



Curriculum Vitae

Personal information **Aarno Dietz**

Work experience

1. Director of the Center of Excellence for Sense Organ Diseases, Kuopio University Hospital, Wellbeing Services County of North Savo, Finland, present (medical, organizational and financial management of the Center, which includes the Departments of Otorhinolaryngology, Ophthalmology, Foniatriy, Maxillo-facial surgery and dentistry)
2. Professor of Otorhinolaryngology, Institute of Clinical Medicine, University of Eastern Finland, Finland, 01.01.2023-30.06.2023 (supervision of post-graduate)
3. Medical Director of the Dept. of Otorhinolaryngology, Kuopio University Hospital, 01.11.2020-31.3.2021, medical management of the Department, clinical focus on audiology and otology
4. Head of Department, Dept of Otorhinolaryngology, Kuopio University Hospital, Finland 01.01.2017-31.10.2020, person in charge of clinical audiology and otology

Education and training

- 22.01.2020 Title of Docent Otorhinolaryngology at the Health Faculty of the University of Eastern Finland, Finland
- 13.10.2014 Doctoral degree (Dr.med.), The European School of Medicine, Carl von Ossietzky University, Oldenburg, Germany
- 18.02.2003 Specialist Degree in Medicine, Otorhinolaryngology, University of Eastern Finland, Kuopio, Finland
- 29.03.2001 General practitioner, National Authority for medicolegal affairs, Finland
- 09.09.1997 Licentiate of Medicine, Kuopio University, Kuopio, Finland

Additional information

Publications

1. Iso-Mustajärvi M, Dietz A. Extracting the Cochlea from a Human Temporal Bone: A Cadaveric Protocol. Accepted in J Vis Exp. (22.6.2023)
2. Sipari S, Iso-Mustajärvi M, Linder PH, Dietz A. Insertion Results and Hearing Outcomes of a Slim Lateral Wall Electrode. Accepted in J Int Adv Otol. (2023)
3. Geiger S, Iso-Mustajärvi M, Nauwelaers T, Avci E, Julkunen P, Linder PH, Silvast T, Dietz A. Automatic electrode scalar location assessment after cochlear implantation using a novel imaging software. Sci Rep 13, 12416 (2023). <https://doi.org/10.1038/s41598-023-39275-3>
4. Tapiala J, Iso-Mustajärvi M, Timonen T, Vrzáková H, Dietz A. Impact of virtual reality training on mastoidectomy performance: a prospective randomised study. Eur Arch Otorhinolaryngol. 2023 Jul 28. doi: 10.1007/s00405-023-08143-1.
5. Karinen E, Iso-Mustajärvi M, Dietz A. The feasibility of a robotic arm three-dimensional exoscope for cochlear implant surgery. Otol Neurotol. 2023 Jul 18
6. Tirkkonen M, Iso-Mustajärvi M, Dhanasingh A, Linder P, Myller K, Dietz A.

The growth of the mastoid volume in children with a cochlear implant. *Sci Rep.* 2023 Jul 6;13(1):10967. doi: 10.1038/s41598-023-37160-7.

7. Dietz A, Linder P, Iso-Mustajärvi M. A State-of-the-Art Method for Preserving Residual Hearing During Cochlear Implant Surgery. *J Vis Exp.* 2023 May 26;(195). doi: 10.3791/64021.

8. Dietz A, Iso-Mustajärvi M, Hartikainen S. Hearing loss – an isolated dysfunction of the inner ear or a more comprehensive neurodegenerative disease? *Suom Lääkäril* 2023; 78: e34386

9. Iso-Mustajärvi M, Silvast T, Heikka T, Tervaniemi J, Calixto R, Linder PH, Dietz A. Trauma After Cochlear Implantation: The Accuracy of Micro-Computed Tomography and Cone-Beam Fusion Computed Tomography Compared With Histology in Human Temporal Bones. *Otol Neurotol.* 2023 Apr 1;44(4):339-345. doi: 10.1097/MAO.0000000000003835. PMID: 36843083; PMCID: PMC10022666.

10. Timonen T, Iso-Mustajärvi M, Linder PH, Vrzakova H, Sinkkonen ST, Luukkainen V, Laitakari J, Elomaa A-P, Dietz A. The feasibility of virtual reality anatomic training during temporal bone dissection course. *Front.Virtual Real., Sept 2022, Sec. Virtual Reality in Medicine,* <https://doi.org/10.3389/frvir.2022.957230>

11. Dietz A, Heinrich A, Törmäkangas T, Iso-Mustajärvi M, Miettinen P, Willberg T, Linder PH. The effectiveness of cochlear implantation on performance-based and patient-reported outcome measures in Finnish recipients. *Front. Neurosci.* 2022. 16:786939. doi: 10.3389/fnins.2022.786939

12. Linder P, Iso-Mustajärvi M, Dietz A. ECochG monitoring during CI surgery under local anesthesia – A comparison with subjective sound sensation. *Otol Neurotol.* 2022 Jun 1;43(5):e540-e547. doi: 10.1097/MAO.0000000000003504. Epub 2022 Feb 17.

