

ANNUAL REPORT 2020

ORL RESEARCH



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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 and 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 2020, 2 new post docs were employed, 2 new PhD projects were initiated, and 2 PhD projects were completed. We have published 35 peer-reviewed articles, including 3 high impact factor articles, one in Annals of Internal Medicine (impact factor 21,317), one in The Lancet Oncology (impact factor 33,752) and one in The Lancet Diabetes & Endocrinology (impact factor 25,340). We have received external funding of more than 12 million DKK and internal funding of 1.8 million DKK.

We have designed a vision board and an individual board with an explanatory guidance for each PhD student, containing the formal steps in the PhD education. The results from the individual boards are transferred to the overall vision board. This provides a systematic overview ideal for monitoring individual progress with the possibility for early intervention if the timetable is not met.

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!



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

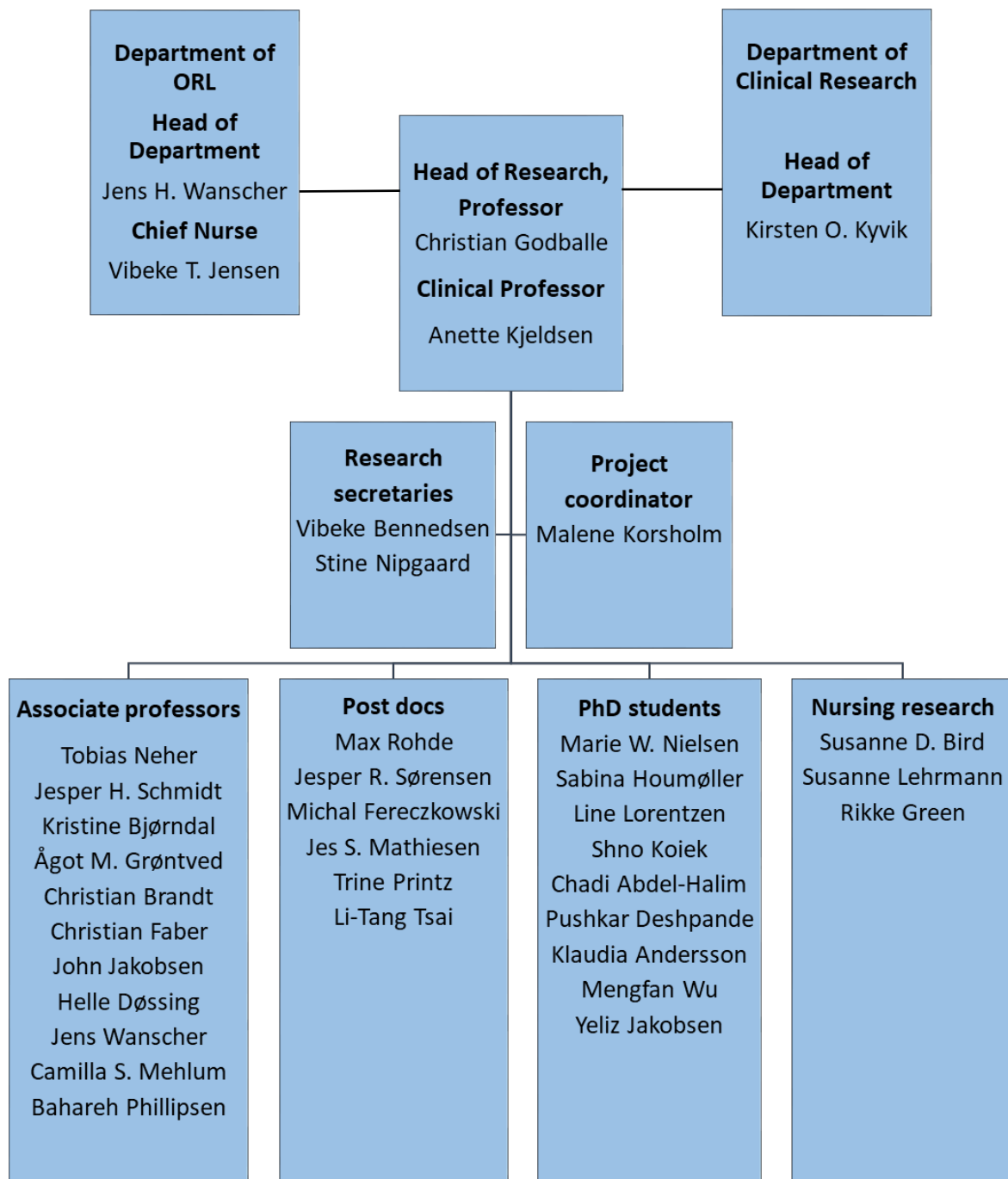


Organisation and employees (end 2020)

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 consists of dedicated employees and researchers as well as talented postdocs, PhD students, and undergraduate students.

34 colleagues in total



Collaboration

The Research Unit at the Department of ORL—Head & Neck Surgery and Audiology acknowledge the great importance of local, regional, national, and international cooperation in research. Our organisational structure, as a part of Odense University Hospital and University of Southern Denmark, provides us great opportunities to cooperate interdisciplinary with other departments and institutes. Moreover, we take part in several national research projects in which collaboration with departments at other hospitals is essential.

Christian Godballe (Professor, MD, PhD)

- Board member of the Danish Society for Head and Neck Cancer (DSHHO)
- Board member of the Danish Head and Neck Cancer Group (DAHANCA)
- Chairman of the The Danish Thyroid Cancer Study Group (DATHYRCA)
- Chairman in collaboration with Professor Steen J. Bonnema of the Danish Thyroid Surgery Quality Register (THYKIR)
- Member of editorial board in European Archives of Oto-Rhino-Laryngology (EAORL)
- Member of the Research Council, OUH

Anette Kjeldsen (Professor, MD, PhD)

- Member of the Editorial Board, Rhinology online
- Member of the HHT group in the Rare Vascular Diseases European Reference Network (VascERN)
- Member of Cure HHT Scientific Board
- Member of the Danish steering group regarding the registration of biological treatment in patients with severe chronic rhinosinusitis

Bahareh Bakshaie Philipsen (Associate professor, MD)

- Deputy Chairman of the Danish Society for Dysphagia
- Member of the Organization of Danish Medical Societies (LVS)

Bibi Lange (MD, PhD)

- Secretary of the Danish Society for Rhinology (DRS)

Camilla Slot Mehlum (Associate professor, MD, PhD)

- Chairman of the Danish Society for Laryngology (DLS)

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

- Member of the Auditory Processing Disorder Group

Helle Døssing (Associate professor, MD, PhD)

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

Jens H. Wanscher (Associate professor, MD)

- Danish Society for Vestibulology
- Danish Society for ORL Head & Neck Surgery (DSOHH)
- 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

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

- Member of the Danish Medical Audiological Society
- Member of the Danish Society for Vestibulology
- Member of the Danish Society for Head and Neck Cancer (DSHHO)
- Member of the Danish Society for ORL Head & Neck Surgery (DSOHH)
- Member of the Danish Acoustic Society
- Member of association for Research in Otolaryngology (ARO)

Kristine Bjørndal (Associate professor, MD, PhD)

