#### 基礎資料

• Kangarlu A and Robitaille PML, Biological effects and health implications in magnetic resonance imaging. Concepts in Magnetic Resonance, 12, 321-359, 2000

• Guidance for industry and FDA Staff - Criteria for Significant Risk investigations of magnetic resonance diagnostic devices. U.S. Department of Health and Human Services, Food and Drug Administration, Center for Devices and Radiological Health. July 14, 2003

・日本工業標準調査会.磁気共鳴画像診断装置一安全, JIS Z 4951.日本規格協会, 1999
・Shellock FG, Kanal E, Magnetic resonance: Bioeffects, safety, and patient management.

New York, USA: Raven Press, 1994

• Ordidge RJ, Shellock FG and Kanal E Eds, A Y2000 update of current safety issues related to MRI. J Magnetic Resonance Imaging 12, Number 1 (special issue), 2000

• Shellock FG, Crues JV MR Procedures: Biologic Effects, Safety, and Patient Care Radiology 232, 635—652, 2004

#### 静磁場

• Schenck JF, Dumoulin CL, Redington RW, Kressel HY, Elliott RT, McDougall IL: Human exposure to 4.0-tesla magnetic-fields in a whole-body scanner. Medical Physics 19, 1089-1098, 1992

• Schenck JF: Safety of strong, static magnetic fields. Journal of Magn Reson Imaging 12, 2-19, 2000

• Kangarlu A, Burgess RE, Zhu H, Nakayama T, Hamlin RL, Abduljalil AM, Robitaille PML, Cognitive, cardiac, and physiological safety studies in ultra high field magnetic resonance imaging. Magnetic Resonance Imaging 17, 1407-1416, 1999

• Kangarlu A, Shellock FG, Chakeres DW, 8.0-Tesla human MR system: Temperature changes associated with radiofrequency-induced heating of a head phantom. Journal of Magnetic Resonance Imaging 17, 220-226, 2003

• Chaljub G, Kramer LA, Johnson RF, Johnson RF, Singh H, Crow WN, Projectile cylinder accidents resulting from the presence of ferromagnetic nitrous oxide or oxygen tanks in the MR suite. American Journal of Roentgenology 177, 27-30, 2001

## ラジオ波

• Shellock FG, Radiofrequency energy-induced heating during MR procedures: a review. Journal of Magnetic Resonance Imaging, 12, 30-36, 2000

• Hoult DI, Sensitivity and power deposition in a high-field imaging experiment. Journal of Magnetic Resonance Imaging, 12, 46-67, 2000

• Hand JW, Lau RW, Lagendijk JJW, Ling JX, Burl M, Young IR, Electromagnetic and thermal modeling of SAR and temperature fields in tissue due to an RF decoupling coil. Magnetic Resonance in Medicine 42, 183-192, 1999

## 傾斜磁場

• Schaefer DJ, Bourland JD, Nyenhuis JA, Review of patient safety in time-varying gradient fields. Journal of Magn Reson Imaging 12, 20-29, 2000

• Ehrhardt JC, Lin C, Magnotta VA, Fisher DJ, Yuh WTC, Peripheral nerve stimulation in a whole-body echo-planar imaging system. Journal of Magnetic Resonance Imaging 7, 405-409, 1997

• Ham CLG, Engels JML, van de Wiel GT, Machielsen A, Peripheral nerve stimulation during MRI: effects of high gradient amplitudes and switching rates. Journal of Magnetic Resonance Imaging 7, 933-937, 1997

• Den Boer JA, Bourland JD, Nyenhuis JA, Ham CLG, Engels JML, Hebrank FX, Frese G, Schaefer DJ, Comparison of the threshold for peripheral nerve stimulation during gradient switching in whole body MR systems. Journal of Magnetic Resonance Imaging 15, 520-525, 2002

# 騒音

• McJury M, Shellock FG, Auditory noise associated with MR procedures: A review. Journal of Magnetic Resonance Imaging 12, 37-45, 2000

• Mansfield P, Glover PM, Beaumont J, Sound generation in gradient coil structures for MRI, Magnetic Resonance in Medicine 39, 539-550, 1998

## 関連文献

• Foster K, Moulder J, Questioning biological effects of EMF. In: IEEE Engineering in Medicine and Biology Magazine, Vol 15, No4, 1996

• Jianming Jin, Electromagnetic Analysis and Design in Magnetic Resonance Imaging. CRC Press, Boca Raton, 1999

• Kodali VP, Engineering electromagnetic compatibility. Principles, measurements, and technologies. IEEE Press, New York, 1996

• Durney CH, Christensen DA, Basic introduction to bioelectromagnetics. CRC Press, New York, 1999

• Kimmel WD, Gerke DD, Electromagnetic Compatibility in Medical Equipment, IEEE Press, New York, 1995

• Magin RL, Liburdy RP, Persson B eds, Biological effects and safety aspects of nuclear magnetic resonance imaging and spectroscopy. In: Annals of the New York academy of Sciences 649. New York Academy of Sciences, Yew York, 1992