

The Roles of Organized Radiology in Career Development for Trainees and Junior Attending Radiologists: A Road Map

Paraag R. Bhatt¹
 Jason C. Hoffmann²
 Tatum A. McArthur¹
 Douglas S. Katz²
 Jonathan A. Flug¹

OBJECTIVE. The full spectrum of organized radiology consists of numerous organizations with varied missions targeting their respective members.

CONCLUSION. This article highlights many of these organizations, discusses the benefits they can provide to radiology trainees and junior faculty, and provides a road map for progressive participation among trainees to junior faculty as they advance through training.

Numerous radiology societies contribute resources to the development of radiology residents, fellows, and junior attending radiologists in the United States, through a variety of channels. Despite the abundance of these resources, it can be difficult, if not impossible, for a trainee or a junior attending radiologist to take full advantage of all of the resources provided, in part because of the overabundance of radiology societies competing for a trainee's attention. The 2013 Intersociety Conference had attendees representing over 50 radiology organizations in the United States that are national or international in scope and that have at least 50 members [1]. Although previous publications are available regarding radiology trainee resources, this information can be overwhelming, and a developing radiologist may be unaware of the full breadth of the potential benefits that these societies can provide for their individual professional development [2]. Also, finding a mentor to help guide one can be difficult, because potential mentors may be unaware of the extent of the benefits that these societies can offer to trainees. The purpose of this article is, therefore, to provide the prospective or current radiology trainee and the junior attending radiologist with a road map highlighting the potential advantages of these various organizations and to provide an understanding of their historical significance. The goal is that, as students or radiology residents progress through training, they can use this information for their benefit and share this information in the

future when mentoring younger colleagues in training.

History of Organized Radiology

Organized radiology has a complex history, with numerous organizations arising over the years, reflecting the changing scope of practice not only within radiology, but also within medicine in general. Reviewing the historical background of these societies is key to understanding the missions of these individual groups and what they can potentially offer the individual trainee. Also, understanding the history of these groups leads to a better appreciation of how we have arrived at the intricate network of radiology societies that exists today.

The birth of radiology as a science began on November 8, 1895, with Wilhelm Roentgen's discovery of x-rays. Although this did not immediately lead to the present boom in medical imaging, the effect of the potential use of x-rays was not lost on physicians at the time, who banded together to prove the critical value of this modality for medicine going forward [3]. One of the earliest radiologic societies, the Roentgen Society of the United States, held its first meeting in New York, NY, on December 13, 1900. The meeting included multiple scientific sessions and commercial exhibits, with the goal of promoting the use and benefits of x-rays to the medical community. Members of this group included various practitioners, clinicians, and their support staffs. In 1902, the organization became affiliated with the American Medical Association, and its name was changed to the

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¹Department of Radiology, The University of Colorado, 12631 E 17th Ave, Mail Stop 8200, Aurora, CO 80045. Address correspondence to P. R. Bhatt (paraag.bhatt@ucdenver.edu).

²Department of Radiology, Winthrop-University Hospital, Mineola, NY.

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American Roentgen Ray Society (ARRS). The mission of this group was to promote the advancement of medicine through radiology, which continues to this day.

Subsequently, in 1911, membership in the ARRS was restricted to those with a medical degree and training with x-rays, reflecting increasing scrutiny regarding patient care and safety. Various publications were created and distributed by the ARRS, including *The American X-Ray Journal* in 1902, the *American Quarterly of Roentgenology* in 1906, and the *American Journal of Roentgenology (AJR)* in 1913, the last of which continues to this day [4, 5].

By 1915, the effect of radiology on medical practice had substantially expanded, and radiologists from the western United States, who found it too difficult to travel to the East Coast for organized meetings, held a meeting in the Sherman Hotel in Chicago, IL. The mission statement of this meeting was to form a professional organization, “constructed on democratic principles and dedicated to the study and practical application of radiology” [4]. In 1919, this organization was formally named the Radiological Society of North America (RSNA) [5, 6]. From these humble beginnings, the RSNA has shaped itself into a preeminent radiologic society whose mission is partially focused on advancing the science and technology in the field of radiology [4].

