

ANNUAL REPORT 2022

ORL RESEARCH

Head & Neck surgery and Audiology

Research Unit of ORL

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Welcome

The annual report from the Research Unit at the Department of ORL - Head & Neck Surgery and Audiology at University of Southern Denmark (SDU) and Odense University Hospital (OUH) provides a brief overview of research activities and perspectives such as projects, teaching, supervision, funding, publications, and scientific meetings.

Our research mainly focuses on head and neck cancer, vascular malformations, rhinology, laryngology and audiology. Our vision is:

By multidisciplinary research for and with patients, we aim to improve diagnosis, treatment and rehabilitation in the field of ORL Head & Neck Surgery and Audiology

In 2022, 5 new PhD projects were initiated increasing the total amount to 10 ongoing PhD projects. Two PhD projects were successfully completed. We got a new professor in Technical Audiology, Tobias Neher. We published 34 peer-reviewed articles and had 13.4 citations per publication in our overall research metrics from 2017-2022. We have international collaboration in 27.4% of our publications from 2017-2022.

We have received funding of more than 9 million DKK (external funding of 6.7 million DKK and internal funding of 2.4 million DKK).

I would like to thank all researchers, employees and collaborators for their contributions, enthusiasm and commitment in our research unit providing a high standard and invaluable effort.

Enjoy the reading!



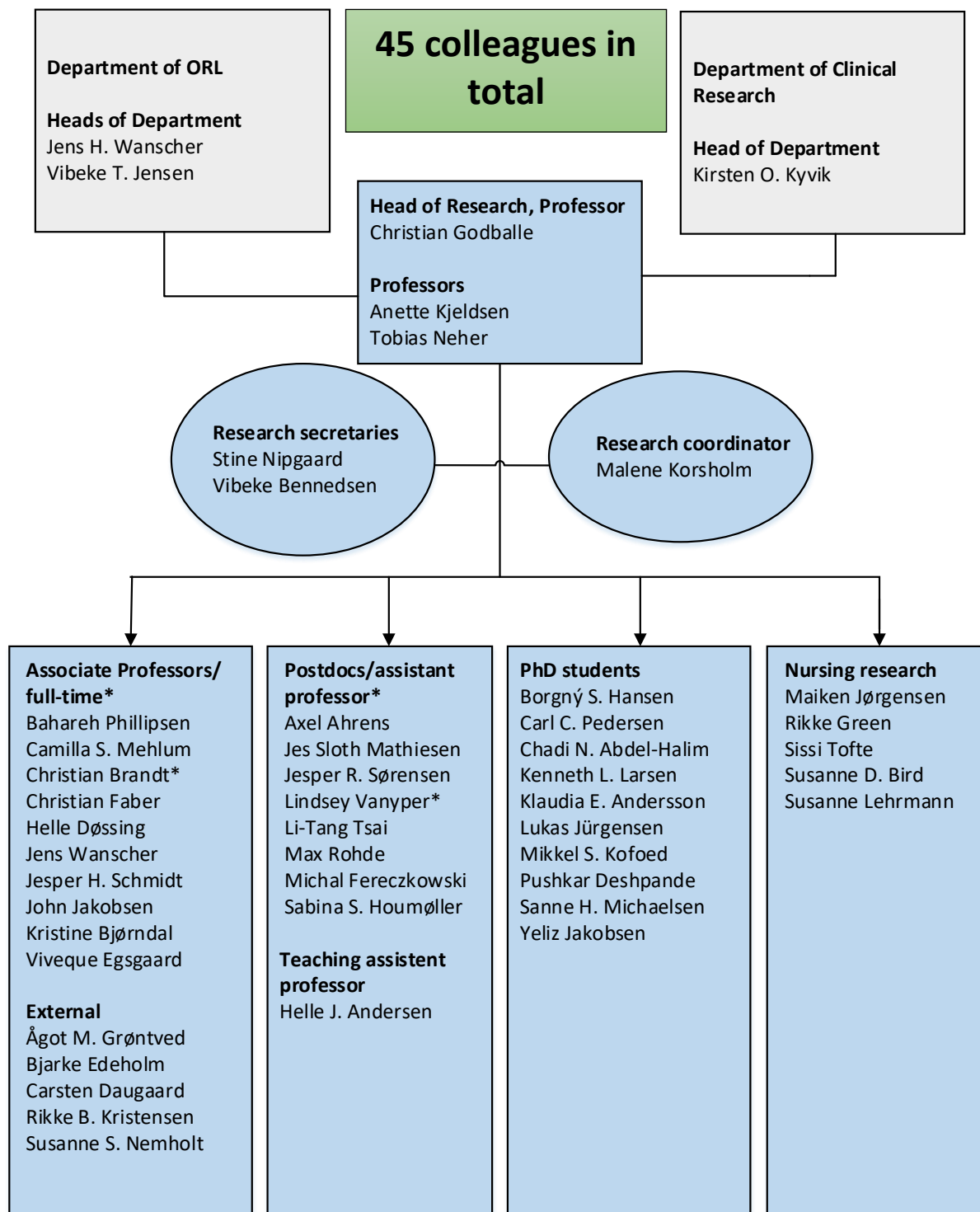
Christian Godballe
Professor & Head of Research and
Head of Graduate School,
Faculty of Health Sciences Research, SDU



Organisation and employees (end 2022)

Our research unit is a part of both Odense University Hospital – Svendborg Hospital (OUH) and the Department of Clinical Research, University of Southern Denmark (SDU) headed by Professor Christian Godballe.

The unit consisted in the end of 2022 of 45 dedicated employees and researchers as well as postdocs, PhD students, and undergraduate students.



Collaboration and memberships

The Research Unit at the Department of ORL—Head & Neck Surgery and Audiology acknowledges the great importance of local, regional, national, and international cooperation in research.

Our organizational structure, as a part of Odense University Hospital and the University of Southern Denmark, provides great opportunities for interdisciplinary collaborations with other departments and institutes. Moreover, we take part in several national research projects in which collaboration with departments at other hospitals is essential.

Our adjunct professor Hisham Mehanna PhD, BMedSc, MBChB, FRCS, FRCS (ORL-HNS) from Birmingham offers great opportunities for scientific collaboration within the field of head and neck cancer. A recent publication of the Odense – Birmingham model for definition of locally recurrent head and neck cancer confirms this collaboration. Also, a publication about prioritizing of treatment resources in head and neck cancer during the COVID pandemic, published in *Lancet Oncology*, was done in collaboration with Hisham Mehanna.

Professor Anette D. Kjeldsen is the Danish chair of the participation in the ERN European Reference Network VASCERN. She participate in the Hereditary Haemorrhagic Telangiectasia (HHT-WG) – VASCERN and collaborate on clinical guidelines, research and education with the other VASCERN members and is member of Cure HHT Advisory Board. She also participate in the Editorial Board of the scientific journal *Rhinology* and collaborate, and has contributed to EPOS 2020: The European Position Paper on Rhinosinusitis and Nasal Polyps.

The Technical Audiology Section is currently collaborating with colleagues from the Technical University of Denmark (Prof. Torsten Dau), Macquarie University, Sydney, Australia (Prof. Harvey Dillon), Oldenburg University, Oldenburg, Germany (Prof. Stefan Debener), Boston University, Boston, USA (Prof. Virginia Best), Technische Hochschule Lübeck, Lübeck, Germany (Prof. Tim Jürgens), Deutsches Hörgeräte Institut, Lübeck, Germany (Dr. Hendrik Husstedt), Eriksholm Research Centre, Denmark (Dr. Jeppe Hoy Christensen), Oticon A/S (Dr. Sébastien Santurette), Interacoustics Research Unit, Denmark (Dr. Søren Laugesen), and WS Audiology, Denmark (Dr. Georg Stiefenhofer). The collaborations are in the context of ongoing PhD and post-doc projects in the fields of hearing diagnostics and hearing-aid treatment.

As part of the International Pheochromocytoma and Pregnancy Study Group, Jes Sloth Mathiesen (MD, PhD, Postdoc) contributed to the 2021 Lancet Diabetes Endocrinol paper on maternal and fetal outcome in pheochromocytoma and pregnancy. The study was conducted in collaboration with numerous centers around the world with the principal investigator being Dr. Irina Bancos from Mayo Clinic, USA, and Professor Hartmut Neumann from Freiburg, Germany.

We have a collaboration with Professor Vincent van der Poorten, Department of Otorhinolaryngology, Head and Neck Surgery at the University Hospitals Leuven, regarding salivary gland carcinoma. Kristine Bjørndal, Christian Godballe and Marie Westergaard-Nielsen have recently published the article “Prognostic scoring models in parotid gland carcinoma” in the journal Head and Neck (March 2021) where they tested a prognostic system developed by Professor van der Poorten.

Christian Godballe (MD, PhD, Professor)

- Chairman of the The Danish Thyroid Cancer Study Group (DATHYRCA)
- Board member of the Danish Head and Neck Cancer Group (DAHANCA)
- Chairman in collaboration with Professor Steen J. Bonnema of the Danish RKKP Thyroid Quality Register (THYDA)
- Member of Scandinavian Society for Head and Neck Cancer (SSHNO)
- Member of the Research Council, OUH
- Member of Danish Society for Head and Neck Oncology (DSHHO)
- Member of the Danish Society for ORL, Head & Neck Surgery and Audiology (DSOHH)
- Member of the Danish Society for Head and Neck Surgery (DHHKS)
- Member of Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)

Anette Kjeldsen (MD, PhD, Professor)

- Member of the Editorial Board, Rhinology online
- Member of the HHT group in the Rare Vascular Diseases European Reference Network (VascERN)
- Member of the Cure HHT Scientific Board
- Member of the Danish steering group regarding the registration of biological treatment in patients with severe chronic rhinosinusitis
- Member of the Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)
- Member of the Danish Medical Council, Biological treatment of nasal polyposis

Tobias Neher (PhD, Professor in Audiology)

- Member of the Danish Technical Audiological Society (DTAS)
- Member of the German Audiological Society (DGA)
- Member of the DGA technical committee 'Hearing aid technology and fitting'
- Danish representative in the European Federation of Audiology Societies (EFAS)
- Member of the EFAS working group 'Audiology Education'
- Member of the Association for Research in Otolaryngology (ARO)
- Technical co-chair for the 2022 International Hearing Aid Research Conference (IHCON), Lake Tahoe, USA
- Member of the Editorial Board for 'Audiology Research'
- Guest Section Editor for 'Ear and Hearing'

Bahareh Bakshaie Philipsen (MD, Associate professor)

