

## **INTERVIEW WITH RALPH L. SACCO, MD, MS, FAHA, FAAN: AAN PRESIDENT 2017–2019**

**Ralph L. Sacco, MD, MS, FAHA, FAAN**  
**AAN President 2017–2019**

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**Interviewer: Tim Streeter, AAN staff**

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**TS:** Hello, I'm Tim Streeter [TS]. I'm on the staff of the American Academy of Neurology and I am with Dr. Ralph Sacco [RS], who recently completed his term as president of the AAN in May of 2019. Welcome Dr. Sacco.

**RS:** Thank you.

**TS:** Thank you for spending some time here in answering a few questions about your term as president. I'll start out at the beginning for you. When did you decide to become a neurologist and what prompted that?

**RS:** I guess for me it started probably in college. I knew I was heading towards medicine. I had a little atypical course because I was an engineer and went into electrical engineering, bioelectrical engineering, and you know, a lot of the nervous system is like a big circuit. Some of the research I was doing involved the neurons and a pleaser, these large cells. My interest in neuroscience began then, and then actually in taking some courses in psychiatry, I first had contact with people with severe brain disorders, I would say severe chronic schizophrenia. And it became so clear to me that it wasn't just psychiatric. It was something wrong with the brain. So, I became more fascinated with brain and behavior. And then things really came together, though, in medical school because of mentorship and early on in my career I got connected with a neurologist, Phil Wolf [Philip A. Wolf, MD], who was kind of a lifelong mentor to me, and one of the leaders of the Framingham study, and introduced me to neurology, introduced me to, actually, stroke and public health. And I guess the rest is history.

**TS:** What were your expectations of the Academy when you joined in 1985. What did you need as a young neurologist?

**RS:** So, in '85 I got involved with the Academy first as a neurology resident and at our residency at Columbia [University] and the [New York] Neurological Institute the chairman of our department was very engaged with the Academy of Neurology. That was Bud Rowland [former AAN President Lewis P. "Bud" Rowland, MD, FAAN] and he got many residents engaged with the Academy. So, earliest time was starting as a resident and then got involved, I think, through a section and it was the neuroepidemiology section back then, and then Scientific Program Subcommittee with grading abstracts. But, I remember going to my first American Academy of Neurology meeting and being so much in awe of all the things that the Academy was involved with back then, and really wanting to be part of something bigger, that really would have an impact on my career as a neurologist.

**TS:** Was Dr. Rowland one of your mentors within the Academy?

**RS:** Dr. Rowland was my first chair [at Columbia University]. So, as a neurology resident, he was a mentor. Then as a young faculty member, he was supportive when I came on staff at Columbia. He was an amazing figure: one, as a chair, because he was so supportive of helping career development; and two, as a spokesperson for the American Academy of Neurology. As the former, I think at the time, even as [I was] a resident or young faculty member, he was president of the Academy. And I remember going to the presidential suite when he was giving one of the parties at the [Annual Meeting of the] American Academy of Neurology, which happened to be in Miami when he was president. And it made a huge impression. So, he was very supportive, very engaged in the organization and that kind of infectious enthusiasm that he had, I think, trickled down to others that were engaged with him.

**TS:** Were there other mentors that you had who helped kind of show you the ropes with the committee structure? Kind of insinuate yourself and offer your skills and talents?

**RS:** I think obviously also then the [Columbia University neurology department] chair that inherited after Dr. Rowland was Dr. [Timothy A.] Pedley, who also was a former president of the American Academy of Neurology. And he had an important influence on getting me engaged with the Academy. There were others. Allen Houser was a mentor of mine for epidemiology, and he was involved with epilepsy and epidemiology. And I think he must've engaged me with the Neuroepidemiology Section and getting involved through sections. And then way back, also, Susan Spencer was influential because she was the chair of the Clinical Research Subcommittee. And then I actually, later, inherited being chair of the Clinical Research Subcommittee and she was a helpful and influential.

Also, staff. I have to say [former Deputy Director of the AAN Institute] Christy Phelps was an amazing staff member that constantly got people engaged in the Academy. At the time I was involved with the Scientific Program Subcommittee [and] Clinical Research Subcommittee, and she was an important role model and great spokesperson for getting volunteers engaged with the organization.

**TS:** Now your work on these committees that have many of the committees were science based, right. And does that reflected your focus on the science of neurology?

**RS:** Pretty much. I had always been, you know, as an academician been involved in research from the earliest time as a medical student getting involved in research supported by my mentor, then as a resident by my other mentor in residency, Jay P. Mohr, who was influential in helping get me involved in stroke. And then, you know, that was an area of interest. So, I think the first thing was clinical research. And back then, there were concerns that clinical research was suffering. There wasn't enough support and NIH wasn't funding enough. There were less opportunities for leadership development in clinical research.

