

MEET



Helen Routh

Head of the Healthcare Systems and Information Technology group at Philips Research Briarcliff Manor, NY, USA

HELEN ROUTH HAD BEEN WORKING FOR ATL ULTRASOUND FOR EIGHT YEARS, WHEN THE COMPANY WAS ACQUIRED BY PHILIPS TO BECOME ONE OF THE CORNERSTONES OF ITS MEDICAL ULTRASOUND BUSINESS. KEEN TO KEEP ON WORKING ON LONG-TERM AND STRATEGIC ISSUES, SHE MOVED TO PHILIPS RESEARCH BRIARCLIFF TO BECOME HEAD OF THE HEALTHCARE SYSTEMS AND INFORMATION TECHNOLOGY GROUP. 'MAKING A DIFFERENCE IN CLINICAL CARE' IS WHAT DRIVES HER.



1 Helen, you have a long track record in ultrasound imaging, don't you?

Yes. I entered the field when I did my PhD research at the University of Wales in Cardiff, UK, on how blood scatters ultrasound. I spent a year at the University of Illinois where I discovered that the centre of gravity in medical research was clearly in the United States. So I definitely wanted to work there for some time once I had finished my PhD. I also wanted to work in a business environment rather than in academe. After working at a small R&D consulting firm, I joined ATL Ultrasound in Seattle, one of the world's leading companies in medical ultrasound, starting as a senior engineer. Later, I was appointed 'Chief of the Senior Technical Staff', which meant chairing a group of key technology people who were collectively responsible for the technology strategy of the company. After that, I became the Director of Long-Term Strategy, looking at trends in healthcare and technology which would impact ultrasound imaging.

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Why did you move to Philips Research?

Philips acquired ATL Ultrasound in 1998 (and later the echocardiography division of Agilent Healthcare Systems Group as well), to become the world leader in medical ultrasound. As the organization grew, it became clear that more emphasis was needed on long-term research, and plans were made to set up a healthcare programme at Philips Research Briarcliff. That sounded interesting and I joined the laboratory in September 2001. At first as a consulting scientist, and then I was appointed departmental head of the Healthcare Systems and IT group in January 2002. Alongside that, I am

responsible for the content of the healthcare programme in the Philips Research France as well as being a member of the Programme Board that manages Philips' healthcare research plan.

3 What is the role of your group in the US?

First and foremost, we want to establish a presence in healthcare research in the US. The US is still at the leading edge of innovations in healthcare, certainly in new fields like molecular imaging. The R&D spending is higher than elsewhere, and the budget of the National Institute of Healthcare (NIH), the government institute that apportions research funds, is growing strongly. For Philips, it is of supreme importance to be part of the innovation scene in the US, especially since we work closely with leading clinical sites. Today, Philips Medical Systems has more than half of its R&D sites in the US, as well as

more than half of its customers, so the addition of a Research branch is a logical extension to that presence. Secondly, we have a research programme on medical IT, the fastest growing area in healthcare today. Advances in medical IT are needed to help translate the ever-increasing amount of data generated by diagnostic systems into information for the physician, when and where he or she needs it. The main drivers for these advances are time and cost pressures, and the need to reduce the number of medical errors. Finally, I am staying with my roots in a way, as I am heading the overall Philips Research programme on medical ultrasound. We have built a joint group between those working on the existing programme based in France and a new group being built up in the US. Although ultrasound has been the real-time imaging modality of choice for many years, there are still many technological challenges to overcome. In the group at Briarcliff Manor we are focusing on some of the newer applications of ultrasound outside the conventional diagnostic realm. One example is Molecular Imaging (see article on pp. 10-13).

4 Where do you want to take Healthcare research?

I see a number of trends to which I think we can make a meaningful contribution. One of the most striking of these is how developments in genomics could significantly impact the practice of medicine. Nowadays, particularly in the managed-care situation in the US, healthcare is provided through a number of specialists. As more is understood about the origin of disease and its treatment, the boundary between diagnosis and treatment will

increasingly fade. In the ultimate scenario, a patient will visit one doctor who will diagnose, treat and observe the effects of that treatment in one session. This means that our current model of developing technology will have to change. The imaging techniques (ultrasound, computed tomography, magnetic resonance, etc) will have an increased role to play, however they will need to work together rather than in separate environments with different specialists. Imaging will also need to be integrated with contrast agents, which can target particular molecular activities, as well as with drugs or other therapeutic mechanisms. All of these things mean that in Research we will continually need to expand our knowledge base and the people we work with. Talking to clinicians and others working in these new areas to develop joint future scenarios is very important.

What drives you personally?

Philips is a key player in healthcare technology. In many of its activities, it is clearly number one, both in market share as well as innovative power, so we are really helping to shape the medical world of tomorrow. My personal challenge is to contribute to that and really make a difference in the clinical situation. In this respect, I consider it very important to approach research from both the clinical and the business perspective. In my opinion, there should be an almost one-to-one relationship between our research efforts and a clear clinical need with an associated business interest for Philips. There certainly is room for exploratory research and new ideas, but in the end there is a real world out there where our research results should be applied.

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'I want to make a clinical difference'