In 1923, the American College of Radiology (ACR) was formed during the annual meeting of the American Medical Association, to include a select group of practitioners, “who [had] distinguished themselves in the science of radiology” [7]. By 1935, this organization expanded its membership and mission beyond an “almost wholly honorary organization” [7] to involve the economic concerns surrounding radiology, and by 1937, the ARRS, the American Radium So-

ciety, and the RSNA, all elected members to the ACR board, to ensure that radiology had a united voice when discussing economic issues [7, 8]. This emphasis on advancing the practice of radiology through political and economic advocacy remains an integral and unique part of the ACR’s mission.

As organizations such as the ACR grew in size and influence, and as radiology as a specialty continued to exert more influence on medical practice, an increasing movement for standardization of radiology certification for trainees emerged. In 1932, ACR president Dr. Arthur C. Christie proposed a specialty board, the American Board of Radiology (ABR), to provide examinations to certify physicians who specialize in the discipline of radiology [9]. This proposition was sponsored by the ACR, the American Medical Association Section on Radiology, the ARRS, the RSNA, and the American Radium Society, and after acceptance, radiology became the fifth medical specialty board accepted by the American Medical Association. The ABR is solely responsible for administering the board examination and maintenance of certification examinations in the specialty of diagnostic radiology (as well as in the related fields of radiation oncology and medical physics). The ABR’s current mission statement is to “serve patients, the public, and the medical profession by certifying that its diplomats have acquired, demonstrated, and maintained a requisite standard of knowledge, skill, understanding, and performance essential to the safe and competent practice of diagnostic radiology” [9].

Medical Students and Interns

The decision to pursue training in radiology may occur at any point during medical school training and may be occurring earlier because of exposure to imaging during the preclinical years. For medical students, this stage of training is especially critical, because

they are often trying to distinguish themselves from other applicants in the residency selection process, while collecting as much information as possible about the field of radiology as they finalize their subspecialty decision. Furthermore, medical students are looking to identify mentors within radiology to guide them in their prospective careers. Medical students are not generally automatically enrolled in the societies that offer them particular benefits. Targeted education of this group is necessary to ensure that they join these societies and become engaged [10–13].

For medical students (and interns), membership in the ACR, ARRS, and RSNA is free; however, these trainees are not automatically enrolled, and they must take the initiative to get involved. Supporting letters are required from society members or medical school staff. Memberships include free electronic access to their respective journals (*RadioGraphics* and *Radiology* [RSNA], the *Journal of the American College of Radiology* [ACR], and *AJR* [ARRS]), with additional fees for print copies. Membership also includes member-in-training pricing to attend their respective conferences, which in the case of the RSNA is free [10–13].

The Association of University Radiologists (AUR) offers medical students free membership, which includes access to benefits offered by the Alliance of Medical Student Educators in Radiology. The Alliance of Medical Student Educators in Radiology offers medical students substantial resources, including those concerning the residency application process and information about radiology interest groups, to help prospective trainees identify potential mentors. Membership in the AUR also allows medical students to attend the annual meeting with discounted registration costs, but does not include a subscription to *Academic Radiology*, which is the society’s journal [11].

TABLE 1: Medical Student Membership Specifics

Society	Eligible for Membership	Cost for Online Membership	Cost for Print Journal Membership	Awards and Opportunities for Medical Students
American College of Radiology	Yes	Free	<i>Journal of the American College of Radiology</i> and Bulletin included	Medical student subcommittee
American Roentgen Ray Society	Yes	Free	\$95	<i>American Journal of Roentgenology (AJR)</i> online and ARRS web lectures
Association of University Radiologists	Yes	Free	\$121	Henry Goldberg Medical Student Award and resources through the Alliance of Medical Student Educators in Radiology
Radiological Society of North America	Yes	Free	\$80	Research medical student grant

Note—Monetary amounts are shown in U.S. dollars. For additional details, see references [10–13, 15–17].