And Susan Spencer had really helped push that agenda early on. So, I got excited about the AAN's mission in advancing clinical research training fellowships, and then, you know, followed her as chair of the Clinical Research Subcommittee. We were not only increasing the numbers of clinical research training fellowships that the AAN funded, but also trying to establish a lot of other resources for young people out there in the Academy who were interested in academic careers.

And so, there are many things that we tried to do to help advance a research methodology, networking, career development, and that kind of niche for AAN members. That happened to be an

area I was interested in and the AAN took that sort of like interest and then connected you through its organization to say, how can we then influence others out there and improve the field

**TS:** Now, being part of the academic community, as president you helped launch an academic initiative within the Academy. And could you talk about—and then you also had a, you held two summits with academic chairs and then the second summit in 2019, with their business administrators included as well. Can you talk about what the needs of the academic community are and how this initiative was designed to help them.

**RS:** The American Academy of Neurology has always been interested in the academic members of the organization. Just as small and solo practitioners are feeling under siege with the changes in regulations, with the changes in financial reimbursement, academics is also under siege. Just as burnout is out there in small and solo practitioners, our own surveys have shown that burnout is high among academicians. So, we felt it was important to just make sure we engage with those constituents of our organization and try to see where can we help. The academic initiative is an approach by the American Academy of Neurology to take everything that we're already doing across academic departments and raise it up an even further notch, particularly focusing on the chairs. And that was what was different. We'd already done many things for clerkship directors, for residency program directors, for, obviously, academic members. We were working on our diversity officers in departments. We were worried that maybe the chairs were less engaged. And there were many chairs that still didn't know about many of the resources that the Academy had available. Chairs of departments are thought leaders. And often all of us as neurologists have, are born out of usually academic departments, our residency programs and our neurology, neuroscience and our neurology clerkships.

So, we thought it was important to make sure we engage with, hear from them, and get them to better communicate with one another and share best practices. As a chair, I personally knew what some of the big issues were out there: financial issues, trying to pay for the under-reimbursed research and education missions, burnout in academic faculty members, funding many of the initiatives that were important, working with funds flow models. The goal was what can the American Academy of Neurology do to help chairs be more successful? So, that led to the development of Chair Summit One. We brought, for the first time, all of the, almost all of the academic chairs together for this summit to first talk with one another and to listen and to say what can the AAN do to help you? And then a Chair Work Group got developed and then Chair Summit Two was terrific because then we brought the academic business administrators together and they are the financial minds of many of our academic departments. And so, bringing them together as a group and engaging with the chairs, we really are now beginning to launch more educational initiatives: more white papers that can help other chairs out there navigate some of the barriers, other resources that we can do at the Annual Meeting and beyond. All of this, if anything, to just share best practices and get chairs talking to one another, working with one another to really focus on ways that the AAN and chairs can work together to raise the whole tide to improve the academic constituents across departments of neurology.

**TS:** Do you see this continuing under Dr. Stevens as president? [incoming President James C. Stevens, MD, FAAN]?

**RS:** I'm happy to say Dr. Stevens has asked me to stay on involved with this, and he feels strongly. He came to the first Chair Summit. He is very engaged and understands the importance of the academic initiative. And so, I have continued on to chair the Academic Chairs Work Group, and obviously reporting to Dr. Stevens, but he is 100-percent fully supportive of us continuing to do things to help

advance and meet the needs of academic constituents. So, I think it's something that now hopefully is ingrained in the organization to go further.

**TS:** One of the things you spoke about in your first president's column, and probably before that, even it was, this concept of the 'newrologist' and you spoke of the need for neurologists to evolve into this newrologist concept. Can you talk about that?

**RS:** Right. And I didn't coin the term, so let's be clear here. The 'newrologist' was coined by our Transforming Leaders group, which we're very proud of and all of the many Leadership Programs that we continue to expand in the American Academy of Neurology. You know, as one of my platform areas I was interested in was expanding the scope of neurology to include interventional neurology, preventative neurology, and regenerative neurology. And I really felt that the research was accumulating to finally bring that to the patient. There are many, many opportunities that neurologists have to intervene now. Stroke is an example, epilepsy, deep brain stimulation, and many other kinds of interventional opportunities that we really can make a huge difference in curing or improving the life of a neurology patient. Preventive neurology, great example, many great opportunities for stroke, dementia, migraine, other preventative medications, and approaches to reduce the burden of neurological disease. And the future will be regenerative neurology.