13. Timonen T, Dietz A, Linder P, Lehtimäki A, Löppönen H, Elomaa AP MD, Iso-Mustajärvi M. The effect of virtual reality for learning of temporal bone anatomy. *Eur Arch Otorhinolaryngol.* 2021 Nov 27. doi: 10.1007/s00405-021-07183-9. PMID: 34837519.

14. Dietz A, Lenarz T. Cochlear implantation under local anesthesia in 117 cases: patients' subjective experience and outcomes. *Eur Arch Otorhinolaryngol.* 2021 Sep 6:1–7. doi: 10.1007/s00405-021-07061-4.

15. Willberg T, Sivonen V, Linder P, Dietz A. Comparing the Speech Perception of Cochlear Implant Users with Three Different Finnish Speech Intelligibility Tests in Noise. *J Clin Med.* 2021 Aug 19;10(16):3666.

16. Sivonen V, Sinkkonen ST, Willberg T, Lamminmäki S, Jääskelä-Saari H, Aarnisalo AA, Dietz A. Improvements in Hearing and in Quality of Life after Sequential Bilateral Cochlear Implantation in a Consecutive Sample of Adult Patients with Severe-to-Profound Hearing Loss. *J Clin Med*. 2021 May 28;10(11):2394. doi: 10.3390/jcm10112394.
17. Välimaa T, Kunnari S, Aarnisalo AA, Dietz A et al. Spoken Language Skills in Children with Bilateral Hearing Aids or Bilateral Cochlear Implants at the Age of Three Years. *Ear Hear*. 2022 Jan/Feb;43(1):220-233. doi: 10.1097/AUD.0000000000001092. PMID: 34260435
18. Laakso JT, Silvola J, Hirvonen T, Suutarla S, Kivekäs I, Saarinen R, Haavisto L, Laitakari J, Aarnisalo AA, Dietz A, Jero J, Hytönen M, Sinkkonen ST. Development of otology specific outcome measure: Ear Outcome Survey-16 (EOS-16). *Journal of Otology*, 2021 <https://doi.org/10.1016/j.joto.2021.01.003>
19. Timonen T, Iso-Mustajärvi M, Linder P, Lehtimäki A, Löppönen H, Elomaa AP, Dietz A. Virtual reality improves the accuracy of simulated preoperative planning in temporal bones: A feasibility and validation study. *Eur Arch Otorhinolaryngol* (2020). <https://doi.org/10.1007/s00405-020-06360-6>
20. Kuusinen A, Saariniemi E, Sivonen V, Dietz A; Aarnisalo AA, Lokki T. An exploratory investigation of speech recognition thresholds in noise with auralizations of two reverberant rooms. *Int J Audiol* (2020). <https://doi.org/10.1080/14992027.2020.1817993>
21. Puustinen S, Alaoui S, Bartczak P, Bednarik R, Koivisto T, Dietz A, Fraunberg M, Iso-Mustajärvi M, Elomaa AP. Spectrally Tunable Neural Network-Assisted Segmentation of Microneurosurgical Anatomy. *Front Neurosci*. 2020;14:640.doi:10.3389/fnins.2020.00640
22. Willberg T, Sivonen V, Hurme S, Aarnisalo AA, Löppönen H, Dietz A. The long-term learning effect related to the repeated use of the Finnish matrix sentence test and the Finnish digit triplet test. *Int J Audiol*. 2020;1-10.
23. Willberg T, Kärtevä K, Zokoll M, Buschermöhle M, Sivonen V, Aarnisalo A, Löppönen H, Kollmeier B, Dietz A. The Finnish simplified matrix sentence test for the assessment of speech intelligibility in the elderly. *Int J Audiol*. 2020;1-9.
24. Iso-Mustajärvi, Sipari S, Löppönen H, Dietz A. Preservation of Residual Hearing After Cochlear Implant Surgery With Slim Modiolar Electrode. *Eur Arch Otorhinolaryngol*. 2019 Oct 31. doi: 10.1007/s00405-019-05708-x
25. Sipari S, Iso-Mustajärvi M, Könönen M, Löppönen H, Dietz A. The Image fusion technique for cochlear implant imaging: A study of its application for different electrode arrays. *Otol Neurotol*. 2020 Feb;41(2):e216-e222. doi:10.1097/MAO.0000000000002479. PMID: 31834210.

