

Curriculum Vitae (short)

Personal information:

Surname: van de Berg
Name: Raymond
Date of birth: September 5th, 1984
Place of birth: Geldrop
Address: Maagdendries 29
Zip Code: 6211 RW Maastricht, the Netherlands
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Education and work:

2016 – present

Head Department of Audiology

2015 – present

Head of Vestibular Department, Maastricht University Medical Center

Head of ORL-internship for Master students in Medicine, University of Maastricht

Board member regional association of ENT-specialists (KNOL)

2014 - present

Assistant Professor Faculty of Physics, Tomsk State University, Russian Federation

2013 – present

ENT-surgeon, Department of Otolaryngology and Head and Neck Surgery, Maastricht University Medical Center

Specialty: Peripheral and central vestibular disorders

2008 – 2013

Resident, Department of Otolaryngology and Head and Neck Surgery, Maastricht University Medical Center

Foreign rotation:

April/May 2013: Department of Otolaryngology and Head and Neck Surgery & Department of Neurology, Johns Hopkins Hospital, Baltimore, United States

2002 – 2008

Medicine, Faculty of Health Sciences, University of Maastricht

Foreign internships:

- 2006: Internal Medicine, University of Pretoria, South Africa

- 2005-2006: Community Medicine and trauma surgery, UERMMC, Philippines

- 2005: Rhino-otolaryngology, Oranjestad, Aruba

- 2004: Immunology, University of Linköping, Sweden

ENT-related internships:

- Nov 2007 – Feb 2008 and June 2008 – Aug 2008: Research. BAHA: a comparison of surgical techniques. Department of Otolaryngology and Head and Neck surgery, Maastricht University Medical Center

- Feb 2008 – June 2008: senior internship rhino-otolaryngology and head and neck surgery. Department of Otolaryngology and Head and Neck surgery, Maastricht University Medical Center

1996-2002

VWO (high school), SG Augustinianum, Eindhoven, graduated 2002, cum laude

Research:

Articles and book chapters

1. Bone anchored hearing aid (BAHA): a comparison of surgical techniques. Van de Berg R, Stokroos RJ, Hof R, Chenault MN. *Otol Neurotol*. 2010 Jan;31(1):129-35.
2. The vestibular implant: Quo vadis? Van de Berg R, Guinand N, Stokroos RJ, Guyot JP, Kingma H. *Front Neurol*. 2011;2:47. Epub 2011 Aug 11.
3. The modified ampullar approach for vestibular implant surgery: Feasibility and its first application in a human with a long-term vestibular loss. Van de Berg R, Guinand N, Guyot JP, Kingma H, Stokroos RJ. *Front. Neurol*. 2012;3:18
4. Artificial balance: restoration of the vestibulo-ocular reflex in humans with a prototype vestibular neuroprosthesis. Perez Fornos A, Guinand N, van de Berg R, Stokroos R, Micera S, Kingma H, Pelizzone M, Guyot JP. *Front. Neurol.*, 29 Apr. 2014
5. Pelizzone M, Fornos AP, Guinand N, van de Berg R, Kos I, Stokroos R, Kingma H, Guyot JP. First functional rehabilitation via vestibular implants. *Cochlear Implants Int*. 2014 May;15 Suppl 1:S62-4.
6. Het vestibulair implantaat. Van de Berg R, Stokroos RJ, Kingma H, *Nederlands tijdschrift voor KNO-heelkunde*. 2014 Apr
7. Medically Unexplained Otorhinolaryngological Symptoms: Towards Integrated Psychiatric Care. Baijens LW1, Verdonchot R, Vanbelle S, Basic S, Kremer B, van de Berg R, Leue C. *Laryngoscope*. 2014 Dec 15. doi: 10.1002/lary.25082.
8. The vestibular implant: frequency-dependency of the electrically evoked vestibulo-ocular reflex in humans. R. van de Berg, N. Guinand, T.A. Khoa Nguyen, M. Ranieri, S. Cavuscens, J.P. Guyot, R. Stokroos, H. Kingma, A. Perez-Fornos. *Front. Syst. Neurosci.*, 20 January 2015. doi: 10.3389/fnsys.2014.00255
9. V.P. Demkin, H. Kingma, R. van de Berg, S.V. Melnichuk, O.V. Demkin, M.S. Herards, V.S. Ripenko, K.A. Sitnik. Determination of the Electrophysical Parameters of a Beam-Type High-Voltage Pulsed Discharge Plasma for Biomedical Research in a Highly Efficient Computing Environment. *Russian Physics Journal*. 2015; DOI: 10.1007/s11182-015-0560-3
10. van de Berg R, van Tilburg M, Kingma H. Bilateral Vestibular Hypofunction: Challenges in Establishing the Diagnosis in Adults. *ORL J Otorhinolaryngol Relat Spec*. 2015 Sep 15;77(4):197-218.
11. Guinand N, van de Berg R, Cavuscens S, Stokroos RJ, Ranieri M, Pelizzone M, Kingma H, Guyot JP, Perez-Fornos A. Vestibular Implants: 8 Years of Experience with Electrical Stimulation of the Vestibular Nerve in 11 Patients with Bilateral Vestibular Loss. *ORL J Otorhinolaryngol Relat Spec*. 2015 Sep 15;77(4):227-240.
12. G. Townend, P. Marschik, E. Smeets, R. van de Berg, M. van den Berg, L. Curfs. Eye Gaze Technology as a Form of Augmentative and Alternative Communication for Individuals with Rett Syndrome: Experiences of Families in The Netherlands. *J Dev Phys*. 19 October 2015. DOI 10.1007/s10882-015-9455-z
13. Eysink Smeets MM, van Leeuwen RB, van de Berg R. [Complaints of imbalance in elderly people]. *Tijdschr Gerontol Geriatr*. 2015 Oct 30
14. Lucieer F, Vonk P, Guinand N, Stokroos R, Kingma H and van de Berg R (2016). Bilateral vestibular hypofunction: Insights in etiologies, clinical subtypes and diagnostics. *Front. Neurol*. 7:26. doi: 10.3389/fneur.2016.00026

15. JP Guyot, A. Perez Fornos, N. Guinand, R. van de Berg, R. Stokroos, H. Kingma. Vestibular assistance systems: promises and challenges. *J Neurol* (2016) 263 (Suppl 1):S30–S35. DOI 10.1007/s00415-015-7922-1
16. Nguyen TA, DiGiovanna J, Cavuscens S, Ranieri M, Guinand N, van de Berg R, Carpaneto J, Kingma H, Guyot JP, Micera S, Fornos AP. Characterization of pulse amplitude and pulse rate modulation for a human vestibular implant during acute electrical stimulation. *J Neural Eng.* 2016 Aug;13(4):046023. doi: 10.1088/1741-2560/13/4/046023. Epub 2016 Jul 11.
17. Kingma H, van de Berg R. Anatomy, physiology, and physics of the peripheral vestibular system. *Handbook of clinical neurology.* doi:10.1016/B978-0-444-63437-5.00001-7
18. van den Burg EL, van Hoof M, Postma AA, Janssen AML, Stokroos RJ, Kingma H, van de Berg R (2016). An Exploratory Study to Detect Ménière's Disease in Conventional MRI Scans Using Radiomics. *Front. Neurol.* 7:190. doi: 10.3389/fneur.2016.00190
19. Guinand N, Van De Berg R, Cavuscens S, Stokroos R, Ranieri M, Pelizzone M, Kingma H, Guyot J and Perez Fornos A (2016). Restoring visual acuity in dynamic conditions with a vestibular implant. *Front. Neurosci.* 10:577. doi: 10.3389/fnins.2016.00577
20. van de Berg R, Lucieer F, Guinand N, van Tongeren J, George E, Guyot J, Kingma H, van Hoof M, Temel Y, van Overbeeke J, Perez Fornos A and Stokroos R (2017). The vestibular implant: Hearing preservation during intralabyrinthine electrode insertion – A case report. *Front. Neurol.* 8:137. doi: 10.3389/fneur.2017.00137
21. Perez Fornos A, Cavuscens S, Ranieri M, van de Berg R, Stokroos R, Kingma H, Guyot JP, Guinand N. The vestibular implant: A probe in orbit around the human balance system. *J Vestib Res.* 2017;27(1):51-61. doi: 10.3233/VES-170604.
22. Ossen M., Stokroos R., Kingma H., van Tongeren J., van Rompaey V., Temel Y., van de Berg R. Heterogeneity in reported outcome measures after surgery in superior canal dehiscence syndrome – a systematic literature review. *Front. Neurol.* | doi: 10.3389/fneur.2017.00347