So, the other thing was working in teams, as we talked about trying to meet the demands that are out there for the underserved and the number of patients that we have to provide care to with the undersupply of neurologists. So, we gave our Transforming Leaders group a project about this, of how the AAN can help advance this area of expanding the scope of neurology to include interventional, preventative, and regenerative. And they came up with this whole great concept of the newrologist, somebody who was the leader of a team, somebody who understood the needs of populations, somebody who worked with the best organizations, including the American Academy of Neurology, to advance the mission, somebody who was up on quality and evidence-based care for patients.

And it was a whole concept that I think took this idea of expanding the scope of neurology practice and then gave it a whole new focus. And it also, I think, was something that would be inspiring to young people in the field to talk about how neurology has evolved as a field. And hopefully we'll come back to that because that was another area of importance, expanding our pipeline.

**TS:** Exactly. Before we come to the pipeline, though, I want to ask you about our international members. You made several trips as president, you went to Mexico and Japan. There's about 6,000 international members and they have different needs than the US members. Can you talk about that and how the Academy helps fulfill their needs?

**RS:** Although we are the American Academy of Neurology, we do have an international mission, and that's been important and prior presidents have really helped push that. We recognize that we only have so much in terms of revenue and we probably can't especially alone solve the problems, for example, in places like Africa, where there is just a totally insufficient number of neurologists to meet the demands.

So, a lot of the things that we do to meet the demands and to help with international mission in include collaborations. And so, part of it was working with important other organizations—the World Federation Neurology, that really does have a truly global mission. We have developed a very close working relationship with the leaders of the World Federation of Neurology, contributing financially and contributing our ideas and thoughts to help with their mission. Working with the European Academy of Neurology, for example, in the course that's provided particularly for training

young members in African nations. We have a great relationship to the Mexican Academy of Neurology. I happened to go to their meetings, the Mexican Academy Neurology meetings, and developed a close relationship with the Mexican Academy of Neurology.

I also worked, because of some personal relationships, I got to go to the Pan Arab United Neurological Societies' meeting in Jordan. And that was great to actually work with that group. Also, we were invited to go for the first time to the Israeli Neurological Association. Through this collaborative relationship building with these other organizations, I think the Academy can help meet the needs of its international mission.

We also further developed International Subcommittee under Jerome Chin, which is a subcommittee of our Membership Engagement Committee. We expanded the number of international scholarships. When we give out money to bring young people from other nations to come to our Annual Meeting, that has an incredible impact on their career. I can't tell you the number of people out there who say that that was life-changing for them when they attended the Academy of Neurology. So that was helpful to expand the number. *Continuum*<sup>®</sup>. We provide *Continuum* free to many countries where they're underserved or under-financed, and that has had a major impact on getting them exposed to a high-quality information to improve their careers. So, there are many, many ways that we work both with other organizations and within the Academy to expand our international mission.

The other thing that's interesting is often, I think the term is, imitation is the finest form of flattery. When you go to their annual meetings, including the Mexican Academy of Neurology and the European Academy of Neurology, there is some resemblance to the American Academy of Neurology meetings of the past. So, they have actually learned from us and we're happy to see them continuing to engage and improve how they educate their own members in neurology. So, the AAN has an international mission. We do it usually through collaboration and we're proud of what we can do internationally.

**TS:** I'm going to take us back to the US now. The Axon Registry<sup>®</sup>, which is available free to our US members, it's one of the largest projects the Academy has ever undertaken. What is your view of the registry and its value to neurologists and to patients as well. Also, some of the challenges that we've had getting enrollment up to where we'd like to see it.

**RS:** The Axon Registry is probably one of the biggest investments that the American Academy of Neurology has made. Many years ago, it did actually try to do some of this under [former president] Steve Ringel, who was ahead of his time in terms of trying to create registries and ways of collecting data and improving the quality of care. It wasn't ready for prime time, Steve was ahead of his time. Now, registries with the growth of electronic health records, and with the total impact of evidence-based care improvement and quality improvement programs the Axon Registry grew.

The Academy invested in trying to develop a registry where clinicians could seamlessly get their data integrated into the Axon Registry through electronic health records, trying to make it easy for them. The data could quickly be taken into the registry and then this data could be collated and allow them to see how they're doing.

So, really how a quality improvement program works is you need to track, you need to measure, and then you need to improve. It's called the quality improvement loop and the goal of the Axon Registry was to first get people to get their data in, get the quality measures calculated, track that performance, and then provide the educational opportunities to the practitioners out there to improve the quality of care. That fits beautifully with our mission.