- Deputy Chairman of the Danish Society for Dysphagia (DSD)
- Member of the Organization of the Danish Medical Societies (LVS)
- Member of Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)
- Member of the Danish Society for Laryngology (DLS)

Bibi Lange (MD, PhD)

- Deputy chairman of the Danish Society for Rhinology (DRS)
- Member of Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)
- Member of European Rhinologic Society (ERS)

Camilla Slot Mehlum (MD, PhD, Associate professor)

- Chairman of the Danish Laryngological Society (DLS)
- Member of the European Laryngological Society (ELS)
- Member of "Committee on laryngeal endoscopic imaging", ELS
- Member of "Committee on E-ILO", ELS
- Member of Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)
- Member of Danish Rhinologic Society
- Member of the Danish Society for Head and Neck Oncology (DSHHO)

Christian Brandt (Cand.scient., PhD, Associate professor)

- Member of the Auditory Processing Disorder Group
- Member of the Danish Technical Audiological Society (DTAS)

Christian E. Faber (MD, PhD, Associate professor)

- Member of Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)
- Member of Danish Society for Otosurgery (DOKS)

Helle Døssing (MD, PhD, Associate professor)

- Deputy chairman of the Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)

Jens H. Wanscher (MD, Associate professor)

- Member of the Danish Society for Vestibology
- Member of Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)
- Member of Danish Otosurgical Society
- Chairman of H.C. Andersens hospital of pediatric surgery, OUH

Jes Sloth Mathiesen (MD, PhD, Postdoc)

- National Treatment Guideline on Multiple Endocrine Neoplasia under the Danish Endocrine Society
- Member of the Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)
- Member of the Danish Society for Head and Neck Surgery (DHHKS)
- Member of the Danish Endocrinological Society (DES)
- National Treatment Guideline on Thyroid Cancer under the Danish Thyroid Cancer Study Group (DATHYRCA)

Jesper H. Schmidt (MD, PhD, Associate professor)

- Member of the Danish Medical Audiological Society
- Member of the Danish Society for Vestibology
- Member of the Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)
- Member of the Danish Acoustic Society
- Member of association for Research in Otolaryngology (ARO)

Jesper R. Sørensen (MD, PhD, Postdoc)

- Member of Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)
- Member of the Danish Society for Vestibulology
- Member of Danish Society for Otosurgery (DOKS)

Kristine Bjørndal (MD, PhD, Associate professor)

- Member of the Danish Society for Head and Neck Surgery (DHHKS)
- Board member of the Scandinavian Society for Head and Neck Oncology (SSHNO)
- Member of the Danish Society for Head and Neck Oncology (DSHHO)
- Member of Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)
- Member of the Danish Head and Neck Cancer Group (DAHANCA)

Lindsey N. Van Yper (Audiologist, PhD, Assistant professor)

- Member of the Association of Research in Otolaryngology (ARO) and collaborate with
 - Prof David McAlpine from Macquarie University
 - Prof Hannah Kepler from Ghent Univeristy

Marie Westergaard-Nielsen (MD, PhD)

- Member of the Danish Society for Head and Neck Oncology (DSHHO)
- Member of the Danish Society for Head and Neck Surgery (DHHKS)

Max Rohde (MD, PhD, Postdoc)

- Board member of the Danish Society for Head and Neck Oncology (DSHHO)
- Member of the Danish Society for Head and Neck Surgery (DHHKS)
- Member of the Scandinavian Society for Head and Neck Oncology (SSHNO)
- Member of Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)

Viveque Egsgaard (MD, PhD, Associate professor)

- Member of the Danish Society for Head and Neck Surgery (DHHKS)
- Member of the Danish Society for Otolaryngology, Head and Neck Surgery (DSOHH)
- Member of the Danish Society for Laryngology (DLS)
- Member of the Danish Endocrinological Society (DES)

Ågot Møller Grøntved (MD, PhD, Associate professor)

- Honorary member of the Danish Society for Laryngology (DLS)
- Member of the Working Group for Future Hearing Rehabilitation

10 PhD projects

1. Cross-sectional comparison and longitudinal changes

Pushkar Deshpande, BSc Audiology and Speech Language Pathology, MSc Biomedical Engineering

Main supervisor: Tobias Neher, PhD, Professor

Co-supervisors:

Christian Brandt, Cand.scient., PhD, Associate professor

Stefan Debener, MD, PhD, Professor

2. The Diagnostic Value of PET/MRI for Cervical Lymphnode Metastases in Head and Neck Squamous Cell Cancers

Chadi Nimeh Abdel-Halim, MD, PhD student

Main supervisor: Christian Godballe, MD, PhD, Professor

Co-supervisors:

Max Rohde, MD, PhD, Postdoc

Jens A. Sørensen, MD, PhD, Professor

Poul Højlund-Carlsen, MD, Professor

3. Hearing-health behavior and real-world hearing-aid outcome in children and adults

Klaudia E. Andersson, MSc Audiology, PhD student Main supervisor: Tobias Neher, PhD, Professor

Co-supervisor:

Jeppe H. Christensen, Biomedical Engineer, PhD

4. A Randomised Controlled Trial Evaluating the Benefits from Bimodal Solution with Cochlear Implant and Hearing Aid vs. Bilateral Hearing Aids in Patients with Asymmetric Speech Identification Scores

Yeliz Jakobsen, MD, PhD student

Main supervisor: Jesper H. Schmidt, MD, PhD, Associate professor

Co-supervisor:

Kathleen F. Scalzo, Oticon

5. A validation of the UAud system for user-operated audiometry testing in a clinical setting

Carl C. Pedersen, Audiologist, PhD student

Main supervisor: Jesper H. Schmidt, MD, PhD, Associate professor

Co-supervisor:

Ellen R. Pedersen, PhD, Associate professor

6. Surgeon performed imaging of the parathyroid glands in a pre- and perioperative setting

Sanne H. Michaelsen, MD, PhD student

Main supervisor: Christian Godballe, MD, PhD, Professor

Co-supervisors:

Viveque E. Nielsen, MD, PhD, Associate professor

Steen Bonnema, MD, PhD, Professor

7. Breaking the sound quality barrier: Improved user outcomes with low-delay hearing aids

Borgný Súsonnudóttir, Audiologist, Business PhD student

Main supervisor: Tobias Neher, PhD, Professor

Co-supervisor:

Georg Stiefenhofer, Specialist in Technical Audiology

8. Investigating the chronicity of chronic rhinosinusitis

Kenneth S. Larsen, MD, PhD student

Main supervisor: Anette Drøhse Kjeldsen, MD, PhD, Professor

Co-supervisors:

Bibi Lange, MD, PhD

Charlotte G. Mørtz, MD, PhD, Professor

Lisbeth Minet, Physiotherapist, PhD, Professor

Lars Gosvig, MD, ENT specialist in private practice

9. Hereditary Hemorrhagic Telangiectasia (HHT) and neurovascular manifestations

Mikkel S. Kofoed, MD, PhD student

Main supervisor: Troels H. Nielsen, MD (Department of Neurosurgery), PhD, Associate professor

Co-supervisor:

Anette Drøhse Kjeldsen, MD, PhD, Professor

10. Rollover effects at above-conversational speech levels: Clinical assessment and hearing-aid Fitting

Lukas Jürgensen, M.Sc. Auditory Technology, PhD student

Main supervisor: Tobias Neher, PhD, Professor

Co-supervisor:

Michal Fereczkowski (PhD, Postdoc)

2 Completed PhD projects in 2022

1. Investigating speech-in-noise outcome in older hearing-aid users using auditory profiling

Mengfan (Alice) Wu, MA Linguistics

Main supervisor: PhD, Professor in Audiology, Tobias Neher

Co-supervisors:

Jesper H. Schmidt, MD, PhD, Associate professor

Michal Fereczkowski (PhD, Postdoc)

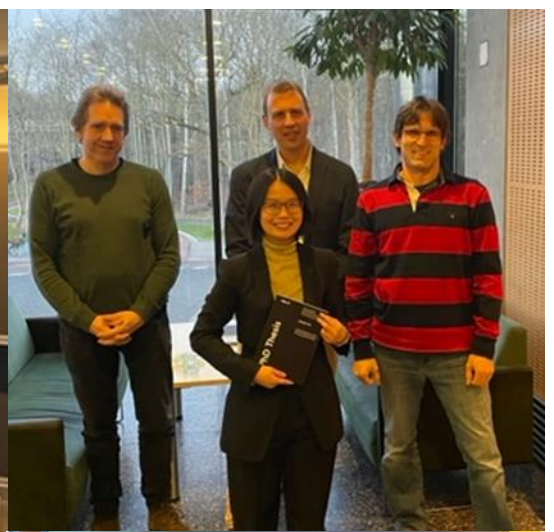
Committee of Examiners:

Dr. Elaine Hoi Ning Ng, Center for Applied Audiological Research, Oticon A/S

Dr. Christian Füllgrabe, School of Sport, Exercise & Health Sciences, Loughborough University, UK

Associate professor, PhD Peter Møller Juhl, Department of Molecular Medicine, SDU (chairman)

PhD Oral Defence: January 14th 2022



2. Assessment of hearing abilities in noise in school-age children with normal hearing and early-childhood otitis media

Shno Koiek, Audiologist

Main supervisor: PhD, Professor in Audiology, Tobias Neher

Co-supervisor:

Christian Brandt, Cand.scient., PhD, Associate professor

Committee of Examiners:

Professor, PhD Ona Bø Wie, Department of Special Needs Education, University of Oslo, Norway

Associate professor, PhD Mridula Sharma, Department of Linguistics, Macquarie University, Australia

MD, Associate professor Knud Larsen, Department of Ear-nose-throat, Sydvestjysk Hospital, Esbjerg (chairman)

PhD Oral Defence: February 25th 2022



Supervision – summary 2022

Master thesis; Medical students: 2/*2

Master thesis; Audiology: 5/*5

Master thesis; Audiologopedics: 2/*2

Bachelor projects; Audiology: 17/*23

No. of projects in 2022/*no. of students

	Supervision of bachelor, masters and PhD students	Administrative tasks/ Preparation e.g.
	Hours	Hours
Medicine	16	116
Audiology	363,5	300
Audiologopedics	20	0
In total	399,5	416

2 Master theses; Medical students

1. Timing Prophylactic Thyroidectomy by A Preoperative Calcitonin Cut-off in Multiple Endocrine Neoplasia Type 2: a Nationwide Population-Based Retrospective Study in Denmark 2003-2021

- Student: Daniel A. Jørgensen (Research profile)
- Supervisor: Jes S. Mathiesen & Christian Godballe

2. The incidence of overlooked cancer in the Danish Head and Neck Cancer fast-track program: Results from a tertiary cancer center

