During my research at the Rockefeller Archive Center (RAC), I came across papers that have created a new focus for my doctoral thesis. The original idea for my thesis on scientific achievement and creativity came from research for my M.Sc., in which I investigated British Nobel laureates in medicine and physiology. My Ph.D. thesis proposal was to continue this study of Nobel Prize winners, but to take a British and American laureate from each of the categories of physics, chemistry, medicine and physiology. I would use these six case studies to examine models of scientific discovery, achievement and creativity in science. However, my visit to the RAC brought to my attention a group of American and British Nobel laureates that could possibly stand by themselves as a coherent case study of achievement and creativity in science.

In my original grant proposal I divided the relevant collections housed at the RAC into three main categories. The first category included the papers and correspondence of Nobel laureates, the second was the scientific reports and correspondence of the scientific directors of the Rockefeller Institute, and the third the Rockefeller Foundation project files pertaining to grants awarded to Nobel laureates and future laureates. When I arrived at the RAC, however, an archivist suggested that I begin with the Herbert Gasser papers, since, as a Nobel laureate and director of the Rockefeller Institute, he belonged to two of the categories in which I was interested.

The decision to begin with the Gasser papers turned out to be crucial. Within a couple of days it became clear that these papers contained a fantastic amount of information relevant to my thesis, but even more than that, this collection suggested a possible new framework for my thesis. In particular, Gasser's personal correspondence included many letters between Gasser and four British neurophysiologists — Archibald V. Hill, Charles S. Sherrington, Henry H. Dale and Edgar D. Adrian — all of whom received the Nobel Prize during the 1920s and 1930s. I was already familiar with these scientists, but an examination of Gasser's papers hinted that there was an important story waiting to be told concerning the development of neurophysiology during the first half of this century through an especially creative and successful community of American and British physiologists. Not only is this an important story for the history of biomedical sciences, but I also believe it provides a lens through which I can examine scientific creativity and achievement.

Gasser's correspondence showed that in the first half of the 20th century there was a close and fruitful collaboration between young American neurophysiologists and the four British

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**Herbert Gasser and the Transatlantic Community of Physiologists**

by Abigail O'Sullivan

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neurophysiologists. This transatlantic collaboration was carried out through intensive written correspondence combined with various exchanges between scientific personnel. For example, as part of his training Gasser went to England, where he worked at University College London with A.V. Hill. Although Hill was the more experienced physiologist, Gasser was extremely skilled in a new technique that used the cathode ray oscilloscope to record nerve impulses. He took these skills with him to Britain and showed Hill and his colleagues how to employ similar techniques. This visit enabled him to forge close friendships with various other members of the British physiology community, in particular Adrian in Cambridge.

Gasser’s correspondence with British physiologists is extensive, and taken together it provides an invaluable insight into the development and the discoveries that took place in physiology during the first half of this century. It is now my intention to re-examine the papers of British neurophysiologists for similar evidence of collaboration. In particular I hope to find in the papers of Adrian, Dale, Hill and Sherrington some earlier correspondence with Gasser, because only his papers after joining the Rockefeller Institute have been preserved at the RAC.

Although Gasser was certainly one of the most influential scientists involved in this collaboration, his correspondence indicates that other American physiologists took part in this exchange of ideas and personnel, in particular Detlev Bronk and Alexander Forbes, both of whom spent time researching at Adrian’s laboratory in Cambridge, England. Gasser’s correspondence indicates that Bronk was held in the utmost respect by the transatlantic community of physiologists, and as such was often called on to play the role of arbiter in many disputes. He was also especially close to Adrian, whose twin daughters came to stay with Bronk during World War II. I hope to make a second research trip to the RAC to examine Bronk’s papers, since I did not have time to even begin this immense task on my first visit. I hope his papers will provide an insight into the role that he played within this particular community of scientists, as well as how he continued to promote neurophysiology as president of the Rockefeller Institute.

Having decided to shift the focus of my thesis to this particular community of scientists, I next decided to examine the Rockefeller Foundation (RF) grant files pertaining to their research. These files provided a fascinating insight into the development of the various research schools as they coalesced around these men, in particular Adrian at Cambridge, Dale at the Wellcome laboratories, Hill at University College London (UCL), and Sherrington at Oxford. For example, the RF file pertaining to the Physiology Laboratory at Cambridge dates from 1936 to 1961 and contains correspondence between RF officers and Adrian, providing the rationale behind the decision to promote certain research environments and fund certain projects over others. The grant files also showed that the RF funded a large part of Hill’s research, in particular the creation of the Biophysics Centre at UCL after World War II.

These grant files, which chronicle several decades in the life of a laboratory, also provide an invaluable account of the development of various research schools and the training and support given to a second generation of neurophysiologists that emerged from them. This second generation included Frank Macfarlane Burnet, John Eccles, Alan Hodgkin, Andrew Huxley, and Bernard Katz, all of whom became Nobel Prize winners and each of whom was supported in part by grants from the RF.

The careers of this second generation provide further evidence of the patterns of cooperation and collaboration within this transatlantic network of scientists and laboratories. For example, Hodgkin did his Ph.D. with Adrian in Cambridge, who was so impressed with his thesis that he sent a copy to Hill at UCL. Hill then sent a copy to Gasser at the Rockefeller Institute in New York, who in turn arranged for Hodgkin to visit the Institute on an RF grant. This second generation of neurophysiologists also provides a wonderful opportunity for examining master-apprentice relations, particularly concerning the respective importance assigned to the roles of pedagogy on
I first thought of using the Rockefeller archives when I came upon a letter that Shurtleff wrote to John D. Rockefeller, Jr. in 1904. Shurtleff sent his annual report to provide Rockefeller with a summary of the YMCA’s many programs and activities. Assuming that the RAC possessed similar correspondence from many of Cleveland’s social and philanthropic organizations, I hoped these letters would further reveal the work being done in Cleveland and the attitudes of the Rockefellers or the preferences they displayed toward various causes.

In his *Random Reminiscences of Men and Events*, John D. Rockefeller, Sr. asserted that wealthy men needed to do far more than simply create businesses and pay a fair wage. The greatest among them should invest time, effort, and capital towards the betterment of civilization. Rockefeller felt that worthy charities enhanced civilization in one or more of the following areas: subsistence; government and law; literature and language; science and philosophy; art and refinement; and morality and religion. Benefactors could best support agencies toiling in these areas by adhering to at least two cardinal...
principles: efficiency and collaboration. Since there would never be enough money to satisfy the basic needs of all, the careful, intelligent allocation of every dollar was absolutely essential. Using language that would have likely raised the hackles of his former business competitors, Rockefeller decried competition and duplication of work in the arena of philanthropy: “The man who puts up a second factory when the factory in existence will supply the public demand adequately and cheaply is wasting the national wealth and destroying the national prosperity, taking the bread from the laborer and unnecessarily introducing heartache and misery into the world.”

Rockefeller’s second cardinal principle discouraged the wealthy from assuming sole or even primary responsibility for any charitable or civic endeavor. Institutions needed to ensure their continued viability by soliciting and maintaining as broad a list of supporters as possible. Excessive reliance on a single benefactor unnecessarily relieved citizens of the responsibilities and rewards of charitable giving and increased the likelihood that an outdated or inefficient organization would remain in operation. As I read through the correspondence files in the John D. Rockefeller papers and the Welfare Interests series in the Office of the Messrs Rockefeller records, I strove to better understand Rockefeller’s role in supporting Cleveland charities and civic enterprises and the extent to which he practiced what he preached.

On the first count, Rockefeller’s contributions to Cleveland can hardly be underestimated. As Darwin Stapleton remarked in his 1995 address to the Western Reserve Studies Symposium, Rockefeller was the wealthiest, most frequently solicited, and “probably the most philanthropic Clevelander” in the late 19th century. Ken Rose’s work has shown that from the 1860s to 1903 Rockefeller contributed to at least 118 different organizations. While most were related to reform movements, land donations, educational institutions, or various churches or religious groups, a healthy number were for more specific philanthropic purposes. The Cleveland Associated Charities, the Children’s Fresh Air Camp, Hiram and Alta settlement houses, the Cleveland Humane Society, and the Cleveland Home for Aged Colored People are but a few examples of the organizations Rockefeller assisted.

With the exception of Alta House, for which Rockefeller shouldered almost exclusive responsibility, Rockefeller contributed only to charities that enjoyed substantial and continued local support. Regardless of its past performance or its public prestige, no organization could afford to take Rockefeller’s continued beneficence for granted. If its base of local contributions eroded too far, or if it chronically exceeded its annual budgets, it risked losing his support. The Cleveland School of Art provides one such example. Though it enjoyed Rockefeller’s patronage for over forty years, it was also the target of more chastising correspondence than almost any other Cleveland organization. With recurring budget deficits as high as $10,000 throughout most of the 1910s, Rockefeller’s withdrawal seemed almost constantly imminent. Of course, Rockefeller and his agents must have known that the mere threat of discontinuation almost always elicited the desired response.