PhD-project (medical): development of a vestibular implant

Goal: review, surgical techniques, stimulation pattern, long term stimulation

Names: * van de Berg R, Stokroos RJ, Kingma H (Maastricht University Medical Center)

* Perez-Fornos A, Guinand N, Guyot JP (University of Geneva)

Status: almost finished

PhD-project (physics): eye movement signal analysis for the vestibular implant

Goals: to improve the signal analysis for eye movements obtained with the vestibular implant

Names: * van de Berg R, van Hoof M, Kingma H (Maastricht University Medical Center)

* Pleshkov M, Demkin V (Tomsk State University)

Status: in process

Other scientific projects

- Characterization of Bilateral Vestibulopathy (co-promoter)
- The vestibular implant: Electrode design (co-promoter)
- Objective measures for vestibular implant evaluation (in cooperation with Tomsk University)
- Imaging in Meniere's disease
- Oculomotor signs in RETT-syndrome (member of RETT team)
- Using the Vestibular Labyrinthine Substitution system in daily life
- Vestibular rehabilitation (co-promoter)
- Basic understandings in Video Head Impulse Testing (co-promoter)
- Superior Canal Dehiscence: Quantifying therapy
- Psychosomatic complaints and dizziness

Achievements:

- Voted “Clinician of the year 2010 (resident category)” for educating junior interns in MUMC

- Voted “ENT-Resident of the year 2011” for clinical work in MUMC
- Nominated “Clinician of the year 2012 (resident category)”
- Highest national score Dutch ENT-exam 4th year residents 2011
- Highest national score Dutch ENT-exam all residents 2012
- 2nd Prize Scientific day MUMC, June 2012: Ampullar approach vestibular implant (Poster)
- Academy Resident Award (N. Guinand on behalf of our team) EAONO 2014 - 7th Instructional Workshop, September 2014, Siena, Italy

Additional information:

- Youngest Dutch ENT-surgeon ever
- Organizer and lecturer of the annual Dutch course for Dizziness and Vestibular Disorders
- Member of standardization committees on Superior Canal Dehiscence Syndrome and presbyvestibulopathy, Barany Society
- Invited speaker “Masterclass Bilateral Vestibulopathy”, Barany Society meeting 2014
- Moderator of sessions at international and national conferences
- Associate editor “Frontiers in Neuro-Otology”
- Guest editor research topic Frontiers in Neuroscience: “Emerging Sensory Neuroprosthetics: Feasibility, Efficacy and Metrics”
- Reviewer of peer-reviewed articles in different international journals
- Invited as expert at round table sessions, and as panelist at international conference
- Speaker International Masterclass, MUMC+
- Multiple tasks involving national education of ENT-residents: formulating test questions, revising literature (“werkgroep themakaart Re-Enter”), lecturer at Dutch ENTER-day
- Mentor for Master students in Medicine, University of Maastricht
- Supervisor of Master Thesis for Faculty of Health, Medicine and Life Sciences
- Supervisor of research projects for Master students in Medicine, University of Maastricht
- Good Clinical Practice certificate obtained
- Former Secretary of Dutch Resident ENT-association

References:

- Prof. Dr. H. Kingma, Department of Otolaryngology and Head and Neck surgery, Maastricht University Medical Center, The Netherlands
- Prof. Dr. B. Kremer, Department of Otolaryngology and Head and Neck surgery, Maastricht University Medical Center, The Netherlands