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Among the programs and awards offered to medical students are the AUR Henry Goldberg Medical Student Award, the RSNA Research Medical Student Grant, and the Society of Interventional Radiology Summer Medical Student Research Internship Program [10, 11, 14]. Of these, the RSNA Research Medical Student Grant offers up to \$6000 (all monetary amounts in this article are shown in U.S. dollars), to be used to support the recipient's area of research related to the radiologic sciences. Applicants must be RSNA members to be eligible, with the deadline for the application by February [15]. Furthermore, with the incorporation of the dedicated interventional radiology pathway into an increasing number of U.S. radiology residency programs, there is increased importance to reach out to medical students, to help them identify their best career pathway earlier in training. These organizations are just a sample of the radiology societies that offer medical students opportunities to participate in the varied organizations in radiology (Table 1).

Junior Radiology Residents

Radiology residents during all years of residency and fellowship receive automatic free enrollment in the ACR, ARRS, and RSNA, along with access to the respective journals of these societies. Membership includes discounted registration to the ARRS and ACR meetings and free registration to the RSNA meeting [13, 16–18]. All three meetings have dedicated content and programming for residents. The amount of content has been increasing and includes the ACR Resident and Fellow Section Meeting, the ARRS Resident Educational Track, and the RSNA Resident and Fellow Symposium. Residents are also enrolled in their state radiologic societies in concert with ACR membership and should see these as valuable resources that can provide them with both mentorship and practice connection opportunities in their geographic regions [12]. Residents interested in AUR membership must enroll and can consider enrolling in the numerous relevant affinity societies. There is a \$60 fee for resident and fellow AUR membership and for affiliated society membership [11].

As trainees enter their early years of radiology residency, their goals evolve to include not only radiology education, but also engagement in early career development to prepare for potential fellowship and practice as young attending physicians. Participation in

organized radiology becomes even more important as these junior residents seek mentors within the field to provide guidance and direction for their future careers. In addition, as a trainee develops a better understanding of their particular areas of interest or future subspecialization, they may want to become more involved with the organizations that are involved in those areas of subspecialization.

Annual Meetings

Annual meetings are a great forum for residents and fellows to form critical connections with other radiologists, both in training and in practice, as well as an excellent opportunity to enhance their education. These meetings, usually held in the United States for American-based radiology organizations, are often attended by radiologists from all over the world, reflecting the global scope of radiology and many of the radiology societies discussed here. Additionally, these meetings provide an important opportunity for residents to present and ultimately publish their research and educational exhibits. Exceptional research will be commended and recognized through various awards presented at these meetings.

The largest major radiology society annual meeting—and the largest medical meeting in the world—is the RSNA annual meeting, which is held every year in Chicago, IL, beginning the weekend after the American Thanksgiving holiday. RSNA provides an opportunity for trainees to submit scientific research abstracts, scientific posters, educational exhibits, and quality and safety storyboards. A committee reviews the numerous educational posters displayed at the meeting, and approximately 10% are given various level of awards, from Certificate of Merit to Magna Cum Laude, and trainees have the opportunity to participate as coauthors of such posters. Additionally, there are a number of research awards that are available for trainees attending the RSNA meeting, at the medical student and at the resident and fellow levels, based on expanded abstracts submitted after initial acceptance. Besides the potential to win research and poster awards, *RadioGraphics* solicitations for publication are made for a selected number of educational posters as a result of multiple peer-reviewed subspecialty panel sessions that are held during the meeting. The deadline to submit research and educational abstracts for this meeting generally occurs in the April preceding the meeting [16].

