

## In memoriam: Gerhard Friederik Buess (1948–2010)

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On October 30, 2010, the surgical community lost one of the scientists who boosted technical progress in surgery and pioneered the revolution of minimally invasive surgery in the late 1980s and early 1990s.

Gerhard F. Buess was born in Merklingen, Germany, on April 10, 1948. He graduated magna cum laude in Medicine from the Ludwig-Maximilian-University of Munich in 1972. Soon after (1973) he passed the educational commission for

foreign medical graduates (ECFMG) certification. Dr. Buess was board certificated in General Surgery in 1984 after completing his residency at the Department of Surgery, University Hospital, Koeln-Lindenthal. In December 1985 he obtained his PhD on research and development of transanal endoscopic microsurgery (TEM).

Gerhard Buess commenced his academic career in the ensuing years: at the age of 38 he was appointed Professor of Surgery and *Oberarzt* at the Clinic and Polyclinic for General and Abdominal Surgery of the Johannes-Gutenberg-University in Mainz (January 1986–June 1989) and was appointed Professor of Surgery and *Oberarzt* at the Department of General Surgery of the Eberhard-Karls-University in Tübingen in July 1989. In the years spent in Tübingen, he established a working group for minimally invasive surgery (MIC Tübingen). He became *Leitender Oberarzt* in 1991 and C3 Professor of Surgery and Director of the Section for Minimally Invasive Surgery in June 1994. In the same year Dr. Buess was also appointed head of the Department of Surgery at the Olympiaparkklinik GmbH in Munich. While maintaining his academic appointment at the University of Tübingen, he was appointed head of the Department of Minimally Invasive Surgery at Helios Kliniken GmbH in Mülheim in June 2001, where he worked until October 2005. He received an honorary professorship of the Shandong Provincial Qianfoshan Hospital Jinan in 2006.

Throughout his whole working life, Gerhard Buess carried out research and development of techniques and technologies for surgery. Within the fields of minimally invasive surgery and digestive surgery, the following need special mention:

- Development and clinical application of new systems for esophageal dilatation and stent placement (1978–1985)
- Introduction of transanal endoscopic microsurgery into clinical practice, with the procedure being the first endoscopic operation on the gastrointestinal tract (1983)

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- Development of training models and a stepwise training system for TEM on an international level and clinical trials on TEM (1983–1989)
- Development of technology for and the technique of endoscopic microsurgical dissection of the esophagus (EMDE) (1986–1989), with clinical introduction of EMDE worldwide and the first endoscopic technique for resection of the esophagus (1989)
- Introduction of laparoscopic colonic and rectal resections into routine clinical practice (1990)
- Structuring a joint research group with the German Research Center in Karlsruhe, a leading institution in technology (1990)
- Development of instruments with multiple degrees of freedom and multifunctional instruments, automatic suturing devices, the first robotic system, camera holding and guiding systems, 3D vision systems, and complex simulation systems (1996)
- Development of technologies for and technique of NOTES transvaginal procedures with a rigid endoscope (2008)

Gerhard Buess was a member of the German Society of Surgery, the German Association of Surgical Endoscopy (CAE), the Steering Committee of the German Association of Endoscopy and Visualisation Techniques (DGE-BV), the Steering Committee of the Society for Minimally Invasive Therapy (SMIT), the European Association for Endoscopic Surgery and other interventional techniques (EAES), the Steering Committee of the Società Italiana di Chirurgia Endoscopica (SICE), and the New European Surgical Academy (NESA).

Furthermore, he was awarded an honorary fellowship of the Royal College of Surgeons of Edinburgh (FRCS Ed) in 1991, Socio Corrispondente of the Società Italiana di Chirurgia in 1992, honorary member of the Serbian Society for Endoscopic Surgery (JUEH) in 2000, honorary member of the Asociación Española de Coloproctología in 2007, honorary member of the Cuban Society of Endoscopic Surgery in 2010, and honorary member of Italian Society for Endoscopic Surgery (SICE) in 2010. He was a member of the Pool of Reviewers at the European Science Foundation, Strasbourg, France, and the Pool of Reviewers at the Italian Ministry “dell’Istruzione, dell’Università e della Ricerca.”

