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10th World Congress of Ultrasound in Obstetrics & Gynecology, 4–7 October 2000, Zagreb, Croatia: presentations of the 2000 Ian Donald Medals

Karel Marsal and Sturla Eik-Nes at the presentation of the Ian Donald Gold Medal in Zagreb, Croatia.

Presentation of the Ian Donald Gold Medal to Karel Marsal

Professor Karel Marsal was the winner of the Ian Donald Gold Medal for the year 2000. Karel Marsal is a professor at the Department of Obstetrics and Gynecology, University Hospital of Lund, Sweden and director of undergraduate studies at the Faculty of Medicine at the same university. Through his pioneering research in perinatology and in several areas of diagnostic ultrasound, Karel Marsal has contributed significantly to the development of obstetric and gynecological ultrasound during the past 25 years.

Dr Marsal was born in Prague, Czechoslovakia. He attended and received his degree from the Medical School at Prague's revered Charles University. In 1968 he moved to Sweden where he has practiced ever since. He became chief of the obstetrics/perinatal department at Malmö Hospital, University of Lund in 1984 and became Professor at the same institution in 1991. In 1995 he was made Honorary Professor of his alma mater, Charles University in Prague—a position he regards as a personal and professional privilege.

Dr Marsal's interest in ultrasound started when he was working on his thesis in the early seventies. His aim then was to bring new understanding to the physiological mechanism of fetal breathing movement and he explored the possibility of using ultrasound to monitor the chest movements of the fetus. He demonstrated his technical skill at this early stage in his career by taking part in the development of a device to track the movements of the chest of the fetus as it was making breathing movements. Of course this device employed ultrasound and has later been used for a variety of measurements to monitor fetal physiological and pathological activity. With Professor Geoffrey Dawes, of the Nuffield Institute in Oxford, as his faculty opponent, Karel successfully defended his thesis on fetal breathing movements in a public disputation in 1977.

A major part of Karel's research has involved the use of Doppler ultrasound technology. In his very systematic way he has managed to monitor most vessels in the fetal body that this technique can access. Working in the geographical area where routine fetal examination using ultrasound was pioneered, Karel took an interest in the evaluation of the general use of Doppler ultrasound in the surveillance of high-risk pregnancies. By comparing this technique with the established cardiotocographic (CTG) monitoring, he has demonstrated the potential of the Doppler technique in the monitoring of the fetus at risk.

Karel Marsal has been the scientific supervisor of numerous theses employing the Doppler technique and his candidates currently hold prominent positions in the Swedish perinatal environment. Young researchers have always been very close to his heart. I personally had the privilege of having Karel as my scientific supervisor when I did my own PhD at the University

of Lund. That was the start of our professional cooperation as well as a close friendship that has lasted for over 20 years.

Karel's interest goes beyond the use of ultrasound and he has also done extensive research in perinatology in general. In Lund, Professor Marsal has built up a strong perinatal research group extensively involved in organizational aspects of perinatology in his country. His publications in ultrasound and/or perinatology number over 500.

Karel is a member of numerous editorial boards and is an honorary member of six societies including the title Honorary Fellow of the prestigious Royal College of Obstetricians and Gynaecologists. Professor Marsal has always been very active in promoting research and proper use of ultrasound, at both a national and an international level. He has held several international positions including being a member of the European Committee for Ultrasound Safety, of the European Federation of Societies of Ultrasound in Medicine and Biology, EFSUMB. He is a founding member of the International Society of Perinatal Obstetricians and a founding member of the World Association of Perinatal Medicine. Since 1994 he has been a member of the Scientific Committee of ISUOG and since 1996 has served as a Board member of the Society. Since 1997 he has held the position of chairman of our Rapid Response Group, dealing with safety affairs. Most importantly, Professor Marsal is the current President elect of ISUOG and will take over the Presidency of our Society in 2002.

Karel Marsal is known as an excellent speaker and recognized teacher. He has traveled and taught throughout the world. In recent years he has been able to use his talents in his true home country—the Czech Republic—where he has played a key role in the development of perinatology.

Sturla H. Eik-Nes
Trondheim, Norway

Presentation of the Ian Donald Medal for Technical Development to John J. Wild

It is indeed an honour and a pleasure for me to describe to you the achievements of Dr John J. Wild, a true pioneer of diagnostic ultrasound and a good friend of mine since the early sixties.

Dr John Wild was born and trained as a physician in England. After World War II, he elected to reside in the United States and he has since lived and undertaken his research in Minneapolis, Minnesota, USA.

Anyone who has undertaken even a minimal study on the history of diagnostic ultrasound will immediately recognize the name John Wild and that John was the first to publish a scientific paper on the potential use of pulsed ultrasound for soft tissue diagnosis. This classic paper entitled 'Use of Ultrasonic Pulses for Measurement of Biological tissues and the Detection of Tissue Density Changes' was published in the journal *Surgery* in February 1950. It described the results obtained by A-mode scanning a strip of human stomach containing a small cancer and showed that the method could be used to discriminate between normal and malignant tissues. In that paper, looking to the future, John proposed an intraluminal scanner for the study of the gastrointestinal tract.

His next paper, published in *The Lancet* in March 1951, described the results obtained in scanning the brain and the breast and showed that the method could be used to identify pathological changes in these organs as well.

Shortly after, John joined forces with Jack Reid, an engineer, and together over the next several years they proceeded to publish a series of classic papers which described major developments in ultrasound technology and clinical applications, many of which are still in practice today.

In February 1952 they described the first hand-held, mechanical linear scanner which was used to scan a kidney *in vitro* and a myoblastoma of the adductor muscle. The following month they published the first B-mode scans of the breast and, with their typical visionary outlook, commented on the possibility of advancing the technique to produce three-dimensional images.

They went on to make significant improvements to the ultrasound imaging technology and in May 1954 published the first modern B-scans of the breast. They proceeded to use the improved imaging results to develop quantitative measures to distinguish between benign and malignant lesions.

Their technological and clinical achievements culminated in 1955 when at the Fourth Annual Conference on Ultrasonic Therapy they described an automated intraluminal scanner which they applied to scanning the rectum. At this meeting they also described a scanner for automated water immersion scanning of both breasts by two submerged transducers. Both applications were illustrated by high-quality scans.

John even went on to construct a transducer for transvaginal scanning. Although it was not used clinically and was large compared to modern transducers, John Wild deserves the credit for being one of the first to conceive transvaginal scanning.

Unfortunately, as so often still happens today, John was not able to maintain his financial funding support and the multidisciplinary team that he had carefully put together was disbanded in 1957.

Dr John Wild's achievements have never faded, and he has been honoured by many national and international societies. He holds many medals and awards, including the Japan Prize that was awarded to him in 1991. Although John has not undertaken research in obstetrics and gynecology, many of his contributions are relevant to the field and he is a most deserving candidate for the Ian Donald Medal for Technical Development.

George Kossoff
Sydney, Australia