

## IN MEMORIAM

It is with great sadness that we recently learned of the death of the two honored colleagues. They both have enriched the world of perinatal ultrasound and made this world much better place.

**Professor Beryl Benacerraf** was born in New York on April 29, 1949. She was the only child in the family and her father, Baruj Benacerraf, was Nobel Prize laureate in medicine and physiology in 1980. She spent the early childhood in Paris due to her father's research career. She was seven years old when the family moved back to New York where she faced a challenge of new language and culture. She was one of the true pioneers of the prenatal diagnosis by ultrasound, focusing particularly on antenatal diagnosis of congenital anomalies and advances in gynecological ultrasound. Among many, her discovery of association of fetal nuchal fold with trisomy 21 established the importance of fetal dysmorphology as an instrument for prenatal diagnosis. Her important works on the use of ultrasound to monitor invasive procedures, such as amniocentesis, intrauterine transfusions, and midtrimester fetal thoracocentesis have contributed substantially to the concept of the Fetus as a Patient. She was versatile researcher and clinician with important impact in ultrasound diagnosis of various gynecological entities.

Beryl was Professor of Obstetrics, Gynecology, and Reproductive Biology and Professor of Radiology at Harvard University and Brigham and Women's Hospital. For her outstanding achievements, she received numerous important awards, among others are Ian Donald Gold Medal Award from the International Society of Ultrasound in Obstetrics and Gynecology (ISUOG) in 2001, the Marie Curie Award from the American Association of Women Radiologists in 2008, and the Lawrence A Mack Lifetime Achievement Award from the Society of Radiologists in Ultrasound in 2010. She was elected Fellow of the American College of Radiology and the Society of Radiologists in Ultrasound.

Her clinical and research work always included education. During her term as the President of the American Institute of Ultrasound in Medicine, she promoted the development of a curriculum for training in ultrasound in obstetrics and gynecology, which has been endorsed or supported by all professional societies in the United States, including the American College of Obstetricians and Gynecologists, the Society for Maternal-Fetal Medicine, the American College of Radiology, the Society of Radiologists in Ultrasound, ISUOG, and others. For these reasons and more, she was recognized as a "Giant in Obstetrics and Gynecology".

She has authored more than 300 peer-reviewed articles and numerous textbooks; her legendary book being *Ultrasound of Fetal Syndromes*. She was also appointed as Editor-in-Chief of the *Journal of Ultrasound in Medicine (JUM)*.

She has been an exceptional role model for all those working in fetal medicine, particularly for women who were rare in this field when she started to carve the road. Her legacy will continue to inspire generations of OBS-GYNs worldwide to push boundaries and advance women's health.

**Professor Alfred Kratochwil** was born on May 25, 1928. He graduated from the University of Vienna in 1953 and worked as a Junior Obstetrician and Gynecologist at the Second University Frauenklinik, Vienna, Austria, in the early 1960s. He was the pioneer in ultrasound placenta imaging. His lectures had, at that time, greatly influenced and encouraged the European newcomers to ultrasonography.

Following the placental studies, he proceeded with developing of transducers that were able to identify fetal heart pulsation at slightly over 6 weeks menstrual age. He also developed a thimble attachment transducer to facilitate vaginal sonography with pelvic examination. His group further developed a special A-scan transducer with a central hole to enable amniocentesis to be carried out more safely. Being also interested in developing imaging techniques in gynecology, in 1972, he demonstrated the visualization of ovarian follicles with static B-mode ultrasound.

He soon became one of the most prolific users of the instrument and worked on interdisciplinary areas such as Internal Medicine, breast and other surgical conditions, where he also published a large number of important early papers. He was unselfishly distributing his knowledge and experience. Since 1968 he developed training courses in ultrasound in Vienna, Austria, and his department was visited by many hundreds of radiologists and obstetricians in the next few years.

He became a Professor of Obstetrics and Gynecology at the University Frauenklinik, Vienna, Austria, in 1972. He published over 300 papers. His first book, published in 1968 in the German language "Ultraschalldiagnostik in Geburtshilfe und Gynaekologie", represented one of the earliest textbooks on ultrasonography in this specialty.

He founded the Austrian Ultrasound Society and he was also a Founding member of the European and World Federations of Ultrasound in Medicine and Biology. Between 1978 and 1981, he was the President of the European Federation of Societies for Ultrasound in Medicine and Biology. In 1992, he published on new 3-D developments at KretzTechnik in the article "Attempt at three-dimensional imaging in obstetrics" which appeared in the *Journal "Ultraschall in der Medizin"*.

After his retirement from clinical obstetrics and gynecology, he still held the title of Professor of Obstetrics and Gynecology at the University of Vienna and continued to work mainly in the teaching and advancement of three-dimensional ultrasound and continued his activities in many professional societies, organizations and congresses. Among many prizes, he received the first Ian Donald Gold Medal from the International Society of Ultrasound in Obstetrics and Gynecology (ISUOG) in 1991. He was also given the honor as the Pioneer of 3D Sonography in Obstetrics and Gynecology in 1999, at the 2nd World Congress of 3D Sonography in Obstetrics and Gynecology. Professor Alfred has educated many young scientists and clinicians and will be remembered by us and future generations. His contributions to ultrasound will continue to influence generations to come.

Both Alfred's and Beryl's attitudes in their professional life could be summarized by the quote of Ms Indira Gandhi, Former Prime Minister of India: "There are two kinds of people, those who do the work and those who take the credit. Try to be in the first group; there is less competition there".

In loving memory of Beryl and Alfred.



**Professor Beryl Benacerraf**  
29-04-1949 to 01-10-2022



**Professor Alfred Kratochwil**  
25-05-1928 to 21-09-2022

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