- Treasurer of the Danish Society for Head and Neck Surgery (DHHKS)

Tobias Neher (Associate professor, PhD)

- Member of the Danish Technical Audiological Society (DTAS)
- Member of the German Audiological Society (DGA)

- Member of the DGA steering committee for 'Hearing aid technology & fitting'
- Technical co-chair of the 2022 International Hearing Aid Research Conference (IHCON), Lake Tahoe, USA

Viveque Egsgaard (MD, PhD)

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

Ågot Møller Grøntved (Associate professor, MD, PhD)

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

9 PhD projects

Salivary gland carcinoma in Denmark 1990-2015: A national study with focus on diagnostic imaging, surgical treatment of the neck and prognosis

Marie Westergaard-Nielsen, MD, PhD student

Main supervisor: Kristine Bjørndal

Predictive factors for successful hearing aid use and benefit

Sabina Storbjerg Houmøller, Audiologist, PhD student

Main supervisor: Jesper Hvass Schmidt

Can we improve Quality of Hearing and Quality of life related to hearing loss, by changing the methods used in diagnosing and treating hearing loss and as a result increasing the Quality Adjusted Life Years of Hearing aid treatment?

Line Nim Lorentzen, Audiologist, PhD student

Main supervisor: Jesper Hvass Schmidt

Evaluation and validation of new clinical measures for improved diagnostics and hearing aid fitting in audiological rehabilitation

Mengfan Wu, MA Linguistics, PhD student

Main supervisor: Tobias Neher

Hearing disorder in children with a history of middle-ear diseases: Diagnosis, prevalence, persistence and hearing-aid treatment

Shno Koiek, Audiologist, PhD student

Main supervisor: Tobias Neher

The Diagnostic Value of ¹⁸F-FDG-PET/MRI in Regional Head and Neck Squamous Cell Carcinoma

Chadi Nimeh Abdel-Halim, MD, PhD student

Main supervisor: Christian Godballe

Cortical reorganization in novice hearing aid and cochlear implant users: Cross-sectional comparison and longitudinal changes

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

Principal supervisor: Tobias Neher

Hearing-health behaviour and real-world hearing-aid outcome in children and adults

Klaudia E. Andersson, MSc Audiology, PhD student (start 01.05.20)

Main supervisor: Tobias Neher

Benefits from bimodal fittings with cochlear implants and hearing aids vs bilateral hearing aids in patients with asymmetric speech identification scores: a randomized controlled trial

Yeliz Jakobsen, MD, PhD student (start 01.08.20)

Main supervisor: Jesper Hvass Schmidt

1 Associated PhD project

Coherent raman scattering microscopy for in vivo diagnostics of head and neck cancers (CARS)

Bjarne Thorsted, MSc PhD student

Main supervisor: Jonathan Brewer

Co-supervisor: Christian Godballe

Completed: December 21th 2020

2 Completed PhD projects in 2020

Standardization of the Phonetogram for Clinical and Research Purpose

Trine Printz, MA in Audiologopedics

Main supervisor: Ågot Møller Grøntved

Defence: January 20th 2020

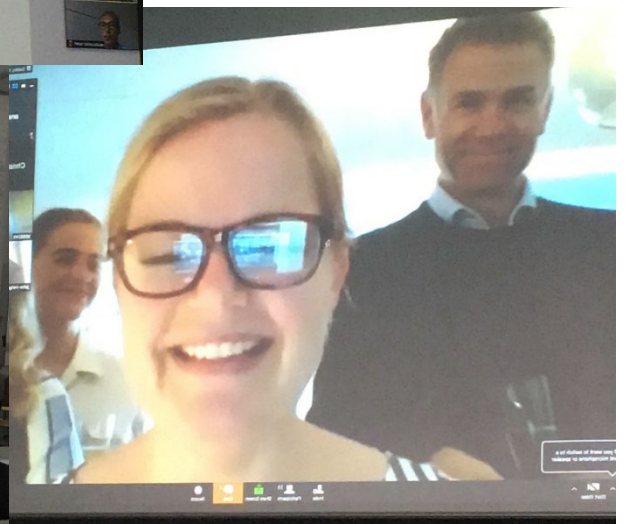
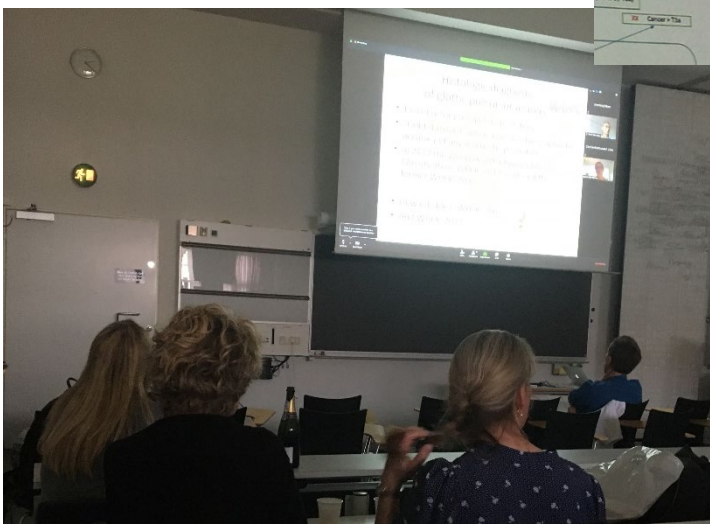
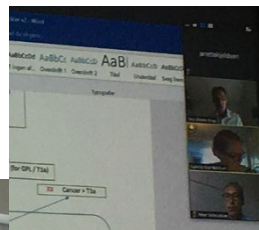


Diagnostic challenges in glottis neoplasia

Camilla Slot Mehlum, MD

Main supervisor: Christian Godballe

Defence: April 24th 2020



Supervision – summary 2020

Master thesis; Medical students: 2/*2

Master thesis; Audiology: 12/*16

Master thesis; Audiologopedics: 2/*3

Bachelor projects; Audiology: 13/*19

Bachelor projects; Audiologopedics: 2/*4

No. of projects/*no. of students

2 Master theses; Medical students

Validation of Nijmegen Cochlear Implant Questionnaire

- Student: Charlotte Skov Neumann
- Supervisor: Jesper H. Schmidt

Description of skin and mucosal telangiectatic lesions in patients with HHT

- Student: Mounir Qussama El-Jaji
- Supervisor: Anette D. Kjeldsen

12 Master theses; Audiology

The effect of noise reduction on speech understanding and listening effort

- Student: Asma Ismail Abukar Hassanand Subani Yogarajah
- Supervisor: Tobias Neher

The development of a Danish speech banana

- Student: Camilla Olesen
- Supervisor: Carsten Daugaard

The validity of the Danish word recognition test as a diagnostic tool of Arabic speaking adults – a comparison of Arabic monosyllabic wordlists and Dantale for measuring DS%

- Student: Israa Bassam
- Supervisor: Christian Brandt

The influence of the impression of hearing aids' technological modernity on motivation and listening effort in the hearing impaired

- Student: Julia Yevchenko
- Supervisor: Tobias Neher

Part 1. The effect of noise reduction on speech comprehension, listening efforts, preference and sound quality in adults; A literature study**Part 2. Hurtigtaleweb, a web-based speech test in noise**