The Axon Registry was free to all the members and it was growing. It also helped meet some of the new, difficult requirements for maintenance of certification. It also helped meet some of the requirements that CMS was requiring for being part of a quality improvement data collection instrument.

So, we were checking a few boxes, helping them with CMS, helping them meet their maintenance or continuing certification, and improving the quality of care, which was central to our mission. What became difficult obviously was it's expensive. And so, we knew that we needed to develop some business model to help support this and grow it.

During my presidency, we began to look for a business partner, but still that would be a good fit with the Academy, be true to our core values, be a partner that we felt we could see eye to eye with. And we would still hold to our principles. You know, remember this is sensitive data collecting from patients, our investigators involved, working with industry is always tricky. So, we found the right partner and it's early, but the relationship with Verona Health, I think, is going in the right direction. And I think as an important way to bring the Axon Registry to a whole higher level, working with them to really improve the number of people entering data. Get the data up and useful to people, you know, really evolve the Axon Registry to what we call a learning health system. How can we really improve the quality of care with our Axon Registry with more people engaged? So, it's early on. But I predict that we'll have even more engagement in the future, that the Axon Registry will be something that the Academy will be incredibly proud of, and that we will have a huge impact on improving the quality of care out there through this registry.

**TS:** During your term, the Academy had several significant advocacy successes. One of them was delaying changes to the E&M coding, right? Significant research funding increases, passage of the FAST Act for stroke. What are your thoughts about the Academy's advocacy activities and how we work in Washington?

**RS:** One of the most important goals of the American Academy of Neurology is our advocacy work. It became even more significant during my time as president, because as you know, there was a change in the [US] presidency and there were some concerns that some of the gains that we have made to improve practice and quality of care and other initiatives could be rolled back.

I always started most of my committee updates with, "What are we doing on advocacy?" We had amazing talent in Washington, DC. We had boots on the ground and that important Washington office has grown to not only influence the legislatures, in Congress, Senate, but also the policymakers at CMS. A terrific staff in Washington that really helps direct how we respond to legislation that gets put out there for comment, how we respond to policies that get listed that sometimes aren't in our best interest if they get passed. So, working with this staff and the volunteers that were part of our Government Relations Committee and our other groups was an important relationship. As president, I signed some really great letters that went back to CMS or to Congress to either support or to deny or to question legislation. We also obviously have our Neurology on the Hill, which has maybe once a year, but it is a big undertaking of bringing many neurologists to Washington to advocate for many of our key principles. And that was exciting to always be part of that.

But we also do, I think, advocacy 365 days of the year, both at the state level and in Washington. Our BrainPAC really became clearer of how important that was to us as an organized. And I remember when I was on the board the first time when the BrainPAC was a controversial and I think the first time it actually was turned down; the board didn't want to go forward with the BrainPAC. I

personally have seen the power of that political action committee, going to open house day, the first day of the new Congress comes in, seeing the members [of Congress] that knew who we were, knew some of our staff people by first name, and were so welcoming to us and recognize the importance that we had on our comments to legislation.

So, the BrainPAC, I think, gave us an entrance into legislators that we probably didn't have before, and that was important for us to try to influence the policymakers that are obviously affecting the lives of our members. Advocacy, I think is one of the critical goals for the American Academy of Neurology to not only influence patient care, but to influence the lives of our members. We want to be indispensable. We want to reduce burnout. And one of the ways to do that is what can we do to reduce regulatory hassle and improve the life of a neurologist and a lot of that is what can be done in Washington, DC. Advocacy has to always be front and center for the Academy and I'm happy to say through our volunteers, through our organization, and through the staff we have in Washington and in Minnesota, I think we do a terrific job.

**TS:** The Academy, during the debate on Obamacare, did not take a position one way or the other. When the Trump administration came in and started to talk about reforming health care as they saw it, we came up with a set of standards by which we would judge any new proposals and such. Do you think that the Academy has been aggressive enough to influence the changes that we feel would be best for our patients and our providers?

**RS:** Well, it's an excellent question. I think one, we did publish and list our principles, and we have to always, always stay true to our core values and our mission and vision. And obviously improving patient care is important and being indispensable to our members is important. So, we always would, we'd gauge legislation based on those principles and we did do that as we talked about the areas in the Affordable Care Act that would be important. Anything that would improve policy for access to care, drug pricing that we'll hopefully talk about, things that would improve the underserved, getting preventative measures to people with chronic neurological conditions and preexisting conditions not being denied coverage. Those things are true to our mission and we have to stick to those principles.

I will say, having been involved with the American Heart Association in the past, you know, I was president of the American Heart Association around the time that the Affordable Care Act was going through. And that organization did take a very strong stand, even though some of its former presidents didn't want them to—in favor of the Affordable Care Act.