- Student: Ida G. Schmidt (Research profile)
- Supervisor: Kristine Bjørndal & Christian Godballe
Submission to "ACTA Oncologica"

5 Master theses; Audiology

1. Determination of direction and speech intelligibility of hearing-impaired listeners in environments with reverberation and competing talkers

- Student: Nadia F. Christensen (Poster presentation)
- Supervisor: Tobias Neher

2. The effectiveness of tinnitus treatment at the Odense university hospital measured with THI-DK

- Student: Tanja T. Bruun (Poster presentation)
- Supervisor: Christian Brandt

3. Validation of the Danish QuickSIN and comparison to the Danish HINT

- Student: Eugenia Appiah
- Supervisor: Carsten Daugaard

4. Otitis media and noise sensitivity in school-aged children - A systematic review

- Student: Nanna L. Clausen
- Supervisor: Carsten Daugaard

5. Tinnitus in children and adolescents - a proposal for an audiological assessment guideline for children and adolescents with tinnitus ages 5-16 years

- Student: Sebastian H. Lambæk
- Supervisor: Christian Brandt

2 Master theses; Audiologopedics

1. **Clinical investigation of children with Suspected Childhood Apraxia of Speech (CAS)**

- Student: Camilla T. Knudsen & Cirkeline L. Haris
- Supervisor: Camilla S. Mehlum

2. **Voice Training for Transgender Women in the Danish Practice of Speech Therapy**

- Student: Veronika S. Gamborg
- Supervisor: Bahareh B. Philipsen

17 Bachelor projects; Audiology

1. **Morbus Ménière**

- Student: Aboukar Ali
- Supervisor: Christian Brandt

2. **Morbus Menière**

- Student: Ahmad N. Abdou
- Supervisor: Bjarke Edholm

3. **Study of the effect of auditory training on speech comprehension in noise in normal hearing school children**

- Student: Anne D. Olesen & Clara N. Y. Tran
- Supervisor: Tobias Neher

4. **Low-frequency amplification in open-fit low-delay hearing aids**

- Student: Anne Roslyng-Jensen
- Supervisor: Tobias Neher

5. **The relation between tinnitus and previous occupational noise exposure**

- Student: Daniel L. Pedersen
- Supervisor: Sabina S. Houmøller

6. **Study of noise exposure at boarding school students in connection with computer games**

- Student: Emilie F. Nielsen
- Supervisor: Carsten Daugaard

7. **Difference in hearing aids fitting based on the information of the ear-tips**

- Student: Emmely Kristensen
- Supervisor: Carsten Daugaard

8. **Morbus Ménière**

- Students: Fatema Chakari & Faheema Chakari & Thenuja Yogarajah
- Supervisor: Christian Brandt

9. Accuracy of Real Ear Measurements (REM)

- Students: Fadime D. Kurt
- Supervisor: Carsten Daugaard

10. Could AutoREMfit be an alternative to traditional REM when fitting hearing aids?

- Student: Jette S. Jensen & Susanne Christensen
- Supervisor: Carsten Daugaard

11. The effect of sensory deprivation measured by the EEG responses N100 and P300

- Student: Laura S. Hansen & Line Hjerrild
- Supervisor: Tobias Neher

12. Tinnitus og behandlingsmetoder – et litteraturstudie

- Student: Maria J. Nielsen
- Supervisor: Sabina S. Houmøller

13. The precision of being able to hit a target with automatic and manual real-ear measurements

- Student: Mikkel F. Corydon
- Supervisor: Carsten Daugaard

14. Occupational noise exposure and the severity of tinnitus

- Student: Nanna K. Bebe & Katrine J. Jürgensen
- Supervisor: Sabina S. Houmøller

15. Tinnitus and dizziness expressed in Morbus Menière

- Student: Bjarke Edholm
- Supervisor: Nour S. Al-Bairmani

16. The impact of tinnitus on quality of life

- Student: Sahro A. A. Mohamud
- Supervisor: Sabina S. Houmøller

17. The relation between Central Auditory Processing Disorder (CAPD) and cognitive abilities in children – A systematic review

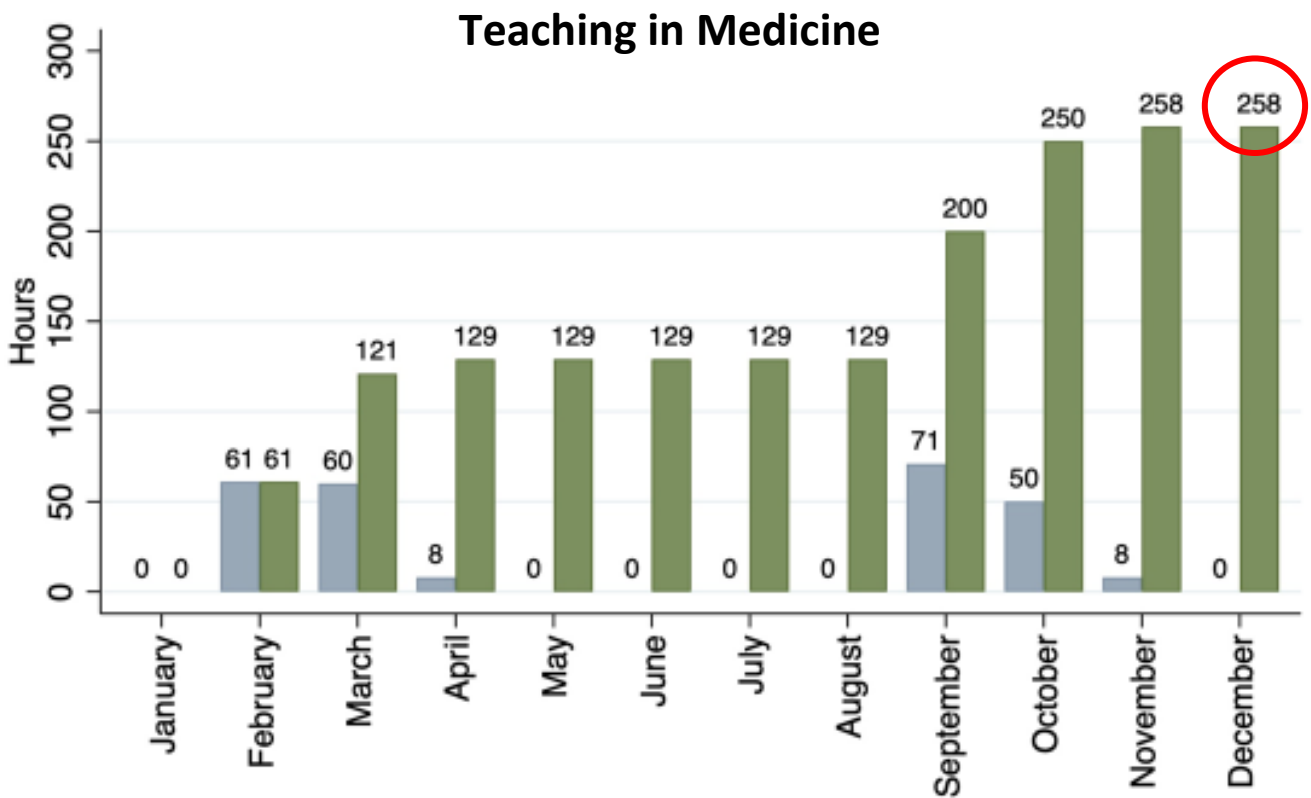
- Student: Sarah Yen Trinh
- Supervisor: Christian Brandt

Teaching

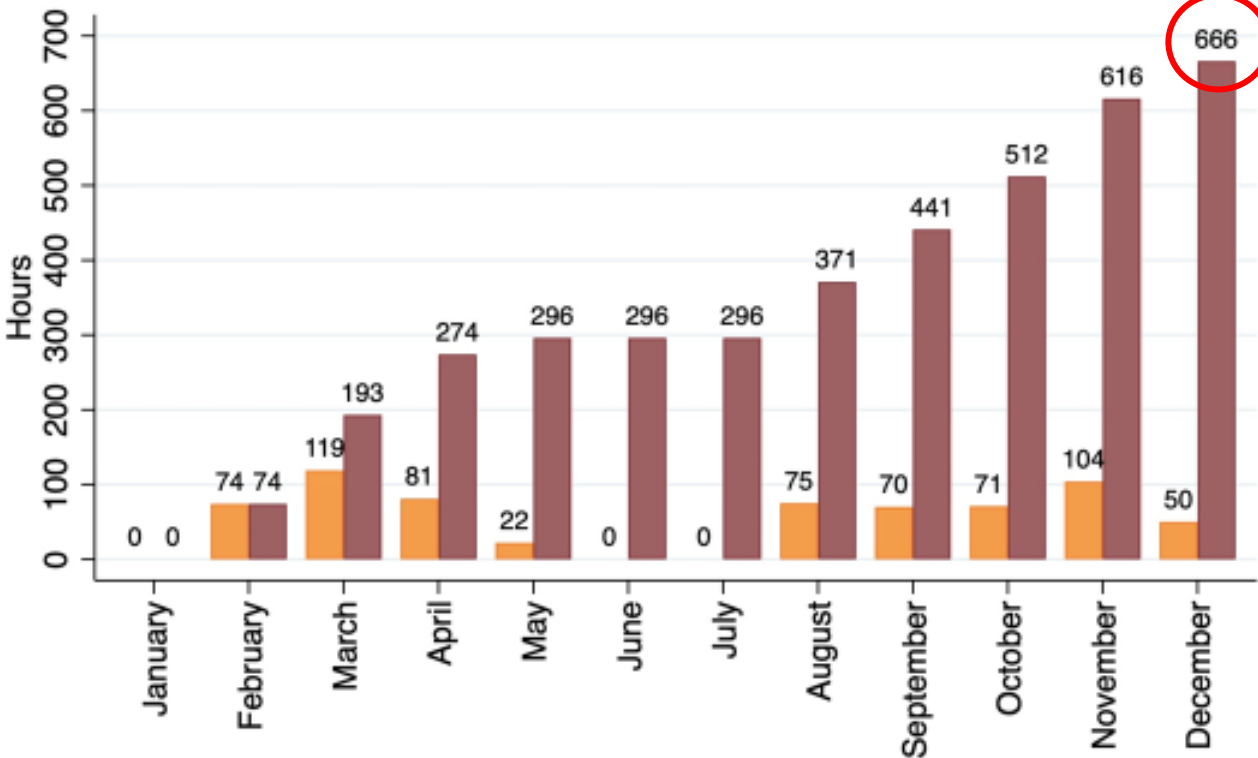
Teaching in 3 educations (bachelor and master)

