

Markus M. Fitzek, MD, MSc

Education

1987	MD	University of Wuerzburg, Germany
1988	Doctoral Thesis	Summa cum Laude (Experimental Radiation Biology)
1991	MSc	University of London
1992	FRCS Part A	Royal College of Surgeons, Edinburgh
1996	DABR	Diplomate of the American Board of Radiology (Therapeutic)
1999	Facharzt	German Board of Radiation Therapy

Postgraduate Training

1992 – 1998	Residency and Fellowship in Radiation Oncology, Massachusetts General Hospital, Harvard Medical School, Boston. Postdoctoral Fellow at the Harvard School of Public Health, Department of Cancer Biology.
1987 - 1992	Senior House Officer in General and Orthopedic Surgery at Royal Marsden Hospital, St. George's Hospital, Royal National Orthopedic Hospital, London, and Master of Science course in Radiation Biology at St. Bartholomew's Medical College, University of London.

Work Experience:

2014 - present	Radiation Oncologist with Cancer Care Group, Indianapolis
2007 – 2019	Associate Staff (Courtesy) at Indiana University Health Bloomington Hospital and Southern Indiana Radiology Associates (SIRA), Bloomington, Indiana
2012 - 2017	Radiation Oncologist, Hampton University Proton Therapy Institute
2012 – 2015	Adjunct Professor of Physics, Indiana University Bloomington
2007 – 2011	Associate Professor of Radiation Oncology, Indiana University School of Medicine
2007 – 2010	Attending Radiation Oncologist, Midwest Proton Radiotherapy Institute (MPRI), Director of Research and Development, MPRI.
2004 – 2007	Attending Physician, Department of Radiation Oncology, Tufts-New England Medical Center, Boston. Assistant Professor of Radiation Oncology, Tufts University School of Medicine Associate Director, Residency Training Program
2002 – 2004	Leader, Proton therapy collaboration Hahn-Meitner Institut, Berlin – University of Essen. Department of Radiation Therapy, University of Essen, Germany.
1998 - 2004	Radiation Oncologist, Department of Radiation Therapy, University of Essen, Germany, and Klinik fuer Strahlentherapie, Charite- Mitte, Humboldt University of Berlin, Germany.
1992 - 1998	Residency and Fellowship in Radiation Oncology, Massachusetts General Hospital, Harvard Medical School, Boston. Postdoctoral Fellow at the Harvard School of Public Health, Department of Cancer Biology.
1987 - 1992	Senior House Officer in General and Orthopaedic Surgery at Royal Marsden Hospital, St. George's Hospital, Royal National Orthopaedic Hospital, London, and Master of Science course in Radiation Biology at St. Bartholomew's Medical College, University of London.

Selected Peer reviewed publications (in chronological order)

1. Hug EB, **Fitzek MM**, Liebsch NL, Munzenrider JE : Locally challenging osteo- and chondrogenic tumors of the axial skeleton : Results of combined proton and photon radiation therapy using three dimensional treatment planning. *Int. J. Rad. Biol. Onc. Phys.* 31, 467-476, 1995.

