

AWARDS

ISPOR Scientific Achievement Awards – Call for Nominations

The ISPOR Awards Program is designed to foster and recognize excellence and outstanding technical achievement in pharmacoeconomics and outcomes research. These awards will be presented at ISPOR 2020, May 16-20, 2020, Orlando, FL, USA.

The ISPOR Avedis Donabedian Outcomes Research Lifetime Achievement Award

The ISPOR Avedis Donabedian Outcomes Research Lifetime Achievement Award is established in honor of the late Avedis Donabedian MD, MPH to acknowledge those individuals who have made a major contribution to the improvement of health outcomes. Nominations may be made by any ISPOR member. Members may nominate more than one person; however a completed letter of recommendation must accompany each nomination. For complete details, see www.ispor.org/avedisaward.

ISPOR Marilyn Dix Smith Leadership Award

The ISPOR Marilyn Dix Smith Leadership Award is international in scope and stature. The Award recognizes one individual each year that has provided extraordinary leadership to the Society. It will be presented on a frequency determined by the ISPOR Marilyn Dix Smith Leadership Award Committee, but not more than one time per year. Nominations for the Marilyn Dix Smith Leadership Award require a letter of recommendation for the nominee, nominee's leadership contributions to the Society and nominee's CV. For complete details, see www.ispor.org/mdsaward.

ISPOR Bernie O'Brien New Investigator Award

The ISPOR Bernie O'Brien New Investigator Award was established in 2004 to honor the long-standing commitment of Bernie J. O'Brien, PhD to training and mentoring new scientists in the fields of outcomes research and pharmacoeconomics. All nominations must include a letter of support for the nominee and a current edition of the nominee's CV essay indicating the reason for your nomination. For complete details, see www.ispor.org/obrienaward.

ISPOR Health Economics and Outcomes Research Excellence Award-Methodology ISPOR Health Economics and Outcomes Research Excellence Award-Application

The ISPOR Award for Excellence in Methodology and Application were established in 1997 to recognize outstanding research in the field of health economics and outcomes research methodology and outstanding practical application of health economics and outcomes research in health care decision making. Members may submit nominations (either their own publications or others). All nominations must include a brief cover letter indicating the reason for the nomination. Supporting documentation MUST include a PDF of the nominated paper. For complete details, go to www.ispor.org/awards.

ALL NOMINATIONS DUE BY FEBRUARY 7, 2020

Nominations can be submitted at www.ispor.org/awards

For more information, contact Stephen Priori: spriori@ispor.org

AWARDS

A Futurist for HEOR, Data Management, and Healthcare

Marc L. Berger, MD, the winner of ISPOR's Avedis Donabedian Outcomes Research Lifetime Achievement Award for 2019, is semiretired, with emphasis on the "semi" part. After a long career spent with Merck & Co., Eli Lilly and Co., OptumHealth, and Pfizer Inc., he has more time to spend with family and to travel. But as a consultant and a volunteer with ISPOR's task forces, and the author of more than 130 journal articles, book chapters, and other publications (including in *Value in Health* and the *New England Journal of Medicine*), Dr. Berger continues to look to the future.

Although he has made many contributions to the health economics and outcomes research (HEOR) fields, being given the Donabedian Award came rather as a surprise. "I was surprised that I got it; there are many wonderful candidates out there," Dr. Berger says. "And any time you get an award, there's a combination of pride and embarrassment mixed up with it."

"I think this award is a statement that I have been a useful contributor to the ongoing conversation around health economics, outcomes research, health policy, and related fields."

Although most of his career was spent at Fortune 100 companies, Dr. Berger always considered ISPOR his second home.

"ISPOR has been a place where I have been able to do some of the most satisfying things in my career—working on various task forces and being part of conversations that have helped move the field forward," he says. "And ISPOR has been involved in and is at the forefront of thinking [about] what is the intersection between good health economics, outcomes research and health policy."

A CAREER SPENT IN INNOVATION

Dr. Berger didn't intend to do health economics or outcomes research. He wanted to become a physician and a

basic scientist, starting off by doing academic work on the mechanisms of liver cell injury and repair. But he decided to make a career switch after his employer at the time, the University of Cincinnati, had him doing less research and more clinical and teaching work. And with a family, he needed to make the leap into corporate life.

Merck was his first stop, where he initially got involved in phase II and phase III clinical research. Some of the projects he worked on included bringing another formulation of the proton-pump inhibitor omeprazole to market as PRILOSEC and bringing the antacid famotidine (Pepcid) over the counter. About this time, during the Clinton administration, "Bill and Hillary's healthcare reform 1.0" was introduced, with the consequential rise of managed care, Dr. Berger says. "Everybody was talking about what are we getting from the healthcare system, what we're investing all this money in."

After switching from clinical research, he helped create the new outcomes research management group at Merck. The group was led originally by Rob Epstein, who was recruited by Dr. Berger. But Epstein, an early president of ISPOR, left a year after the group was formed to become chief medical officer at Medco.

"I was left with a very small group, none of whom were trained in the area, and I rapidly recruited a stellar group of people that was just fantastic to work with," Berger says. Among his recruits were Leona Markson, a health services researcher; Tom Abbott, a health economist; Jim Murray, an industrial engineer (who Dr. Berger later recruited to Lilly); and X. Henry Hu, an epidemiologist.

"With this group of people, we just started doing lots and lots of really good research," Dr. Berger says. "At that time, we arguably built probably the largest and best outcomes research group in the industry. We did research in everything that was overlapping the



interests of Merck as a company, but also was just really interesting and good things to be working on and exploring a lot of different areas."