- Student: Khushbo Wazire and Rubaba Kazimi
- Supervisor: Carsten Daugaard

A phenomenological study of first-time hearing aid users' experience and recollection of beginner training at a regional hospital

- Student: Laura-Lena Klingstrup
- Supervisor: Christian Brandt

Comparison of silicone- and foam eartips when measuring otoacoustic emissions

- Student: Lejla Alilovic og Sarah El Khatib
- Supervisor: Christian Brandt

Hurtigtale – A Danish version of QuickSIN

- Student: Madina Bakhtiar
- Supervisor: Carsten Daugaard

The auditory effects of deprivation and stimulation of the central auditory system for people with presbycusis

- Student: Per Kristoffer Hansen
- Supervisor: Tobias Neher

Baby-sign and its impact on children's language development

- Student: Pernille Søndergaard Sørensen
- Supervisor: Christian Brandt

A Normative Dataset for cVEMP and oVEMP on Normal Hearing Adults Between 22-38 years of age

- Student: Rasmus Penzien Skipper
- Supervisor: Christian Brandt

Distortion Product Otoacoustic Emissions – Normative Data for Clinical Use

- Student: Sofie Andersen
- Supervisor: Christian Brandt

2 Master theses; Audio-logopedics

Children's voices in the Danish logopedics practice – a national study with proposed guidelines

- Student: Camilla Torp Knudsen and Cirkeline Løv Haris
- Supervisor: Trine Printz

Adaptation and validation of the Danish Singing Voice Handicap Index

- Student: Veronika Sofia Gamborg
- Supervisor: Trine Printz

13 Bachelor projects; Audiology

Attenuation of active noise cancelling headphones and hearing protection

- Student: Ali Osman Sütcü and Mahnoor Abbas
- Supervisor: Carsten Daugaard

Research study of speech perception in subjects with low clinical DS

- Student: Amalie Rudbeck-Rønne and Kathrine Sønderhøj Nørager Jørgensen
- Supervisor: Tobias Neher

The False Air-bone Gap at 4 kHz

- Student: Amira Hammoud and Eugenia Appiah
- Supervisor: Christian Brandt

Morbus Meniere

- Student: Angezah Safi and Samira Ibrahim Mahad Dahir
- Supervisor: Christian Faber

A study of noise exposure for workers at a Danish production plant

- Student: Emilie Juul Birn
- Supervisor: Christian Brandt

Understanding voluntary damaging exposure to music and intervention thereof

- Student: Ervin Bahtijar
- Supervisor: Christian Brandt

Real-ear measurements of wide and narrow ear canals in open and closed acrylic custom made ear moulds

- Student: Helene Thygesen
- Supervisor: Carsten Daugaard

A study of the significance of noise levels for military service employees

- Student: Lena Y Nhu Dieu and Sandra Westh Nedergaard
- Supervisor: Christian Brandt

Localization of sound with deformities on the outer ear

- Student: Martin Smidt and Ole Birckjær Hougaard
- Supervisor: Carsten Daugaard

Study of binaural hearing in children with Otitis Media using psychoacoustic and speech intelligibility measurements

- Student: Nadia Føns Christensen
- Supervisor: Tobias Neher

The impact of music on the attention and bicycle safety of cyclist

- Student: Nanna Lavlund Clausen
- Supervisor: Christian Brandt

Auditory simple reaction time in video gamers with different levels of experience

- Student: Tanja Thuesen Bruun
- Supervisor: Christian Brandt

Research of professionals communication with children with hearing impairment

- Student: Thushika Jegasothy
- Supervisor: Christian Brandt

2 Bachelor projects; audio-logopedics

The effect of task for determination of the habitual speaking voice. A clinical study focusing on recommendations for practice

- Student: Karoline Emilie Knudsen
- Supervisor: Trine Printz

A quantitative study of the distance from the lowest producible frequency to the habitual frequency (Distance to the Habitual Frequency) as well as an elucidation of the habitual frequency in Danish adults with healthy voices

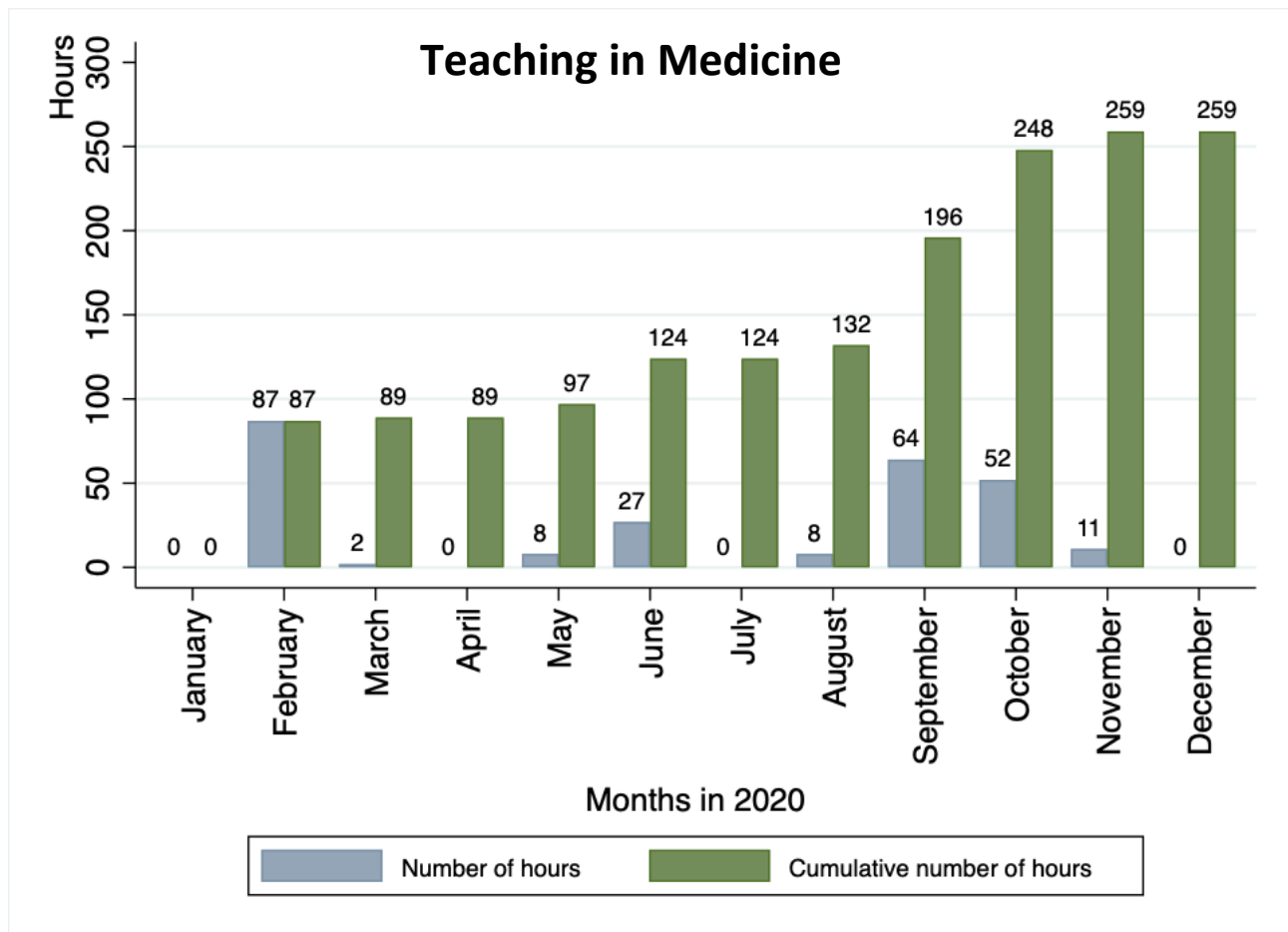
- Student: Laura Christoffersen, Laura Lily Hauerslev and Sille Nielsen
- Supervisor: Trine Printz