The Academy is a different organization. We have a different mission and vision, and we have to be responsive to many of our members. So, there were some controversial areas, but I'm happy to say that when there were areas of that act that were in jeopardy, we did stick to our principles in deciding what of those, what parts of the Affordable Care Act were important to us as an organization and to our members to uphold and pre-existing conditions, access to care, quality of care, drug pricing—all of those things I think are important to us as neurologists, as we try to improve the care for neurological patients in the future.

**TS:** We're coming up to another presidential election in 2020, and that'll be probably quite pivotal as far as control of the Senate, the House, and as well as the presidency. Do you want to go out on the limb and prognosticate how you might see a single-payer or more competition between the private insurers?

**RS:** It's a tricky question, Tim. So, I'm wearing my AAN hat right now, as opposed to my personal hat. And I live in Florida, which is, um, a purple state, I guess. So, one, I guess, personally, I think

Medicare for all would be hard to fly in this country. As much as I've seen in other countries a national health system work, I worry about whether it could work as well in the US. I have to say personally, that some of the principles of the Affordable Care Act, if it was truly operationalized, could have worked. If everybody had insurance—private, state-based, or government-based—it would work. Unfortunately, some of the incentives and the disincentives that were set up to make it work as a not one-government entity insurance plan, had been dismantled and that's why it's not functioning as well. I think it's hard to say what will happen in the future, but I have to say that as a nation, we have an obligation to improve the health care for everyone in this country. And as a nation that's so far advanced to know that we are not in the top 10 often in terms of preventative care and other access to health care, we may be able to do all the fancy stuff, including the fancy things in neurology, but a lot of people don't have access to it. So, how do we improve the care of the many people that need it in this country, I think, still remains to be seen. At this point in time when we're being interviewed, there are what, 25 candidates running in the Democratic party. There isn't one best answer yet, but I hope we'll get some bright minds in Washington. And hopefully the AAN could influence those minds to design something that will improve the care for everyone, including the underserved, which is important because they are hit in big ways with neurological diseases and burden.

**TS:** I'm going to switch gears now and talk about our conferences. The Annual Meeting in Philadelphia broke all previous attendance records, more than 15,000 attendees. What makes this meeting so successful?

**RS:** The Annual Meeting is just phenomenal. I mean, in LA [Los Angeles], I thought we were going to break all the records and it wasn't just the parties, but it was the meeting itself. And then in Philadelphia, we weren't sure, and we broke records. The Annual Meeting, first of all, the Academy has done such a great job with continuing to evolve the Annual Meeting. We could have been complacent and said that it's not broken, let's keep it the way it is, but we continue to change. And that's what makes this organization so great. Its willingness to try new things. So, the Experiential Learning Areas, the Navigating Your Career, the TED-like talks, the blowing the meeting up with education and science throughout the whole, you know, days of the meeting. The open-air buzz that's in the hallways of the meeting. We're doing something right, because it shows that we're attracting many more people to the meeting. And so, the Annual Meeting, I think it's still a bright star. We all worry. We sat in these meetings saying what's going to happen. The audience is going to drop off. It's going to be too expensive to travel to Annual Meetings. And each year we say, we're doing something right, more and more people are coming. The networking opportunities, the really helping people navigate all the other issues that are out there, providing not just research but how they can enhance their career whether they're a student, a resident, a fellow, a young faculty member, somebody in solo or small private practice—we're providing something for everyone at that Annual Meeting. And it's exciting to see that and see that continue to grow. The opening party that we had also at our [meeting] in LA, when we were all Universal Studios, I never saw so many neurologists laughing, having a good time.

I think it was a success to reduce burnout by having these great opening parties. And then we even kicked it up a notch with the Reading Terminal opening party. The meeting is not only educational, but it's also fun and it was nice to see so many more young people coming to the meeting and being excited about careers in neurology, our medical students, that when they go there and get so excited about the field, when they see what's happening in neurology at this Annual Meeting, it's just so gratifying to see how the meeting really is inspiring.

I remember my first time going to the Annual Meeting and now seeing these medical students get so excited about careers in neurology when they come to the Annual Meeting. I think it shows where



our field is going. And we should be very proud of what we do. We've got to bundle that as something 365 days of the year, and there are ways we do that, access to CME or our other sub-meetings that are developing. How do we keep people excited about everything that's going on in the field every day as well as at the Annual Meeting?

**TS:** Has there been discussion or fear that maybe, by having these other opportunities—the Fall Conference, the Sports Concussion Conference, the Annual Meeting On Demand digital offering that is produced—that that might adversely impact attendance at the Annual Meeting?