Among the group's research was work on the use of bone density testing for the diagnosis and follow-up for osteoporosis and what Dr. Berger called "groundbreaking" work in how to build disease-management programs. "We did some important work that contributed to the discussion about how cost-effectiveness research should be utilized in health policy decision making. We did some work on the impact of chronic health conditions on productivity in the workplace and published some seminal articles in that area. It was a wonderful and heady time."

But then Dr. Berger decided to move on, heading to Lilly, where he faced a different challenge. There, he had to learn how to bring all the different groups across the company together into a coherent collaboration that would help focus Lilly on having a clear value story for the products it was bringing to market.

"That was an organizational challenge as much as anything else, as well as changing a bit of the culture within Lilly to embrace the fact that every product needed to have a clear value story and we would have to know what it was in advance as you developed the product, and not wait until we got to market in order to provide evidence for the story," Dr. Berger says.

After Lilly, Dr. Berger got a glimpse on the payer side when he went to work

as a senior scientist for a brief time at OptumHealth, where he was able to understand in greater detail how a payer thought about its mission: to provide healthcare for a covered population and maximize the impact of the dollars invested.

"That was a very useful perspective, and sometimes I found out the answer was quite straightforward," he says. "Like, 'Sure, we'd love for our patients to be directed to physicians, or providers, or hospitals where they get the best outcomes for the least amount of cost, and if we can direct patients to those centers, that's win-win, that's a no-brainer.' But it's not always possible to do that, and the idea of how you inspire all of the providers in your network to provide better-quality healthcare and use resources most efficiently, is a heavy lift."

Leaving Optum Health and going to Pfizer, Dr. Berger found an even more-interesting challenge.

"I had done a lot of research using existing healthcare databases and I understand a lot about the nuts and bolts of good methodology for outcomes research, and in fact had been on several task forces for ISPOR to extol best practices for how to do those methodologies," he says. "But I hadn't really spent a lot of time looking under the hood of how do you actually get this data, manage it, and make it accessible for analysts."

At Pfizer, Dr. Berger created a new group, Real World Data and Analytics, where he had to tackle the problems with building a central data mart that would make the data more easily accessible and better able to be interrogated.

"That's when I got deeply involved in understanding what information technology groups do, and different architectures for housing the data and how one may begin to interrogate that data but in a different way," he says. The solution was to merge existing data analytics products into a "best of breed" solution in which data could be interpreted via drag-and-drop, object-oriented programming.

Dr. Berger says Pfizer's centralized data

mart and ways of analyzing data have been emulated by many other countries across the industry. Ultimately, "All of that work depends on having better strategies to house, combine, and interrogate these real-world data sets," he says. "And so, to me, relatively late in my career, I was an old dog that had to learn some new tricks. We helped usher in what is supposed to be a new golden era of analytics on real world data."

LIFE AFTER RETIREMENT: THE FUTURE OF HEOR

Since retiring from Pfizer, Dr. Berger says he has spent a lot of time with family, including his 4 grandchildren. In addition, he has traveled. "I've taken 2 big trips, I've been to Antarctica, I've been to Southeast Asia. I've got more goals, there are many more things I'm going to do," Dr. Berger says. "But I'm also trying to be a little bit of a provocateur about what is the future going to look like. I am being a little bit of a futurist."

As a consultant, he has preferred being an advisor to several health IT companies such as SHYFT Analytics "because they're the ones that are building the future." He also continues working with ISPOR's task forces on real-world evidence and writing articles.

One of his recent papers, written with Don Husereau for the anniversary issue of *Value in Health*—"Looking Backward: 2143 to 1943, The Rise and Fall of the RCT"—theorizes how the fields of information technology, basic science, and clinical research will change healthcare over the next 130 years.

"We expect that there will be ubiquity of data, and of all kinds of data, including data from implantable or wearable sensors, and that there are going to be breakthroughs on our understanding of the science of the mechanisms behind disease," Dr. Berger says. "And we assume that there's going to be breakthroughs in artificial intelligence way beyond what we've seen today. And a mixture of those 3 is going to enable us to have a much more efficient and effective healthcare system that will truly be what people envision when they talk about a learning healthcare system."

In such a system, doctors will do things that only doctors can do and things that

they don't have to do will be taken over by either artificial intelligence or other healthcare providers. And the authors speculate that by the end of the century, standalone controlled trials will no longer be needed as they will be effectively embedded into the order of care with consent becoming automated.

According to Dr. Berger, the field of outcomes research has a clear path forward.

"Outcomes research is not going to be just people who are trained in health services research, outcomes research, and epidemiology," he says. "It will be increasingly done by data analysts. And so, outcomes researchers need to become much more familiar with these newer, advanced analytic techniques because it's going to change how we explore important questions."

For example, he believes that the future is going to go beyond the regression model. "It's going to be some form of machine learning or something that develops out of machine learning. They need to become much more nimble in terms of how they're thinking about analytics, and not remain wedded to what has worked for the last 50 years."

Above all, a disruptive change is coming to all of healthcare, not only to the value frameworks, but the pharmaceutical industry, the payer/insurance industry, and all the way cross the board.

"Ultimately the motivating force is going to come from citizens and patients who are going to recognize that the system needs to change dramatically if it's going to meet their expectations," Dr. Berger says. "This is going to be a political conversation as much as it's going to be a scientific conversation." •