
Curriculum Vitae Professor Dr. Wolfgang Künzel

Name: Wolfgang Kuenzel
Born: 28 July 1936 Zwickau, Germany



Main areas of research: utero fetal development, uterine blood flow, fetal oxygenation, fetal heart rate, fetal shock syndrome

Wolfgang Künzel is an Emeritus Professor and Chairman of the Department of Obstetrics and Gynaecology University Giessen, Germany since 2002. His research is focused on uterine blood flow and fetal oxygenation, fetal heart rate and fetal shock syndrome and on Quality assurance in Obstetrics and Gynaecology State of Hesse, Germany.

Academic and Professional Career

since 2002	Professor Emeritus
1980 - 2002	Professor and Chairman Frauenklinik, University Giessen, Department of Obstetrics and Gynecology, Germany
1976 - 1979	Specialist training in Obstetrics and Gynecology, University Hospital Würzburg, Germany
1973 - 1974	Acting Chairman, Dept. Obstetrics and Perinatology, Medical School Hannover, Germany
1975 - 1976	Associate Professor
1972	Trustee of the Hannover Medical School, Germany
1971 - 1972	Specialist training in Obstetrics and Gynecology, Hannover Medical School, Germany
1970	Habilitation, Gynecology and Obstetrics, Hannover Medical School, Germany
1963	Approbation
1962 - 1968	Specialist training in Obstetrics and Gynecology, University Hospital Kiel, Germany
1962	Ph.D., University Kiel, Germany
1960	Medical Examination

1954 - 1956 Studies, Philipps University Marburg, Germany

1957 - 1960 Studies, University Kiel, Germany

Project coordination, Membership in collaborative research projects

1974 - 1975 Research Grant German Research Foundation (DFG): Cerebral blood flow, umbilical blood flow and fetal oxygenation. University of New York at Stony Brook

1968 -1970 Institute of Physiology Medical School Hannover: Uterine blood flow and Fetal Oxygenation (DFG Grant)

Functions in Scientific Societies and Committees

2002 - 2004 Member of the Management Committee of The European Congress

2002 - 2003 Member of the Expert Committee, Medical Chamber Hessen, Germany

1999 - 2002 President of the European Board and College of Obstetrics and Gynaecology

1997 - 2004 Secretary General of EAGO

1996 - 1997 Member of the Finance Committee of the FIGO

1996 - 1997 Member of the Executive Committee of EAGO

1996 - 1997 Member Executive Committee of the European Board and College of Obstetrics and Gynaecology

1992 - 1996 Member of the Scientific Committee of the European Society of Perinatal Medicine

1992 - 1996 Member Scientific Committee of the European Association of Obstetrics and Gynaecology (EAGO)

1992 - 1994 President elect of the German Society of Gynecology and Obstetrics

1991 - 2004 Member of the Committee Training and assessment German Academic Society of Obstetrics and Gynaecology and Representative for Europe

1991 - 1996 Treasurer of the European College of Obstetrics and Gynaecology

1991 - 1997 Chairman Standing FIGO Committee on Perinatal Health

1989 - 1991 Vice-Dean of the Department of Human Medicine at the University Gießen , Germany

1985 - 2010 Member of the Committee of Training and Assessment, Medical Chamber Hessen, Germany

1984 - 1996 President of the German Society of Gynecology and Obstetrics

1984 - 1992 Treasurer of the German Society of Gynecology and Obstetrics

Honours and Awarded Memberships

2009	Honorary Member of the German Society of Perinatal Medicine
2008	Honorary Member Academic Society of Gynecology and Obstetrics, Germany
2004	Honorary Fellow of the European Board and College of Obstetrics and Gynaecology
2001	Member honoris causa Hungarian Society of Obstetrics and Gynecology
2001	Certificate of Appreciation by the University of Assiut, Egypt
1997	Member of the German Academy of Sciences Leopoldina
1999	Otto Käser Memorial Lecture, Basel, Switzerland
1996	Dr. Richard Hammer Medal, Medical Chamber Hessen, Germany
1995	Fellow ad eundem of the Royal College of Obstetricians and Gynaecologists

Major Scientific Interests

The research interest is focused on in utero fetal development and its supervision during pregnancy and labor. First investigations were conducted in the 60th looking at fetal oxygenation during labor by fetal blood sampling in cooperation with KH Wulf at the dept. ob/gyn university in Kiel. There is no combined metabolic and respiratory acidosis at the start of labor in the normal fetus, but it develops during intense uterine contractions as a result of a repeated reduced uterine blood flow. Animal experiments on guinea pigs and sheep in the 70th made clear that fetal oxygen consumption (VO₂) is dependent on uterine blood flow (UBF) in a nonlinear relationship, i.e. at high blood flow rates changes of UBF are not accompanied by a reduction of oxygen consumption. VO₂ fell however if a critical level of SO₂ (%) of 30% or UBF of 50-70 ml/kg/ min are undercut. In shock situations in the pregnant sheep uterine blood flow is reduced as a result of the high resistance in the uterine circulation. Cerebral function measured by fetal EEG measured in cooperation with Leon Mann at SUNY in 1975 is strongly related to the sufficient oxygen supply to the uterus and the fetus. The fetal condition in utero is best estimated by its heart rate during pregnancy and labor. Reduction of UBF leads to a fall of FHR, depending on the condition of the fetus and the amount of UBF reduction. It is however difficult to estimate fetal condition solely by a single parameter of fetal heart rate, since FHR shows a typical pattern during fetal deterioration. Major parameters of fetal heart rate have to be observed and valued simultaneously: Base line FHR, Oscillations in amplitude and frequency, decelerations of FHR (not classified in late, variable and early) and the number of decelerations especially during last stage of labor. Research interest is since 2005 directed to MMR and FMR in a low income country Nigeria with a high maternal and neonatal mortality. The introduction of quality assurance in obstetric s in 20 selected hospitals led in 2011 to a reduction of MMR by 60% and FMR by 15%.