**RS:** Well, we always worry, but it doesn't seem to. I think if anything it brings other members into the meeting that maybe we missed at the Annual Meeting. The fall meeting has developed in Vegas and particularly for practicing neurologists, and even growing. Our Sports Concussion Conference brings across a bunch of different constituents, people that normally probably wouldn't come to the Annual Meeting. I think these activities, if anything, grow our reach across different constituents that we may not necessarily gather at the Annual Meeting. The Annual Meeting is still our central showpiece, but there are many other ways that we can engage other members. The work we're trying to do with advanced practice providers, I think, is another way and the resources that we will provide to engage them in our organization. I think we need to be continually thinking about how we can grow things beyond the Annual Meeting as our membership continues to grow and become more diverse.

**TS:** The pharma community takes a lot of interest, of course, in our Annual Meetings and they exhibit there. And we have special relationships with many of these pharma companies. How do we keep a wall between the AAN—you know, perhaps improper influencing of our activities that could happen through these sorts of relationships?

**RS:** We take that very seriously. First, pharma definitely has a role in helping neurologic care, their investments in products and drugs that they brought to market have made major changes in the life of our patients.

Second, they do have a role in education. They do provide a lot of important education to mainly health care providers. So, how to collaboratively work with them as long as we don't jeopardize our values and have any untoward influence on our mission? We stick to clear policies that we have. We evaluate, we reevaluate, and we remind and reinforce to our members about the role and the separation of relationships with industry.

We have things that we follow via continuing medical education guidelines. How we reduce undue influence by the pharmaceutical industry on our members. How we handle advertising with our members. How we work with the educational content of what we provide without undue influence. And so, we stick to those policies as much as possible, and we revise them over time and we have to enforce them. If somebody does something wrong, whether it's a pharmaceutical industry or one of our members, you know, the Academy will take a strong stand and having to reprimand them, having to, you know, enforce its policy. So, we look at it, we follow National Academy of Medicine guidelines for CME and regarding, particularly, our evidence-based guidelines. We make sure we really vet relationships with industry and conflicts of interest. I think as long as the Academy continues to follow these policies and enforce them and navigate them, we'll move forward.

The Industry Round Table is a great example of something that has worked that we continued to develop. I believe it's 25 years. We had our 25<sup>th</sup> anniversary of the IRT, and I've enjoyed hearing the pharmaceutical company to understand what are their needs, what are their concerns, and finding ways of intersection, because there are ways that we could work together. For example, in Vegas,

we had an IRT meeting and we actually had these small breakout groups where we work together, volunteers, AAN staff members, and pharmaceutical representatives on drug pricing.

They're part of the solution as well. So, it's just how to work them without jeopardizing our core values, our mission, without altering the important—what's the word I'm looking for—our tradition of excellence that we want to make sure you know, our value and the value that others entrust in us to make sure we're not tainted.

**TS:** What pressure can we bring to bear on the high cost of medicine these days?

**RS:** That's a huge issue during my term as presidency. You know we had a Drug Pricing Task Force. We tried to make that front and center. We got recommendations from the Drug Pricing Task Force to what, as an Academy, we need to do.

These tremendously new, wonderful treatments, some of them cures for neurological conditions, are quite expensive. Spinal muscular atrophy: \$750,000 a year. A couple new ones that are out there possibly \$2 to \$3 million. How can we make sure the patients that need them most have access to that?

We wanted to do what we could as an organization to educate our members about what we're doing for drug pricing, influence legislation on drug pricing, work together with the pharmaceutical industry on ways to reduce drug pricing. So those recommendations, again, are values that we can look at, we can utilize when we've seen the legislation out there, and we can stand behind these principles when legislation is out there to, if anything, control the price of these blockbuster medications that can really alter the life of our patients. We need to be the organization that is involved with doing something about that, so our patients can get access to these life-saving therapies.

**TS:** One of our principles of health care reform calls for the elimination of public advertising by pharma. What's the reason for that? And are we kind of running counter to that when we accept advertising in our publications, we host exhibitors at our meetings, and such?

**RS:** I think the difference sometimes to me is advertising to health care providers versus advertising to the public. So, advertising the health care providers, they can understand and hopefully decipher the evidence properly. When you advertise to the public, you know, there are ways to get the public to buy things. Madison Avenue does a great job of pushing certain products. The concern is can consumers really differentiate the power of advertising? Also, those television ads are very expensive. So, I guess our feeling is if that would be a way of getting some cuts out there—direct-to-consumer advertising through TV ads, which are very expensive, could be one way to save some money and instead, focusing on educating the providers who are going to provide the best choices of what medicines to utilize for their patients probably is the better way to go.