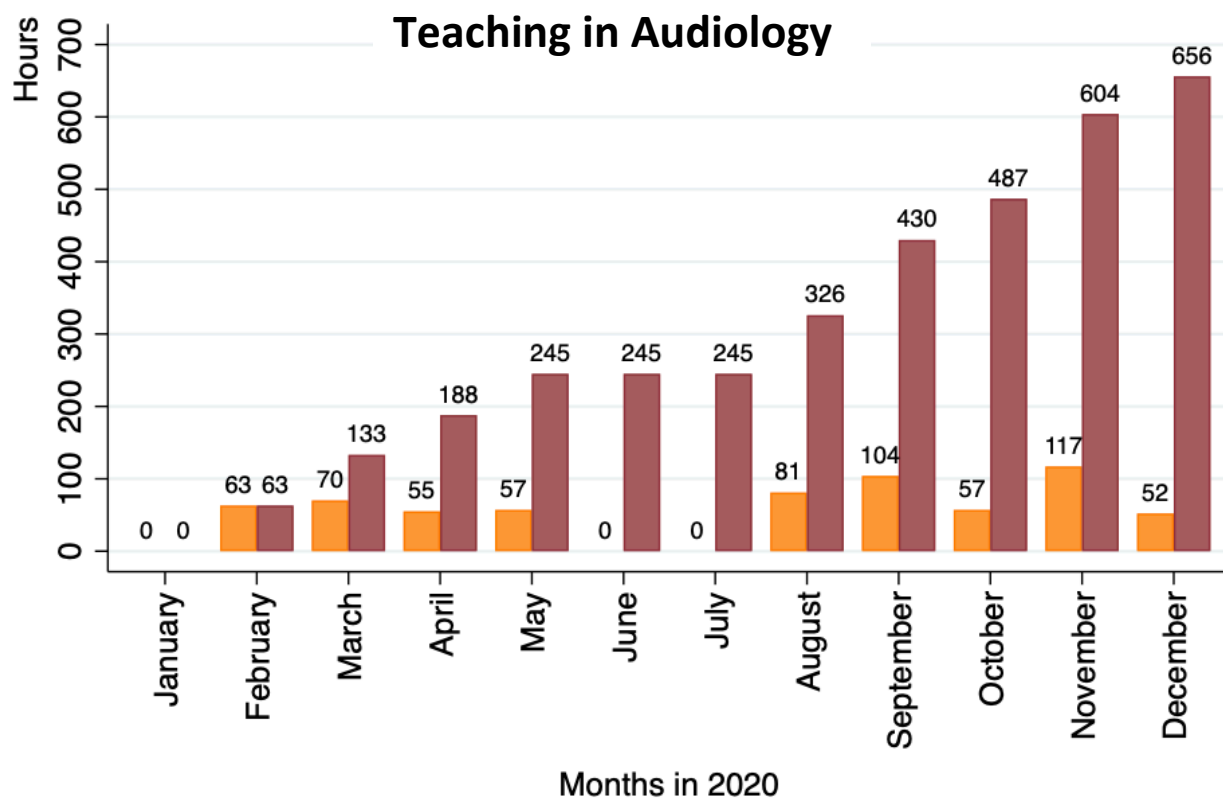
Teaching

Teaching in 3 educations (bachelor and master)

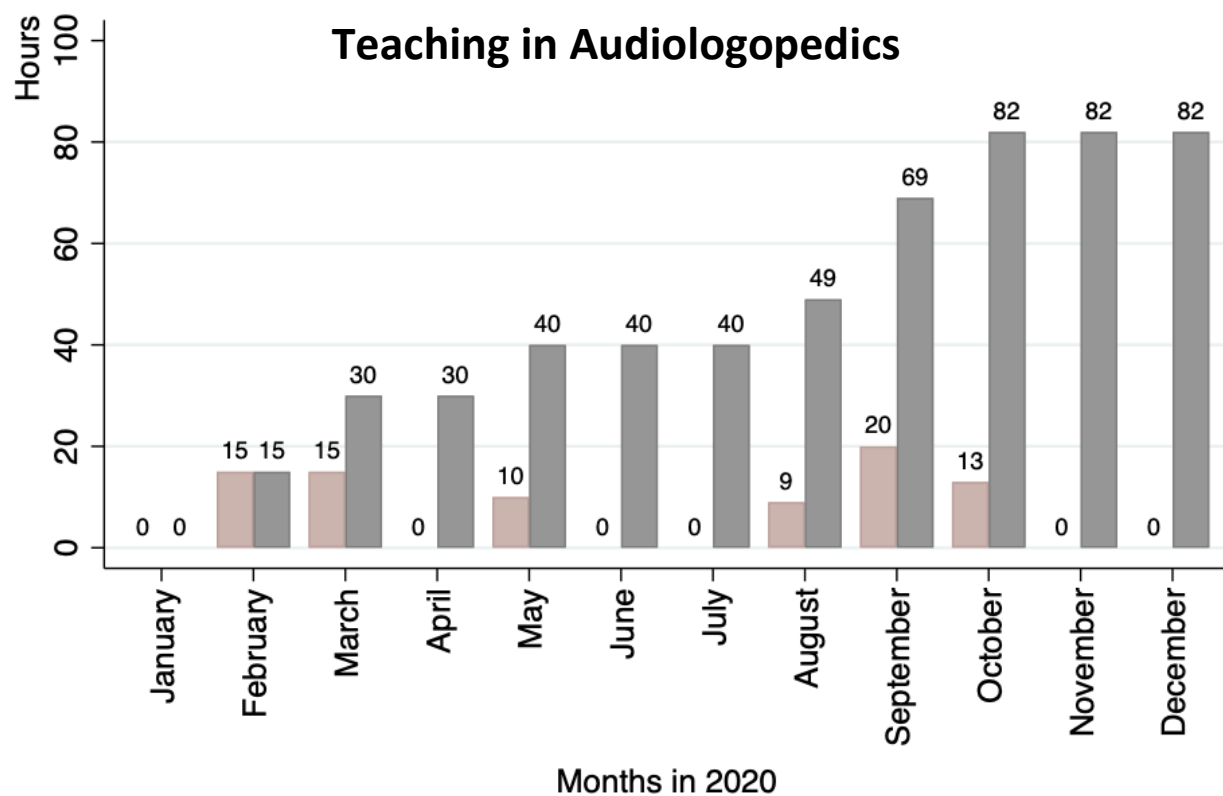
- Medicine
- Audiology
- Audiologopedics