The AUR meeting generally occurs in March or April, with a variable location each year. The meeting holds a number of educational and scientific sessions, with multiple concurrent society alliance meetings, including the Alliance of Clinician-Educators in Radiology, the Society of Chairs of Academic Radiology Departments, and the American Alliance of Academic Chief Residents in Radiology [18]. Among these, the Alliance of Clinician-Educators in Radiology is an alliance working to advance the interests and efforts of academic radiologists, by providing a forum for clinician-educators to meet, exchange ideas, and learn new skills to promote their careers. The American Alliance of Academic Chief Residents in Radiology consists of chief residents, and is discussed later in this article [19, 20]. Costs for the meeting vary for the general meeting and the alliance meetings and associated programs. If the trainee is interested in presenting a poster at the meeting, the corresponding poster abstract is due in the fall, to be considered eligible for acceptance [18].

The ARRS annual meeting generally occurs in late April or early May in varying locations in North America. The meeting also provides an opportunity for residents to submit scientific and educational abstracts, with submission deadlines generally during the September preceding the meeting. Outstanding research and educational exhibits win awards and may also be selected for brief oral presentation during the Power Hour sessions that are held throughout the meeting [17].

The ACR meeting modified its format in 2015 to be inclusive of all members, with substantially expanded educational components, while maintaining the separate Resident and Fellow Section meeting that precedes the general meeting during the opening weekend. The Resident and Fellow Section comprises all ACR resident and fellow members-in-training. This meeting provides dedicated content for residents, with a strong emphasis on economics, leadership, and advocacy. There are multiple elected positions within the Resident and Fellow Section that are voted on during the meeting, including positions on the Resident and Fellow Section Executive Committee and the Member-In-Training Positions to the ACR Intersociety Conference. Selected research and educational abstracts are presented at the annual meeting. Research submission deadlines are generally toward the end of calendar year preceding the meeting [21]. State radiologic societ-

TABLE 2: Subspecialty Organizations Offering Trainee Membership

Subspecialty Field	Organization (Trainee Membership Types): Website
Abdominal radiology	Society of Abdominal Radiology (medical students, residents, and fellows): www.abdominalradiology.org Society of Radiologists in Ultrasound (residents and fellows): www.sru.org
Chest radiology	Society of Thoracic Radiology (fellows): thoracicrad.org North American Society for Cardiovascular Imaging (medical students, residents, and fellows): www.nasci.org
Breast radiology	Society of Breast Imaging (residents and fellows): www.sbi-online.org Society for the Advancement of Women's Imaging (residents and fellows): www.sawi.org
Emergency radiology	American Society of Emergency Radiology (medical students, residents, and fellows): www.erad.org
Interventional radiology	Society of Interventional Radiology (medical students, residents, and fellows): www.sirweb.org
Musculoskeletal radiology	Society of Skeletal Radiology (fellows): skeletalrad.org
Neuroradiology	American Society of Neuroradiology (medical students, residents, and fellows): www.asnr.org American Society of Head and Neck Radiology (residents and fellows): ashnr.org
Nuclear medicine	Society of Nuclear Medicine and Molecular Imaging (residents and fellows): www.snmml.org American College of Nuclear Medicine (residents and fellows): www.acnucmed.com
Pediatric radiology	Society for Pediatric Radiology (medical students, residents, and fellows): www.pedrad.org

Note—For additional details, see reference [26].

ies may subsidize attendance for a number of attendees from their state. For example, the Minnesota Radiological Society covers the cost of attendance for all first-year radiology residents in their state [22].

Senior Radiology Residents

Senior radiology residents are more experienced in their understanding of the field of diagnostic radiology, and their goals shift to completing fellowship applications, board preparation, and potential continued research pursuits toward a future career. As a result, the various radiologic organizations offer services tailored to these residents' needs, which may go unrecognized. For example, the ACR has a Young and Early Career Physician Section network, which attempts to create a strong mentor network by connecting "young physicians [with] those early in their careers and empowering these members to get involved in the ACR" [23]. In addition, the ACR, ARRS, and RSNA also offer professional quality improvement project suggestions to residents, which can contribute substantially to their overall professional development and practice improvement [23–25]. A good example is "CT Dose Reduction in Abdominal CT Scanning," which is listed on the RSNA website and was created by the RSNA Quality Improvement Committee and was qualified by the ABR [24]. More senior residents enjoy attending the American Institute of Radiologic Pathology course (formerly the Armed Forces Institute of Pathology's radiologic pathology course), which is held in Silver Spring, MD, and is now run by the ACR. The American Institute of Radiologic

Pathology's course "presents a comprehensive review of radiologic imaging with emphasis on the principles of radiologic-pathologic correlation" [26] over a 4-week interval.