**TS:** We have now 36,000 members. Like any membership association, we need to retain our members. We need to grow, bring in new members. We've opened up to, several years ago, business administrators, and then more recently advanced practice providers. How do you see that strengthening both the Academy as well as the profession of neurology?

**RS:** So, the Academy of Neurology is growing 36,000 members strong. Some of the young members, the medical students, the pipeline members that we're bringing, advanced practice providers are probably the most rapidly growing group in the Academy. Business administrators, especially the academic business administrators, are important. I think as the Academy takes on larger and larger

important strategic goals, we need to be thinking about how we expand our base and I think that's critical. So, I think with that expanded base means we also have to keep people engaged and be indispensable to all our members from international to the medical students to the business administrators. It does diversify us in terms of the products and resources we have, but I think it makes us stronger. When we write those letters to Congress that say, "on behalf of the 36,000 members," that really gets attention. I think there's strength in numbers. But we have to recognize who are our key base is and we have to continue to diversify what we do as we expand membership to make sure we still can be indispensable to all members.

**TS:** Let's talk about the pipeline. That was a big concern of yours. It's been a concern of the Academy for numerous years. There's an 11-percent deficit right now, we're looking at a 20-percent deficit in the number of neurologists in a few years. What work was done during your term to help improve the pipeline for new neurologists?

**RS:** There's this big concern that as our populations age, the number of the prevalence of neurological conditions will be on the rise—one in six now, and there is an undersupply, particularly of neurology not only in the US but worldwide, to meet that growing demand for high quality neurological care.

So, the pipeline is critical to us. The pipeline to us meant, how do we get more people interested and engaged in our field? The first thing is medical students. How do we increase the number and the proportion of medical students wanting to go into a career in neurology? We were lucky enough to get a grant from the [Conrad N.] Hilton Foundation that just happened to meet our goal. They were interested in getting more people into multiple sclerosis. We said, 'Hey, we need to get the people into neurology first.' So, we started embarking on a whole program, one to study what are the determinants of medical students getting interested in neurology? What keeps them interested? And then to think about the interventions: What can we do to spark their interest and get them more engaged in fields of neurology?

The second big thing was re-energizing the SIGN program, our Student Interest Group in Neurology, that had always been run by the AAN, but, you know, had kind of gotten a little complacent over the years. So, the AAN began to say best practices: What SIGN programs work really well? What can we do to re-energize the SIGN program? What resources can we provide to these SIGN centers out there who can get more medical students interested in neurology? And then, bringing the medical students to the Annual Meeting to get them excited about the careers in neurology. The 'newrologist' just was a way to get people excited in careers in neurology, for getting them excited about interventions, getting them excited about preventative and treatments, and getting them excited about the future of regenerative care. That was all the way to get more people excited about careers in neurology, to get more people choosing neurology as a career.

The second big area for the pipeline is advanced practice providers and thinking about neurologist as team leaders. There are multiple people that can provide care. And we need to be thinking about ways that we can extend the influence and the impact of a neurologist on the care of patients. Getting more people in the field, working with advanced practice providers, giving them in teams the resources they need to help extend that care was important as the patient care team.

And the third thing, which was an area we advocated for, was telemedicine, because telemedicine is another way that you can increase access, particularly in underserved rural areas where the proportion of neurologists per a hundred thousand of the population is insufficient to meet the needs.

So, all of these things, the pipeline, the advanced practice providers, telemedicine, getting people excited about the neurologist, were ways to really enhance the number of health care providers to meet the demands for high quality neurologic care.

**TS:** In the recent years, the Academy has given more emphasis to leadership and diversity training for its members. Can you speak to that and why that's been important?

**RS:** The United States and other parts of the world continue to diversify. We felt it was important that the Academy continues to engage and develop more diverse members of the Academy. And I would say it's women, as well as African-American and Hispanic members. We don't have enough on the board. We don't have enough on our committees. We don't have enough even as neurologists and as members of the organization. So, for us to meet the needs of a diversified changing population, we needed to make sure we got that talent and then engage them to give them the talents to be leaders of this organization. I'm happy to say the Leadership Committee has invested in multiple different opportunities. Our Diversity Leadership Programs, our Transforming Leadership Programs, our Women in Leadership Programs, our Practice Leadership Programs, our Emerging [Leadership Programs], Transforming [Leadership Programs]—all the different Leadership Programs were important.