- Medicine
- Audiology
- Audiologopedics

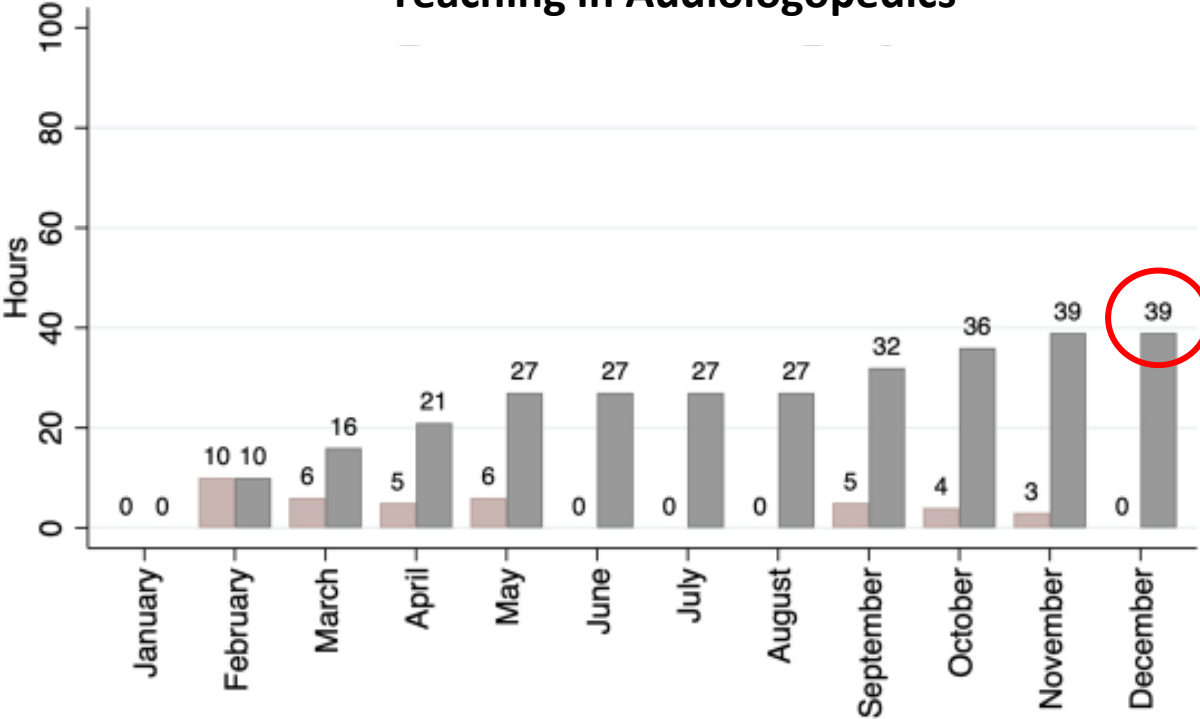
Hours used for examinations and assignment corrections are not included in the following figures



Teaching in Audiology



Teaching in Audiopedics



Supervision

- Bachelor, master, PhD (3 educations)

A list of the courses in which ORL participate

Medical training

- Module B7
- Module K1
- Module K3
- Module K10

Audiology

Audiology

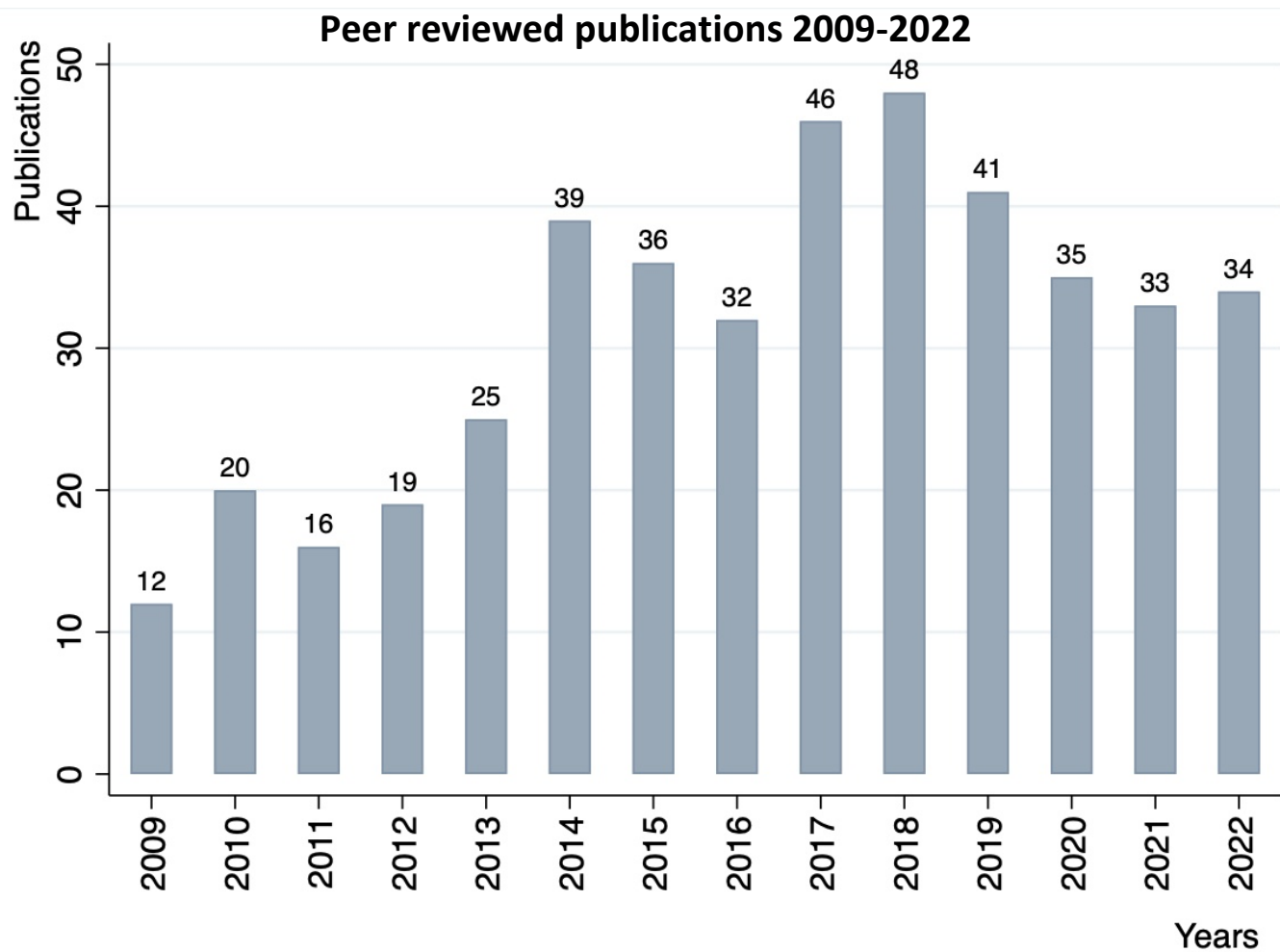
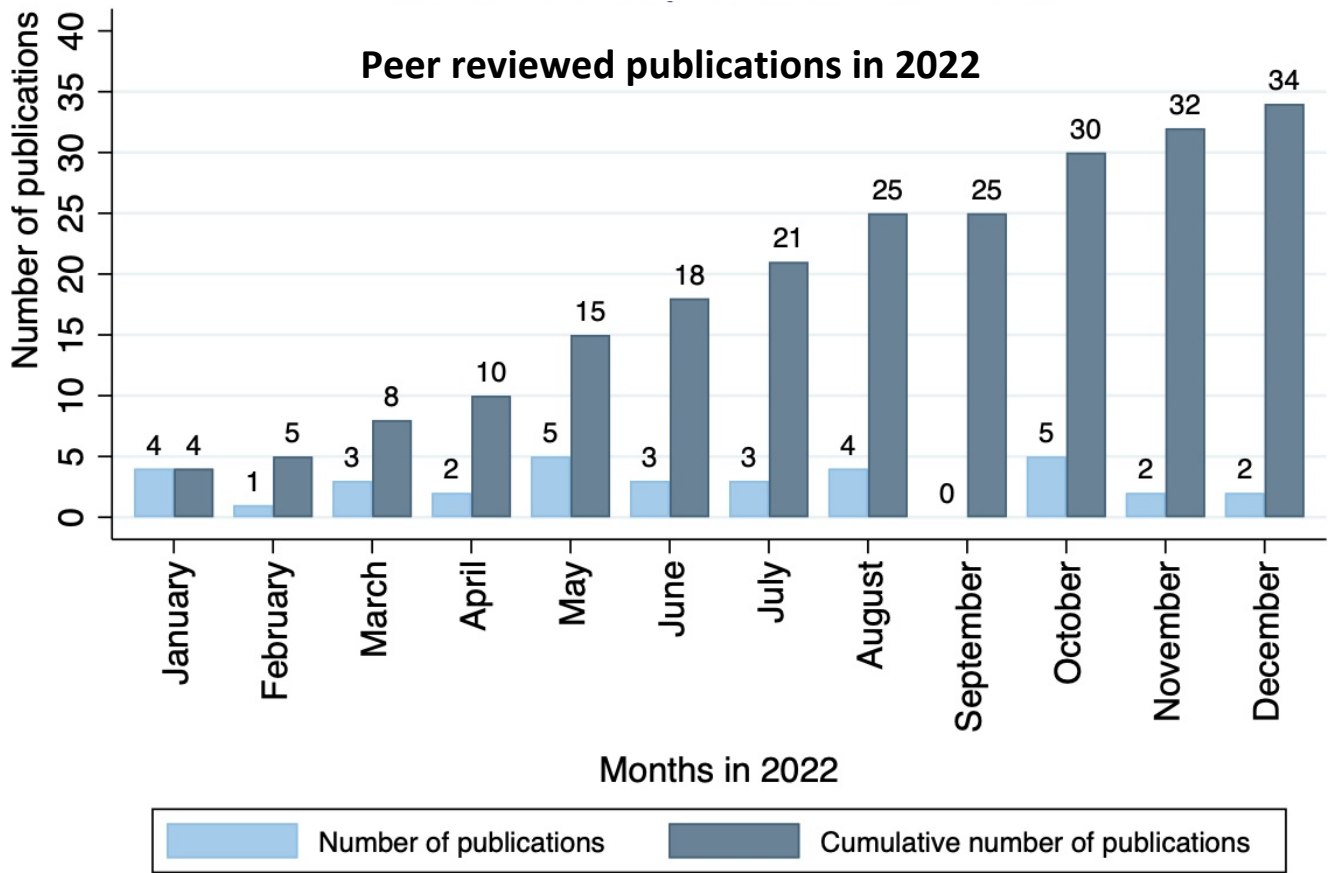
- Introduction to Audiology
- Mathematics for Audiologists
- Anatomy and Physiology I-II
- Medical Audiology I-III
- Audiological Measurements I and Hearing Aid Treatment I
- Hearing Aid Treatment II-III
- Project-oriented course I-II
- Clinical Practice
- Otomicroscopy and Videotoscopy in Clinical Practice
- Psychoacoustics
- Cochlear Implant
- Pediatric Audiology
- Prophylactic Audiology
- Advanced Audiological Measurement Methods
- Advanced Hearing Aid Technology