Within the group of senior residents, chief residents are unique in that they serve as designated leaders for their resident classes and are mentors to more junior residents. Within the umbrella of the AUR, as noted already, the American Alliance of Academic Chief Residents in Radiology is an affiliated group whose membership consists of chief residents. This group aims "to develop leadership skills in chief residents, to foster the collaboration of chief residents with each other and with the leaders of academic radiology, and to advance the interests of radiology residents in the affairs of organized medicine" [19]. This group's national meeting occurs within the AUR annual meeting, and membership is limited to chief residents who pay the annual applicable dues. Members can run for various leadership positions with the society during the annual meeting.

Subspecialty Organizations

As radiology residents progress through training leading up to potential fellowship, their interests are often guided by the area of subspecialty training they choose to pursue. Many subspecialties in radiology have their own individual societies, which offer their own benefits to trainees, so if these societies are unrecognized by residents, then the trainees may miss potential opportunities. Examples include the Society of Interventional Radiology, which has a member-in-training category open to medical students, residents, and fellows. This organiza-

tion also hosts an annual meeting that is open to its trainee members. These organizations offer their student members exposure to connections and leadership opportunities in a specific area of practice in radiology, which is particularly useful to residents looking to strengthen their curriculum vitae in preparation for fellowship application. Although there are numerous such organizations [27], an additional short list of subspecialty organizations that offer trainee membership is shown in Table 2. Furthermore, there are a selected number of additional subspecialty-focused organizations within a particular subspecialty in radiology, such as the American Society of Head and Neck Radiology, which is partially supported by the American Society of Neuroradiology [28]. It is important for radiology residents to identify these organizations early in their training, because they can offer opportunities and awards. One such example is the Resident/Fellow Annual Scientific Meeting Research Award, and the Resident-In-Training Scholarship, both of which are offered by the Society of Interventional Radiology [14]. The Resident-In-Training Travel Scholarship is eligible to all first- and second-year residents in the United States and Canada and awards "recipients with complimentary meeting registration, funding for travel (up to \$500), and a \$500 travel stipend that will be awarded after submission of a post meeting essay" [14].

Fellows

Radiology fellows represent the most advanced trainee on the cusp of independent practice. Consequently, the goals of a fellow include pursuit of advanced knowledge,

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networking for available jobs, and procuring mentors in their subspecialty area of study. It is important to note that some subspecialty organizations require sponsorship or certain academic achievements to be met to gain membership. Therefore, it is important to review a particular organization's policy regarding membership, to assess for any fellow membership requirements. With regard to job placement, many resources exist for fellows, including the ACR's Career Center [29], the Aunt Minnie Career Center [30], and the RSNA's Career Connect [31]. Links to these resources can be found on the sponsoring organization's websites. Many subspecialty societies have their own subspecialty job postings as well. Continuing participation in these organizations for fellows is important because it allows them not only to maintain relationships that they may have formed during their training, but also to establish new connections with their peers as they move forward into practice.

