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## The History of Radiology Journals, in the Wake of COVID-19

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**Michael Huckman**

A year ago, when I was asked to prepare a talk on the history of radiology journals, little did I think that, because of a pandemic, a new chapter would be added to the history of medical journals in general, that of how public anxiety would be assuaged by the dissemination of medical knowledge via journals and mass media, in print and online. Academic radiology journals have set high standards of peer review and avoidance of conflicts of interest for over 100 years, but these are time-consuming processes at a moment when there is instant demand for new medical knowledge in so many fields.

Just this June, while I was writing, the rush to publish resulted in the retraction of studies from respected publications such as *New England Journal of Medicine* and *Lancet* because the authors could not verify a new database on which the results depended and, in other instances, the results of published articles were considered statistically invalid.

To radiology's credit, the history of its academic journals has always been tied to how they assure scientific honesty, how fraud might potentially creep in, and how peer review attempts to prevent its appearance. Whether in print or online, these journals try to bring us legitimate validation of the newest developments in our field, simultaneously providing an archive of the history, organization, and expanding scope of our profession.

Medical journals are no stranger to pandemic. During a smallpox outbreak in Paris in 1820, there was uncertainty about the effectiveness of the new vaccine. Journalists were invited to debates at the Academie Royale de Medecine and quickly relayed

their versions of them, setting a panicked public atwitter. The Academie sought to control the message of its debates, publishing its own accounts, which led to the establishment of the academic journals we have today. It took until the mid-1900s for the concept of peer review, with its panels of outside experts and deliberate processes of revision and resubmission, to be widely adopted.

Even in their earliest incarnations, the speed of disseminating information via journals was considerably slower than that of less reliable mass media—and those speeds, and often gaps, have increased over generations of medical practice. A recent *New York Times* article observed that during a pandemic, journals are pressured to be not only relevant, but also responsive to the urgency of the circumstances and maintain their standards, which require caution. In January 2020, 50 papers on the novel coronavirus, COVID-19, had been published. By the start of June 2020, 17,000 published papers about COVID-19 were listed in the National Library of Medicine's database, referred to by some as an "infodemic." Respected journals have quickly disseminated COVID-19-related articles free of charge online, and new websites with names like *bioRxiv* (pronounced "bioarchive") and *medRxiv* have included many of-the-moment studies that did not complete peer review; last I checked, these two sites were listing over 4,000 papers on COVID-19.

No matter how trying the times, radiology has kept peer review at the heart of its academic journals. The system is not perfect, often taking a year from submission of an article to publication. Our major journals now shorten those times using electronic submission and review, but formal peer review will, and should, always remain a deliberative, time-intensive process. A recent

## A Word From the Chair

by  
Bruce L. McClellan, MD



"Certainty is so rare, we must learn to act decisively in ignorance."—Wendell E. Berry (b. 1934), *The Way of Ignorance* (2006)

Like many, if not most, of you, I am WFH (retired), which in my case means writing from home, actually, my 'new' home. I moved from Hyde Park in Chicago out to my daughters' 23-acre horse farm, Saddle Up Stables, in Kendall County, Illinois at the end of March 2020. As part of what I call the PPP (parental protection program), I am living in a farming community, where I can see the horizon in any direction now since the corn is but a few inches high. After six years in the Windy City, on the southside, this environment provides a new perspective and sense of silence and serenity.

Like many of the recent decisions we have all made during this pandemic for personal and/or safety reasons as physicians, we have lived with, treated, and witnessed disease and suffering most of our professional lives. As Wendell Berry said, learning "to act decisively in ignorance" may be a new concept to many, but we have made a career of being decisive in our reported diagnoses, even with limited histories. Yet, we remained certain of our correctness and accuracy, and we conveyed that to referring physicians and patients. Now as I write to you, we are inundated daily, if not hourly, with data, curves cases, graphs and slopes, while yearning for a real, cogent, and comforting leadership—coupled with a growing protest movement, BLM, which competes for our hearts and minds as we cope in our masked and cloistered homes. The zeitgeist of these times seems elusive, at least hard to define. I, for one, am still somewhat

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article in *Journal of the American Medical Association* highlights the trade-off between learning and doing during a pandemic—that is do something (treat the patient) or learn something (appropriately test a new technique or therapy), a dilemma often referred to as the “exploitation-exploration trade-off.” Radiology journals have successfully navigated our advancing profession through the landmarks, and hazards, of this evolving debate between quick change and cautious optimism, or skepticism, for more than a century.

