "underhanded, disloyal, and ungrateful," and these flaws prevented his working successfully with his colleagues and competitors in New York City. These qualities also resulted in a Rutgers Medical School, indeed, any successful medical school in New Jersey, becoming something that might have been, and the first serious effort to train physicians for New Jersey died hostage to medical politics in New York City. The serious effort to train physicians for New Jersey died hostage to medical politics in New York City. NYM

REFERENCES

- 1. D. L. Cowen. "Medical Education: The Queens-Rutgers Experience: 1792–1830," (Rutgers, The State University of New Jersey, New Brunswick: 1966). Available at http://www.2.umdnj.edu/chinjweb/cowenrwjhx.htm
- 2. J. J. Ellis. Founding Brothers: The Revolutionary Generation (Vintage Books, New York: 2002).
- 3. R. G. Kennedy. Burr, Hamilton, and Jefferson: A Study in Character (Oxford University Press, New York: 2000).
- 4. D. Malone, ed. *Dictionary of American Biography*, vol. 9 (Charles Scribner's Sons, New York: 1932).
- 5. A. A. Ragow. A Fatal Friendship: Alexander Hamilton and Aaron Burr (Hill & Wang, New York: 1998).
- 6. C. C. Robins. *David Hosack: Citizen of New York* (American Philosophical Society, Philadelphia: 1964).
 - 7. Kennedy. Burr, Hamilton, and Jefferson, 85.
 - 8. Ragnow. A Fatal Friendship, 251-272.
 - 9. Ellis. Founding Brothers, 20-26.
- 10. Kennedy. Burr, Hamilton, and Jefferson, 82-86.
- 11. Ragow. A Fatal Friendship, 329.
- 12. Robins. David Hosack, 16.
- 13. Ibid., 17-29.
- 14. Ibid., 19.
- 15. Ibid., 20.
- 16. Ibid., 30-45.
- 17. Ibid., 46-75.
- 18. Ibid., 38.
- 19. Ibid., 76-99. 20. Ibid., 100-120.
- 21. Ibid., 15.
- 22 Ibid., 122.
- 23. Cowen. "Medical Education: The Queens-Rutgers Experience; 1792–1830."
- 24. Robins. David Hosack, 124.
- 25. Ibid., 126.
- 26. Ibid., 121-132.
- 27. Malone. Dictionary of American Biography, 239.