

Presentation of the 1997 Ian Donald Gold Medals



Lindsey Allan, 1997 Ian Donald Gold Medal winner



Klaas Bom, 1997 Ian Donald Medal for Technical Development

Presentation of the Ian Donald Gold Medal to Lindsey Allan

The Ian Donald Gold Medal is presented at the time of each World Congress to a person who has made a significant and original contribution to the development of ultrasound in obstetrics and gynecology. Our Gold Medal Committee this year voted overwhelmingly to award the 1997 Gold Medal to a woman who, more than anyone, pioneered the development of fetal echocardiography as a discipline.

It is a special pleasure for me to present the medal because her initial work in this field began in my department at King's College Hospital in 1978. She literally appeared at my door one day, introduced herself and said that she had trained in medical genetics, had taken prolonged maternity leave to look after three small children and now wanted to perform systematic studies of the fetal heart. Not only that but she would be able to secure her current salary from a Scotch whiskey company! Who could refuse such an offer? Two years later, she published in the *British Heart Journal* the classic early paper on fetal echocardiography 'Echocardiography and anatomical correlates in the fetus'. The few prior publications on the subject had not recognized the difference in position and accessibility of the fetal heart from that of the neonate. Lindsey Allan's paper described the eight fetal scanning planes for a complete heart study and beautifully illustrated each plane with an ultrasound image and anatomical correlate. Further-

more, she not only described how to achieve each plane but also her success in obtaining each of these planes from 14 to 20 weeks' gestation. This paper to me was the true birth of real-time fetal echocardiography as a specialized part of prenatal diagnosis. In 1981, Lindsey followed up this paper with the first description of the early second-trimester diagnosis of cardiac malformations at 16–18 weeks' gestation. Reading this paper again, I am struck by the attention to detail of the technique and the quality of the illustrations, both ultrasound and anatomical. This paper also described the first false-positive diagnosis of a fetal cardiac anomaly!

Lindsey then moved on to take up a post as lecturer in pediatric cardiology at Guy's Hospital in London and quickly built up a national referral center for fetal echocardiography in the UK. This center became a Mecca for training and research in this field. Publications describing every type of congenital abnormality of the fetal heart were produced and there is little doubt that Lindsey and her group at Guy's pioneered the concept of routine screening for congenital cardiac anomalies. Lindsey was innovative in many areas. For example, she with Darryl Maxwell performed the first balloon aortic valvoplasties in 1991 and, although these were unsuccessful, the experience gained paved the way for the first successful aortic valvoplasty described in the *White Journal* in 1995.

In 1993, Lindsey was made Professor of Pediatrics at Guy's Hospital and the following year she published the first 1000 consecutive cases of congenital heart disease in her center at Guy's.

Marriage took Lindsey to the USA in late 1993. This decision was clearly a blow for British and European ultrasound and it was an extremely brave decision on her part for she was head of the largest referral center for fetal echocardiography in the UK, if not in Europe, which she had developed in just over 10 years. She is happy and fulfilled at the Presbyterian Hospital and continues to produce high-quality research. Her latest work describes the same meticulous approach to first-trimester echocardiographic diagnosis as she produced for second-trimester diagnosis in 1980.

Lindsey Allan has received many honors in the UK, such as honorary fellowship of the Royal College of Physicians of Glasgow and London. Today we honor Lindsey with the highest award of our Society. To me she is a role model for anyone beginning a career of research in ultrasound in obstetrics and gynecology; she has vision, she is determined (not to say bloody minded), she pays meticulous attention to detail and is scrupulously honest. More than anyone, Lindsey Allan pushed forward the frontiers of fetal echocardiography and made this discipline into a science.

Ladies and gentlemen, I present to you the 1997 Ian Donald Gold Medal winner, Lindsey Allan.

S. CAMPBELL

Presentation of the Ian Donald Medal for Technical Development to Klaas Bom

The man I am about to present to you is a distinguished technical engineer who has been in the forefront of technical ultrasound development for the last 35 years. He has been instrumental in the development of a particular non-invasive ultrasound technique which initially was meant for visualizing the beating adult heart, but has conquered the world ever since, particularly in the field of obstetrics and gynecology. I am referring, of course, to the linear array transducer. All this was laid down in his PhD on *New concepts in echocardiography* which he successfully defended as early as 1972. In this PhD, he introduced a completely new concept as to how to apply real-time ultrasound in clinical medicine. Subsequently, a version of the linear array scanner for obstetric use was developed by Martin Wilcox, a previous recipient of the Ian Donald Medal for Technical Development.

Klaas Bom became a Professor of Medical Ultrasound Technology in 1979. Professor Bom has been in charge of all research activities in the field of cardiology and cardiovascular research in the Thorax Center for the last 20 years. He is currently Director of the Intercardiac Institute in his country of residence.

Professor Bom was instrumental in the development of the transesophageal catheter in the mid-1980s which resulted in greatly improved images of the adult heart.

Recently, he has been heading a team of researchers into the development of an intravascular catheter, allowing visualization of, for instance, intracoronary blood flow as well as accurate measurement of volume flow in this vessel.

But, as if this has not been enough, he and his outstanding team are now involved in the development of a fast rotating three-dimensional scanner, permitting three-dimensional images of cardiac movement.

Professor Bom has served on a large number of prestigious committees in the field of diagnostic ultrasound. He has been Vice-Dean of his medical faculty and is an elective member of the Royal Dutch Academy of Arts and Sciences. More than 200 scientific papers have been published by him, as well as several books of which he has been Editor. Because of his tremendous contributions to the technical advancement of ultrasound, he has received awards from several prestigious organizations, one of which is an honorary doctorate at the University of Lund.

Ladies and Gentlemen, on behalf of ISUOG, it is a great pleasure for me to invite Professor Klaas Bom to come forward to receive the Ian Donald Medal for Technical Development.

J. W. WLADIMIROFF