Curriculum Vitae

Personal information

Rudolf Verdaasdonk

Work experience

1/01/2019 – CURRENT – Enschede, Netherlands

CHAIR OF HEALTH TECHNOLOGY IMPLEMENTATION – University of Twente

- Staff member of TechMed Center Institute, University of Twente
- Staff member of BioMedical Photonics & Imaging group
- Project leader UT strategic program ‘Sustainable Health Technology’
- Advisor clinical studies (METC), medical regulations and safety (MDR & ISO) for TechMed Centre
- Research on (smart) devices/technology for non-contact imaging of vital functions and diagnostics
- Research on fundamentals of energy delivery devices
- Developments and implementation of new medical technologies in hospitals
- Verification & Validation of medical devices
- Valorization and commercialization of medical devices
- Development of master courses BME and TG on Health Technology Implementation
- Supervision student projects (PhD, MSc, BSc, MD)

01/02/2020 – CURRENT – The Hague, Netherlands

MEMBER CENTRAL COMMITTEE ON RESEARCH INVOLVING HUMAN SUBJECTS – Ministry of Health

- Expert Medical Devices (MDR)
- Review/advise on clinical studies with medical devices on human subjects

01/11/2009 – 31/12/2018 – Amsterdam, Netherlands

DIRECTOR OF DEPARTMENT OF PHYSICS & MEDICAL TECHNOLOGY – VU University Medical Center

- Full Professor of Physics & Medical Technology
- General Management Department, Management Research & Development projects
    - 80 fte of which 25 (medical)physicists and 40 biomedical engineers/technicians
- Quality & Safety of medical equipment, chairman VUmc committee Medical Technology
- Development of new treatment modalities and medical equipment with medical professionals
- Education, development courses and e-learnings for medical professionals in application of complex medical
- technology (e.g. Amstel Academy)
- Lecturer Faculty of Medicine, minor courses and supervisor science projects
- Supervisor Trainees Medical Physics and Technical Medicine
- Management Innovation/Valorization projects, Member 'Pontes Medical' Innovation steering committee (www.pontesmedical.com)
- Practical implementation of Government Regulations ‘Convenant Medische Technologie’
- Member VUmc committee MIP: Reported Incidents with Patients,
- Member VUmc committee METC: Medical Ethics Committee for approval of clinical studies involving patients and

- volunteers,
- Member VUmc committee ‘Calamiteiten’: IGZ reported incidents with serious injury or death of patients
- Member steering committees for large building (VUmc Imaging Center) and implementation projects (EPD, Hybrid OR)
- Member 'bedrijfsnoodplan' organisation

01/11/2009 – 31/12/2017 – Amsterdam, Netherlands

PROFESSOR OF PHYSICS & MEDICAL TECHNOLOGY (0.2 FTE) – VU University

- Faculty of Sciences, Staff member dept of Physics, Biophotonics & Medical Imaging group
- Faculty of Sciences, lecturer in programs 'Medical Natural Sciences', 'Medical Physics' and 'Science, Business & Innovation' at bachelor and master level
- Supervisor and coach of bachelor, master, PhD research projects in VUmc and external institutes/companies (e.g.Technical Medicine, Philips, ESA)
    - Public Relations for program 'Medical Natural Sciences'

01/01/2004 – 30/10/2009 – Utrecht, Netherlands

HEAD CLINICAL PHYSICS GROUP – University Medical Center Utrecht

- Department of Medical Technology & Clinical Physics,
- Management team Department Medical Technology & Clinical Physics
- Assistant professor IMAGO research school UMCU
- Project manager Theme ‘ Medical Technology Innovation’
- Advisor consultant for METC
- Applied Research and Development for advanced medical procedures
- Support of advanced medical procedures for diagnostics and treatment
- Education and training for health care professionals (MD’s, PhD’s, students, nurses)
- Facilitation of Medical physics for regional hospitals
- Member of MIP (patient incidences) committee of UMCU

01/01/1998 – 31/12/2003 – Utrecht, Netherlands

HEAD CLINICAL PHYSICS & MEDICAL LASER CENTER – University Medical Center Utrecht

- Department of Biomedical Engineering
- Applied Research specialized in imaging working mechanism of advanced medical devices
- Support of advanced medical procedures for diagnostics and treatment

01/01/1992 – 31/12/1997 – Utrecht, Netherlands

HEAD OF LASER CENTER – University Medical Center Utrecht

- Department of Biomedical Engineering
- Supervisor research projects

01/01/1990 – 31/12/1991 – Utrecht, Netherlands

POST-DOC RESEARCHER – University Medical Center Utrecht

- Combined position as Medical Laser Physicist at Department of Biomedical Engineering,
- Co-founder of the Laser Center AZU

01/12/1985 – 31/12/1989 – Utrecht, Netherlands

PHD RESEARCHER – University Medical Center Utrecht

- Laboratory for Experimental Cardiology University Hospital Utrecht in collaboration with Department of Biomedical Engineering, University of Texas in Austin
- Graduation May 1st 1990 with dissertation 'Laser Angioplasty with Modified Fiber Tips'

Education and training

01/12/1985 – 01/05/1991 – Heidelberglaan 8, Utrecht, Netherlands
PHD – University of Utrecht
www.uu.nl/en

01/09/1979 – 30/10/1985 – Groene Loper 3, Eindhoven, Netherlands
MASTER OF SCIENCE – Technical University Eindhoven
https://www.tue.nl/en

Additional information

Publications

Ventilating two patients with one ventilator: technical setup and laboratory testing
https://pubmed.ncbi.nlm.nih.gov/32665947/ – 2020
de Jongh FHC, de Vries HJ, Warnaar RSP, Oppersma E, Verdaasdonk R, Heunks LMA, Doorduin J. Ventilating two patients
with one ventilator: technical setup and laboratory testing. ERJ Open Res. 2020 Jul 6;6(2):00256-2020. doi:
10.1183/23120541.00256-2020. PMID: 32665947; PMCID: PMC7335837.