- Tinnitus and hyperacusis
- Current Topics in Hearing Aid Research
- Clinical Audiological Practice
- Patient Contact in Audiology Clinic
- Project-oriented course
- Clinical Audiology in Zimbabwe

Audiologopedics

- Anatomy and Physiology I-II
- Medical Audiology
- Voice Disorders
- Tinnitus and hyperacusis

34 Publications



1. Germline RET Leu56Met Variant Is Likely Not Causative of Multiple Endocrine Neoplasia Type 2

Anna Reimer Hansen, Line Borgwardt, Åse Krogh Rasmussen, **Christian Godballe**, Morten Møller Poulsen, Filipe G. Vieira, **Jes Sloth Mathiesen**, Maria Rossing

Frontiers in Endocrinology (Impact factor 5.555), January 2, 2022

<https://doi.org/10.3389/fendo.2021.764512>

2. A retrospective cohort study on European Reference Network for Rare Vascular Diseases 5 outcome measures for Hereditary Haemorrhagic Telangiectasia in Denmark

Troels Hvelplund, Bibi Lange, Susanne Djernes Bird, Malene Korsholm, Anette Drøhse Kjeldsen

Orphanet Journal of Rare Diseases (Impact factor 4.123), January 6, 2022

<https://doi.org/10.1186/s13023-021-02160-1>

3. Diagnosis of possible nasopharyngeal malignancy in adults with isolated serous otitis media; a systematic review and proposal of a management algorithm

Max Rohde, Malene Korsholm, Michael Lüscher, Søren Fast, **Christian Godballe**

European Archives of Oto-Rhino-Laryngology (Impact factor 2.503), January 19, 2022

<https://doi.org/10.1007/s00405-022-07279-w>

4. The European Rare Disease Network for HHT Frameworks for management of hereditary haemorrhagic telangiectasia in general and speciality care

C.L. Shovlin, E. Buscarini, C. Sabbá, H.J. Mager, **A.D. Kjeldsen**, F. Pagella, U. Sure, S. Ugolini, P.M. Topping, P. Suppressa, C. Rennie, M.C. Post, M.C. Patel, T.H. Nielsen, G. Manfredi, G.M. Lenato, D. Lefroy, U. Kariholu, B. Jones, A.D. Fiolla, O.F. Eker, O. Dupuis, F. Droege, N. Coote, E. Boccardi, A. Alsafi, S. Alicante, S. Dupuis-Girod

European Journal of Medical Genetics (Impact factor 2.465), January 31, 2022

<https://doi.org/10.1016/j.ejmg.2021.104370>

5. External validation of AIBx, an artificial intelligence model for risk stratification, in thyroid nodules

Kristine Zøylner Swan, Johnson Thomas, **Viveque Egsgaard Nielsen**, Marie Louise Jespersen, Steen J Bonnema

European Thyroid Journal (Impact factor 4.209), February 1, 2022

<https://doi.org/10.1530/ETJ-21-0129>

6. A retrospective cohort study of patients with eosinophilia referred to a tertiary center

Mette Hougaard, Gunhild Nynke Thomsen, Thomas Kielsgaard Kristensen, Hanne Merete Lindegaard, Jesper Rømhild Davidsen, Gitte Nyvang Hartmeyer, **Anette Drøhse Kjeldsen**, Raquel Martin-Iguacel, Michael Maiborg, Kristian Assing, Christen Lykkegaard Andersen, Sigurd Broesby-Olsen, Michael Boe Møller, Hanne Vestergaard & Ole Weis Bjerrum

Danish Medical Journal (Impact factor 1.24), March 4, 2022

<https://ugeskriftet.dk/retrospective-cohort-study-patients-eosinophilia-referred-tertiary-centre>

7. Diagnosis, treatment, and outcome of primary CNS lymphoma-a single-center experience

Joakim Wismann, Rune Hørlykke Sommer-Sørensen, **Mikkel Seremet Kofoed**, Bo Halle, Christian Bonde Pedersen, Mette Katrine Schulz, Mads Hjortdal Grønhøj, Thomas Stauffer Larsen, Michael Boe Møller, Frantz Rom Poulsen

Acta Neurochirurgica (Impact factor 2.216), March 7, 2022

<https://doi.org/10.1007/s00701-022-05170-5>

8. HIV-induced Kaposi sarcoma diagnosed after oral cancer suspicion background

Peter Schmidt, **Anders R. Madsen, Bahareh B. Philipsen**

Tandlægebladet, March 10, 2022

<https://www.tandlaegebladet.dk/hiv-induceret-kaposi-sarkom-efter-mistanke-om-mundhulecancer>

9. Can real-ear insertion gain deviations from generic fitting prescriptions predict self-reported outcomes?

Sreeram Kaithali Narayanan, Palle Rye, Tobias Piechowiak, Gert Ravn, Anne Wolff, **Sabina Storbjerg Houmøller, Jesper Hvass Schmidt** & Dorte Hammershøi

International Journal of Audiology (Impact factor 2.117), April 7, 2022

<https://doi.org/10.1080/14992027.2022.2053594>

10. Dopamine influences attentional rate modulation in Macaque posterior parietal cortex

Jochem van Kempen, **Christian Brandt**, Claudia Distler, Mark A. Bellgrove & Alexander Thiele

Nature Scientific Reports (Impact factor 4.379) April 28, 2022

<https://doi.org/10.1038/s41598-022-10634-w>

11. Cutaneous capillary malformations with cerebral implementation

Anna Trier Heiberg Brix, Pernille Mathiesen Tørring, **Anette Drøhse Kjeldsen**, Anette Bygum, Annette Schuster & Troels Halfeld Nielsen

Danish Medical Journal (Impact factor 1.24), May 9, 2022

<https://ugeskriftet.dk/videnskab/kutane-kapillaere-malformationer-med-cerebral-involvering>

12. Impacted battery in the nose of a four-year-old girl

Peter Bill Juul Ladegaard, Daniel Bräuner Skansing & Anette Drøhse Kjeldsen

Danish Medical Journal (Impact factor 1.24) May 16, 2022

<https://ugeskriftet.dk/videnskab/fastklemt-batteri-i-naesen-hos-en-firearig-pige>

13. The effect of laser thermal ablation on quality of life: Improvements in patients with solid-cystic thyroid nodules

Jesper Roed Sorensen, Helle Døssing, Torquil Watt, Per Karkov Cramon, Laszlo Hegedus, Steen Joop Bonnema, Lars Folkestad

Thyroid (Impact factor 6.568), May 16, 2022

<https://doi.org/10.1089/thy.2021.0665>

14. Medicinrådet skal revurdere dupilumab til behandling af svær rhinosinutis med næsepolypper

Grethe Badsberg Samuelsen, Kasper Aanæs, Therese Ovesen, **Bibi Lange**, Knud Larsen

Danish Medical Journal (Impact factor 1.24), May 16, 2022

<https://ugeskriftet.dk/debat/medicinradet-skal-revurdere-dupilumab-til-behandling-af-svaer-rhinosinutis-med-naesepolypper>

15. The Impact of Post-Thyroidectomy Neck Stretching Exercises on Neck Discomfort, Pressure Symptoms, Voice and Quality of Life: A Randomized Controlled Trial

Rikke Taudal Thorsen, Helle Døssing, Steen Joop Bonnema, Thomas Heiberg Brix, **Christian Godballe, Jesper Roed Sorensen**

World Journal of Surgery (Impact factor 3.282), May 30, 2022

<https://doi.org/10.1007/s00268-022-06610-0>

16. Endonasal Endoscopic Approach for Minimally Invasive Orbital Decompression in Nonthyroid Proptosis—A Scoping Review

Baskaran Ketharanathan, Mikkel Schou Andersen, Christian Bonde Pedersen, **Peter Darling, John Jakobsen**, Laleh Dehghani Molander, Rikke Hedegaard Dahlrot, Nina Nguyen, Frantz Rom Poulsen, Bo Halle

World Neurosurgery (Impact factor 2.104), June 1, 2022

<https://doi.org/10.1016/j.wneu.2022.03.075>

17. Vocal Outcome After Cordectomy by Transoral CO2 Laser Microsurgery in Patients With Laryngeal Intraepithelial Neoplasia and Non-neoplastic Lesions

Trine Printz, Camilla Slot Mehlum, Christian Godballe, Jenny Iwarsson, Solveig Gunvor Pedersen, Janni Holm Christensen, Andreas Schellerup Jørkov, **Ågot Møller Grøntved**

Journal of Voice (Impact factor 2.08), June 19, 2022

<https://doi.org/10.1016/j.jvoice.2022.04.018>

18. Revisiting Auditory Profiling: Can Cognitive Factors Improve the Prediction of Aided Speech-in-Noise Outcome?

Mengfan Wu, Stine Christiansen, Michal Fereczkowski and Tobias Neher

Trends in Hearing (Impact factor 3.496), June 21, 2022

<https://doi.org/10.1177/23312165221113889>

19. Skin and mucosal telangiectatic lesions in hereditary hemorrhagic telangiectasia patients

Stefanie J. Hyldahl, Mounir Q. El-Jaji, Annette Schuster and **Anette Drøhse Kjeldsen**

International Journal of Dermatology (Impact factor 2.736), July 6, 2022

<https://doi.org/10.1111/ijd.16320>

20. Inter- and Intrarater Reliability and Agreement Among Danish Head and Neck Pathologists Assessing Extranodal Extension in Lymph Node Metastases from Oropharyngeal Squamous Cell Carcinomas

Chadi Nimeh Abdel-Halim, Max Rohde, Stine Rosenkilde Larsen, Tina Marie Green, Benedicte Parm Ulhøi, Nina Claire Woller, Oke Gerke, Poul Flemming Højlund-Carlsen, Jens Ahm Sørensen, **Christian Godballe**

Head and Neck Pathology (Impact factor 2.84), July 13, 2022

<https://doi.org/10.1007/s12105-022-01468-z>

21. Social determinants of health associated with attitudes towards hearing loss and hearing aids in older adults fitted in a Latin American country: validation of the ALHQ questionnaire into Spanish