\* \* \*

*Archives of Clinical Skiagraphy* was the first radiology scientific journal and appeared in May 1896. Its founder and editor was Sydney D. Rowland (1872–1917), a medical student at St. Bartholomew's Hospital in London. The first issue comprised 16 pages with an article by Rowland on the method of taking a radiograph, or skiagram as he called it, and six photographic plates. Seven months later, the journal became *Archives of Skiagraphy*. Skiagraphy was a term proposed by Rowland that literally means "shadow writing," derived from the Greek terms skia (σκια) and grapho (γραφω). His first editorial stated, "The object of this publication is to put on record... the most striking applications of the new photography to the needs of medicine and surgery." In 1897, the journal was renamed, again: *British Journal of Radiology*.

The earliest radiology journals that appeared in the United States were the precursors of the present *American Journal of Roentgenology (AJR)* and *Radiology*. Dr. Heber Robarts (1852–1922), a surgeon for the Great Northern Railway, established a laboratory in St. Louis for the further study of the x-ray phenomenon. His ambition was to establish an American periodical devoted to the interests of this new medical specialty. His *American X-ray Journal* was initially a monthly magazine, first published in May 1897, devoted to practical x-ray work and allied arts and sciences. Robarts noted that the application of the "new rays" allowed for "the ease and certainty of aiding diagnosis which has advanced more in the past 12 months than any previous hundred years." He went on to say "that no advertisements shall appear in this journal that savor of quackery, deception, or fraud," an early manifestation of the intended integrity of a medical journal. In 1900, Robarts organized

"the Roentgen Society of the United States" and was chosen as the first president of the society. The ranks soon became infiltrated by commercial interests, and Robarts disposed of the journal's control.

In 1906, the *American X-ray Journal*'s editorship passed to Dr. Preston Manasseh Hickey (1865–1930) of Detroit, a pathologist, otolaryngologist, and skilled amateur photographer who, with a colleague, purchased one of the first x-ray machines in Michigan. In 1922, Hickey was appointed chair of radiology at the University of Michigan; he is counted among the founding members of the American Roentgen Ray Society (ARRS). ARRS started publishing the scientific presentations at its meetings as *Transactions*, and after 1906, in the *American Journal of Roentgenology and Radium Therapy, AJR*'s predecessor. Hickey was editor from 1906 until 1916, and he was responsible for the terms "roentgenology," "roentgenogram," and "radiograph." He was also instrumental in standardizing radiographic nomenclature and report structure.

At this point, a new radiology society gave rise to a second credible journal. ARRS was considered an "Eastern" society with most of its meetings held in that part of the country. Attendance for Hickey's colleagues west of the Alleghenies was difficult, and many "Western" radiologists were ineligible for membership according to ARRS' professionally elitist criteria. Some sensed that there should be a place in organized radiology where young physicians were encouraged to develop, so Dr. Edwin C. Ernst (1885–1969) of St. Louis convened a meeting in St. Louis in 1915. His organization was originally known as the Western Roentgen Society, and in 1922, its name was changed to the Radiological Society of North America (RSNA). RSNA's 1923 articles of incorporation included a plan "to maintain a journal in order that legally the society should own and control, *RADIOLOGY*," which was then beginning publication. Dr. Maximilian John Hubeny (1880–1942) was editor from the journal's inception until his departure in 1931. Under Hubeny's editorship, *Radiology* was immediately established as a quality medical journal, and he supervised its first 16 volumes. *AJR* and *Radiology* remain the flagship publications of our profession.

In more recent decades, as sub-specialization and significant technologies like CT reshaped the profession, different types of ra-

morse due to the unfortunate but necessary cancellation of the 2020 ARRS Annual Meeting in Chicago. The riverboat tours and social gatherings and their associated camaraderie will have to wait for the San Diego opportunities next year. While the past may indeed be a reasonable prologue for the future, I am no futurist, but as Thomas Hobbes wrote, "the best prophet is the best guesser." Our society, the ARRS, devoted as it is to education, will continue to serve our membership and our discipline with the flexibility and excellence cultivated and cured for over 100 years. The article by Dr. Michael Huckman in this issue highlights the history of journals in radiology and reminds us of the preeminence of the *AJR*. Reading voraciously today with our newfound time and freedom helps us chronicle the understanding and progress in the diagnosis, treatment, and prevention of COVID-19. Lives have been lost, some needlessly, and that sense of loss is felt more intensely since we have more time to actually feel it. Remembrance may seem easier in that expanded personal universe—none for me more than the recent loss of friends and colleagues, specifically Bob Campbell, whose obit appears in this newsletter. He was a great friend, mentor, and a highly valued member of our SRS committee. Bob's passing brings to mind words like "giants" in our field, and he was surely one if ever there was. David Levin and Frieda Feldman (ARRS Gold Medalist), who also passed away in early 2020, complete just a partial list, in my opinion.

Summer now is hopefully a welcome respite from our cooped-up lives, a time also to plan for the future. Next spring, a familiar location will host our 2021 Annual Meeting. Plans are in place for our SRS lecture and events to take place there. Please, stay well, safe, and plan to 'meet and greet' in California next April.