A few organizations that seemed to fall within the purview of Rockefeller’s philanthropic vision were nonetheless rejected. For example, Cleveland’s “Workingmen’s Collateral Loan Association” attempted to enhance the subsistence of the working class by offering them loans at reasonable rates. Since loan sharking was commonplace in Cleveland, this effort certainly seemed worthy of Rockefeller’s interest. Furthermore, the Association had amassed a large number of local shareholders and asked no more of Rockefeller than it did of any other donor. Nonetheless, Rockefeller decided this effort was not within the scope of his charitable agenda.

Rockefeller did enthusiastically support the efforts of the Cleveland Chamber of Commerce and the Associated Charities to make the city’s philanthropic organizations more lean and efficient. By 1902 the Chamber’s Committee on Benevolence Associations (COBA) began the process of individually investigating many of the city’s charities, granting its endorsement only to
institutions which they judged neither wasteful nor redundant. The Committee intended, through its exhaustive investigations, to make it impossible for incompetence to persist or for charlatans to line their pockets in the name of benevolence. The work begun by the COBA, under the leadership of chairman Martin A. Marks, a prominent and respected Jewish businessman, was formalized in 1913 with the establishment of the Cleveland Federation of Charity and Philanthropy (FCP), a clearinghouse through which individuals could donate money to “worthy” charities already investigated and endorsed by the city. Since charities were often forced to pay fund-raisers a commission between ten and thirty-three per cent, the Federation’s centralized approach saved their members and donors a considerable sum. Benefactors also gave the FCP a number of non-allocated donations, trusting that it would allocate those funds in whatever way was most beneficial for the good of the city and its residents.

Rockefeller enthusiastically joined in this endeavor, sending all of his charitable donations directly to the FCP for their disbursement. The plan obviously enjoyed widespread local support, as well: by July of its first year, the FCP received pledges totaling almost $200,000. Yet this promising start did not lead to the pinnacle of philanthropic efficiency that Rockefeller and others had envisioned. And in the difficulties that followed Rockefeller found it necessary to amend or even ignore his carefully articulated principles.

The Floating Bethel, led by Reverend J.D. Jones, provides one such example. Rockefeller began contributing to the small mission society in 1894. Jones’ modest goals were to hold gospel and funeral services and to minister to the physical needs of those who came to him for aid. While his annual gifts to Jones averaged $100 from 1894 to 1899, a number of personal crises in the Jones family moved Rockefeller to pledge $600-$750 a year in gifts to Floating Bethel and to Jones personally from 1901 to 1905. Using the criteria he himself had established, Rockefeller’s gifts could only be defined as a poor investment. Support from other quarters was steadily diminishing, and, in Starr Murphy’s opinion, Jones’ work was “not of a kind which makes a general appeal to modern ideas of philanthropy.” However, Murphy, continued, Jones was a man of advanced years. Jones’ death, he implied, surely not too distant a reality, would soon resolve the issue. Jones, a devoted and driven man with far more spark left in him than Murphy could ever have imagined, managed to find new supporters, justifying Rockefeller’s further patronage, but he also locked horns with the COBA, then the FCP. Reverend Jones, both groups asserted, refused to cooperate with other charitable institutions to prevent redundancy and waste. In addition, charity authorities believed Jones was not as judicious or effective in his administration of charity as he could have been, “tending occasionally to pauperize rather than uplift.”

Letters from N.A. Quilling also encouraged Rockefeller to reduce or simply end his support of the Floating Bethel. “Your large contributions to the Floating Bethel in 1907 and 1908,” wrote Quilling, “seemed contrary to your established principles. Chaplain Jones is a very tender hearted man . . . [but] I . . . recommend that you gradually decrease your contributions and discontinue after a time.” Rockefeller heeded Quilling’s advice. By January 1913, when he pledged only $100, the end of Rockefeller’s support seemed near. However, Jones had not yet lost his ability to capture Rockefeller’s attention. Smarting from the FCP’s refusal to list the Floating Bethel as an approved charity, and looking for scapegoats, Jones turned on the FCP’s chairman, businessman Martin A. Marks. “The federating of fifty-three societies under the Chairmanship of Martin A. Marks, a Jew, and leaving out of the Federation forty-seven other organizations, one of which is the Floating Bethel, has created an impression that something is wrong,” wrote Jones. “Jews, Roman Catholics, and liquor dealers have no use for our gospel work.” Jones’ impolitic comments were buttressed by reports of the Federation’s disappointing inefficiency. By September 1915 almost fifteen per cent of the FCP’s intake was being spent on administrative costs. W.S. Richardson described the Associated Charities as
“an extremely inefficient organization.” Whether responding out of a sense of religious zeal, administrative disappointment, or pity for a man driven to make such outlandish statements, Rockefeller’s support for Floating Bethel increased once again. The rift between Jones and the Federation was never resolved, competition between charitable organizations continued, and Rockefeller supported Jones until the latter died in 1926, more than twenty years after Starr Murphy had heralded his imminent demise.

Rockefeller could also put aside his rules for humanitarian reasons. After Alta House head worker John Lotz had struggled with ostiomylogitis for four years, the settlement’s board of directors petitioned Rockefeller to provide Lotz and his wife with a pension. Fearing that it would establish a “dangerous” precedent, Rockefeller initially bristled at the request. However, he eventually chose to reward Lotz for his years of loyalty, providing him with a pension of $300 a month until Lotz’s death more than seven years later.

Rockefeller’s memoirs and correspondence reveal a man passionately devoted to the efficient, practical application of philanthropic capital. He and his assistants certainly kept an unwavering eye on the bottom line of every annual budget. However, Rockefeller’s reputation as a hard-hearted scrooge is unwarranted. He clearly displayed compassion and sentimentality, even if these impulses were occasionally evinced with some effort.

Paul A. Weiss and the Intellectual and Institutional Frameworks of Science
by Sabine Brauckmann

My research project focuses on the conceptual history of neural cell biology in the 20th century. It will reconstruct the life and work of the outstanding developmental neurobiologist, Paul A. Weiss (1898-1989), who was appointed a member of The Rockefeller Institute in 1954. My philosophical objective here is to identify his most important concepts — the resonance principle, contact guidance, homologous response, and molecular ecology — and to verify their importance for modern developmental neurobiology. Thus, the project also investigates how the dynamics of epistemic schemes can influence experimental procedures and methods in the biomedical sciences. Moreover, it will discuss the crucial issue of how Weiss translated the developmental concept of the morphogenetic field into molecular ecology to construe his experimental data about nerve regeneration.

Moreover, the project examines the very fruitful interplay between working scientists, mandarins or patrons of science, and scientific foundations like the Rockefeller Foundation. One of the most gifted examples of a patron of science was Detlev W. Bronk, the president of the Rockefeller Institute (1954-1968), who fashioned, and drew upon, an important network of scientific colleagues and government and foundation officials that stood in stark contrast to Weiss’ approach to science and professional development.

Paul Weiss met with limited success in his three contacts with the network of Rockefeller philanthropy prior to his association with the Rockefeller Institute in 1954. In 1926 he successfully applied for a fellowship from the International Education Board (IEB); in 1941 he sought unsuccessfully to use the laboratory of Alexis Carrel of the Rockefeller Institute; then and again in 1945 he tried to establish an interdisciplinary research project to study the nervous system and sought financial support from the Rockefeller Foundation, among others.

When he applied for an IEB grant in December 1926, Weiss was conducting research on the reinnervation of nerves at the Biological Research Institute in Vienna, which was affiliated with the Austrian Academy of Sciences. In his application he informed W. E. Tisdale of the IEB that he wanted to conduct his research on the specific influence of morphogenetic hormones on tissue cultures at the Oceanographic Institute in Monaco and the Kaiser-Wilhelm Institute for Biology in Berlin-Dahlem. There he wanted to work in the laboratory of Albert Fischer, where
Raymond C. Parker also was a visiting scientist in 1927. Weiss’ application was highly recommended by Tisdale, who emphasized Weiss’ training in chemistry and physics and considered the application to be among the most favorable ones. Wickliffe Rose agreed that Weiss was exactly the candidate the IEB was looking for in the field of biology.

In Berlin-Dahlem Weiss worked on the problem of ultra-violet effects on tissue development but could not finish his experiments for technical reasons and wanted to renew his travel grant for another six months or to emigrate to the U.S. Although Lawrence J. Henderson had offered to find a job for him, he preferred to work in Thomas H. Morgan’s new laboratory at Caltech. When Fischer was interviewed by E.W. Lindstrom, he called Weiss a more competent experimentor in tissue cultures than Parker. Nevertheless, Lindstrom explained to Weiss that the IEB was not interested in having him in the U.S. and that Morgan did not want Weiss in his laboratory. One can only speculate that Morgan’s refusal was dictated partly by anti-Semitism and partly by the boundaries of scientific disciplines: it was too early for a trained physiologist to work in a laboratory that, until the 1930s, was dominated by the tradition of classical genetics and medical biochemistry. In September 1928 Weiss informed Tisdale that Ross G. Harrison at Yale University was interested in his work on nerve regeneration and tissue culture. Three years later Weiss received a Sterling Fellowship at Yale University and worked with Harrison until 1933-34, when he became an assistant professor of zoology at the University of Chicago.