Eduardo Fuentes-López, Adrian Fuente, Manuel Luna-Monsalve & **Oscar M Cañete**

International Journal of Audiology (Impact factor 2.117), July 14, 2022

<https://doi.org/10.1080/14992027.2022.2097133>

22. Preoperative BRAF^{V600E} mutation detection in thyroid carcinoma by immunocytochemistry

Kristine Zøylner Swan, Stine Horskaer Madsen, Steen Joop Bonnema, **Viveque Egsgaard Nielsen**, Marie Louise Jespersen

Journal of Pathology, Microbiology and Immunology (Impact factor 3.428), August 11, 2022

<https://doi.org/10.1111/apm.13267>

23. User-operated audiometry - an evaluation of expert vs. non-expert headphone placement

Chris Bang Sørensen, René Gyldenlund Pedersen, Jacob Nielsen, Christos Sidoras, **Jesper Hvass Schmidt**, Ellen Raben Pedersen

International Journal of Audiology (Impact factor 2.117), August 18, 2022

<https://doi.org/10.1080/14992027.2022.2106903>

24. Predicting Aided Outcome With Aided Word Recognition Scores Measured With Linear Amplification at Above-conversational Levels

Fereczkowski, Michal, Neher, Tobias

Tidsskrift: Ear and Hearing (Impact factor 3.562), August 25, 2022

<https://doi.org/10.1097/AUD.0000000000001263>

25. Hereditary haemorrhagic telangiectasia in Danish patients with pathogenic variants in SMAD4: a nationwide study

Anne Marie Jelsig, **Anette Kjeldsen**, Lise Lotte Christensen, Birgitte Bertelsen, John Gásdal Karstensen, Klaus Brusgaard, Pernille M Topping

Journal of medical genetics (Impact factor 5.941), August 29, 2022

<https://doi.org/10.1136/jmg-2022-108766>

26. Hearing aid delay in open-fit devices: Preferred sound quality in listeners with normal and impaired hearing

Dina Lelic, Georg Stiefenhofer, Ellen Lundorff, and **Tobias Neher**

Tidsskrift: JASA Express Letters (Impact factor), October 4, 2022

<https://doi.org/10.1121/10.0014950>

27. Masked Speech Recognition by Normal-Hearing 6–13-Year-Olds in Conditions With and Without Interaural Difference Cues

Tobias Neher, Signe Hjorth Fogh and Shno Koiek

Trends in Hearing (Impact factor 3.496), October 4, 2022

<https://doi.org/10.1177/23312165221137117>

28. Towards Auditory Profile-Based Hearing-Aid Fittings: BEAR Rationale and Clinical Implementation

Raul Sanchez-Lopez, **Mengfan Wu**, **Michal Fereczkowski**, Sébastien Santurette, Monika Baumann, Borys Kowalewski, Tobias Piechowiak, Nikolai Bisgaard, Gert Ravn, Sreeram Kaithali Narayanan, Torsten Dau and **Tobias Neher**

Audiology research (Impact factor 1.4), October 9, 2022

<https://doi.org/10.3390/audiolres12050055>

29. European Reference Network for Rare Vascular Diseases (VASCERN): When and how to use intravenous bevacizumab in Hereditary Haemorrhagic Telangiectasia (HHT)?

Sophie Dupuis-Girod, Claire L Shovlin, **Anette D Kjeldsen**, Hans-Jurgen Mager, Carlo Sabba, Freya Droege, Anne-Emmanuelle Fargeton, Annette D Fiella, Silvia Gandolfi, Ruben Hermann, Gennaro M Lenato, Guido Manfredi, Marco C Post, Catherine Rennie, Patrizia Suppressa, Ulrich Sure, ePag group; Elisabetta Buscarini

European Journal of Medical Genetics (Impact factor 2.465), October 10, 2022

<https://doi.org/10.1016/j.ejmg.2022.104575>

30. CHronic RhINOSinusitis Outcome Registry (CHRINOSOR): establishment of an international outcome registry driven by mHealth technology

Sven F. Seys, Peter W. Hellings, Isam Alobid, Vibeke Backer, Emilie Bequignon, Christian von Buchwald, Carlo Cavaliere, André Coste, Lauren Deneyer, Zuzana Diamant, Julia Eckl-Dorna PharmD, Wytske J. Fokkens, Simon Gane, Philippe Gevaert, Christiane Holbaek-Haase, Clemens Holzmeister, Claire Hopkins, Valérie Hox, Caroline Huart, Roger Jankowski, Mark Jorissen, **Anette Kjeldsen**, Lisa Knipps, **Bibi Lange**, Rikvan der Lans, Anu Laulajainen-Hongisto, **Kenneth Larsen**, David Liu, Valerie Lund, Gert Mariën, Simonetta Masieri, Geoffrey Mortuaire, Joaquim Mullol, Sietze Reitsma, Philippe Rombaux, Sven Schneider, Andreas Steinsvik, Peter-Valentin Tomazic, Sanna K. Toppila-Salmi, Laura Van Gerven, Thibaut Van Zele, Paula Virkkula, Martin Wagenmann, Claus Bachert

The Journal of Allergy and Clinical Immunology: In Practice (Impact factor 11.022), October 19, 2022

<https://doi.org/10.1016/j.jaip.2022.09.043>

31. Comparing Clinically Applicable Behavioral and Electrophysiological Measures of Speech Detection, Discrimination, and Comprehension

Pushkar Deshpande, Christian Brandt, Stefan Debener and Tobias Neher

Trends in Hearing (Impact factor 3.496), November 1, 2022

<https://doi.org/10.1177/23312165221139733>

32. Vocal cord augmentation in a palliative setting for patients with lung cancer and mediastinal involvement

Uffe Mark Lauridsen, Joyce Dominique J. Horsmans Schultz, Christa Haugaard Nyhus & **Jesper Roed Sørensen**

Danish Medical Journal (Impact factor 1.24), November 21, 2022

<https://ugeskriftet.dk/videnskab/palliativ-behandling-af-recurrensparalyse-hos-patienter-med-kraeft-og-mediastinal>

33. Defining dysphagia – a modified multi-professional Danish Delphi study

Anne Højager Nielsen, Signe Janum Eskildsen, Janne Danielsen, Peter Hastrup, Anne Bek Jellinghof, Johannes Riis, Anne Lund Krarup, Hanna Rahbek Mortensen, **Bahareh Bakhshai Philipsen**, Nathalie Rommel & Dorte Melgaard

Scandinavian Journal of Gastroenterology (Impact factor 3.027), December 7, 2022

<https://doi.org/10.1080/00365521.2022.2151850>

34. Study protocol for a randomised controlled trial evaluating the benefits from bimodal solution with cochlear implant and hearing aid versus bilateral hearing aids in patients with asymmetric speech identification scores

Yeliz Jakobsen, Lou-Ann Christensen Andersen, Jesper Hvass Schmidt

BMJ Open (Impact factor 3.007), December 29, 2022

<https://doi.org/10.1136/bmjopen-2022-070296>

Impact factor (IF) and BFI 2017-2022

	2017	2018	2019	2020	2021	2022
Publications with IF	37 (*9)	41 (*7)	37 (*4)	33 (*1)	31 (*2)	34 (*3)
Total IF	117,9	108,1	114,5	142,8	128,3	91,1
Range	1,1-7,7	1,1-7,4	1,1-24,5	0,9-33,8	1,2-39,9	1,2-6,6
Median	2,5	2,4	2,4	2,3	3,1	2,7
Mean	3,2	2,6	3,1	4,1	3,8	2,9

*Publications without Impact Factor

Scientific meetings

National meetings:

DHHKS (Dansk Hoved Hals Kirurgisk Selskab) annual meeting
DLS (Dansk Laryngologisk Selskab) annual meeting
DMAS (Dansk Medicinsk Akupunktur Selskab- et lægefagligt selskab) annual meeting
DOKS (Dansk Otokirurgisk Selskab) annual meeting
DSD (Dansk Selskab For Dysfagi) annual meeting
DSFV (Dansk Selskab for Vestibulogi) annual meeting
DSOHH (Dansk Selskab for Otolaryngologi - Hoved & Halskirurgi) annual meeting
DTAS (Dansk Teknisk Audiologisk Selskab) annual meeting
Meeting in DANGLLOT
Meeting in Danish Comprehensive Cancer Center
Meeting in Danish Medicines Council
Meeting in Danish Rhinologic Society
Meeting in RKKP (Regionernes Kliniske KvalitetsudviklingsProgram)

International meetings:

- Scandinavian Society for Head and Neck Oncology (SSHNO), Aarhus, Denmark, March (Christian Godballe, Kristine Bjørndal, Ellen Møhl, Malene Korsholm)
- World Congress of Skull Base, Rio de Janeiro, Brazil, March (John Jakobsen, Peter Darling)
- VASCERN days, Lyon, France, May (Anette D. Kjeldsen)
- Study tour with DOKS, Rostock, Germany, May (Christian Faber)
- The Nordic Audiological Society annual meeting, Odense, Denmark, June (Rikke Schnack-Petersen)
- The Nordic Society for Vascular Anomalies (NSVA) meeting, Oslo, Norway, September (Viveque Egsgaard)
- HHT International Scientific Conference, Lisbon, Portugal, September-October (Anette D. Kjeldsen, Bibi Lange)
- VASCERN Steering committee, Paris, France, October (Anette D. Kjeldsen)
- Master Class Laryngectomy, Amsterdam, Holland, October (Kristine Bjørndal)
- Congress of European, ORL-HNS, Milano, Italy, October-November (Anette D. Kjeldsen, Helle Døssing, Marie Westergaard-Nielsen)
- 33rd Politzer Society Meeting, Sao Paulo, Brazil, November (Christian Faber, Henrik Lind)
- Surgery Techniques in laryngology, Hamburg, Germany, November (Camilla S. Mehlum)

Overall Research metrics 2017-2022

Benchmarking of ORL at OUH compared to international ORL departments:

Head & Neck Surgery and Audiology, Odense University Hospital

Researchers: 35

Scholarly Output: 281

Citations per Publication 13.4

Field-Weighted Citation Impact 1.6

Klinik für Hals-, Nasen-, Ohrenheilkunde, Kopf- und Halschirurgie, Kiel Germany

Researchers: 20

Scholarly Output: 46

Citations per Publication 10.3

Field-Weighted Citation Impact 1.1

Massachusetts Eye and Ear Infirmary, Boston, USA

Researchers: 195

Scholarly Output: 2142

Citations per Publication 13.1

Field-Weighted Citation Impact 1.9

International Collaboration and Academic-Corporate Collaboration of ORL at OUH:

