The Right Honorable Lord Swinfen is a member of the House of Lords (elected hereditary peer). He takes an active interest in the work of Parliament and sits on the Subcommittee of the Select Committee on the European Union, which focuses on matters of foreign affairs, defense, and international development. He is a Fellow of the Industry and Parliament Trust. Lord Swinfen is a UK patron of World Orthopaedic Concern.

The Lady Swinfen, MBE is a retired registered nurse. She was awarded membership of the Order of the British Empire in 2006 for her services to telemedicine overseas.

Lord and Lady Swinfen founded and are directors of the Swinfen Charitable Trust. They are also Honorary Research Fellows of the Centre for Online Health, University of Queensland, Australia, members of the Steering Committee of the Catastrophes and Conflicts Section of the Royal Society of Medicine, London, and members of the first MOET team (Management of Obstetric Emergency Trauma team) to visit Iraq in April 2004. They have co-authored a number of papers on the implementation of telemedicine in the developing world.

What led you to establish The Swinfen Charitable Trust and how was it begun?

Lord Roger Swinfen (RS): I was working for a charity focused on helping disabled people in the United Kingdom and we were contemplating doing some work overseas. We had gone to Bangladesh at the invitation of the British High Commissioner to have a look at disability in Bangladesh, and we began doing some work there at the Center for the Rehabilitation of the Paralyzed. The principle at the Center was not just to stabilize the disability, but to make the disabled person as independent as possible so he or she could live as normal a life as possible and, in most cases, earn some form of income.

When I retired, Pat and I decided that there was such a great need in the developing world that we had to do something. There are charities and nongovernmental organizations (NGOs) set up to do most of what is necessary, but we discovered that a very large number of hospitals and clinics have no doctors at the medical specialist level, and they desperately need medical specialists’ advice to care for some of their patients.

We set up the Swinfen Charitable Trust in 1998, and in November of that year we heard about telemedicine and the simple store-and-forward system, using e-mail and digital cameras, which put it within the financial realm in which we were working. Otherwise we would have had to rely on live, real-time medical videoconferencing, and that is very expensive and very difficult to coordinate. It also requires reliable telephone lines and power supplies, whereas the store-and-forward system can operate when people are ready to use it. If the power goes down at either end, you just wait for the power to come back on. This is acceptable for our purposes because we do not handle emergencies. The medical specialists who work as consultants for us are all volunteers and they are not simply sitting by their computers with nothing else to do. Doctors in remote and underserved areas e-mail a request for a consult, and the specialists reply at their earliest convenience.

What do you see as the future of telemedicine?

Lord Roger Swinfen (RS): Telemedicine will play an increasingly important role in the provision of health care to the developing world. It will also be of great importance in the medical care of people in remote areas of the developed world. The technology is developing very rapidly and there are many new applications that are being developed. It will be a matter of the development of the appropriate technology and the ability of health care professionals to use it effectively.
convenience. I do not believe we have ever had a specialist decline our request for help, and it is always the best and the busiest that are recommended to us.

We set up the first pilot link in July 1999. The first referral was sent on the 19th of July 1999. The consultant who responded to that referral is still one of the consultants working with us today.

The system is simple in its operation. There is no special software. The only software required comes with the digital camera, and everyone involved uses common, garden-variety e-mail to communicate, with digital images as attachments.

In your view, has this effort been successful and how would you like to see it expand and evolve?

RS: I believe it has been successful. We have had one or two glitches, mainly due to computer viruses, but those have been rare. At present, the average time for getting an initial reply from a consultant is 1.8 days. With a simple case, that may be the end of the communication, but with more complex cases the interaction may continue for weeks or months, with the consultant following up and assisting the treating physician.

Looking forward, we are hoping to acquire some colposcopes and to put pilot systems into Iraq and Afghanistan, countries where maternal mortality is extremely high. We believe that if we would be able to improve women’s health, we would in fact have the potential to improve the health of the whole family. We hope that if we can get a successful pilot system running in Iraq, then the Iraqi Ministry of Health will provide colposcopes to other centers, allowing us to expand work there. First, though, we need the funds to buy two colposcopes. We are already working with the International Medical Corps, an American NGO, in 38 hospitals in Iraq. We would like to work with them to expand the services we provide all over Iraq.

In your view and experience, how do people react to the use of telemedicine?

RS: This varies. Some people are very computer literate, some much more so than Pat and me. Others, like us, are still on the learning curve. When we started the Trust, neither Pat nor I had used a computer. We learned together; we made lots of mistakes and we still do, but we are learning.

There are also language problems, but even when the referral comes over in rather poor English, we have seen that the consultants always seem able to decipher it and come up with answers.

How would you describe the numbers and scope of the people who have been reached by your efforts? What types of care/education have been delivered?

RS: We currently have ongoing programs with 137 hospitals in 36 countries in the developing world. You could say 37 countries if you were to count Antarctica, because we recently started working with a Franco-Italian research station called Concordia in Antarctica.

Lady Pat Swinfen (PS): We have been adding hospitals and countries to the list quite quickly. We now have 387 consultants and the number of hospitals is rapidly approaching 140. We cover a very broad spectrum of specialties: You name it and we can provide a specialist.

RS: Our patients range in age from pre-birth, if you count fertility treatment or advice, to our oldest patient who is 110. She had been brought across from Iran into Iraq by her family; she went back a great deal more comfortable and I hope is still living a happy and healthy life.