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





Number of hours
 Cumulative number of hours



Number of hours
 Cumulative number of hours

Supervision

- Bachelor, master, PhD (3 educations)

Supervision in 2020	
	Hour
Medicine	20
Audiology	176
Audiologopedics	26
In total	222

A list of the courses in which ORL participate

Medical training

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

Audiology

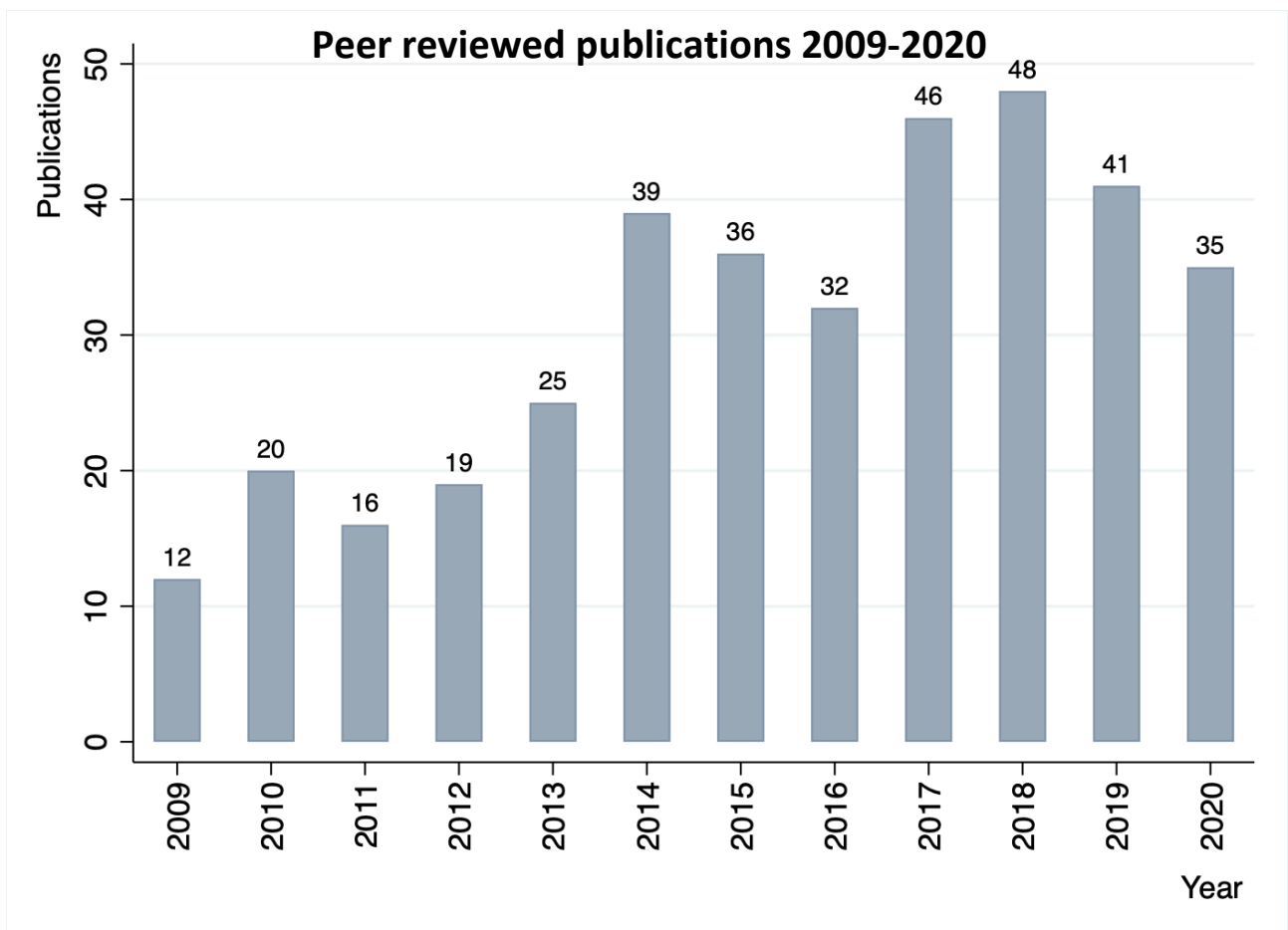
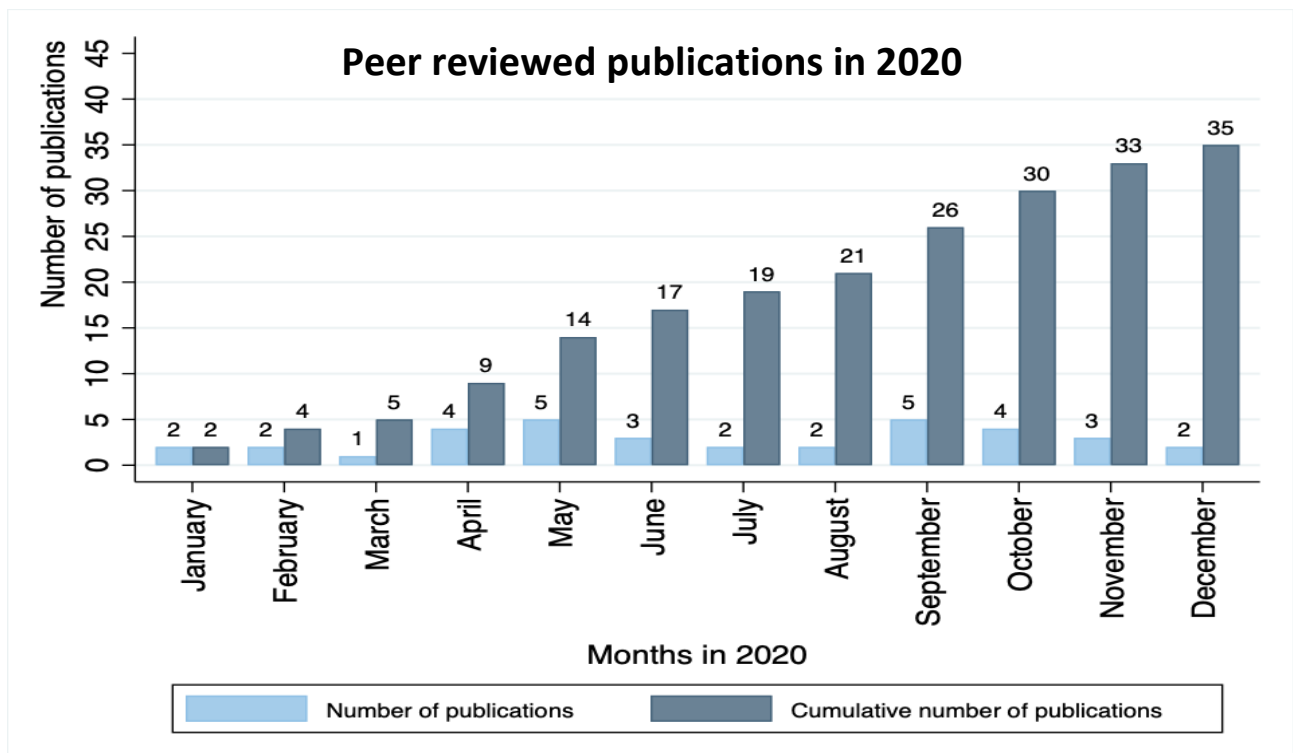
- Introduction to Audiologists
- Mathematics for Audiologists
- Anatomy and Physiology
- Medical Audiology I-III
- Audiological Measurements I and Hearing Aid Treatment I
- Hearing Aid Treatment II-III
- Project-oriented course I-II
- Clinical Practice