International Collaboration ⓘ

[+ Add to Reporting](#)

Publications co-authored with researchers in other countries/regions



ORL OUH March 2023:
27.4%

Academic-Corporate Collaboration ⓘ

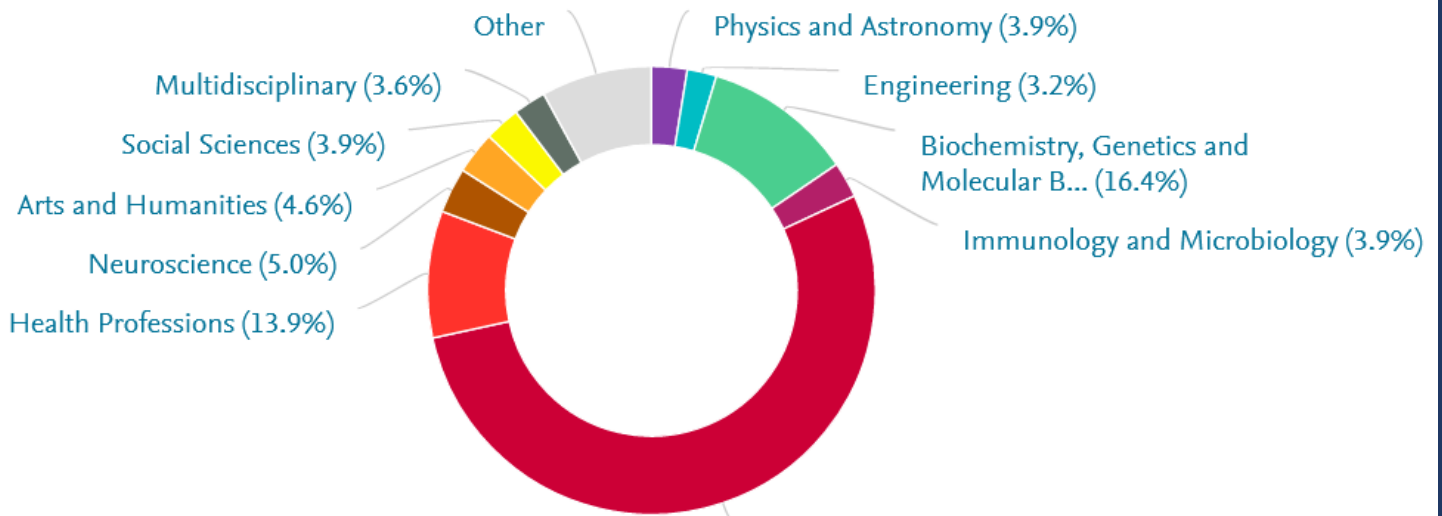
[+ Add to Reporting](#)

Publications with both academic and corporate affiliations

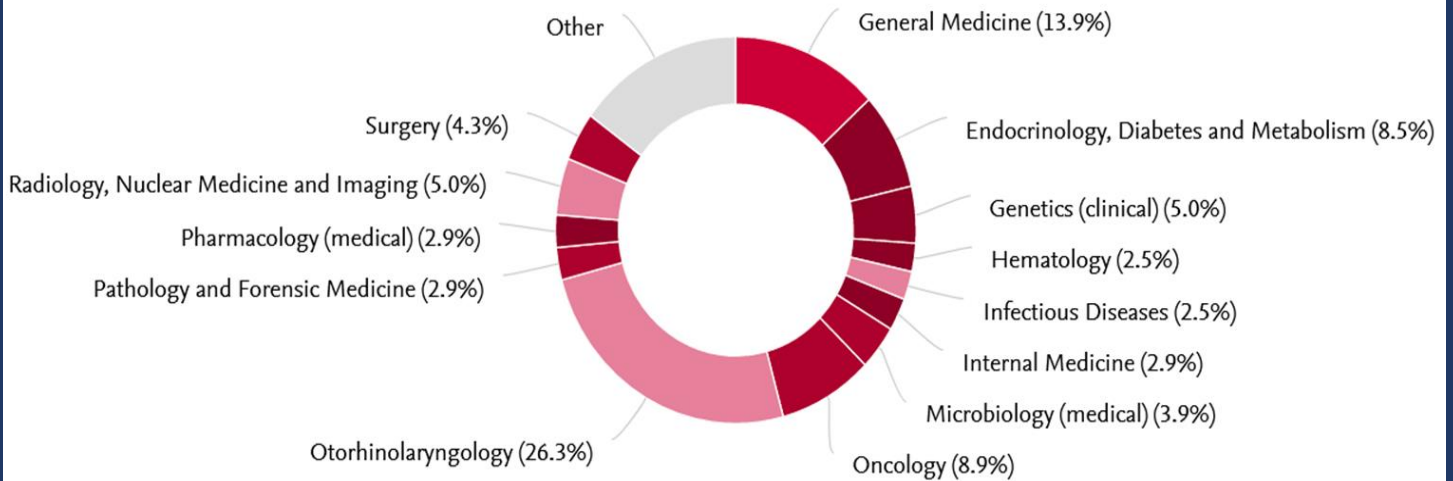


ORL OUH March 2023:
6.4%

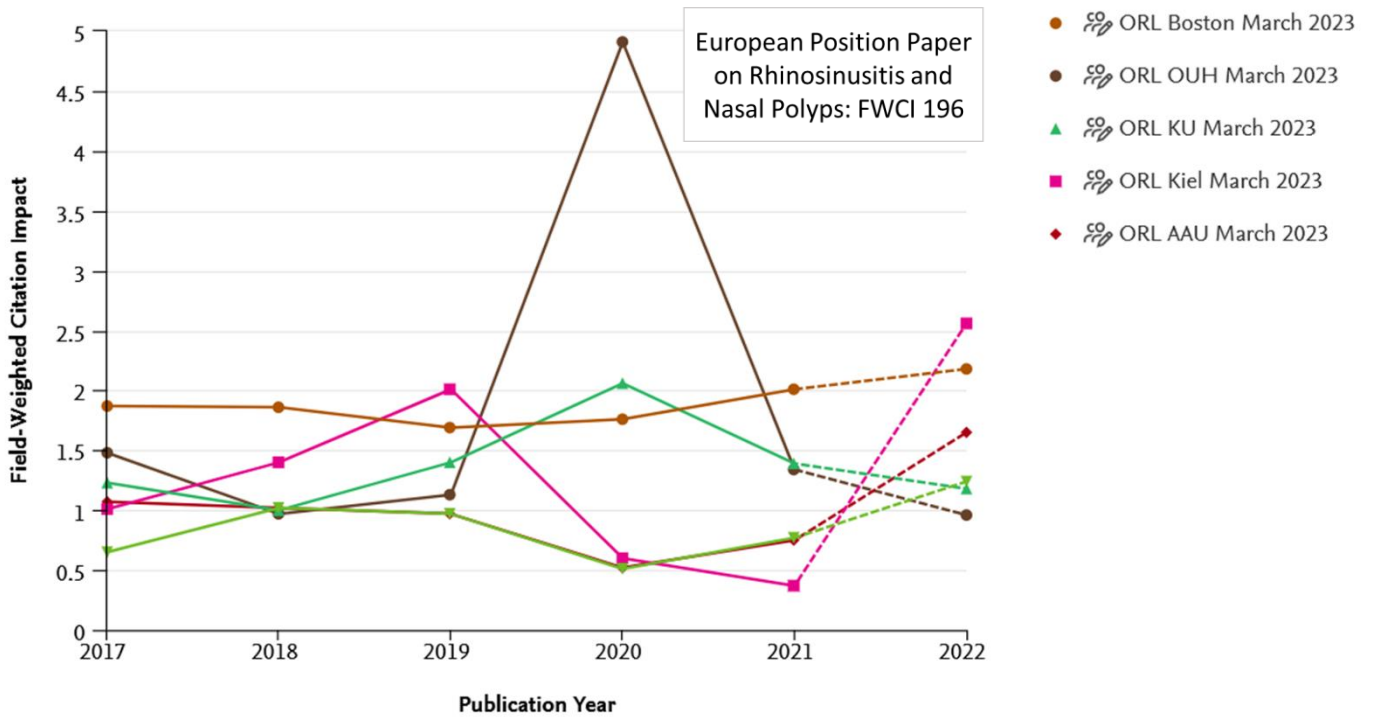
Publications by research areas 2017-2022



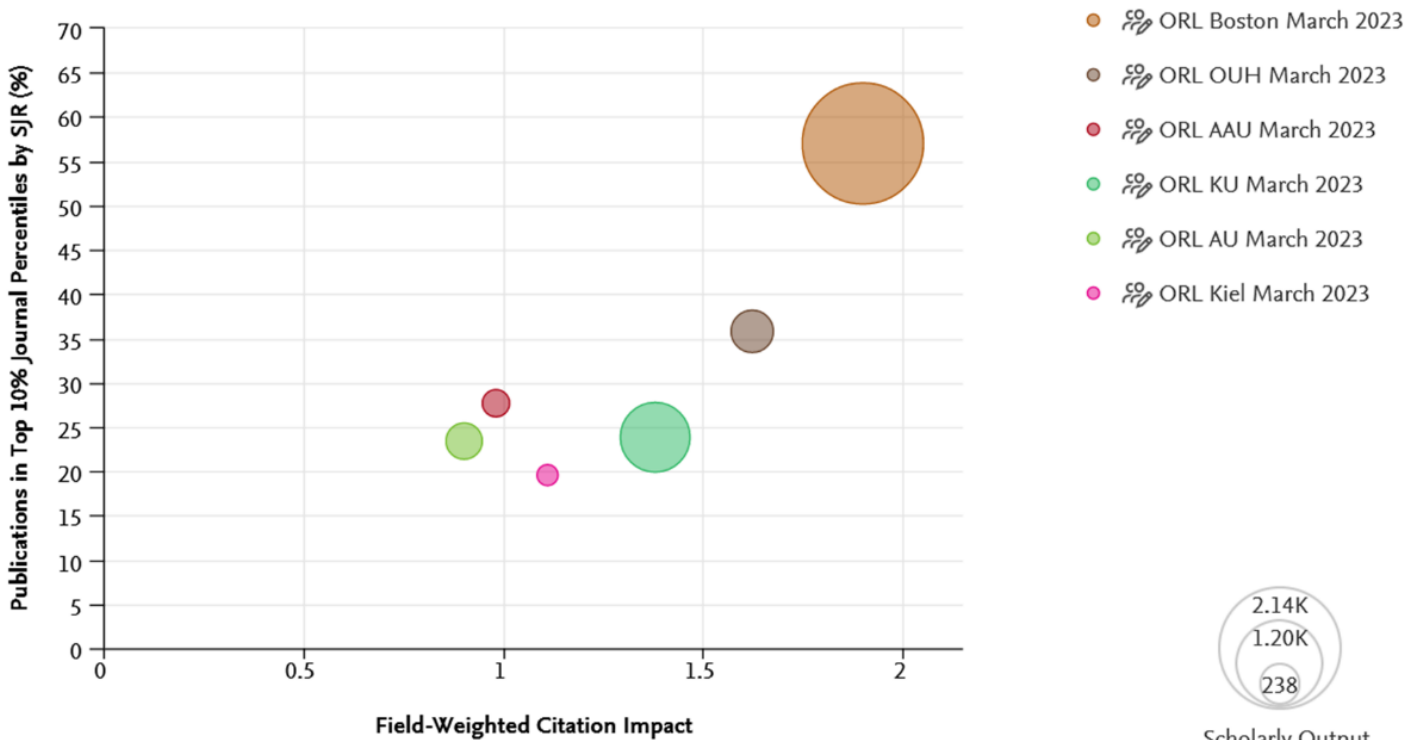
Medicine (81.1%)



