Leadership in Medicine, Industry, and Innovation

A Conversation Between Jörg F. Debatin and Thomas Beyer

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Thomas Beyer, PhD, MBA, spoke with Jörg F. Debatin, MD, MBA, chair of the Health Innovation Hub for the German Federal Ministry of Health (Berlin) and former vice president and chief technology and medical officer for GE Healthcare (Waukesha, WI). After medical school at the University of Heidelberg (Germany), Dr. Debatin completed residency in diagnostic radiology at Duke University (Durham, NC) and a fellowship in diagnostic radiology at Stanford University Medical Center (CA). He was an associate professor of radiology at Zurich University Medical Center (Switzerland), followed by service as professor and chair of the Department of Diagnostic and Interventional Radiology at University Medical Center Essen (Germany). He also earned an MBA from the Hochschule St. Gallen (Switzerland). From 2003 to 2011 he was the medical director and chief executive officer at University Medical Center Hamburg–Eppendorf (Germany), and later he was chief executive officer of Amedes AG (Hamburg, Germany). Dr. Beyer is a professor of physics in medical imaging at the Medical University of Vienna (Austria). The discussion focused on Dr. Debatin's career in medicine, industry, and innovation and on the roles of leadership and team dynamics in healthcare research and development.

Dr. Beyer: *Thanks for taking the time to talk with me. You experienced quite a colorful upbringing in the 1970s and 1980s: first, you went to school at a Catholic gymnasium, then you moved to the United Nations (UN) School in New York, on to Paris for a brief interlude in economic sciences, and then to Heidelberg to complete your medical studies in 1987. Please tell us about this tour de force—what drove you and your moves?*

Dr. Debatin: My upbringing in Germany and the United States was mainly driven by my family. My father worked for the UN; hence we moved to New York in 1976 and I got to attend the UN International School during my final 3 years of high school. Those years in that very special school were quite formative, and growing up in New York was a wonderful experience. The French language was not one of my strong suits in school, but my mother loved it and was convinced that speaking French was part of being a civilized human. After my graduation from high school, then, I ended up spending a couple of months studying in Paris. And, yes, I did learn French.

Dr. Beyer: *After your medical degree, you studied for an MBA from the Hochschule St. Gallen. At the time, your field of academic engagement was in Zürich with MRI. You were called in 1999 to the directorship of the Department of Radiology in Essen and, in 2003, to become the medical director and chief executive officer of the Eppendorf University Medical Center in Hamburg. At the time, what were you looking for in your professional life?*

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Dr. Debatin: Radiology has been very generous to me. I was first exposed to the world of imaging while working on my PhD thesis at the German Cancer Research Center in Heidelberg. I used short-lived radioactive tracers to measure blood flow in tumor tissue. Thus, I was introduced to the field of nuclear medicine. My thesis advisor was Wolfram Knapp, MD, PhD.

Jörg F. Debatin, MD, MBA

In my final year of medical school, I participated in an exchange program at Duke University Medical Center. At Duke, nuclear medicine was considered a section within the Department of Radiology. Given the apparent synergies of nuclear medicine and radiology, that arrangement certainly made sense to me. Because nuclear medicine had kindled my interest in diagnostic imaging, I applied for a residency in diagnostic radiology and was fortunate to be accepted into the Duke program. At Duke and subsequently at Stanford Medical Center, where I completed a fellowship in abdominal imaging, I witnessed the introduction and subsequent veritable explosion of MRI, with its incredible clinical potential. I was fascinated by this technology and became truly hooked on MRI and the tremendous advances being made in a very short amount of time. So, I never really looked to leave radiology; it simply happened. Completing the MBA program in St. Gallen certainly helped in this regard.

Dr. Beyer: *Serving in leadership roles as a medical doctor and manager, you have been exposed to hierarchies. Are these a leftover from the past or a must-have for our academic lives?*

Dr. Debatin: Hierarchies are most relevant throughout all professional interactions. Their usefulness is much dependent on how they are implemented. To be effective, they must be adapted to the environment as well as to the specific situation at hand. For example, in an emergency room, there must be a clear and transparent hierarchy to ensure optimal outcomes for severely ill patients. In an environment dominated by research and development, the implementation of hierarchy should be much more subtle to foster creativity.