Resident and Fellow Awards

It also important to highlight specific awards that are offered by different radiology societies that facilitate trainee growth and mentorship. For example, an important program cosponsored by the RSNA, ARRS, and AUR is the Introduction to Academic Radiology. This consists of a 4-day seminar stress-

ing the importance of research in diagnostic radiology, illustrating the excitement of academic careers, and exposing residents to successful clinical radiology researchers and clinical educators. The seminar occurs at both the RSNA and the ARRS annual meetings, with the participant's location assigned. The program also includes a \$1000 award to "to be used to help advance the applicant's academic career" [32], which helps to cover travel expenses to the program. The program is available to postgraduate year 3-level residents, and the application deadline is in July [32]. Furthermore, the ACR offers individual fellowship opportunities "in...areas of government relations, economics and health policy, quality and safety, education, and radiation oncology" [33]. According to the ACR, these fellowships allow participants to experience critical areas of their organization. The deadlines for these fellowships vary, and interested applicants should refer to the ACR website for specific details [33, 34]. In addition, the Radiology Leadership Institute offers Leadership Summit Resident & Fellow Scholarships each year. These scholarships "provide residents and fellows the opportunity to attend the Radiology Leadership Institute Leadership Summit and to take part in this year's dynamic leadership curriculum" [35]. The deadline for this scholarship is in the spring, and it is open only to residents or fellows who are ACR and

Radiology Leadership Institute members. The Leadership Summit is a freestanding meeting that takes place at Babson College in Wellesley, MA [35]. Another notable award, offered to both residents and fellows, is the Resident in Radiology Award, which is given by the ARRS to ARRS member-eligible trainees pursuing research. Trainees must submit an original research manuscript, a curriculum vitae, and a letter confirming their enrollment and primary contribution to the submitted work. Submission of the award is usually due by the January before the ARRS annual meeting, at which the winning submissions are presented [36].

For the pursuit of research, the RSNA offers a Research Resident/Fellow Grant, which offers an award amount of \$30,000 for residents or \$50,000 for fellows for 1-year research projects. The deadline for this award is January 15, and the applicant must be a member of the RSNA to be eligible [37]. Another RSNA award, the Roentgen Resident/Fellow Research Award, aims to "recognize and encourage outstanding residents and fellows in radiologic research" [38]. Radiology residents or fellows must be nominated by their program director or department chair for consideration. The deadline for the application is April 1 of each year. In recognition of the resident's accomplishments, the residency program "will receive an award plaque with

TABLE 3: Potential Available Resident and Fellow Awards by Category

Research	Leadership	Career Development
RSNA: Research Resident/Fellow Grant (eligible from 6 months into PGY-2); \$30,000 for residents, or \$50,000 for fellows for 1-year research projects	ACR: Radiology Leadership Institute (RLI) Leadership Summit Resident and Fellow Scholarships; "up to 10 scholarships (full registration fees and travel) for qualified resident and fellow candidates to attend" [34, 35] the RLI Leadership Summit	RSNA, AUR, and ARRS: Introduction to Academic Radiology Scholarship (only PGY-3); \$1000 award, "to be used to help advance the applicant's academic career" [32]
RSNA: Roentgen Resident/Fellow Research Award (nomination based); award plaque to "recognize and encourage outstanding residents and fellows in radiologic research" [37, 38]	AUR: Radiology Resident Academic Leadership Development (only PGY-3); "provides focused mentorship, leadership, and academic development activities... in order to better prepare for... transition into successful careers as leaders in academic radiology" [39]	ACR: Valerie P. Jackson Education Fellowship; "to gain direct exposure to the operation of the Education Department at the American College of Radiology" [47]
AUR: Radiology Alliance for Health Services Research—Harvey L. Neiman Award; "award recognizes an Individual that has outstanding dedication to health services research" [40]		RSNA: Research Scholar Grant; \$75,000 annually for two years "to be used as salary support for the scholar... to help establish the recipient as an independent investigator" [45]
ARRS: Resident in Radiology Awards; President's Award \$2,000 and Executive Council Awards \$1000 each, awarded to ARRS member-eligible trainees pursuing research [36]		AUR: GE Radiology Research Academic Fellowship (only eligible junior faculty); \$70,000 annually for 2 years, "used primarily for salary support for the Fellow... to pursue approved research and educational activities" [46]

Note—Monetary amounts are shown in U.S. dollars. RSNA = Radiological Society of North America, PGY = postgraduate year, ACR = American College of Radiology, AUR = Association of University Radiologists, ARRS = American Roentgen Ray Society.