Benchmarking on Field Weighted Citation Impact 2017-2022



Publications in top 10% journal percentiles against Field Weighted Citation Impact 2017-2022



Scholarly Output

Development in nursing

Development plan for 2022 includes the following:

Shared decision making

Teaching staff in Shared decision making and appointing two decision-helpers for patients with a Cochlear Implant and one for patients with hearing aids.

Introductory program

An introductory program for newly employed nurses:

- Two days of optional simulation teaching in the treatment and care within the ENT area
- New employed nurses are assigned a mentor
- Nurses will have the opportunity to visit other sections within the ENT (Ear-Nose-Throat) department

Cooperation between sectors

Cooperation with municipalities and hospitals in the region due to insecurity among tracheostomy patients and community nurses after discharge. This increases continuity in the care of these patients resulting in better treatment quality.

We are now testing:

- Video meetings before discharge between ENT nurses, community nurses, the patient and their relatives.
- Two E-learning programs concerning care of the tracheostomy for community nurses and nurses at the hospital
- Hotline, where community nurses can call the ENT department day and night to get advice through video
- Simulation training for community nurses and nurses at the hospital
- A joint guideline on care and suction in connection to tracheostomy for all hospitals in the region
- A film to prepare patients and their relatives to the life with a tracheostomy
- Instruction videos on how to care for a tracheostomy on "Mit Sygehus" aimed for community nurses, patients and relatives

Written information to patients

We have started to give relevant patients written information on "Mit Sygehus" instead of a paper leaflets.

"Mit Sygehus" is being expanded to several new patient groups.

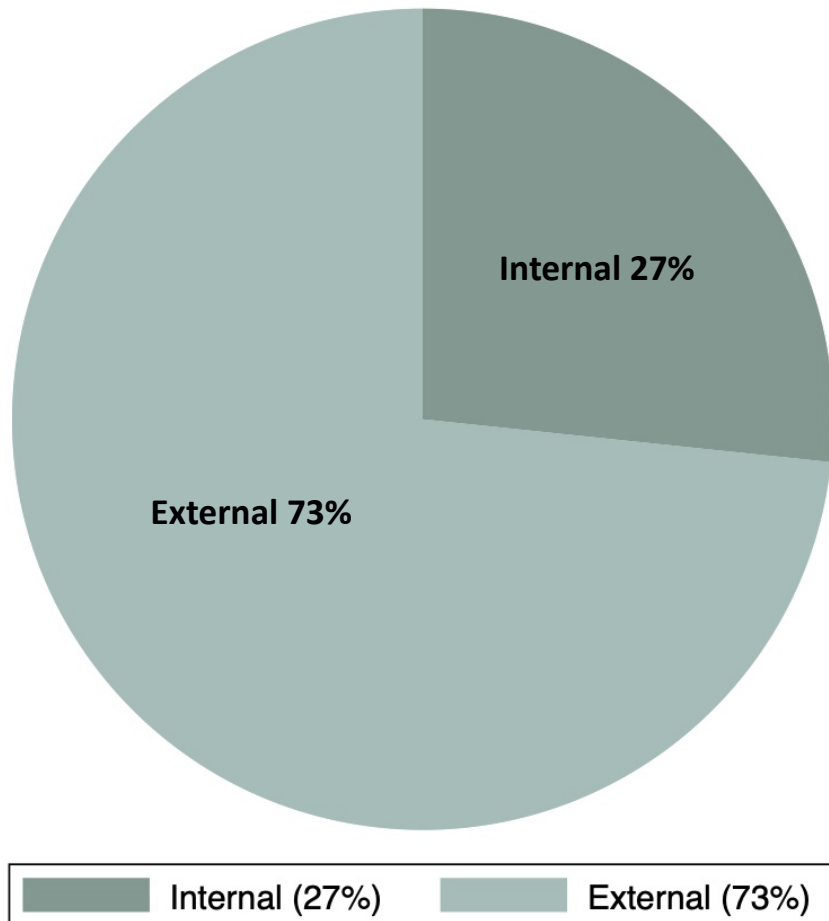
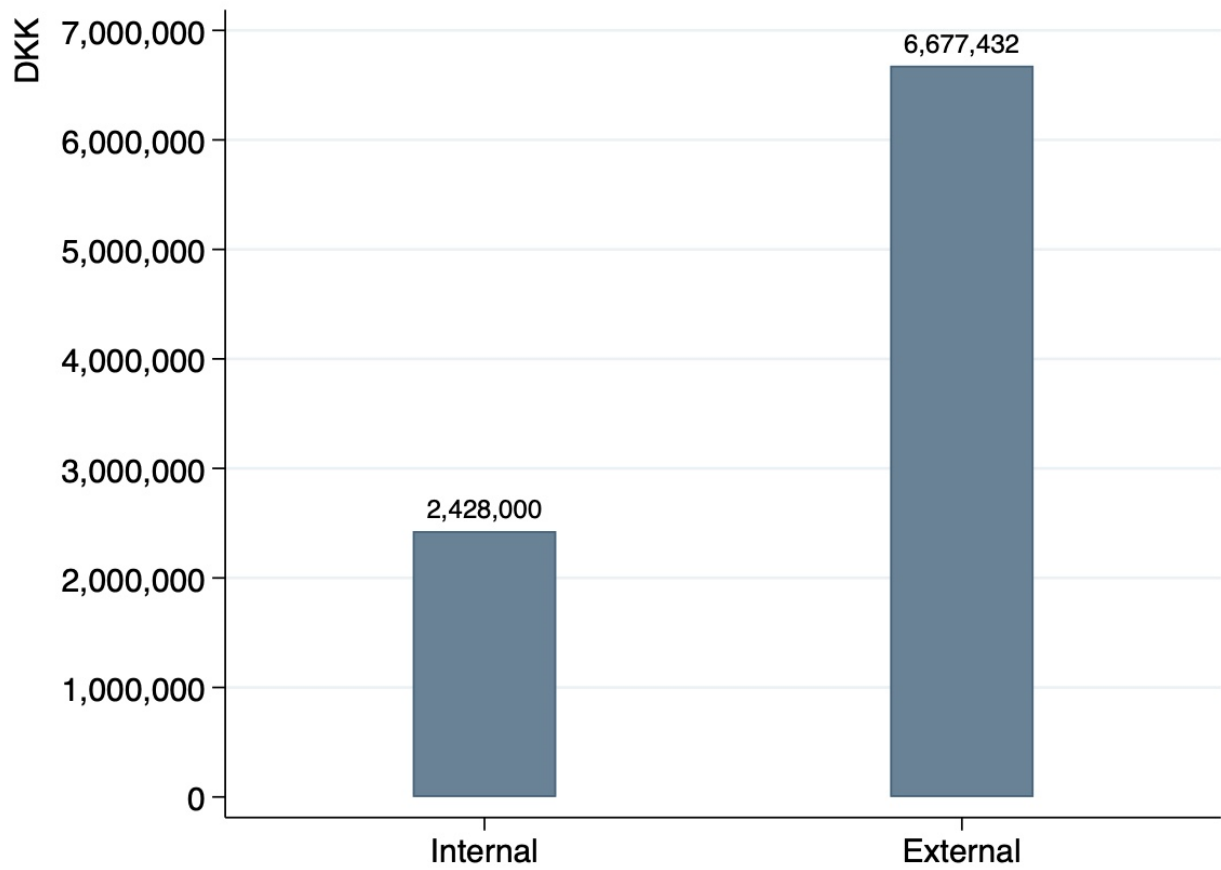
Video consultations

We will offer video-consultations to relevant patients.

All staff are introduced how to make video consultations on "Mit Sygehus" and use the video solution (VDX) to guide colleagues, patients or relatives on the phone through a videolink.

Funding

Funding 2022	Internal	External	Salary/running costs	Name
SST: : Puljen Eksperimentelle kræft-kirurgiske funktioner		135.750	Running costs	Christian Godballe
OUHs overlægeråds forskningsfond	40.000		Running costs	Bahareh B. Philipsen
EU fond: Intereg		744.000	Salary + running costs	Tobias Neher, SDU
OUHs overlægeråds forskningsfond	20.000		Salary	Daniel Jørgensen
Region Syddanmarks ph.d.-pulje	592.000		Salary	Mikkel S. Kofoed
Kræftens Bekæmpelse		2.000.000	Salary + running costs	Bahareh B. Philipsen
Dagmar Marshalls Fond		50.000	Running costs	Chadi N. Abdel-Halim
OUH's ph.d.-pulje	592.000		Salary	Kenneth S. Larsen
Kræftens Bekæmpelse (skolarstipendium)		70.000	Salary	Daniel Jørgensen
GN Store Nord Fond		1.666.682	Running costs	Tobias Neher, SDU
Fakultetsstipendium (et årsværk), SDU	592.000		Salary	Mikkel S. Kofoed
Fakultetsstipendium (et årsværk), SDU	592.000		Salary	Kenneth S. Larsen
Dansk Otokirurgisk Selskab		6.000	Running costs	Jesper R. Sørensen
Traun Pedersens Fond		5.000	Running costs	Jesper R. Sørensen
William Demant Fond		2.000.000	Running costs	Tobias Neher
In total: 9.105.432 DKK	2.428.000 (27%)	6.677.432 (73%)		



New SDU website for Research Unit of Oto Rhino Laryngology (Odense)



Link to website:

<https://www.sdu.dk/en/forskning/otorhinolaryngology>

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