We treat anyone, male or female, young or old, regardless of their nationality, religion, or race. We work on the principle that if the rickshaw driver does not work that day he does not make any money and cannot help his family. If we can help the patient, we may be able to help his or her whole family.
RS: At the moment we are averaging nearly one referral per day. In the first year there were only 27 for the whole year, but that number has continually increased.

We know that the consults have, overall, provided medical education. For instance, a young woman in the south of Iraq had a very nasty prolapse, and one of our consultants taught the doctors on the spot how to deal with it. A few months later those doctors e-mailed us to say that they had dealt with another similar case and did not have to ask for help. About 15 months after that, they e-mailed to tell us that they had been advising other doctors in the north of Iraq on a similar case. Where there is a medical education component to the consult, the program is actually helping patients about whom we never hear, so its reach and scope are difficult to estimate. It is also helping doctors who may then move on to other hospitals and teach other doctors.

We also know of a case of a young married woman with very severe pre-eclampsia in which the doctors on the spot wanted to abort the baby to save the mother’s life. We were able to get both a consulting obstetrician and an anesthetist to advise the doctors over the course of 2½ weeks (by which time the baby was viable) and to deliver the baby successfully by cesarean section. Both the healthy mother and baby went home. We learned that, as a result of this experience, the hospital changed its protocol for dealing with pre-eclampsia. That particular group of doctors has not had to come back to us for further advice.

In another case, because of the curfew in Iraq, an anesthetist was not able to get to the hospital in the middle of the night. Anesthesia was administered by a recently qualified doctor who was then unable to wake up the patient. We obtained advice from an anesthesiology specialist and they successfully woke up the patient, which again helped the hospital improve its protocols.

Often, all the doctor on the spot really wants—particularly if he or she is miles away from colleagues—is confirmation that he has made the correct diagnosis and is giving the right treatment. If the doctor were working in a hospital with a difficult case, he could walk down the corridor and discuss it with a colleague, but this is not possible in remote areas. I describe the service we provide as being the corridor in the hospital.

PS: Awareness of the Trust seems to spread by word of mouth, and people we have never heard of come up to us at conferences and say they have heard others talk about our work and the things the Trust has been able to accomplish.

RS: It would be nice to be able to have feedback on every single referral, but we know that is not realistic. If you have a patient who has walked for days to get to a hospital, when that patient returns home you are not going to know the final outcome.

PS: An interesting fact brought to our attention a number of years ago involves the Tibetan families who manage to make it across the Tibetan border into Nepal. They very often make that crossing during the winter months, through the high mountain passes. Usually, if they have walked much of the winter, by the time they make it into Nepal at least 1 or 2 members of the family will be ill. We have come across such cases: people who have escaped from Tibet and been treated at a Nepalese hospital and then passed on to Dharamsala, where the Tibetan people live in India. We lose these cases to follow-up because we do not have a system in place to get information from the treatment center in Dharamsala as to how these patients are progressing. We know, though, that we are helping this transient population that is passing through Nepal and into India.

RS: We have also come across some very rare cases. For example, I recall speaking to some British specialists who described consulting on a case of something they had not realized was occurring in Eastern Tibet. About 15 months ago it was discovered that children in Eastern Tibet were being attacked by the warble fly, which lays its eggs in yaks and was also laying its eggs in the children. Specialists who have written books on parasitology had no idea this was happening and now plan to include this phenomenon in the next edition of their textbooks.

PS: The British doctor who discovered this sent a sample of the larva home in a jar with one of her friends who had been visiting. The friend took it to the National History Museum in London where it was identified. This same doctor is now working in the mountains surrounding Chengdu, China, where the recent earthquake occurred, and she is treating people suffering from anemia due to the high altitude in which they live. These people had not been reached by medical teams until about 3 weeks after the earthquake.

RS: We were able to get advice on treating these patients from a Nepalese doctor who specializes in high-altitude medicine.

**How does your work remain sustainable once funding is no longer available?**

RS: That is a knotty problem because we have to pay the bills to keep going. At the moment, Pat and I draw very little salary from the Trust—only when it has a certain amount of funds over a set minimum. We have one part-time researcher who concentrates on raising funds. We started the Trust out of our own pockets, but it is too big now to support that way. Somehow, we have found that when we need funds for a particular purpose, they appear.
What do you see as the most challenging issues in broadening international efforts in this area?

RS: To some extent, cooperation between people. We have found with some hospitals that have been quite enthusiastic about having a telemedicine link that, after a time, when doctors change, new doctors may say they don’t need it. Doctors in the developing world are typically very busy—they may see hundreds of patients in a day—and they may not have the time at the end of the day to get on the computer.

PS: There is another aspect to this. As you can tell, Roger and I, as well as a number of other people, particularly in the American Telemedicine Association, are trying to broaden this program and get more people involved in discussing what can be done, and especially how the Western world can help in the developing world in a simple way. The main problem is trying to get governments to listen to simple, novel, and innovative ways of introducing medicine to remote peoples and suffering human populations in the developing world. We need to ask our governments to sit down and pay attention to the exploratory work being done and to see how it could be broadened and implemented to benefit many more people.

RS: It is necessary to have a can-do attitude.

PS: We have also found this approach to be a very simple way to make new friends.

RS: We have friends all over the world whom we would pass in the street because we do not know what they look like. Particularly from Iraq, for example, we get Christmas and Easter cards from our Muslim friends in the medical profession.

—Interview by Vicki Glaser