- Measuring Methods, Hearing Aid Treatment and Adjustment
- Psychoacoustics
- Cochlear Implant
- Pediatric Audiology
- Prophylactic Audiology
- Advanced Audiological Measurement
- Advanced Hearing Aid Treatment
- Tinnitus and hyperacusis
- Current Topics in Hearing Aid Research
- Project-oriented course

Audiologopedics

- Anatomy and Physiology
- Medical Audiology
- Voice Disorders
- Tinnitus and hyperacusis
- Audiologopaedia for logopaedics

35 Publications



1. Crosscultural Adaption and Validation of the Danish Voice Handicap Index-10

Nissen LS, Schultz J, Galili J, **Printz T**, **Mehlum CS**, **Grøntved ÅM**, Sorensen JR
Journal of Voice. 2020 January 3, 2020. **Impact factor 1.930**. BFI 1

2. Recurrence of Cholesteatoma - A Retrospective Study Including 1,006 Patients for More than 33 Years

Møller PR, Pedersen CN, Grosfjeld LR, **Faber CE**, Djurhuus BD.
International Archives of Otorhinolaryngology. January 24, 2020. **(Impact factor 1.11)**

3. The Dual-Microphone Voice Range Profile Assessment-Interrater Reliability

Printz T, **Godballe C**, **Grøntved ÅM**.
Journal of Voice. February 17, 2020. **(Impact factor 1.930)**. BFI 1

4. European Position Paper on Rhinosinusitis and Nasal Polyps 2020

Fokkens WJ, Lund VJ, Hopkins C, Hellings PW, Kern R, Reitsma S, Toppila-Salmi S, Bernal-Sprekelsen M, Mullol J, Alobid I, Terezinha Anselmo-Lima W, Bachert C, Baroody F, von Buchwald C, Cervin A, Cohen N, Constantinidis J, De Gabory L, Desrosiers M, Diamant Z, Douglas RG, Gevaert PH, Hafner A, Harvey RJ, Joos GF, Kalogjera L, Knill A, Kocks JH, Landis BN, Limpens J, Lebeer S, Lourenco O, Meco C, Matricardi PM, O'Mahony L, Philpott CM, Ryan D, Schlosser R, Senior B, Smith TL, Teeling T, Tomazic PV, Wang DY, Wang D, Zhang L, Agius AM, Ahlstrom-Emanuelsson C, Alabri R, Albu S, Alhabash S, Aleksic A, Aloulah M, Al-Qudah M, Alsaleh S, Baban MA, Baudoin T, Balvers T, Battaglia P, Bedoya JD, Beule A, Bofares KM, Braverman I, Brozek-Madry E, Richard B, Callejas C, Carrie S, Caulley L, Chussi D, de Corso E, Coste A, El Hadi U, Elfarouk A, Eloy PH, Farrokhi S, Felisati G, Ferrari MD, Fishchuk R, Grayson W, Goncalves PM, Grdnic B, Grgic V, Hamizan AW, Heinichen JV, Husain S, Ping TI, Ivaska J, Jakimovska F, Jovancevic L, Kakande E, Kamel R, Karpischenko S, Kariyawasam HH, Kawauchi H, **Kjeldsen A**, Klimek L, Krzeski A, Kopacheva Barsova G, Kim SW, Lal D, Letort JJ, Lopatin A, Mahdjoubi A, Mesbahi A, Netkovski J, Nyenbue Tshipukane D, Obando-Valverde A, Okano M, Onerci M, Ong YK, Orlandi R, Otori N, Ouennoughy K, Ozkan M, Peric A, Plzak J, Prokopakis E, Prepageran N, Psaltis A, Pugin B, Raftopoulos M, Rombaux P, Riechelmann H, Sahtout S, Sarafoleanu CC, Searyoh K, Rhee CS, Shi J, Shkoukani M, Shukuryan AK, Sicak M, Smyth D, Snidvongs K, Soklic Kosak T, Stjarne P, Sutikno B, Steinsvag S, Tantilipikorn P, Thanaviratananich S, Tran T, Urbancic J, Valiulius A, Vasquez de Aparicio C, Vicheva D, Virkkula PM, Vicente G, Voegels R, Wagenmann MM, Wardani RS, Welge-Lussen A, Witterick I, Wright E, Zabolotniy D, Zsolt B, Zwetsloot CP.

Rhinology. February 20, 2020. **(Impact factor 3.00)**. BFI 1

5. Recurrent respiratory papillomatosis with lower airway involvement in a young woman.

Mamaeva T, **Mehlum CS**, Davidsen JR.
European Clinical Respiratory Journal. March 12, 2020. **(Impact factor 1.840)**. BFI 1

6. Definition of locally recurrent head and neck squamous cell carcinoma: a systematic review and proposal for the Odense-Birmingham definition

Rohde M, **Rosenberg T**, Pareek M, Nankivell P, Sharma N, Mehanna H, **Godballe C**.
European Archives of Oto-Rhino-Laryngology. April 7, 2020. **(Impact factor 1.840)**. BFI 1

7. Liquid Chromatography Mass Spectrometry Quantification of -solanine, -chaconine, and Solanidine in Potato Protein Isolates

Søren D. Nielsen, **Jesper M. Schmidt**, Gitte H. Kristiansen, Trine K. Dalsgaard and Lotte B. Larsen

Foods. April 2, 2020. (Impact factor 3.011).

8. Variability in Medullary Thyroid Carcinoma in RET L790F Carriers: A Case Comparison Study of Index Patients

Mathiesen JS, Nielsen SG, Rasmussen ÅK, Kiss K, Wadt K, Hermann AP, Nielsen MF, Larsen SR, Brusgaard K, Frederiksen AL, **Godballe C**, Rossing M.

Frontiers in Endocrinology (Lausanne). April 28, 2020. (Impact factor 3.675). BFI 1

9. Interrater variation of vascular classifications used in enhanced laryngeal contact endoscopy

Camilla Slot Mehlum, **Helle Døssing**, Nikolaos Davaris, Anja Giers, **Ågot Møller Grøntved**, Thomas Kjaergaard, Sören Möller, **Christian Godballe** & Christoph Arens

European Archives of Oto-Rhino-Laryngology, April 30, 2020. (Impact factor 1.840). BFI 1

10. Primary hyperparathyroidism as first manifestation in MEN 2A: an international multicenter study

Larsen LV, Mirebeau-Prunier D, Imai T, Alvarez-Escola C, Hasse-Lazar K, Censi S, Castroneves LA, Sakurai A, Kihara M, Horiuchi K, Barbu VD, Borson-Chazot F, Gimenez-Roqueplo AP, Pigny P, Pinson S, Wohllk N, Eng C, Aydoğan Bİ, Saranath D, Dvorakova S, Castinetti F, Attila P, Bergant D, Links TP, Peczkowska M, Hoff AO, Mian C, Dwight T, Jarzab B, Neumann HPH, Robledo M, Uchino S, Barlier A, **Godballe C**, **Mathiesen JS**.