An Evaluation Framework for Spectral Filter Array Cameras to Optimize Skin Diagnosis
https://pubmed.ncbi.nlm.nih.gov/31694239/ – 2019
Bauer JR, Thomas JB, Hardeberg JY, Verdaasdonk RM. An Evaluation Framework for Spectral Filter Array Cameras to
Optimize Skin Diagnosis. Sensors (Basel). 2019 Nov 5;19(21):4805. doi: 10.3390/s19214805. PMID: 31694239; PMCID:
PMC6864639.

Thulium laser-assisted endoscopic third ventriculostomy: Determining safe laser settings
using in vitro model and 2 year follow-up results in 106 patients
https://pubmed.ncbi.nlm.nih.gov/29214660/ – 2017
de Boorder T, Brouwers HB, Noordmans HJ, Woerdeman PA, Han KS, Verdaasdonk RM. Thulium laser-assisted endoscopic
third ventriculostomy: Determining safe laser settings using in vitro model and 2 year follow-up results in 106 patients.
Lasers Surg Med. 2017 Dec 7. doi: 10.1002/lsm.22779. Epub ahead of print. PMID: 29214660.

Thermal Energy during Irreversible Electroporation and the Influence of Different Ablation
Parameters
https://pubmed.ncbi.nlm.nih.gov/26703782/ – 2016
van den Bos W, Scheffer HJ, Vogel JA, Wagstaff PG, de Bruin DM, de Jong MC, van Gemert MJ, de la Rosette JJ, Meijerink
MR, Klaessens JH, Verdaasdonk RM. Thermal Energy during Irreversible Electroporation and the Influence of Different
Ablation Parameters. J Vasc Interv Radiol. 2016 Mar;27(3):433-43. doi: 10.1016/j.jvir.2015.10.020. Epub 2015 Dec 17. PMID:
26703782.

Summarizing the 4D image stack of ultrafast dynamic contrast enhancement MRI of breast
cancer in 3D using color intensity projections
https://pubmed.ncbi.nlm.nih.gov/30318731/ – 2019
Cover KS, Duvivier KM, de Graaf P, Wittenberg R, Smit R, Kuijer JPA, Hofman MBM, Slotman BJ, Verdaasdonk RM.
Summarizing the 4D image stack of ultrafast dynamic contrast enhancement MRI of breast cancer in 3D using color intensity
projections. J Magn Reson Imaging. 2019 May;49(5):1391-1399. doi: 10.1002/jmri.26521. Epub

2018 Oct 14. PMID:
30318731.

Imaging the seizure during surgery with a hyperspectral camera

https://pubmed.ncbi.nlm.nih.gov/24199829/ – 2013

Noordmans HJ, Ferrier C, de Roode R, Leijten F, van Rijen P, Gosselaar P, Klaessens J, Verdaasdonk R. Imaging the seizure
during surgery with a hyperspectral camera. Epilepsia. 2013 Nov;54(11):e150-4. doi: 10.1111/epi.12386. Epub 2013 Sep 20.
PMID: 24199829.

The use of near-infrared light for safe and effective visualization of subsurface blood vessels to facilitate blood withdrawal in children

https://pubmed.ncbi.nlm.nih.gov/22841651/ – 2013

Cuper NJ, Klaessens JH, Jaspers JE, de Roode R, Noordmans HJ, de Graaff JC, Verdaasdonk RM. The use of near-infrared
light for safe and effective visualization of subsurface blood vessels to facilitate blood withdrawal in children. Med Eng Phys.
2013 Apr;35(4):433-40. doi: 10.1016/j.medengphy.2012.06.007. Epub 2012 Jul 27. PMID: 22841651.

Imaging techniques for research and education of thermal and mechanical interactions of lasers with biological and model tissues

https://pubmed.ncbi.nlm.nih.gov/16965138/ – 2006

Verdaasdonk RM, van Swol CF, Grimbergen MC, Rem AI. Imaging techniques for research and education of thermal and
mechanical interactions of lasers with biological and model tissues. J Biomed Opt. 2006 Jul-Aug;11(4):041110. doi:
10.1117/1.2338817. PMID: 16965138.

Endovenous laser ablation: an experimental study on the mechanism of action

https://pubmed.ncbi.nlm.nih.gov/18453482/ – 2008

Disselhoff BC, Rem AI, Verdaasdonk RM, Kinderen DJ, Moll FL. Endovenous laser ablation: an experimental study on the
mechanism of action. Phlebology. 2008;23(2):69-76. doi: 10.1258/phleb.2007.007038. PMID: 18453482.

Cerebral revascularization

https://pubmed.ncbi.nlm.nih.gov/12627810/ – 2003

Streefkerk HJ, Van der Zwan A, Verdaasdonk RM, Beck HJ, Tulleken CA. Cerebral revascularization. Adv Tech Stand
Neurosurg. 2003;28:145-225. doi: 10.1007/978-3-7091-0641-9_3. PMID: 12627810.

Projects

Memberships

01/01/2000 – CURRENT

Dutch Society for Clinical Physics (NVKF)

Utrecht
Certified clinical/medical physicist
former board member (Treasurer) 6 yrs
member

01/01/1987 – CURRENT

International Society for Biomedical Optics (SPIE)

Bellingham, WA, USA
Member, Fellow status

conference organizing committees

Other Relevant Information