By 1941 Weiss was already established in the American scientific community and well known as a gifted developmental neural biologist. At the University of Chicago he studied the development of nerve patterns after peripheral nerve injuries. His transplantation experiments on nerve regeneration led to the discovery of the principle of fasciculation, that is, the building of nerve bundles by adhesion among successful nerve fibers. Furthermore, he had discovered a practical method for the joining of cut nerve ends by tubulation, which was of great importance for the subsequent war research. During a meeting of the Committee on Peripheral Nerve Injuries of the National Research Council (NRC) in October 1941, Weiss read a report on the state of nerve research and pointed out the importance of the biochemical and biophysical aspects of this problem. He therefore described some of the problems related to the biochemical and biophysical environment at the contact surface between nerve fiber and medium, particularly protein orientations as they affect the rate and direction of nerve growth.

To attack this technical problem of tissue cultures, he needed a well-equipped research space where he could perform tissue culture experiments. In fact, he wanted to open up Carrel’s laboratory at the Rockefeller Institute for Medical Research (RIMR). Even Parker, who was trained under Harrison and Carrel and knew Weiss from their days in Berlin-Dahlem, would cooperate in the project. Harrison thought the idea was an excellent one and proposed to discuss the matter at the annual board meeting of the RIMR in October 1941. Since Detlev Bronk was a close friend of RIMR president Herbert S. Gasser, Weiss tried to fill him with enthusiasm and to sound Gasser out about his attitude. However, Gasser rejected the proposal, and this rejection turned out to be a break for Weiss’ future research. Since he did not have adequate facilities for tissue culture experiments, Weiss was urged to develop another method which could be handled in every laboratory.

In March 1941 Weiss tried to initiate a joint research project on nerve injuries which he labeled “Genetic Neurology,” for lack of a better term. He wanted to broaden the scope of his experimental program into a systematic investigation of the peripheral nerve restoration. He proposed that a conference of biomedical experts be called on this topic. Furthermore, he recommended that workers in related fields should
organize periodic meetings. When he asked Harrison for information about who at the NRC was in charge of this part of the defense program, Harrison proposed to get in touch with Lewis Weed, the chairman of the Division of Medical Sciences of the NRC. The first meeting of the “Committee on Peripheral Injuries” took place in October 1941; the participants included Weiss, Weed, and Bronk. Weiss was then asked to prepare a report on the possibilities of investigations of factors and conditions which control the outgrowth and peripheral connections of injured nerve fibers.

The attitude of the clinical neurosurgeons at a second meeting, two months later, disappointed Weiss very much. Their slow style of scientific research angered him. When he recognized that the fundamental research projects were not yet started, he anticipated further difficulties in selling his project to clinical medicine. He thought of appealing to the Rockefeller Foundation (RF) for support and hoped that Harrison and Bronk would help him. Unfortunately, he did not wait until Bronk had discussed the idea with Alan Gregg, headed of the RF’s Medical Science Division; even worse, he failed to inform Bronk about his contacts with Gregg.

Weiss met with Gregg to explain his request for a grant of $25,000 to fund studies on the nervous system; the project would be located at the University of Chicago under the supervision of Weiss, Ralph W. Gerard and George W. Bartelmez. Gregg hesitated to consider this puzzling request as a serious one and asked Bronk to clarify the situation. Bronk’s letter, a masterpiece of well-balanced and half-hearted diplomacy, exactly reports the chronological facts related to Weiss’ attempt to establish a biomedical research project on the nervous system in all its facets. However, it also implicitly construes why it became a second break for Weiss and clearly shows the differences between Weiss’ “loner” approach and Bronk’s style of scientific management. Bronk had achieved his powerful position inside the American scientific community because he always preferred to be on good terms with his colleagues, the staff, and most important of all, with the decision-makers on whom his position could be dependent. To do so, he had built an overlapping network of personal contacts, friendships, and mutual dependencies.

Consequently, before answering Gregg, Bronk discussed Weiss’ research project with Harrison, the president of the NRC; with William H. Taliaferro, the dean of the Division of Biological Sciences at the University of Chicago; and with Newton Richards, the president of the National Academy of Sciences and a personal friend. Since the neurosurgeons were unhappy that Weiss had stepped into their domain and now initiated clinical research, they had downplayed the significance of his work on nerve regeneration. Obviously, Weiss had not appreciated such behavior and, therefore, had not presented his case in the most tactful manner. Although Bronk thought the project should be supported, he denied that Weiss had the talent to administer such an ambitious undertaking.

After nearly three years of extensive war research on nerve regeneration, Weiss again tried to interest the RF in such an interdisciplinary research project. In October 1944 he asked Frank B. Hanson and Gregg whether the foundation would be interested in establishing a new Institute for Neurology at the University of Chicago. Unfortunately, as in 1941, Weiss did not behave in the most effective way. This time he did not even know whether the University of Chicago really wanted to embark on his program of genetic neurology, or if facilities would be available at all. But Gregg discussed the creation of the institute with Taliaferro and Ross W. Harrison, Jr., who was then dean of the Division of Biological Sciences at the University of Chicago; neither favored the idea, although they judged Weiss as one of the two ablest biologists at Chicago. Gregg then informed Weiss that the RF would not be prepared to aid such an institute.

Thus, the project failed for many reasons, namely, because of resentments of clinical medicine against a trained biologist conducting research in a medical field like neurosurgery; the aversion of biology to share its funds with
medicine; and, perhaps most important of all, the controversial personality of Weiss himself. For the history of biomedical sciences, however, it could be fascinating to imagine a contrafactual narrative about the question of what might have happened if Weiss had been allowed to use Carrel’s lab at the RIMR in 1941, or if the M edical Sciences Division of the RF had supported Weiss’ genetic neurology.

To sum up, at least preliminarily, the institutional power of medicine confined Weiss to the limits of biology, which was too narrow a frame for the broad scope of his biomedical-oriented research. A developmental neurobiologist tout court before this domain was named at all, Paul Weiss was among the few scientists in the 1920s who imagined and used the nervous system to bridge the biological and the medical sciences. Unfortunately, clinical medicine did not always appreciate his sometimes too effective working style. Conversely, many embryologists had difficulties with a subject called “Neuro-Biology,” or did not want to include biochemists and physicians in a biological research project. Another important reason was Weiss’ controversial personality. He definitely was not trained in network building and fostering social relationships, which Bronk had mastered perfectly from the beginning of his career.

The Nurse Labor Market and the Rockefeller Foundation, 1923-1963
by Jean C. Whelan

The close alliance of early twentieth-century nurses with the modern, scientific care delivered in hospitals allowed professional nursing to become a respectable occupation for young women. The rapid growth of the occupation and a peculiar educational system in which students doubled as hospital workers created a myriad of problems for the developing profession. In the early 20th century, the Rockefeller Foundation’s acceptance of the importance of professional nurses to the nation’s health created interest in solving nursing’s problems. The Rockefeller Foundation (RF) was responsible for funding, either wholly or in part, major studies of nursing between 1918-1950. Most RF nursing activities centered on educational or public health nursing issues. Because nursing education interrelated closely with nursing employment, any inquiry into nursing carried out by the foundation necessarily included appraisal of the nurse labor market. My purpose in examining the records of the Rockefeller Foundation was to identify ways in which the RF approached nurse distribution and work-force issues and to search for primary source material related to the nurse job market. This investigation was part of a larger study examining supply and demand for nurse services, professional nurse distribution issues, and employment conditions in the nurse labor market for the years 1923-1963.

The RF’s first investigation of the nurse labor market was a conference convened in February 1920 to consider the proper training of nurses required to meet the health work of the country. The conference summary illustrates contemporary health care and nursing leaders’ perceptions of nursing’s problems and their ideas on how best to educate and distribute nurses. Conference discussion focused on hospital-operated training schools in which student nurses exchanged their labor for education. In the years immediately following World War I, schools of nursing experienced a brief decline in the number of applicants. The combination of hard work and poor educational conditions made nursing a particularly unattractive field for young women and received blame for creating a shortage of qualified applicants to schools of nursing. Nurses present at the conference, convinced that preparation for nursing should be removed from hospital-run schools, argued for university-based education. David Edsall, dean of Harvard Medical School, urged a more cautious approach and suggested further analysis of the situation before advocating changes in the educational system. Edsall proposed that an RF-sponsored committee, appointed in 1919 to study public health nursing, might extend its investigation to include the nursing profession in general. RF secretary
Edwin Embree presented this proposal to the Public Health Nursing Education Committee, which agreed to include the entire system of nursing education and practice in its study.

The Committee’s final report, a 500-page study of nursing and nursing education known as the Goldmark Report after the Committee’s executive secretary, social investigator Josephine Goldmark, included a section on private-duty nursing and was the first significant national study of the nurse labor market in the early 20th century. Private-duty nursing involved the employment of nurses by individual patients for nursing care for the duration of an illness. Hospitals did not hire graduate nurses, relying instead on students for the delivery of nursing care. Upon graduation, nurses sought work in the private-duty market. The report noted the dismal working conditions for private-duty nurses, including uncertain and inadequate periods of employment, low income with little opportunity for advancement, and competitive conditions experienced by private-duty nurses as they sought patient cases. The report recommended that hospitals employ graduate nurses as a means of providing stable employment for nurses within acute care institutions and insuring all patients of nursing care.