Endocrine Connections. May 1, 2020. (Impact factor 2.45). BFI 1

11. Incidence and malignant transformation of glottic precursor lesions in Denmark

Sannino NJB, **Mehlum CS**, **Grøntved ÅM**, Kjaergaard T, Kiss K, **Godballe C**, Tvedskov JF.

Acta Oncologica. May 10, 2020. (Impact factor 3.298). BFI 1

12. Elective Neck Dissection in Patients With Salivary Gland Carcinoma: A Systematic Review and Meta-Analysis

Westergaard-Nielsen M, **Rosenberg T**, Gerke O, Dyrvig A-K, **Godballe C**, **Bjørndal K**

Journal of oral pathology & medicine. May 20, 2020. (Impact factor 2.495).

13. Allergic respiratory disease care in the COVID-19 era: A EUFOREA statement

Scadding Glenis K, Hellings Peter W, Bachert Claus, Bjermer Leif, Diamant Zuzana, Gevaert Philippe, **Kjeldsen Anette**, Kleine-Tebbe Jorge, Klimek Ludger, Muraro Antonella, Roberts Graham, Steinsvik Andreas, Wagenmann Martin, Wahn Ulrik

World Allergy Organization Journal. May 16, 2020. (Impact factor 3.506).

14. Real-life assessment of chronic rhinosinusitis patients using mobile technology: the mySinusitisCoach project by EUFOREA in Allergy

Sven F Seys, Shana De Bont, Wytke J Fokkens, Claus Bachert, Isam Alobid, Manuel Bernal-Sprekelsen, Leif Bjermer, Ina Callebaut, Lars-Olaf Cardell, Sean Carrie, Paolo Castelnovo, Russell Cathcart, Jannis Constantinidis, Leen Cools, Marjolein Cornet, Gregory Clement, Tony Cox, Lieve Delsupehe, Jaime Correia-de-Sousa, Lauren Deneyer, Geert De Vos, Zuzana Diamant, Maria Doulaptsi, Simon Gane, Philippe Gevaert, Claire Hopkins, Valérie Hox, Thomas Hummel, Werner Hosemann, Raf Jacobs, Mark Jorissen, **Anette Kjeldsen**, Basile N Landis, Winde Lemmens, Andreas Leunig, Valerie Lund, Gert Mariën, Joaquim Mullol, Metin Onerci, Susanna Palkonen, Isabel

Proano, Emmanuel Prokopakis, Dermot Ryan, Herbert Riechelmann, Pernilla Sahlstrand-Johnson, Sanna Salmi-Toppila, Christine Segboer, Kato Speleman, Andreas Steinsvik, Pavol Surda, Peter-Valentin Tomazic, Olivier Vanderveken, Laura Van Gerven, Thibaut Van Zele, Jan Verfaillie, Benedicte Verhaeghe, Kathie Vierstraete, Stephan Vlaminck, Martin Wagenmann, Benoit Pugin, Peter W Hellings

Allergy. May 18, 2020. (Impact factor 8.706). BFI 1

15. Recommendations for head and neck surgical oncology practice in a setting of acute severe resource constraint during the COVID-19 pandemic: an international consensus.

Mehanna H, Hardman JC, Shenson JA, Abou-Foul AK, Topf MC, AlFalasi M, Chan JYK, Chaturvedi P, Chow VLY, Dietz A, Fagan JJ, **Godballe C**, Golusiński W, Homma A, Hosal S, Iyer NG, Kerawala C, Koh YW, Konney A, Kowalski LP, Kraus D, Kuriakose MA, Kyrodimos E, Lai SY, Leemans CR, Lennon P, Licitra L, Lou PJ, Lyons B, Mirghani H, Nichols AC, Paleri V, Panizza BJ, Parente Arias P, Patel MR, Piazza C, Rischin D, Sanabria A, Takes RP, Thomson DJ, Uppaluri R, Wang Y, Yom SS, Zhu YM, Porceddu SV, de Almeida JR, Simon C, Holsinger FC.

The Lancet Oncology. June 11, 2020. (Impact factor 33.752). BFI 2

16. Using betahistine in the treatment of patients with Menière's disease: a meta-analysis with the current randomized-controlled evidence

Louise Devantier, Dan Hougaard, Mina Nicole Händel, Frank Liviu-Adelin Guldred, **Jesper Hvass Schmidt**, Bjarki Djurhuus & Henriette Edemann Callesen.

Acta Oto-Laryngologica. June 25, 2020. (Impact Factor 1.157). BFI 1

17. European Reference Network for Rare Vascular Diseases (VASCERN) position statement on cerebral screening in adults and children with hereditary haemorrhagic telangiectasia (HHT)

Omer F Eker, Edoardo Boccardi, Ulrich Sure, Maneesh C Patel, Saverio Alicante, Ali Alsafi, Nicola Coote, Freya Droege, Olivier Dupuis, Annette Dam Fialla, Bryony Jones, Ujwal Kariholu, **Anette D Kjeldsen**, David Lefroy, Gennaro M Lenato, Hans Jurgen Mag-er, Guido Manfredi, Troels H Nielsen, Fabio Pagella, Marco C Post, Catherine Rennie, Carlo Sabbà, Patrizia Suppressa, Pernille M Toerring, Sara Ugolini, Elisabetta Buscarini, Sophie Dupuis-Girod, Claire L Shovlin.

Orphanet Journal of Rare Diseases. June 29, 2020. (Impact Factor 3.687). BFI 1

18. Granulomatous inflammation in lymph nodes of the head and neck—a retrospective analysis of causes in a population with very low incidence of tuberculosis

Thomas Frank Flyger, Stine Rosenkilde Larsen, **Anette Drøhse Kjeldsen**

Immunologic Research. July 17, 2020 (Impact Factor 2.507). BFI 1

19. Salivary gland carcinoma in Denmark: a national update and follow-up on incidence, histology, and outcome

Marie Westergaard-Nielsen, **Christian Godballe**, Jesper Grau Eriksen, Stine Rosenkilde Larsen, Katalin Kiss, Tina Agander, Benedicte Parm Uihøi, Birgitte Charabi, Tejs Ehlers Klug, Henrik Jacobsen, Jørgen Johansen, Claus Andrup Kristensen, Elo Andersen, Maria Andersen, Simon Andreasen, **Kristine Bjørndal**.

European Archives of Oto-Rhino-Laryngology. July 20, 2020. (Impact Factor 1.840). BFI 1

20. Plastmønt i øsofagus hos en etårig med langvarige symptomer på fejlsynkning og recidiverende pneumonier

Daniel Bräuner Skansing & Viveque Egsgaard

Danish medical journal. August 10, 2020. (Impact factor 1.17), BFI 1

21. A Danish Sentence Corpus for Assessing Speech Recognition in Noise in School-Age Children

Shno Koiek, Jens Bo Nielsen, Laila Kjærbæk, **Maria Baltzer Gormsen**, and **Tobias Neher**.

