Background
Project of the German Society of Paediatric Cardiology (DGPK):
Documentation of the History of Paediatric Cardiology since 1950 in Europe, interview-
ing its honorary members. The interview with Kurt Amplatz, Prof. em. University of
Minnesota, took place at Weimar October 4, 2012.

Aim
The documentation of the contemporary witness of Kurt Amplatz, a pioneer in the
field of interventional radiology and pediatric cardiology, inventor of basic tools and
devices in this field, above all the Amplatzer occluders®.

Method
An interview with standardised questions recorded on video. The transcription
undergoes an evaluating and analysing process of historico-medical contextualisation.
We present some aspects of his career, photos and videosquences.

Results – Kurt Amplatz
I: Biographical data

1924-1952 Childhood and youth in Austria
1924 Kurt Amplatz is born at Weisbrach in Austria.
1945 he graduates from Grammar School at Innsbruck
1951 after receiving his doctorate from Faculty of Med-
icine Innsbruck he starts his Internship at St. Pölten

Since 1952 Kurt Amplatz has lived in the USA
1952 After finishing the internship in New York City
1953 he starts a residency at Detroit as radiologist
1957 The beginning of his career at Minneapolis as
Professor of radiology, Inventor and researcher at
Medical School University of Minnesota (1)

II: Minneapolis in the fifties: Mecca of modern medicine.
Kurt Amplatz knows an inspiring atmosphere for research,
Clinical work and medical engineering

Minneapolis pioneered worldwide open-heart surgery
Walton C. Lillehei performed the 1st open-heart
operation in 1954 (2)
A. DeWall, pioneer of heart-lung-machine;
E. Bakken, inventor of the pacemaker

High importance of laboratory research based on
Multi- and interdisciplinary cooperation and networking
The guiding spirits of Owen W. Wangensteen and Leo
Rigler
Medical engineering and enterprises collaborating with
Medical School (e.g. Medtronic (1949) St. Jude (1976),
AngioMedics etc. (3)

1957 – 1999 Kurt Amplatz: Professor of Radiology University Ma III: His contributions in the field of paediatric cardiology

Some of his innovative techniques / devices for
catherisation and angiography:
► High-resolution x-ray equipment e.g. double contrast coronary angiography and Heparin-coated guides wires
► Sheathed needled for angiography
► an effective light weight portable injector for detection of
small intracardiac shunts in children; (4)
► introduction of left heart catherisation
► Specially shaped cardiac catheters, i.e. the modified
Amplatz for left / right coronary angiography (photo 1)
► The textbook, a record of the collated experiences: K. Amplatz et al. „Radiology of congenital heart Disease”
(1986)

Kurt Amplatz personally witnesses (e.g.):
► How he went to Stockholm to learn the original percuta-
neous vessel puncture technique of Seldinger in 1957
► How he launched the start-up company of his younger
daughter feeding to her company „Microvena“ the
GooseNeckSnare in 1979 (photo 1)

IV: Kurt Amplatz and AGA (1995) - Some Milestones

The economic success of the enterprise is based on the inventions of
the Amplatzer occluders® and cardiovascular plugs.

1995 Kurt Amplatz founded AGA Corp, the capital stock to total 300 belonged origi-
nally in equal shares to him, to his son-in-law Franck Gagneon and to Michael
Afremov.

The enterprise in Plymouth Mn, grew up rapidly. It already valued at $25 million in
1999 based on healthy overseas sales of AGA’s occluders (90% placed in children; 1998 AGA got the EC MARK approval and was successfull on the Euro-pean
market: the enterprise increased. (medicinews. com/20107 10 (April 21, 2013))

2001- 2009

Diverse FDA Approvals for the line of AMPLATIVE occlusion devices ASD0,
ASDK, PFO, PFOA, ADOH since 2001(5)
In 2002 AGAs sales rose to $62 million.

2004 A litigation about nearly two years (2004-2006)
led to new management and investment structures of
AGA.Afremov was sold out with approximately
$100 million (3) (6)
In February 2009 Caroline Amplatz pledged
$50 million for the university’s new children’s
hospital, which the Medical School named for
Dr. Amplatz. “ The Hospital opened on April 30,
2011 in Minneapolis, (7)

2010 St. Jude Medical Inc. Completes its $1.3 billion
acquisition of AGA Medical Holdings Inc.” (8)

About 30,000 various Amplatzer occluders were
implanted worldwide in 2003. (9) Total sales in 2012
(53 countries): 223,965 (10)

The vision of Kurt Amplatz:
Inventing motors fitting for the ecological e re
(saving fuel) and going on inventing new techniques and devices.

Discussion:
1. What are the aspects which have to be added? (e.g. the paradigm shift of
scientific and technological research / networks)
2. What is about the role of transfer / of cooperative collegial work / of global
concurrency and copy? “The best compliment is to be copied.” (Kurt
Amplatz, October 4, 2013)
Temporal witnesses about the evolution of interventional cardiac catheterisation for CHD: 
Interview with Kurt Amplatz – radiologist, inventor, entrepreneur (2)

References

(1) „Over the past 40 years, Dr. Amplatz has been one of the most prolific and inventive individuals in academic radiology, and there are to his credit innumerable inventions. Many of these inventions became part of the past and current armamentarium utilized in the radiologic diagnosis and treatment of diseases. [...] His academic productivity includes [...] seven textbooks, 68 chapters in books by other authors, and more than 1000 scientific presentations at national and international scientific meetings. [...] “Since 1980 he has received innumerable awards for his scientific work[...].” He trained a lot of disciples from all over the world.” in: Castaneda Zuñiga WR: About Kurt Amplatz: Gold Medal Winners (of the American Roentgen Ray Society): Kurt Amplatz. AJR September 2000 vol. 175 no. 3:910

(2) Wilson LG, Medical Revolution in Minnesota, A History of the University of Minnesota Medical School. St. Paul, Minnesota 1989


(4) Kieffer SA, Gedgáudas E, Peterson HO, A Brief History of the department of Radiology. Minnesota MS 1967: 25

(5) FDA accessdata www: fda / gov / (April 13, 2013)


(10) “We sell our devices in 112 countries [...] International markets represented 59.2% of our net sales in 2008 and 61.1% of our net sales in the six months ended June 30, 2009, and we anticipate continued growth internationally as we expand our presence in [...] countries such as China (and) expand our direct sales presence into additional European countries [...]” AGA Medical Holdings Inc. WWW NASDAQ. com/markets/ ipos/company/aga-medical-holdings-inc (April 13, 2013)

Photos: Courtesy by Kurt Amplatz