And I really felt in my time as president that emphasizing equity, diversity, inclusion, and addressing health disparities was critical for us to move forward. We had a Health Disparities Task Force that made some recommendations for us as an organization of what we should do to be ready and to continue to address the major health disparities that are out there for multiple neurologic conditions. We have now created and reorganized the way the Academy functions, what are called, Coordinating Councils. And we created one on equity, diversity, and inclusion, and health disparities to help integrate across all the different vertically organized committees that exist in the Academy and make sure equity, diversity, inclusion, and health disparities are addressed, just as we did the same for our Joint Coordinating Council on Wellness.

So, these are ways to really engage the organization and make sure equity, diversity, inclusion is inculcated throughout the whole organization and our Leadership Programs are the best way to make sure that we have more terrific, diverse members and women to be great leaders of this organization in the future.

**TS:** We're about to run out of time, so I want to get to a couple more questions here quickly. Cathy Rydell, our chief executive officer for past 20 years, announced that she's stepping down [in April 2020]. You're leading the search committee. Can you talk about Cathy's contribution to the Academy here and what you're looking for as her—I don't think anybody can replace her—but her successor?

**RS:** Cathy Rydell has been a phenomenal asset and leader of this organization. I think one of the joys of being a president is working closely with Cathy, right? She's amazing at developing talent, at being an incredible external ambassador to other organizations that are important to the Academy of Neurology, working to really leverage the talent of volunteers on the board and elsewhere, and really raise up the talent in this.

This organization has grown tremendously under her leadership for 20 years. And we celebrated her 20 years multiple times throughout the year. And the Academy is very proud of where it is and has a lot to thank Cathy for her leadership as CEO of this organization. She's taken it through a whole transformation. Anybody looks back at what we were 20 years ago and sees now where we are, must recognize. And she always talks about this 'secret sauce.' You know, the sauce between

working with volunteers and staff engagement. And she is the leader that has really brought the staff together, but she helps put the ingredients together for that secret sauce to really sizzle. Cathy has been a phenomenon and I've really enjoyed learning from her and working with throughout the years as my term is precedent. She will be a hard act to follow, but I think the most important thing is now we have a phenomenal foundation to build upon and the next leader will probably bring something else to this organization, but we'll have a great, both financial, organizational, and mission and strategically, founded organization to build.

I'm confident that one, this will be a very attractive position because of the strength of our organization now, and that we will continue to flourish, in the years post-Cathy Rydell. But we have a lot to thank her for, for everything she's done to really bring us where we are today.

**TS:** What was your favorite accomplishment as president. And what do you wish you would have had more time to work on?

**RS:** I think the biggest thing probably as president was the academic initiative. That was important to help galvanize that together with the pipeline program, I think, to really meet the demand of, for neurological care, by expanding our pipeline. And really, the thing that I didn't have enough time to do is all the work on equity diversity, inclusion, and health disparities. We still have a long way to go there. And I hope I've been helpful in starting and establishing, at least the process of what we do in terms of leadership. and addressing equity, diversity, inclusion throughout the organization, but there's never enough time and there's more work to be done there, but I'm proud of those things. Obviously, working on the Axon Registry was critical and that will be something that we'll continue to grow and hopefully neurology has a way to get more people excited in our field and expanding the scope of neurologic practice will be something that I hopefully will look back on and be proud of.

**TS:** What did you enjoy most about being president?

**RS:** Ah, what did I enjoy most about being president? I think working with all the great volunteers and the, you know, the relationships that you build with the board, with the volunteer leadership, and with the staff are lifelong relationships now. And I think that secret sauce that Cathy talks about is really so clear and I enjoyed being part of that.

I also enjoyed, hopefully, moving the organization more to [unclear]. It's not just all about the president working in teams. Whether we're providing care for our patients or as teams, our vice president, our president elect, our president, our board leaders, and many of the leaders of the organization working as a group, building consensus, and really driving this organization forward, I think is so much more gratifying than just one person trying to influence all the things that the Academy does. We need to work much better at teams. And I think we are there and moving forward to move all of the goals of the organization forward.

**TS:** If you had to give advice to a young neurologist who was just starting his or her career, coming to the Academy, thinking about getting involved, what would you say?

**RS:** Get involved in any way you can with the American Academy. In fact, I told everyone that the antidote to burnout is getting involved with the AAN. You feel like you can then influence your future. You can have an impact. You can be part of this large network that influences where the field is going. So, one, be a member; two, get engaged; and three, come to the Annual Meeting and start as a young person to get involved with our leadership programs. And if you don't get in the first time, reapply. We now have a whole number of different leadership programs to get these young

people engaged, be part of the solution, and I think being an engaged member of the Academy is one way to be part of a solution.

**TS:** I thank you so much for taking time today to answer some questions and I wish you best of luck as past president.

**RS:** Great. Thank you, Tim. Thank you. That's great. We covered all. Yes.