2. **Fitzek MM**, Thornton AF, Rabinov JD, Lev MH, Pardo FS, Munzenrider JE, Okunieff P, Bussiere M, Braun I, Hochberg FH, Hedley-Whyte ET, Liebsch NL, Harsh GR IV : Accelerated proton/photon irradiation to 90 cobalt gray equivalent for glioblastoma multiforme: results of a phase II prospective trial. *J. Neurosurg.* 91, 251-260, 1999.
3. **Fitzek MM** : Radiation dose escalation for the treatment of gliomas : Recent experience. *Frontiers of Radiotherapy and Oncology*, Vol 34, 106-115, 2000.
4. **Fitzek MM**, Thornton AF, Harsh GR IV, et al : Dose escalation with proton/photon irradiation for Dumas-Duport lower grade glioma: Results of an institutional phase I/II trial. *Int J Rad Onc Biol Phys* 51, 131-137, 2001.
5. **Fitzek MM**, Dahlberg WK, Mukai S, Munzenrider JE, Nagasawa H, Little JB : Unexpected sensitivity to radiation of fibroblasts from unaffected parents of children with hereditary retinoblastoma. *Int. J. of Cancer* 99, 764-768, 2002.
6. **Fitzek MM**, Thornton AF, Varvares M, et al : Neuroendocrine tumors of the sinonasal tract: Results of a prospective study incorporating chemotherapy, surgery and combined proton/photon radiotherapy. *Cancer* 94, 2623-2634, 2002.
7. **Fitzek MM**, Linggood, R, Adams J, Munzenrider JE : Combined proton and photon irradiation for craniopharyngioma: Long-term results of the early cohort of patients treated at Harvard Cyclotron Laboratory and Massachusetts General Hospital. *Int J Rad Onc Biol Phys* 64, 1348-54, 2006.
8. Newhauser WD, Koch NC, Fontenot JD, Rosenthal SJ, Gombos DS, **Fitzek MM**, Mohan R : Dosimetric impact of tantalum markers used in the treatment of uveal melanoma with proton beam therapy. *Phys. Med. Biol.* 52, 3979-3990, 2007.
9. Li Zhao, George Sandison, Jonathan Farr, Huanmei Wu, **Markus Fitzek**: The Moving Target Induced Dosimetric Effect vs. Beam Direction in Proton Radiotherapy of Moving Lung Tumors. *BMEI*, pp. 804-808, 2008 *International Conference on BioMedical Engineering and Informatics*.
10. Beyer T, Pietrzyk U, Knoess C, Vollmar S, Wienhard K, Kracht L, Bockisch A, Maderwald S, Kühl H, **Fitzek M** : Multimodality imaging of uveal melanomas using combined PET-CT, high resolution PET, and MR Imaging. *Nuklearmedizin* 47/2, 1-7, 2008.
11. D. Hecksel, V. Anferov, **M. Fitzek**, K. Shahnazi: Influence of beam efficiency through the patient specific collimator on secondary neutron dose in double scattering and uniform scanning modes of proton therapy. *Medical Physics* 37, 2910-17, 2010.
12. Rui Zhang, Phillip J Taddei, **Markus M Fitzek** , Wayne D Newhauser: Water equivalent thickness values of materials used in beams of proton, helium, carbon and iron ions. *Physics in Medicine and Biology* 55, 2481-2493, 2010.
13. Paul F. Wilson, Hatsumi Nagasawa, **Markus M. Fitzek**, John B. Little, and Joel S. Bedford: G2-phase Chromosomal Radiosensitivity of Primary Fibroblasts from Hereditary Retinoblastoma Family Members and Some Apparently Normal Controls. *Radiation Research* 173, 62-70, 2010.
14. McDonald MW, **Fitzek MM**: Proton Therapy. *Curr Probl Cancer* 34, 257-96, 2010.
15. Dvorak T, **Fitzek M**, Wazer D: Utilization of proton therapy: Evidence-based, market-driven, or something in-between? *American Journal of Clinical Oncology*, epub March 2 2012
16. Angélica Pérez-Andújar, Paul M. DeLuca Jr., Allan F. Thornton, **Markus Fitzek**, Draik Hecksel, Jonathan Farr: Microdosimetric measurements for neutron absorbed dose determination during proton therapy. *Radiation Protection Dosimetry*, epub Feb 14 2012
17. Dvorak T, **Fitzek M**, Wazer D: Utilization of proton therapy: Evidence-based, market-driven, or something in-between? *American Journal of Clinical Oncology* 36, 192-6, 2013
18. Chang AL, Vonbergen J, **Fitzek M**, Thornton AF, Shih CS, Pradhan K, Re-irradiation for Recurrent Pediatric CNS Tumors, International Society of Pediatric Neuro-Oncology (ISPNO), Denver, CO, 2018

Professional Associations :

American Medical Association (AMA)
 American Society for Therapeutic Radiation Oncology (ASTRO)
 Radiation Research Society (RRS)
 American Society of Clinical Oncology (ASCO)
 Radiologic Society of North America (RSNA)
 Massachusetts Medical Society (MMS)
 Particle Therapy Cooperative Group (PTCOG)