TABLE 4: Major Radiology Societies' Mission Statements

Society	Mission Statement
Radiological Society of North America	"To deliver education, foster cutting-edge developments and research, advance the frontiers of radiology informatics and prepare the specialty for an increasingly quantitative future" [48]
American College of Radiology	"To serve patients and society by empowering members to advance the practice, science and professions of radiological care" [49]
Association of University Radiologists	"To inspire and educate the academic radiology community through collaboration and innovation in teaching, research, management, and leadership" [50]
American Roentgen Ray Society	"To improve health through a community committed to advancing knowledge and skills in radiology" [51]

space to display brass nameplates for each year's recipient" [38]. In addition, under the AUR umbrella, a prestigious opportunity for postgraduate year 3-level radiology residents is the AUR Radiology Resident Academic Leadership Development program, formerly the Siemens AUR Radiology Resident Academic Development program. This program "provides focused mentorship, leadership, and academic development activities...in order to better prepare [residents] for their transition into successful careers as leaders in academic radiology" [39]. The residents are considered on a nomination basis by the resident's program director, and are then further evaluated by the AUR. Another award offered by the AUR is the Radiology Alliance for Health Services Research—Harvey L. Neiman Award, which focuses on radiology socioeconomics or health policy research. It is open to students, residents, fellows, and AUR members who submit an abstract in these areas of study. The abstract deadline is usually in the fall, and specifics for the award are located on the AUR website [40]. As detailed, there are a variety of relatively large opportunities and awards that are available to trainees (Table 3).

Junior Faculty Programs

There are a variety of special programs created for the career development and advancement of junior faculty, several of which offer \$1000 educational grants to cover travel expenses. The ARRS Clinician Educator Development Program is limited to 25 attendees who are nominated by their department to partake in a 1-day hands-on course focusing on "learning new teaching skills and tools, and improving those you already have" [41]. AUR and RSNA also have faculty development programs [41]. The AUR Academic Faculty Development Program is a 1-day session focusing on career development, emphasizing research, ethics, publishing, and networking for junior attending radiologists. Typically, each department nominates one applicant who is in her or his first 5 years of faculty ap-

pointment. The purpose of the program is to "bring together promising junior radiology physician faculty members early in their careers" [42]. Another program, the AUR Radiology Management Program, is designed for radiologists and administrators, which "focuses on management and leadership training" [43], with topics including incentive plans, expanding into regional practice, practice quality initiatives, and financial negotiation skills for equipment purchases. In addition, the RSNA also offers several competitive research development and grant writing workshops available to junior faculty, with specific details available on their website [44]. Another RSNA award for junior faculty is the RSNA Scholar Award, the purpose of which is to "support junior faculty members who have completed the conventional resident/fellowship training program(s); but have not yet been recognized as independent investigators" [45]. Successful applicants "will devote a minimum of 40% of their time in the approved research project" [45], with the recipient receiving \$75,000 annually for 2 years, "to be used as salary support for the scholar" [45]. Additionally, the AUR's GE Radiology Research Academic Fellowship Award is another prestigious award available to junior faculty. The award seeks to "emphasize research in technology assessment, outcomes and informatics, which are areas of critical importance for the future of radiology" [46]. The award amount is \$70,000 for 2 years and "is paid through the sponsoring institution to be used primarily for salary support for the Fellow" [46] (Table 4).

Conclusion

The complexity of organized radiology can be chaotic and confusing, especially for the radiologist early in his or her career. Navigating these organizations efficiently may be a struggle. However, if it is done successfully, this can provide the radiology trainee with a plethora of resources devoted to their training and future success. Hopefully, greater exposure to and education on the opportunities available

to trainees and junior faculty will decrease the number of missed potential valuable opportunities as they move forward with their careers.

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