Although the nursing community greeted the publication of the Goldmark Report with much enthusiasm, few tangible outcomes resulted. Many of the recommendations, particularly those calling for an upgrading of nursing education and the employment of graduate nurses in hospitals, required a considerable commitment of funds. The RF limited its follow-up to funding a few university-based nursing programs. RF president George Vincent did not want to give the impression that the RF had any program of its own to impose on institutions or other health professions. Problems identified and validated by the Goldmark Report within both nursing education and the private-duty market persisted.

Professional nursing leaders continued to seek the RF’s assistance in addressing nursing’s problems. In January, 1926, Mary Roberts, editor of the American Journal of Nursing, asked Vincent’s advice regarding a study undertaken by the New York State Nurses Association into conditions in the private-duty market. The study uncovered serious problems of underemployment and poor distribution of private-duty nurses. A committee working in conjunction with the New York State Nurses Association was appointed to enlarge and continue the study. Those involved in the investigation believed the results would be significant, but they hesitated to conduct a study that could be perceived as unfriendly to hospital and medical groups. No record indicates that Roberts intended to ask Vincent for financial assistance, and the RF did not provide any. Vincent advised Roberts to maintain the study as an activity of the nurses association, adding that hospital and physician groups interested in nursing issues should be involved.

The committee organized to continue the study into problems in the nurse employment system was nationalized and became known as the Committee on Grading of Nursing Schools. It began work in 1926, sponsored by the three major national nursing organizations: the American Nurses Association, the National League For Nursing Education, and the National Organization for Public Health Nursing. Professional nursing organizations, cognizant that any changes in the nurse labor market would require the cooperation of physician and medical groups, invited several other groups to send
representatives, and the final committee also included members from the American Medical Association, the American College of Surgeons, the American Hospital Association, and the American Public Health Association. The Grading Committee proposed to estimate the supply and demand for nurses and other types of nurse workers, to conduct a job analysis of nursing work, and to survey the status of schools of nursing with the intent of grading them as to quality. The Committee received initial funding from participating associations and individual contributions from nurses.

Although the RF was not directly involved in the beginning work of the Committee, the Committee’s chair, William Darrach of Columbia University, informed George Vincent about the Committee’s work and Vincent lent his support, calling the project an admirable program. RF records indicate that the committee’s director, May Ayres Burgess, maintained a close correspondence with Mary Beard, public health nurse and staff member of the RF’s Division of Studies. Burgess provided Beard with frequent reports of the committee’s progress, sometimes asking for advice and review of the committee’s work. Burgess confessed to Beard that she wanted to avoid conveying any radical ideas and avert alienating physician groups who might be suspicious the committee was advocating training nurses who would practice minor medicine. Letters indicate that the two women shared many of the same ideas and aspirations for the future of the nursing profession.

The RF became more involved in the Grading Committee in 1927 when Darrach requested funds to carry on its work. Noting its earlier interest in nursing, the excellent composition of the committee, and the fact that the project was building on work accomplished previously by the Committee of Nursing and Nursing Education, the RF agreed with the request and contributed approximately $35,000 over the next six years.

The Grading Committee’s first project was a study of supply and demand for nursing services, published as Nurses, Patients, and Pocketbooks (1928). The Committee’s findings contained a large amount of data on conditions in the private-duty nurse market and echoed those of the Goldmark Report. Considering the number of years between the two reports, the lack of progress for nursing and the dismal conditions uncovered by the Grading Committee made the results very disturbing. By 1930, the establishment of more and more schools of nursing released larger numbers of graduates into the job market. Since hospitals still did not hire graduate nurses in significant quantities, reports of serious unemployment among nurses continued. Burgess expressed optimism to Beard that when hospitals realized the value of employing competent graduate nurses, the nurse unemployment situation would be relieved. Left unresolved was how to finance a paid hospital nursing staff.

The Grading Committee published two more volumes with the RF’s financial assistance before ending its work in 1934. Its uncompleted business was referred to the National League for Nursing Education, which soon solicited RF funds to develop a curriculum study of schools of nursing, a project that the League believed followed logically from the findings of the Grading Committee. C.-E. A. Winslow, Professor of Public Health at Yale University, joined with the League in its appeal for RF support. But interest in nursing had reached its peak at the RF. Two of nursing’s foremost supporters at the foundation, Vincent and Embree, had retired and resigned respectively. Alan Gregg, director of the RF’s Division of Medical Sciences, denied the League’s request for funds. In a letter to Winslow, Gregg expressed doubts that the League could complete the proposed work satisfactorily and explained that it was not in the interests of medical science to take up the subject of nursing education.

A third study of working conditions for nurses that received RF support in the 1920s was an investigation of the status of minority nurses. John D. Rockefeller, Jr. stimulated interest in this work when he expressed to Embree his desire that the RF act on any opportunity for improving the conditions for training Negro nurses. Embree subsequently appointed Canadian nurse Ethel Johns to conduct a study of Negro nursing in the U.S. RF records include the Johns Report and a
1924 study on educational conditions for minority nurses completed by the Hospital Library and Service Bureau, a Rockefeller-funded organization that collected and disseminated hospital information. The major focus of both reports was educational matters, yet both studies also solicited data on working conditions for African-American nurses.

The Hospital Library and Service Bureau report compiled statistics on over 1,600 accredited hospitals. Only 60 hospitals used African-American private-duty nurses. The Johns study did not estimate the use of private-duty nurses. Of five hospitals which kept statistics on the employment status of their graduates, 224 out of 827 graduates (27%) worked in private-duty in 1925. National figures for nurses in general estimated that approximately 80% of all graduate nurses worked in private-duty during the same time period. Segregation restricted working opportunities for African-American professional nurses and created employment situations different from white nurses.

Johns noted regional differences in the acceptance of minority private-duty nurses. Fewer opportunities for African-American private-duty nurses to obtain cases existed in the North, while in the South, physicians expressed a preference for minority nurses, noting that they adapted well to the domestic situation and gave excellent bedside care. Minority private-duty nurses readily accepted cases unpopular with white nurses, such as patients with chronic illnesses. White private-duty nurses resented African-American nurses and viewed them as competition. Minority nurses, denied the services of professional registries, relied on physician referrals to obtain cases. In New York City, the establishment of a separate private-duty registry for African-American nurses reported success.

Rockefeller philanthropic involvement with nurse distribution and work-force issues was not limited to studies of the nursing profession. Support for the Joint Vocational Service, a national placement bureau established by the American Association of Social Workers and the National Organization for Public Health Nursing, directly connected the foundation with the nursing job market. Placement bureaus, popular in the early 20th century, provided a method of linking professionals with jobs. A $27,000 grant from the Laura Spelman Rockefeller Memorial permitted the Service to commence operations in 1926.

Records of the Joint Vocational Service indicate the considerable costs and difficulties in operating a placement service on a broad national scale. Expectations were that the Service would eliminate local shortages of qualified individuals by distributing nurses throughout the country, but the Joint Vocational Service failed to accomplish this goal. Most of the positions it filled were located in the New York City area, the site of the Service's office. Although never directly connected with the general job market for nurses, the Service represented efforts by professional nursing associations to nationalize nurse placement. In later years the American Nurses Association would establish a similar agency known as the Professional Counseling and Placement Service, and its experience would mimic that of the Joint Vocational Service and demonstrate the complexities in distributing adequately qualified nurses.

By the end of World War II, the nursing profession had failed to remedy its many problems. A postwar study of the nursing profession, Nursing For the Future, funded by the Carnegie Corporation and known as the Brown Report after its author, social anthropologist Esther Lucile Brown, chronicled the many problems plaguing the profession. Reminiscent of both the Goldmark Report and the Grading Committee's work, the Brown Report proposed sweeping changes in both nursing education and practice. The most controversial section of the report contained recommendations that the number of college-educated professional nurses be increased and a substantial program of training and employing vocationally trained practical nurses for use in delivering bedside care be established.

The RF was not involved in the initial preparation of the Brown Report, but, as had occurred with the Grading Committee, RF officials were well informed of the report's progress. RF
nursing consultant Mary Elizabeth Tennant was a frequent correspondent with Brown and reviewed several chapters of the report. After publication of the report, the RF’s involvement increased. The study’s sponsor, the National Nursing Council, was eager to publicize and begin implementing the report’s recommendations. It requested ideas and assistance from the RF and similar charitable foundations. Alan Gregg approved funds to buy a large number of complimentary copies of the report for distribution to “strategically important people.” Supporters hoped that providing copies of the report to those sympathetic to its findings would enhance chances of implementing the recommendations.