The role of leadership in a research environment needs to focus primarily on providing the right tools and resources. Research outcomes cannot be "ordered" through hierarchy; these are rather a function of serendipity. Leadership can, however, provide a cross-pollinating environment in which interactions among researchers from different backgrounds result in serendipitous innovation. As chief executive officer of the Eppendorf University Medical Center, my most profound contribution to innovative research outputs was the construction of a research building designed to bring together researchers from different fields. To encourage mingling, every floor

had an attractive hang-out space with free coffee. I found that free coffee was an effective investment to "force" serendipity.

Dr. Beyer: *I like this perspective, and I concur with your example of the emergency room. Nonetheless, what about the spaces outside ERs? Did you come across deficits in leadership culture?*

Dr. Debatin: I certainly noted considerable differences between leadership cultures in the United States and Germany. Hierarchies exist in both systems, with differences pertaining primarily to the interpretation of leadership and interhierarchical relationships. Leaders in the United States were used to having their decisions challenged by any team member. Critical discourse and controversial discussions were encouraged as long as they served better patient outcomes. Leaders seemed comfortable in admitting that individual team members were more knowledgeable or more adept at certain procedures. Consulting another expert was considered an expression of strength rather than weakness. Although demanding, I never found U.S. medical leaders to be abusive of the power bestowed on them.

On my return to Europe in 1993, I found a far less developed leadership culture. Particularly in an academic setting, leaders seemed to be more focused on righteousness and a sense of absolute power. Consequently, decisions were rarely questioned, and interdisciplinary approaches to address a medically complex issue were the exception rather than the rule. As a resident or even junior faculty, the dependency on a leader's personal assessment can be extreme, frequently resulting in an awful combination of abuse and submissive behavior. As the number of open positions for physicians in Germany has dramatically increased over the past decade, many of the negative leadership traits have been replaced by a more forthcoming style. Abuse has been replaced by encouragement, and submission has been replaced by healthy challenges.

Dr. Beyer: *I have witnessed your operational skills in driving academic research at Essen. Please tell us about your approach then. How did you motivate people to do clinical research on top of their heavy clinical workloads?*

Dr. Debatin: I always looked for 3 crucial aspects when choosing team members: integrity, curiosity, and motivation. These traits cannot be taught; they can be encouraged, at best. Motivation for research in an academic setting needs to be inherently present; otherwise, all efforts will be in vain. I found it important to open research to all residents who were sufficiently curious and motivated. At the same time, I treated those who chose a more clinical focus with the same respect. All team members deserve encouragement, whether through sufficient resources (in both infrastructure and staffing) or by providing them with personal time.

Furthermore, it is crucial to communicate and apply rules as well as privileges and deliverables in a fair and transparent manner to support a productive working environment within a clinical department in an academic institution. Medicine is a team sport that requires members with various profiles. Everyone contributes! The freedom to operate in academia is a privilege. It comes with responsibilities, such as adherence to the rules of good scientific practice, the need for transparent documentation and timely reporting of results, as well as respect for the entire research community.

Dr. Beyer: *Do you believe in top-down approaches or empowerment of smaller units? And does this approach differ depending on the workplace and employer; say, public versus private?*

Dr. Debatin: Motivation and creativity generally come from the bottom up. Top-down leadership empowers through the provision of sufficient resources and creation of a fitting environment. In that regard, I never saw any differences between public and private enterprises.

Dr. Beyer: *What makes a good leader in academia?*

Dr. Debatin: Such a personal and difficult question! Let me share with you my top five: the first is the ability to choose the best team, characterized by integrity, motivation, and creativity; the second is the ability to provide a professional work environment based on a culture of respect as well as personal and team performance; the third is the ability to provide an optimized organizational structure and adequate resources; the fourth is the ability to communicate clearly and consistently across all levels; and the fifth is the ability to recognize that a lot of people are smarter than yourself.

Dr. Beyer: *After your time in Hamburg, you shifted toward leadership positions in industry and, more recently, in politics. Why?*

Dr. Debatin: Curiosity was and continues to be the decisive driver in my professional life. Throughout my journey I have, however, remained fiercely loyal to health care. To me, health care is so special, because it combines the pursuit of an honorable societal purpose with a maximum of innovation (in the way of technology), regulation, and organization.