26. Iso-Mustajärvi M, Sipari S, Lehtimäki A, Tervaniemi J, Löppönen H, Dietz A. A new application of CBCT image fusion in temporal bone studies. *J Int Adv Otol.* 2019 Dec;15(3):431-435. doi: 10.5152/iao.2019.7365. PMID: 31846925; PMCID: PMC6937191
27. Sivonen V, Willberg T, Aarnisalo AA, Dietz A. The Efficacy of Microphone Directionality in Improving Speech Recognition in Noise for Three Commercial Cochlear-Implant Systems. *Cochlear Implants Int.* 2020 May;21(3):153-159. doi: 10.1080/14670100.2019.1701236. Epub 2020 Mar 11. PMID: 32160829.
28. Dhanasingh A, Dietz A, Jolly C, Roland P. Human Inner-ear Malformation Types Captured in 3D. *J Int Adv. Otol.* 2019 Apr;15(1):77-82.
29. Dietz A, Iso-Mustajärvi M, Sipari S, Tervaniemi J, Gazibegovic D. Evaluation of a new slim lateral wall electrode for cochlear implantation: an imaging study in human temporal bones. *Eur Arch Otorhinolaryngol.* 2018 Jul;275(7):1723-1729
30. Sipari S, Iso-Mustajärvi M, Löppönen H, Dietz A. The insertion results of a Mid-Scala electrode assessed by MRI and CBCT image fusion. *Otol Neurotol.* 2018, Dec; 39(10): e1019-e1025
31. Dietz A, Willberg T, Sivonen V, Aarnisalo A. Cochlear implantation – nowadays a standard intervention for hearing rehabilitation. *Suom Lääkäril.* 2018; 73:570–5.
32. Sipari S, Iso-Mustajärvi M, Matikka H, Tervaniemi J, Koistinen A, Aarnisalo A, Sinkkonen ST, Löppönen H, Dietz A. Cochlear Implantation With a Novel Long Straight Electrode: the Insertion Results Evaluated by Imaging and Histology in Human Temporal Bones. *Otol Neurotol.* 2018 Oct;39(9):e784-e793
33. Iso-Mustajärvi M, Dietz A, Löppönen H. Myringoplasty Quality Control Is Necessary: Comparison of Surgical Results of Two Consecutive Series in a Single Institution. *J Int Adv. Otol.* 2018 Apr;14(1):135-139
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35. Iso-Mustajärvi M, Matikka H, Risi F, Sipari S, Koski T, Willberg T, Lehtimäki A, Tervaniemi J, Löppönen H, Dietz A. A New Slim Modiolar Electrode Array for Cochlear Implantation: A Radiological and Histological Study. *Otol Neurotol.* 2017 Oct;38(9):e327-e334

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38. Dietz A, Wüstefeld M, Niskanen M, Löppönen H. Cochlear Implant Surgery in the Elderly: The Feasibility of a Modified Suprameatal Approach Under Local Anesthesia. *Otol Neurotol*. 2016 Jun;37(5):487-91.
39. Dietz A, Buschermöhle M, Sivonen V, Willberg T, Aarnisalo AA, Lenarz T, Kollmeier B. Characteristics and international comparability of the Finnish matrix sentence test in cochlear implant recipients. *Int J Audiol*. 2015 Sep 12:1-8.
40. Dietz A, Wennström M, Lehtimäki A, Löppönen H, Valtonen H. Electrode migration after cochlear implant surgery: more common than expected? *Eur Arch Otorhinolaryngol*. 2015 Jul 12.
41. Buschermöhle M, Dietz A, Kollmeier B. Application of speechaudiometric matrix tests in hearing impaired patients: experiences with CI patients. *J Int Adv Otol*. Jan 2015 11(suppl 1):57-58
42. Dietz A, Buschermöhle M, Aarnisalo AA, Vanhanen A, Hyyrynen T, Aaltonen O, Löppönen H, Zokoll MA, Kollmeier B. The development and evaluation of the Finnish Matrix Sentence Test for speech intelligibility assessment. *Acta Otolaryngol*. 2014 Jul;134(7):728-37.
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45. Hyvärinen A, Dietz A, Löppönen H. Auditory rehabilitation path for children. *Duodecim*. 2011;127(8):819-25. Review.
46. Dietz A, Löppönen T, Valtonen H, Hyvärinen A, Löppönen H. Prevalence and etiology of congenital or early acquired hearing impairment in Eastern Finland. *International Journal of Pediatric Otorhinolaryngology*, 2009, Volume

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50. Dietz A, Kettunen R, Niskanen L, Remes J, Hippeläinen M. Congestive heart failure in patients with aortic stenosis. *Suom Lääkäril.*1998;31:3477–3480.

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