Assistance in implementing the report’s recommendations was considered critical. RF correspondence and records of meetings indicate a strong belief held by those outside of the nursing profession that nurses could not be trusted to reform the occupation. Presumptions were made that groups external to nursing would succeed better at implementing the Brown Report. No challenge to this idea is recorded in RF records. Nursing groups charged with implementing the report actively involved officers of corporate foundations, including the RF in numerous meetings designed to map out strategies for future plans. Gregg, Tennant, and Hugh Smith of the RF’s International Health Division provided significant moral support for the findings and recommendations of the Brown Report. Financial assistance, however, received less attention. Gregg noted that reform was expensive, recalling that medical education had progressed mainly as a result of a large infusion of money for an improved educational system. He inferred that little would be accomplished unless nursing received adequate funds. Yet the Rockefeller Foundation was reluctant to give nursing the financial considerations it had extended to medicine, despite a half decade of studies testifying that money was a critical component of change.

Analysis of RF records of the many nursing reports conducted under the foundation’s auspices demonstrates a remarkable similarity of circumstances. An area of interest to study would be identified, after which data would be compiled and recommendations made. The consistency of suggestions for improvement over the thirty-year period indicates an irrefutable validity to each study’s findings. The RF’s hesitancy to implement reforms prevented resolution of identified problems. Fears of imposing measures unwelcome to other health care groups or distrust of organized nursing’s ability to carry out solutions competently prevented the RF from committing funds. The thirty-year involvement of the RF in studying nursing and work-force issues presents an ambiguous picture in which endorsement of professional growth fluctuated with reluctance to financially support recommended changes.

There was much value in investigating the history of the RF’s relation to nursing and its influence on work-force matters. The RF was responsible for conducting very impressive and extensive studies of an occupational group considered critical to the nation’s health. These studies can be used to identify, confirm and validate conditions existing in the 20th-century nurse labor market. Approaches to nursing issues depict not just the Rockefeller Foundation’s perceptions of the profession but illustrate the ways groups influential in formulating health-care policy related to nursing. The foundation’s records are an important documentation of past efforts to solve nursing work-force issues, and enlarge and contribute to our understanding of the development of a major health-care occupation.

The Rockefeller Foundation, Cultural Interpretation, and the Alberta Folklore Project

by Jeffrey Brison

Not long after taking control of the newly formed Humanities Division of the Rockefeller Foundation (RF) in the late 1920s, David H. Stevens, his assistant director John Marshall, and several other high-ranking foundation officers began to express dissatisfaction with the programs they had inherited from the Laura Spelman Rockefeller Memorial Foundation.
and the General Education Board, and they proposed to overhaul them. While clearly placing the humanities on firm footing in the academy, the existing programs did little, the officers argued, to bring the “humanities from books, seminars and museums into the currents of modern life.” A policy review noted, with some disgust, that the previous humanities program placed millions of dollars into the hands of the “elder statesmen” who dominated the traditional fields of humanistic study. “While advancing human knowledge,” one officer complained, “we were strengthening the aristocracy of scholasticism.”

With their new program in the humanities these RF officers were looking to reach deeper into American society — not to operate “above” the emerging mass culture, but rather to engage with it and bring the RF’s considerable influence to it. The officers saw as their target nothing less than a reformulation of the humanistic tradition that would make it directly relevant in Depression-era America. Marshall and Stevens saw humanism as a way of thought that could be enlisted to combat the sense of rootlessness and the crisis of authority brought on by the boom-and-bust rhythm of unregulated capitalism. As Stevens later admitted, the shift in policy was predicated on the fear that the RF and the class it represented were losing the competition in the free market of ideas. Able to provide leadership in the development of public health, medical education and of scientific knowledge in general, RF officers had come to the startling realization that their humanities program was helping to train an intellectual leadership that nobody outside the academy understood or even had the opportunity to hear.

In an effort to bring the RF’s work in the humanities “more directly into contact with daily living” and to gain a clearer idea of “the ways in which the American public now gains its culture,” the foundation embarked on a new program in what the officers referred to as “cultural interpretation.” Often working in conjunction with New Deal programs, RF officers threw their support to projects in community theatre, educational film and radio, and the collection of local and regional history and folklore. Using new and old media alike — from the airwaves to the stages of community theatre projects — intellectuals supported by the new regime attempted to bring educational and cultural material, and thus their own authority and that of the RF, to broader audiences. Combatting the assumption that “culture” was something foreign, they attempted to foster “a larger appreciation of those elements in American life that constitute our national heritage” and to promote “cultural understanding amongst nations.”

These two primary objectives of the new Rockefeller humanities program paradoxically led to its exportation to Canada. On the one hand, in Marshall’s and Stevens’s eyes, American culture and American ideals were not bounded by the borders of the nation-state. As Marshall later observed, “[i]f the cultural history of the United States were to be studied, the basis had to be not political units, not the nation, but the human regions that made up North America, the United States and Canada.” On the other hand, Canada’s status as an independent nation made it — particularly after the start of the Second World War and the advent of closer and more coordinated relations between Canada and the U.S. — an object of the RF’s desire to improve “cultural understanding amongst nations.” As had been the case earlier when the RF had first extended its public health and medical education programs north of the border, Canada was thus treated both as a collection of northern regions of the American culture and as a foreign nation.

Between September 1941 and November 1942, Marshall toured Canadian cultural centers, engaging in a search, he later noted in his diary, for individuals and institutions which could, with the helping hand of the RF, contribute to “a better interpretation of Canadian tradition.” The focus of the foundation’s program in the humanities, he explained to the Canadians he met, lay somewhere between the levels of purely academic investigation and of mass diffusion. The foundation was interested, he recorded, in “activities which aimed at formulating the findings of
investigators and at interpreting them in ways which made them available for purposes of general diffusion.” What Marshall and the foundation were looking to do in Canada, in fact, was to contribute to a process of organizing the raw material on which a set of unifying traditions could be based.

As was the case with the foundation’s efforts to fertilize traditions in the U.S., the building blocks of a Canadian national tradition, RF president Raymond Fosdick later noted, were thought to be “the rich regional cultures” of North America. In keeping with the metropolitanism that infused all Rockefeller philanthropy, each of these “human regions” was seen to emanate from a metropolitan base which served as the center of overlapping transportation, economic, and educational systems. In this definition, culture in the age of mass communications was not only inherited from the indeterminate past, but was the product of modern organizing and structuring forces.

Marshall completed the western leg of his Canadian tour in October 1941 favorably impressed with the provincial universities and confident that the “time [was] . . . ripe for helping Canada to a better interpretation of herself.” While he did not perceive a strong sense of Canadian national identity on the prairie — in fact, John Dafoe and George Ferguson of the Winnipeg Free Press led him to believe “that national feeling in Canada is still largely non-existent” — there was, he thought, great interest in fostering regional identity and organization.

As a result of his meetings with scholars and administrators at the University of Alberta, Marshall concluded that the institution should host one of the most diverse and innovative regional projects sponsored by the Rockefeller Foundation. In September 1943, American Robert Gard was brought to Edmonton on an RF grant to work with Donald Cameron, the director of the university’s extension department, and George Smith, the dean of the Faculty of Arts, to establish the Alberta Folklore and Local History Project.

Gard brought with him impressive credentials. In the late 1930s, with the aid of a Rockefeller graduate fellowship, he had worked under A.M. Drummund, a pioneer in the regional theatre movement, on Cornell University’s New York State Play Project. The University of Alberta was, moreover, a receptive environment for the sort of project Gard envisioned. Faculty members Sidney Risk and E.M. Jones, themselves former holders of RF fellowships, had studied at Rockefeller-sponsored community theatre projects at Cornell and the University of Iowa, respectively. Frederick Koch of the University of North Carolina, another of the pioneers of the American regional theatre movement, regularly taught in the summer at the university’s Banff School of Fine Arts.

When Gard arrived in Alberta he was struck, almost immediately, by what he thought was the previously untapped potential of the province for regional interpretation. To Gard, here was a real region — even if the inhabitants needed a little help to recognize their culture. “Up here,” Gard wrote to his former supervisor Drummond, “our work is a new idea. So far the folk have been too busy living. . . . I was constantly told that Alberta folk have no feeling for the land. No loyalty to their region. This is false. The feeling is there — and perhaps more deeply rooted because of the struggles they have made. I will find it an interesting year, and a satisfying one in helping to awaken a keener interest in the traditions and deep loyalties of this land.”

To do so, Gard employed an impressive variety of techniques and mediums. Using stories he collected as he criss-crossed the province as his source, Gard wrote regular columns on local history for provincial newspapers, including the Calgary Herald and the Edmonton Journal, and for his folklore project’s journal, the Alberta Folklore Quarterly. He also provided student playwrights at the Banff School of Fine Arts with historical material for the purpose of contributing to the beginnings of a community theatre movement centered at the University of Alberta. Gard himself published a collection of Alberta folk
tales, Johnny Chinook (1945). In addition to giving weekly radio lectures on his project’s work for the University of Alberta’s network, CKUA, and for the Prairie Regional Network of the Canadian Broadcasting Corporation (CBC), Gard and others wrote and performed several plays — including Johnny Dunn, Hatfield the Rainmaker, The Ballad of Frank Slade, and Twelve Foot Davis — which were broadcast nationally by the CBC.