Dr. Beyer: *In what way do you think you can you create value in your current position as director of the Health Innovation Hub that we were not able to do before?*

Dr. Debatin: The Health Innovation Hub (https://hih-2025.de/en/home/) was created to support governmental initiatives toward implementation of digital technologies in our national health-care system in Germany for the duration of the current parliamentary cycle. Our team encompasses 15 members, who, based on their previous professional experiences, are all familiar with the intricacies of the German health-care system. Furthermore, they all share the firm conviction that digital technologies do enhance the quality and efficiency of health-care delivery. It is an interdisciplinary team of data scientists, legal and regulatory experts, entrepreneurs, physicians, pharmacists, and Germany's leading interoperability expert. As a team we focus on 3 objectives. First, we serve as an internal think tank to the Ministry of Health on all matters related to digital health and sometimes beyond. We assess their ideas, confront them with our thoughts, and try to make sure that laws and regulations introduced to parliament have the desired effect in the real health-care world. This alone has kept us rather busy, as the Ministry of Health has passed a total of 28 laws with digital health content in 32 months. Second, we scout for digital innovations inside and outside Germany that appear suitable for adoption on a national level. Thus, we were able to support many government efforts in the COVID-19 crisis. Third, we help with implementation of new laws and regulations by directly communicating to stakeholders. These include the developers of digital apps, as well as physicians and other providers of medical services who are faced with the introduction of, for example, a national health record system or, for pharmacists, digital prescription management.

Dr. Beyer: *Do the skills required for leadership change when transferring between academia, industry, and politics?*

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Dr. Debatin: No, I believe the principles defining good leadership remain largely the same and should be based on values, although in a day-to-day setting they may require adaptation to the environment and specific situation. Time lines and strategies for getting things done may vary considerably. For example, academic output is often driven by deadlines for meeting submissions, whereas work in industry is heavily influenced by quarterly reporting requirements. Politics are governed by election dates.

Dr. Beyer: *Any specific traits for a good leader in health care? Does he or she need to be a humanist?*

Dr. Debatin: Again, no. A good health-care leader does not need to be a humanist. Like any leader, a good health-care leader must understand the purpose of their products and services. In the case of health care, they should serve patients by maintaining or restoring their health.

Dr. Beyer: *How important are partnerships between industry and academia in supporting health care, and ideally, how should these work?*

Dr. Debatin: These partnerships are absolutely crucial. One of the hallmarks for successful companies in the med–tech space is the intense involvement of clinical partners in the conception, development, and evaluation of their innovations. Innovators need a "friendly user" environment to test and refine their novel products and services. They need a "critical friend" for unfiltered and immediate feedback to improve the tested solutions. Academic medical centers can provide such testing grounds without compromising the safety and integrity of their patient care.

Dr. Beyer: *What is the role of academic hospitals and private hospitals in that regard?*

Dr. Debatin: The type of ownership is irrelevant. The owners of an academic medical center should recognize that their returns are far more than just financial. Thus, there is marketing value in advancing medical understanding through research, as well as tremendous value in the ability to tap into the talent pool of a class of medical students.

Dr. Beyer: *What do you think is the optimal organizational structure for a state-of-the-art academic hospital? Will we move toward changing the structure that is prevalent in Europe, toward disease-specific competencies centers, such as for oncology, so as to support value-based health care?*

Dr. Debatin: Medicine in general is moving toward an organizational structure based on "ologies." Technologies are coalescing around organ systems. At the same time, personalized diagnostic and therapeutic strategies are emerging on the basis of rapid advances in our understanding of the biologic basis of human life. As a result, we will see a gradual convergence of organizational structures toward an "ology-centered" approach.

Dr. Beyer: *Finally, 2 timely questions—first, do you think citizens who are vaccinated against COVID-19 should have earlier access to recently restricted activities, such as the ability to travel freely?*

Dr. Debatin: To me this is merely a question of timing. As long as not everyone can be vaccinated, there should be no privileges for those fortunate enough to have received the shot. Once everyone has had the opportunity to get the vaccine, there can and will be benefits for those who are vaccinated. That largely reflects the current situation—if you are not vaccinated against yellow fever, for example, your travel to certain countries is restricted.

Dr. Beyer: *Another question I have been longing to ask, perhaps because I am an idealist from the East: If people participate in a publicly supported health-care system, should they not automatically consent to have all their health data available for anonymized data pooling and postprocessing for digital health predictions?*

Dr. Debatin: Personally, I do agree with that view. And, indeed, there are European countries, such as Finland, where such a system has already been implemented. In the context of the German political landscape, this will not work. We have committed to the principle of voluntarism. In that regard, a recent poll in Germany showed that up to 80% of people would be willing to donate their personal health data if it is used to advance medical science. We are working on finding legal and organizational means to allow these donations to become reality.

Dr. Beyer: *Dr. Debatin, it has been an honor to work with you; I learned a lot from you. Your outstanding contributions and your candid approach in saying what you think are much appreciated, as I'm sure the readers will agree. Thank you again.*