## **Robert E. Campbell, MD Passes at 88**

**CAMPBELL, ROBERT E., MD** of Haverford, PA passed away peacefully on February 2, 2020, at the age of 88.

Originally from Salem, OH, he graduated from Phillips Exeter Academy, Harvard College, and the University of Pennsylvania School of Medicine. Dr. Campbell had a long and distinguished career in diagnostic radiology. In Philadelphia, he contributed more than 50 years of service to Pennsylvania Hospital, the University of Pennsylvania School of Medicine, and Jefferson Medical College. Internationally, Dr. Campbell served on multiple boards and governing bodies, notably with the Radiological So-

society of North America, the American College of Radiology, and the American Board of Radiology. As a Founding Trustee and Chairman of the Radiological Society of North America's Research and Education Foundation, Dr. Campbell's legacy will make a significant impact on the radiological community and on improved patient care—now and for generations to come.

Dr. Campbell was kind and caring and always put the needs of others ahead of his own. Those who knew him would be sure to remember his infectious laugh.

His greatest passion was his family. He cherished his wife Nancy, with whom he traveled the world, and he took great pride in the adventures and accomplishments of his children and grandchildren. Dr. Campbell is survived by his wife Nancy (née Johnson), and his loving children Rob, Nan, and Rick, as well as 11 grandchildren. He is predeceased by his son Colin.

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diology journals appeared, the predecessors of today's several respected publications targeted to particular imaging techniques and specific anatomic areas or diseases of an organ system. In 1977, once CT had advanced past its initial novelty and rarity to become widely accepted, *Journal of Computer Assisted Tomography* was first published by Raven Press as a technique-oriented journal dedicated to emission and transmission tomography, under the editorship of Dr. Giovanni Di Chiro (1926–1977) of the National Institutes of Health. Soon after in 1980, Dr. Melvin Figley (1920–2010) at the University of Washington, editor of *AJR*, helped establish the sub-specialized *American Journal of Neuroradiology (AJNR)* as a joint project of ARRS and American Society of Neuroradiology (ASNR). Dr. Juan Taveras (1919–

2002), a founder of ASNR in 1962 before moving to Massachusetts General Hospital, was *AJNR*'s first editor. Selected articles were reprinted in *AJR* a month after they appeared in *AJNR*, elevating neuroradiology's academic credibility among the various neurosciences and setting a precedent for successful organ system-oriented radiology journals in other sub-specialties.

The long history of responsible medical journalism is the pride of radiology. Ethical conduct by editors and reviewers is mandatory in academic journals, and authors are always responsible for honest conduct of research. Conclusions are evaluated based on credible data.

There is, admittedly, a recent proliferation of for-profit journals, many of which are inter-

## **Upcoming ARRS Annual Meetings**

April 18–23, 2021  
Marriott Marquis San Diego Marina

May 1–6, 2022  
Hyatt Regency, New Orleans

May 7–12, 2023  
Marriott Wardman Park Hotel  
Washington, DC

May 5–10, 2024  
John B. Hynes Veterans Memorial  
Convention Center  
Boston, MA

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net-based, which charge authors a fee for publication, have questionable peer review, and draw advertising away from established academic journals. It is increasingly our responsibility as radiologists, particularly in the rapidly changing times COVID-19 makes so immediately familiar, to respect and protect the legitimate journals our specialty has so long esteemed—the traditional publications highlighted in this article and the many recent efforts space limits my mentioning—as the primary sources of information for our practices in an era when expansive, even sensational, mass-media coverage of new techniques, cures, and devices rushes all of us ahead.

*Michael S. Huckman, MD, Professor Emeritus of Radiology at Rush University Medical Center, was editor of AJNR from 1989 to 1997.*

# SRS Birthdays

We wish these SRS members a very happy birthday.

May	June	July			August
5 Leonard Berlin	1 Ronald C. Ablow	3 Johnathan Dehner	21 Edwin Goldstein	2 Robert J. Stanley	
17 Richard G. Fisher	4 Michael J. Bowers	6 David Hunter	22 Arthur K. Walter	11 Philip O. Alderson	
19 Zita Baniquid	5 Mohammed A. Abbas	7 Stanley Nakamoto	24 Anthony L. Merlis	Stover Smith	
20 Rajnikant S. Shah	12 Richard Lindgren	15 Ralph M. Colburn, Jr.	28 Neil Messinger	20 Richard Daffner	
23 R. K. Warburton	18 Renzo Del Fabbro	19 Dieu Pham	Leland Larson	24 Harry M. Brammer, III	
Morton G. Glickman	25 Tearle Meyer	Elizabeth Hayes		28 Charles Mueller	
25 Michael M. Raskin	29 Arnold Kuta			30 Harry Agress, Jr.	
	30 Jean Cadet				

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[arrs.org/meeting](http://arrs.org/meeting)