Gard’s work in the mass media was accompanied by efforts to build a more permanent infrastructure which would serve to support the development of local and regional identity. Out of the Rockefeller grant, ten Alberta writers were given financial assistance to attend the first Alberta Writers’ Conference at Banff in August 1944. Gard’s mentor, A.M. Drummond, was brought up from Cornell — ironically it now seems — to lead discussions on the idea of a distinctly Albertan or Western Canadian literature. Discussion at the conference was focussed specifically on the preservation of folklore and historical material and the use of these as source material for drama, fiction, and radio programming. Intent on fostering “a National People’s Theatre in Canada,” and to promote drama as a means of education at the secondary and post-secondary levels, the RF provided funds to bring together individuals from the four western provinces to take part in the Western Canadian Theatre Conference. Working with Solon Low, the Minister of Education for the Social Credit government, Gard distributed regional history material throughout Alberta’s public school system. At Marshall’s suggestion, Gard also successfully lobbied the provincial government’s Committee on Reconstruction to make a formal commitment to establishing, after the war, a professionally staffed, state-funded provincial archives at the University of Alberta.

In the summer of 1945, after almost two years in Edmonton, Gard accepted a job at the University of Wisconsin to establish and direct a project modelled after the Alberta Folklore Project. The Alberta project had not only established Gard’s prominence in the field, but also was considered by the RF staff to be one its most successful forays into regional analysis. Gard attributed the success of the project to the fact that Alberta was, in reality, a unified region. In addition to the economic and geographic factors that held it together, Gard felt that there existed a self-consciousness of shared identity. “[T]he people,” he advised David Stevens, “had a sort of common folklore based on the common knowledge of the region and its distinguishing characteristics. (In other words, the stories they liked best to tell were distinctly regional in that they dealt with rains, hails, drouth [sic], the Chinook wind, dust, the various industries of the region: ranching, dry farming, etc.)” Gard did not, however, discount the role his own folklore project had played in disseminating this “dramatic lore of the West.” In radio broadcasts and his newspaper columns, Gard noted, “I studiously tried to build up such heroes as Twelve Foot Davis (the little fellow with a giant’s heart); Dave McDougall (hero of the tall story); Bob Edwards (editor, champion of the underdog); Nigger John Ware (American Negro, hero of the ranching country); and others, as a part of the regional consciousness.”

The lasting impact of the Alberta Folklore and Local History Project is difficult to assess. In retrospect much of the activity can be seen as a temporary reaction to the external stimulus provided by Gard and the RF. The Alberta Folklore Quarterly and the Alberta Folklore Association — both established with funds from the project — were not maintained following Gard’s departure. Their loss, however, was mitigated somewhat by the reorganization and revitalization of the Alberta Historical Society at about the same time. By 1948 the provincial government had still not made good on its pledge to create a provincial archives. On the positive side of the ledger, the University of Alberta did make provision for the inclusion of a university archives in its new library facility. The RF’s support for the folklore project also provided the impetus for the creation of the University of Alberta’s new department of fine arts — a department that, like no other in Canada, included divisions in visual arts, music and drama. The drama division, in particular, was the product of Gard’s efforts as well as those of instructors Jones and
Risk. Encouraged by the success of community drama in Alberta, the RF supported the creation of a chair of drama at the University of Saskatchewan in 1945. The original Alberta Writers’ Conference — initially a product of American organization, supervision and financing — had, by 1948, evolved into a permanent institution, the Western Writers’ Conference.

Perhaps, though, the impact of the program cannot be accurately assessed only in terms of its tangible benefits. The goal of corporate philanthropy was to plant seeds for reform, to establish influence and to lead by example. The goal of the officers of the Rockefeller Foundation Humanities Division was to intervene in and thus engage with the development of a mass culture. Projects like Gard’s provided forceful evidence of the effectiveness with which educators, the state, and private foundations could intervene in the politics of identity and of mass culture.

The Death of Hideyo Noguchi and the Rockefeller Institute for Medical Research

By Aya Takahashi

In 1904 the gifted Japanese bacteriologist Hideyo Noguchi joined the Rockefeller Institute for Medical Research (RIMR) as one of the first staff under Simon Flexner, the Institute’s director and Noguchi’s lifelong tutor. With Flexner’s sympathetic guidance and support, Noguchi proved to be a brilliant scientist; he was quickly promoted to the highest rank, member of the Institute, in 1914, and remained a member until his death in 1928. His alleged scientific achievements included the pure cultivation of the syphilitic organism, Treponema pallidum, the cultivation of the globoid bodies in poliomyelitis, the introduction of a skin test for syphilis, and the isolation and cultivation of the causative agent of yellow fever, Leptospira icteroides.

By 1913, his remarkable contributions to bacteriology had been recognized by distinguished medical scientists, such as Friedrich von Müller and Paul Ehrlich, but the methods that he employed and the discoveries that he claimed were sometimes questioned, and some of them were later proved to be false. Noguchi’s identification of the causative agent of poliomyelitis in co-operation with Flexner was one of his false claims. On some of his other well-known works, such as on rabies and trachoma, he made the same mistake. Noguchi also mistakenly identified the causative agent of yellow fever as a bacterium — it was a virus — in 1918 on his expedition to Ecuador. Because of his mistaken identification of Leptospira icteroides as the causative agent of yellow fever, he kept struggling with contradictory data and was criticized for inconsistencies in his observations. Such confusion finally led him to a risky expedition in Africa to find the “truth” about the disease in 1927.

Although his incorrect scientific claims might have been caused by too optimistic interpretations of his findings and overconfidence in his observations, it certainly showed the limitations of “bacteriology” in the early 20th century: electron microscopes were not yet available to him, and medical scientists had little knowledge of numerous tropical diseases. In fact, a vaccine prepared by Noguchi for yellow fever in Ecuador was found effective in treating patients who showed yellow fever-like symptoms. As a result, Noguchi was honored by the Ecuador government. He also received decorations and medals from countries and prestigious institutions that
highly valued his scientific efforts. For the presenters, his “scientific contributions to humanity” through his bacteriological, or public health, work was perhaps more meaningful than his “contributions to scientific knowledge” in a true sense. The prevention of epidemics and the improvement of public health were of strategic, economic, and social importance for states in the period of imperialism, and Noguchi often conducted research in association with national and local governments.

Noguchi died from yellow fever in 1928 while on an expedition to Accra, Africa as a member of a commission organized by the Rockefeller Foundation. He was often referred to as “a martyr to science,” and his early and dramatic death at age 51 was the beginning of the “Noguchi myth”, which raised him from a mere scientist to the stature of a historic figure. Although many of his findings were never accepted without criticism and doubts, and, unlike several of his distinguished Rockefeller colleagues, he never received a Nobel Prize, he is repeatedly referred to as an historically important figure in the obituaries, biographies, and various articles about his controversial researches that have been published in English, Japanese, and other languages since his death. Particularly in Japan, Noguchi has become a “hero”: born to a poor rural family, his left hand crippled since he was a baby, he climbed up the social ladder to become a world-famous scientist. The “hero” was taught as “a moral figure” in school texts before World War II. He earned fame after death apart from the scientific value of his work.

The Rockefeller Institute’s management was a key to the process of establishing Noguchi’s “fame after death.” The Institute carefully arranged the transfer of his body and personal effects, including his research findings; it organized the funeral and even helped with the financial settlement for Mrs. Noguchi. Mrs. Noguchi relied on the associates of her husband on almost every occasion, including finding out how to deal with a writer who was interested in Noguchi. Noguchi’s decorations and medals were kept in the Institute’s safe rather than by his widow, and the Institute, particularly Flexner’s office, answered inquiries about Noguchi and dealt with almost every Noguchi-related matter after his death. The selection of a funeral agent, the wording of the invitations to the funeral, and a list of individuals and organizations to be invited were carefully considered by the RIMR. Nothing proceeded without Flexner’s knowledge.

The Institute also dedicated and arranged Noguchi’s grave. The RIMR selected a burial site, a boulder for the gravestone, and the design of a plaque on the boulder, intending that these reflect the pioneering character of Noguchi and the remarkable scientific achievements that he made in a foreign country. The unusual, natural marker erected at Noguchi’s grave in Woodlawn Cemetery in New York was similar to the gravestone of Thomas Edison. The process was not conducted by Mrs. Noguchi or his family in Japan, but by Noguchi’s mentor and boss, Simon Flexner, who consulted specialists, predicting that the grave would be visited by many people for a long time to come.

Flexner’s sympathetic involvement in the management of Noguchi’s death was obviously beyond his responsibility towards his deceased subordinate but demonstrates both his profound friendship with Noguchi and the Institute’s appreciation of Noguchi’s contributions. More importantly, the involvement of Flexner and the Institute reflected the image of Noguchi that they wished to promote.

A memorial service for Hideyo Noguchi was held by the New York Academy of Medicine on December 20, 1928. Although the service was apparently arranged by the Academy, the RIMR practically orchestrated it. The service was meant to provide an opportunity to mourn for those who were not invited to Noguchi’s funeral. Thus, invitations were sent to sixteen members of the Institute’s Board of Scientific Directors and Trustees, twenty administrative officers, forty-six former scientific staff, 125 of its scientific staff, and 128 persons outside of the Institute, in addition to the members of the Academy of Medicine and of the Harvey Society. Among the key speakers were Flexner, George Vincent of the
Rockefeller Foundation, and William H. Welch, Scientific Director of the RIMR. They spoke eloquently of how much Noguchi contributed to the Institute through his bacteriological research, running all risks by himself, and how extraordinary his life was, contrasting his humble origin in Japan with his glamorous achievements in the U.S. Their memorial speeches emphasized Noguchi’s “greatness” not only as “a physician” but also as “a man of humanity.”