Dr. Buess was also President of the Society for Minimally Invasive Therapy (SMIT) in 1996, President of the European Association for Endoscopic Surgery (EAES) from 2005 to 2007, President of the 10th World Congress of Endoscopic Surgery, and President of the Annual Congress of the EAES, Berlin, 2006.

Gerhard Buess was awarded the Jubilee prize of the German Association for Surgery in 1992, the Adalbert-Seifriz-Prize 1993 from the “Verein Technologie-Transfer-Handwerk e.V.,” the Rudolf-Schindler-Prize for the best

video, “Jahrestagung der DGEBV” in 1994, and the Inaugural Distinguished Recognition Award from the International Federation Societies of Endoscopic Surgeons (IFSES), Athens, Greece, 2007. He was especially proud of the award and recognition received from the German Society of Surgery (Deutsche Gesellschaft für Chirurgie) in 1992 together with Dr. Mühe, as the two German surgeons who first developed minimally invasive procedures (Buess, TEM, 1983) and laparoscopic cholecystectomy (Mühe 1985). This prize came after years of criticism of and controversy over the clinical applications of such techniques.

Gerhard Buess was founding and chief editor of the *Journal of Minimally Invasive Therapy and Allied Technologies*. Furthermore, he was coeditor or member of the editorial board of *Surgical Laparoscopy & Endoscopy*, *Endoskopie heute*, *Minimal Invasive Chirurgie*, *Rivista Italiana di Videochirurgia e Chirurgia Mini-invasiva*, *Langenbeck’s Archives of Surgery*, *Surgical Endoscopy*, *The International Journal of Medical Robotics and Computer Assisted Surgery*, and *Management & Krankenhaus*.

During his working life, Dr. Buess wrote or edited 7 textbooks that focused on endoscopic and minimally invasive surgery; and as first author or coauthor he wrote over 72 book chapters and 265 original articles and editorials; and he gave over 950 lectures in surgical and other medical conferences worldwide. He was one of the few living surgeons whose name has been included in all surgery textbooks for a surgical procedure he developed and first introduced into the clinical practice: transanal endoscopic microsurgery. He contributed much to the development of new technologies and their application to surgery. He built a center for minimally invasive surgery renowned throughout the world: MIC Tübingen. Spinoffs from this center can be found worldwide: from Germany to Italy, from Japan to India, from China to Cuba. Hundreds of surgeons visited this center from all over the world and most of them attended the training courses at MIC Tübingen.

Above all, Gerhard Buess was a man and a friend of exceptional intellect and a great heart, a lover of life in all its forms. He was easy-going and scrupulously honest. I like to remember him as he was when I first met him in Atlanta for the American College of Surgeons meeting in 1989 and when I had the privilege of starting my long-lasting collaboration with him. At that time he was introducing the TEM procedure, reporting on the early clinical results, and showing the technique and the training method at the American College of Surgeons annual meeting. I like to remember him, as do the vast majority of surgeons worldwide, as the surgeon whose presence at any surgical conference claimed center stage within the scientific program. Finally, I like to remember Dr. Buess as a man who

enjoyed life, sports, and nature through his last days. A man who became bay watcher at 19 and worked as a sky master on the Dolomites in wintertime during his medical school years. A man who loved horseback riding and rode with me many times in the Black Forest. A man who loved gardening, zen, and talking with friends at night by the fireside. A man of positive thinking until the very end. And

a man who always wanted to share his joys with all his closest friends, as he did only a year ago when his life and that of his wife were enriched by newborn twins.

Gerhard F. Buess died in Herrsching on October 30, 2010. The world's scientific community will miss this man and his visionary approach to medicine, surgery, and innovative technologies.