Noguchi’s humble origin was indeed the important part of his fame after death. Flexner promptly assembled the data on Noguchi’s early life in Japan and wrote a biographical sketch of his life, which appeared in Science. The “sketch” began with Noguchi’s poor childhood and in a sentimental tone described his encounter with his foster father and patron, Sakae Kobayashi, and his education in medicine — he practically taught himself. Flexner recounted how Noguchi’s outstanding industriousness in the laboratory and his eagerness in research led to his remarkable achievements. The “sketch” was a moving obituary by Noguchi’s lifelong tutor and became one of the indispensable sources for biographies of Noguchi. Flexner sent reprints of his article whenever he received inquiries about Noguchi. The Institute also significantly contributed to making the popular visual image of Noguchi. Copies of Flexner’s favorite portrait of Noguchi — a serious expression, with his arms crossed — were frequently enclosed in the replies to inquiries about Noguchi and sometimes were used in publications, such as short biographies of Noguchi that appeared in medical and other scientific journals.

Flexner remained in contact with a number of Japanese, particularly Kobayashi and members of the Noguchi Memorial Association in Japan. Kobayashi regularly reported on the progress of raising money for Noguchi memorials to be erected in his birthplace. Flexner responded to Kobayashi’s letters with great interest and looked back on his days with Noguchi. Flexner was the one who decided to present a duplicate of Noguchi’s bust at the Institute to the Noguchi Memorial Association, together with Noguchi’s personal effects, laboratory equipment, and books, to be exhibits for a proposed Noguchi memorial museum. Kobayashi’s communication with Flexner brought him invaluable information about Noguchi’s life and career in the U.S. and helped the national-hero-making process, centered on the Noguchi Memorial Association.

The RIMR did not deliberately control the image of Noguchi after his death, but wished to present him as one of the representative members of the Institute and a distinguished bacteriologist. Flexner, however, wished for more than that. He wanted others to remember Noguchi as he knew him. As Flexner’s memorial speeches and “sketch” suggest, he wished Noguchi to be known as an extraordinary figure as well as a great scientist. In fact, he did not like Gustav Eckstein’s biography, Noguchi (1931), which disclosed Noguchi’s “real” life, including his drinking habit, his extravagance, and loneliness. As late as 1957, George W. Corner, author of a history of the RIMR, mentioned the difficulties he encountered in trying to write the “true story” of Noguchi, because there were still people alive who had known the now mythic scientist. Noguchi’s life and death were accepted by people and organizations in the ways that they wished, and the RIMR and Flexner were at the international center of the “Noguchi myth.”

Grants to Support Research in the Paul Ehrlich Collection

The Rockefeller Archive Center is pleased to announce that a generous gift has made available funds to support short-term research in the Paul Ehrlich Collection. The Ehrlich Collection is the largest and most important body of original and facsimile materials documenting the life and scientific-medical research program of Nobel Laureate Paul Ehrlich (1854-1915). Certain documents are available in English translations.

Prospective applicants are urged to contact the director of the Archive Center with an initial description of the applicant’s research, so that Archive Center staff can help determine the extent of related materials.
Applicants will use the forms, adhere to funding limits, and follow the procedures of the Center’s general grant-in-aid program. However, applications may be made at any time and, if judged worthy, awards will be made within a month of the receipt of applications.

Contact Darwin H. Stapleton, Director, Rockefeller Archive Center, 15 Dayton Avenue, Sleepy Hollow, NY 10591-1598; Telephone: (914) 631-4505; Fax: (914) 631-6017; E-mail: stapled@rockvax.rockefeller.edu; http://www.rockefeller.edu/archive.ctr

2000 Grant Recipients

In March the Rockefeller Archive Center announced that 37 scholars have received grants under its general research grant program for 2000, and that its targeted grant programs have awarded grants to two scholars for research in the history of international relations and economic development, to three scholars for research in the history of The Rockefeller University, and to four scholars for residencies to study the history of basic medical research. All recipients, their institutions and research topics follow.

General Grants, 2000

Thomas Andrews
Ph.D. Candidate. Department of History, University of Wisconsin, Madison.

Judith Arcana
Core Faculty, School of Interdisciplinary Arts & Sciences of The Graduate College of the Union Institute, Portland, Oregon.
“Abortion and Related Subjects in Terms of Medical Practice and Regulation, Law and Policy, Realization and Manifestation, Community and Family Health.”

Cornelius Borck
Postdoctoral Fellow. Max Planck Institute for the History of Science, Berlin, Germany.
“The Emergence of the Electric Brain” and “History of Neuroscience in Germany, 1930-1950.”

Henriette Buus
Research Fellow. Department of Archaeology and Ethnology, University of Copenhagen, Denmark.
“The Health Visitor in the Welfare State.”

Jamie Cohen-Cole
Ph.D. Candidate. Program in the History of Science, Princeton University.
“Thinking about Thinking in Cold War America.”

Jennifer DeVoe
Ph.D. Candidate. Social History of Medicine, Nuffield College, Oxford University, England.
“Community Health Center Development in the U.S., Australia, and South Africa: A Comparative Study.”

Zeljko Dugac
Research Assistant. Division for the History of Medicine, Institute for History and Philosophy of Science, Croatian Academy of Sciences and Art, Zagreb, Croatia.
“Basis of Health Education in Croatia.”

David Ekbladh
“Engineering the Asia-Pacific, 1898-1970.”

Brian Finnegan
Ph.D. Candidate and Fulbright Fellow. American Studies, George Washington University and Universidad Católica de Chile.

Jay Garcia
Ph.D. Candidate. American Studies Program, Yale University.
“Psychological Expertise, Political Culture and Race in the Mid-Twentieth Century United States.”

Courtney Gilbert
Ph.D. Candidate. Department of Art History, University of Chicago.
“Visions of Indigenous Mexico: European Surrealists and Their Mexican Contemporaries.”

Patients at the City Psychopathic Hospital in Beijing, China, ca. 1934, which was operated by the city with the cooperation of the Peking Union Medical College after 1933. This image, labeled “Existence,” is from an album entitled “Old and New with the Insane in Peiping.” Patient care at PUMC is among the topics that this year’s grant-in-aid recipients will study at the RAC.
Ruth Haug  
Research Scientist. Social Science Research Center, Mississippi State University.  
"Impact of Rockefeller Support of Two Mississippi Institutions: Public Health Administration and Social Science Research Center."

K. Walter Hickel  
"The Child Development Movement and the Politics of Disability, 1890-1945."

Ana Maria Kapelusz-Poppi  
Ph.D. Candidate. Department of History, University of Illinois, Chicago.  
"The Formation of a Public Health Discourse in Western Mexico, 1930-1960."

John Kayser  
Associate Professor. Graduate School of Social Work, University of Denver.  

Peter Kraemer  
Ph.D. Candidate. Department of History, Indiana University.  
"Germany Is Whose Problem?: American Efforts to Democratize Germany, 1943-1963."

Tong Lam  
Ph.D. Candidate. Department of History, University of Chicago.  
"Investigating and Representing 'Society' in Modern China, 1890-1949."

Sarah Lawrence  
"On Their Own Terms: Birth Control Education Among African Americans in 1930s Rural Virginia."

Maria Mesner  
Lecturer. Institute for Contemporary History, University of Vienna, Austria.  

Heather Munro Prescott  
Associate Professor and Chair. Department of History, Central Connecticut State University.  
"The Rockefeller Foundation and the Social Construction of 'Normal' Adolescence in 20th-Century America."

Eduardo L. Ortiz  
Senior Research Fellow. Imperial College of Science, Technology and Medicine, London, United Kingdom.  
"Refugee Scientists and the Expansion of the International Scientific Network to Latin America."

Gabor Pallo  
Director of Research. The Institute of Philosophy of the Hungarian Academy of Sciences.  
"The Rockefeller Foundation Hungarian Project: Decision Making."

Catha Paquette  
Ph.D. Candidate. Department of History of Art and Architecture, University of California, Santa Barbara.  

Biswamoy Pati  
Associate Professor. Department of History, Sri Venkateswara College, Delhi University, India.  
"Health Policies in Eastern India, 1930-1960: Social and Institutional History."

Rajeswari S. Raina  
"Institutional and Organizational Change in Agricultural Research: The Rockefeller Foundation in India, 1950-1975."

Edmund Ramsden  
Ph.D. Candidate. Department of Political and Social Science, European University Institute, Florence, Italy.  

Jerome Segal  
Postdoctoral Fellow. Max Planck Institute for the History of Science, Berlin, Germany.  
"An Interdisciplinary Approach to the Concept of Complexity in the Post-World War II Era: Warren Weaver’s Legacy."

Eve P. Smith  
Independent Scholar.  
"Foundation Influence on New York City Child Welfare."

Sona Strbanova  
Associate Professor. Faculty of Science, Department of Philosophy and History of Science, Charles University, Prague, Czech Republic.  
"Public Health Activities of the Rockefeller Foundation in Czechoslovakia, 1918-1948."

Sarah Thuesen  
Ph.D. Candidate. Department of History, University of North Carolina, Chapel Hill.  
"Fighting for the Child’s Own Soul: The Culture and Politics of Black Segregated Schools in the South, 1930-1954."

Christian Topalov  
Director of Studies, École Des Hautes Études En Sciences Sociales and Director of Research, Centre National De La Recherche Scientifique, Paris, France.  
"The Neighborhood of the Social Sciences."

Wendy Wall  
Visiting Assistant Professor, Department of History, Duke University and Research Associate, Institute on Race and Social Division, Boston University.  
"The Idea of America: Nationalism, Pluralism, and the Quest for Consensus from the New Deal through the Civil Rights Movement."
Anahi Walton-Schafer  
Ph.D. Candidate. Department of History,  
State University of New York, Stony Brook.  
“Scholars between Paradigms and Politics: Special  
Sciences, Modernization and Democracy in Argentina,  
1955-1969.”

Amy E. Wells  
Ph.D. Candidate. Educational Policy Studies and  
Evaluation, College of Education, University of Kentucky.  
“From Ideas to Institutions: Southern Scholars and  
Emerging Universities in the South, 1920-1950.”

Carolyn Wilson  
Ph.D. Candidate. Department of History,  
Emory University.  
Education after Segregation, 1954-1975.”

Michael Worboys  
Director. Cultural Research Institute, Sheffield, England.  
“The History of the Colonial Hospital: Bombay  
Presidency, 1900-1950.”

Adriana Zavala  
Ph.D. Candidate. History of Art, Brown University.  
“Dressing and Undressing the Indigenous Fe/Male Body  
in Mexico: Fine Art, Popular Visual Culture and  
Performativity, ca. 1910-1950.”

Targeted Grants for Research in the  
History of International Relations and  
Economic Development, 2000

Eve Buckley  
Ph.D. Candidate. Department of History & Sociology of  
Science, University of Pennsylvania.  
“From Crop Production to Food Consumption:  
Rockefeller Studies Agriculture, Nutrition and Population  
in Colombia, 1948-1973.”

Karin Matchett  
Ph.D. Candidate. Program in History of Science and  
Technology, University of Minnesota.  
“Scientific Agriculture Across Borders:  
Mexico/U.S. Collaboration in Corn Breeding.”

Targeted Grants for Research in the History  
of The Rockefeller University, 2000

Samuel Haber  
Professor Emeritus. Department of History,  
University of California, Berkeley.  
“The Composite Legitimation of American Universities  
and the Exclusion of Jews from their Faculty, 1920-1945.”

Robert Olby  
Research Professor. Department of History & Philosophy  
of Science, University of Pittsburgh.  
“Hyden’s Research into the Biochemistry of Memory.”

Abigail O’Sullivan  
Ph.D. Candidate. Oxford University, United Kingdom.  
“Nobel Laureates in Medicine and Physiology: A Social  
Analysis of Achievement.”

Residency in the History of Basic Medical  
Research, 2000

Sabine Brauckmann  
Independent Research Scholar and Research Associate.  
University of Münster, Germany.  
“The Involvement of Biology and Medicine in the 20th  
Century Life Sciences,” “Neurobiology, 1944-1954,” and  
“Bronk’s Building Program.”

Steffani Pfeiffer  
Ph.D. Candidate. Department of History,  
Rutgers University.  
“Science and Social Negotiation: Chinese Patients and the  
Culture of Biomedicine at Peking Union Medical College,  
1921-1951.”

Emilio Quevedo  
Associate Professor, Universidad Nacional de Colombia,  
Bogotá, and Director, Centro Historia del la Medicina  
Andrés Soriano Lieras  
“The Rockefeller Foundation and the Transition from  
Hygiene to Public Health in Colombia, 1919-1953.”

Aya Takahashi  
Ph.D. Candidate. Department of History,  
Royal Holloway, University of London.  
“Rockefeller Intercession in Western Innovation and the  
Development of Medicine in Japan, 1900-1940.”

Alfonso Echeverria of Chile receives a certificate from Nelson A.  
Rockefeller awarding him an Inter-American Trade Scholarship  
(IATS) to study agriculture, specializing in dairy products.  
Rockefeller, the Coordinator of Inter-American Affairs, sponsored  
the IATS program in the early 1940s. Also receiving IATS  
awards, on the left, Jorge Tejada of Bolivia (central and commer-  
cial banking) and, on the right, Jose Rodriguez of Colombia  
(motor maintenance and operation). Business education and the  
development of a managerial class in Chile are among the topics  
of interest to this year’s recipients of RAC research grants.
About the Contributors

Sabine Brauckmann holds a Ph.D. in history and philosophy of science from the University of Münster (Germany). She recently published a review essay, "A History of Causal Morphology," in American Journal of Medical Genetics (1999). Currently she is working on the biography of Paul A. Weiss and is revising an article on perception and environment, "From the haptic-optic space to our environment," to appear in Semiotica 2000. She is a research associate at the Institute of Philosophy at the University of Münster, where she studies the history of theoretical biology by focusing on the concept of the morphogenetic field. She also is engaged in a research project that investigates the relationship between experimental biology and clinical medicine in the 20th century. She can be reached via e-mail: brauckm@uni-muenster.de.

Jeffrey Brison recently completed his Ph.D. in history at Queen's University in Kingston, Ontario, Canada. His previous publications include "A New National History: A 'Limited' Pursuit?" in Alternative Frontiers: Voices from the Mountain West (1997), and "The Kingston Conference, The Carnegie Corporation and a New Deal for the Arts in Canada," American Review of Canadian Studies 23 (Winter 1993): 503-522. His dissertation, "Cultural Interventions: American Corporate Philanthropy and the Construction of the Arts and Letters in Canada, 1900-1957," examines a broad range of Canadian cultural and intellectual projects supported by the Rockefeller Foundation and the Carnegie Corporation. He is currently revising this manuscript for publication. He can reached at 26-A Centre St., Kingston, Ontario, Canada, K7L 4E6 or by e-mail: JBrison@Kingston.net.

Paul Hillmer is a doctoral student at the University of Minnesota and an adjunct professor at Concordia University-St. Paul, Minnesota. He is currently writing his dissertation, a study of the Cleveland YMCA's role in urban reform. He is a contributor to the 1996 editions of the Encyclopedia of Cleveland History and the Dictionary of Cleveland Biography. Address correspondence to: Concordia University, 275 N. Syndicate, St. Paul, MN 55104. Email: hillmer@csp.edu.

Abigail O'Sullivan is in the final year of her Ph.D. in the history of science at Magdalen College, Oxford. The primary aim of her thesis is to explain the institutional and intellectual rise of 20th-century British neurophysiology through the examination of four research schools created by Nobel Laureates in Medicine and Physiology. This thesis is not an exhaustive description of the development of physiology during this period, but rather it is a characterization of the cognitive and social contexts that fostered the scientific discoveries of a small number of influential neurophysiologists. Address email to: abigail.osullivan@magdalen.oxford.ac.uk

Aya Takahashi is Lecturer in the Department of British and American Literature at Iwaki Meisei University, Japan. She completed her thesis, "Western Influences on the Development of the Nursing Profession in Japan, 1868-1938," at the University of London in September 1999. She has presented many papers on nursing professionalism from historical and comparative perspectives, including one at the International Council of Nurses Centennial Conference in 1999. She can be contacted at the College of Humanities, Iwaki Meisei University, 5-5-1 Iino, Chuodai, Iwaki-shi, Fukushima. 970-8551 Japan, or by e-mail at aagt@est.hi-ho.ne.jp.

Jean C. Whelan recently completed her dissertation, "Too Many, Too Few: The Supply, Demand, and Distribution of Private Duty Nurses, 1910-1965," at the University of Pennsylvania, School of Nursing. She has presented a number of papers on this topic, most recently at the 1999 Annual Conference of the American Association of the History of Nursing. She can be reached at 707 Sussex Rd, Wynnewood, PA 19096 or by e-mail at jcwhelan@nursing.upenn.edu.
African-American School Builders in the Jim Crow South... Several of this year’s RAC grant-in-aid recipients will study education in the segregated South. Below, the Lincoln Model School at the Lincoln Institute, Lincoln Ridge, Kentucky, built in 1916 by members of the Lincoln Institute’s Department of Carpentry (below right). Operated jointly by the county and the Institute, the school served as “both a consolidated colored school and the practice and model school for Lincoln Institute,” wrote State Agent for Rural Schools F.C. Button. At left, Jane Hamilton on the steps of the school named for her on Daufuskie Island in South Carolina, September 1939. Formerly the Cooper River School, it was renamed in her honor after she donated land for a new building to educate the 35 African-American children nearby. She refused to accept money for the land. “She was glad to give two of her fourteen acres to help these Island boys and girls,” reported J.B. Fulton, State Agent for Negro Schools, “although she is supporting two of her great grandchildren, one of whom has only one eye.”

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