Trends in Hearing. August 30, 2020. (Impact Factor 2.244), BFI 1

22. Histopathological Definitions of Extranodal Extension: A Systematic Review

Chadi Nimeh Abdel-Halim, **Tine Rosenberg**, Stine Rosenkilde Larsen, Poul Flemming

Højilund-Carlsen, Jens Ahm Sørensen, **Max Rohde**, **Christian Godballe**

Head and Neck Pathology. September 12, 2020. (Impact factor 3.060)

23. Surgical treatment of patulous Eustachian tube – a systematic review

Zaid Mousa, Christian Faber, Tine Rosenberg

Danish medical journal. September 11, 2020. (Impact factor 1.17), BFI 1

24. Second International Guidelines for the Diagnosis and Management of Hereditary Hemorrhagic Telangiectasia

Marie E Faughnan , Johannes J Mager, Steven W Hetts, Valerie A Palda, Kelly Lang-Robertson, Elisabetta Buscarini, Erik Deslan-dres, Raj S Kasthuri, Andrea Lausman, David Poetker, Felix Ratjen, Mark S Chesnutt, Marianne Clancy, Kevin J Whitehead, Hanny Al-Samkari, Murali Chakinala, Miles Conrad, Daniel Cortes, Claudia Crocione, Jama Darling, Els de Gussem, Carol Derksen, Sophie Dupuis-Girod, Patrick Foy, Urban Geisthoff, James R Gossage, Adrienne Hammill, Ketil Heimdal, Katharine Henderson, Vivek N Iyer, **Anette D Kjeldsen**, Masaki Komiyama, Kevin Korenblatt, Jamie McDonald, Jack McMahon, Justin McWilliams, Mary E Meek, Meir Mei-Zahav, Scott Olitsky, Sara Palmer, Rose Pantalone , Jay F Piccirillo, Beth Plahn, Mary E M Porteous, Marco C Post, Ivan Radovanov-ic, Paul J Rochon, Josanna Rodriguez-Lopez, Carlo Sabba , Marcelo Serra, Claire Shovlin, Dennis Sprecher, Andrew J White, Ingrid Win-ship, Roberto Zarrabeitia

Annals of Internal Medicine. September 8, 2020. (Impact factor 21.317), BFI 3

25. EUFOREA Treatment algorithm for allergic rhinitis

P W Hellings, G Scadding, C Bachert, L Bjermer, G W Canonica, L O Cardell, A S Carney, J Constantinidis, L Deneyer, Z Diamant, S Dur-ham, P Gevaert, R Harvey, C Hopkins, **A Kjeldsen**, L Klimek, V J Lund, D Price, J Rimmer, D Ryan, G Roberts, P Sahlstrand-Johnson, S Salmi , M Samji, G Scadding, P Smith, A Steinsvik, M Wagenmann, S Seys, U Wahn, W J Fokkens

Rhinology. September 29, 2020. (Impact factor 3.00) BFI 1

26. Vertiginous Episodes in Menière Disease following Transmyringal Ventilation Tube Insertion: A Systematic Review on the Current State of Evidence

Casper Grønlund, Louise Devantier, Henriette Edemann Callesen, Dan Dupont Hougaard, Mina Nicole Händel, **Jesper Hvass Schmidt**, Frank Liviu-Adelin Gultfred, Bjarki Ditlev Djurhuus

International Archives of Otorhinolaryngology. September 30, 2020. (Impact factor 1.11)

27. Preimplantation Genetic Testing of Multiple Endocrine Neoplasia Type 2A

Anders Würigler Hansen, Laura Kirstine Sønderberg Roos, Kristine Løssl, **Christian Godballe**, **Jes Sloth Mathiesen**

Frontiers in Endocrinology. October 14, 2020. (Impact factor 3.675) BFI 1

28. Chromosomal translocation disrupting the SMAD4 gene resulting in the combined phenotype of Juvenile polyposis syndrome and Hereditary Hemorrhagic Telangiectasia

Katrine S. Aagaard, Klaus Brusgaard, Leva Miceikaite, Martin J. Larsen, **Anette D. Kjeldsen**, Emilie B. Lester, Lilian B. Ousager, Pernille M. Tørring
Molecular Genetics & Genomic Medicine. October 8, 2020 (Impact factor 1.995)

29. Investigating the Effects of Four Auditory Profiles on Speech Recognition, Overall Quality, and Noise Annoyance With Simulated Hearing-Aid Processing Strategies

Mengfan Wu, Raul Sanchez-Lopez, Mouhamad El-Haj-Ali, Silje G. Nielsen, **Michal Fereczkowski**, Torsten Dau, Sebastien Santurette, **Tobias Neher**
Trends in Hearing. October 19, 2020. (Impact factor 2.244). BFI 1

30. Hearing examinations in Southern Denmark (HESD) database: a valuable tool for hearing-related epidemiological research

Manuella Lech Cantuaria, Ellen Raben Pedersen, Frans Boch Waldorff, Mette Sørensen, **Jesper Hvass Schmidt**
International Journal of Audiology. October 19, 2020. (Impact factor 1.832). BFI 2

31. High output cardiac failure in 3 patients with hereditary hemorrhagic telangiectasia and hepatic vascular malformations, evaluation of treatment

Lilian B. Olsen, **Anette D. Kjeldsen**, Mikael K. Poulsen, Jens Kjeldsen, Annette D. Fialla
Orphanet Journal of Rare Diseases. November 26, 2020. (Impact factor 3.687). BFI 1

32. Maternal and fetal outcomes in pheochromocytoma and pregnancy: a multicentre retrospective cohort study and systematic review of literature

Irina Bancos , Elizabeth Atkinson , Charis Eng, William F Young Jr, Hartmut P H Neumann ,
International Pheochromocytoma and Pregnancy Study Group
International Pheochromocytoma and Pregnancy Study Group:
Marina Yukina, Debbie L Cohen, Steven G Waguespack, Maria Adelaide Albergaria Pereira, Xin He, Tushar Bandgar, Gianluca Donatini, Xiao-Ping Qi, Aviva Cohn, Anna Roslyakova, Esben Søndergaard, **Jes Sloth Mathiesen**, Maciej G Robaczynk, Per Løgstrup Poulsen et al.
The Lancet Diabetes & Endocrinology, online November 26, 2020 (Impact factor 25.340). BFI 1

33. Orbital dekompression ved proptose

Baskaran Ketharanathan, Mikkel Schou Andersen, Christian Bonde Pedersen, **Peter Darling**, **John Jakobsen**, Dorte Bechtold, Laleh Dehghani Molander, Nico Gampenrieder, Rikke Hedegaard Dahlrot, Nina Nguyen, Frantz Rom Poulsen & Bo Halle
Danish medical journal. November 30, 2020 (Impact factor 1.17). BFI 1

34. Robust Data-Driven Auditory Profiling Towards Precision Audiology

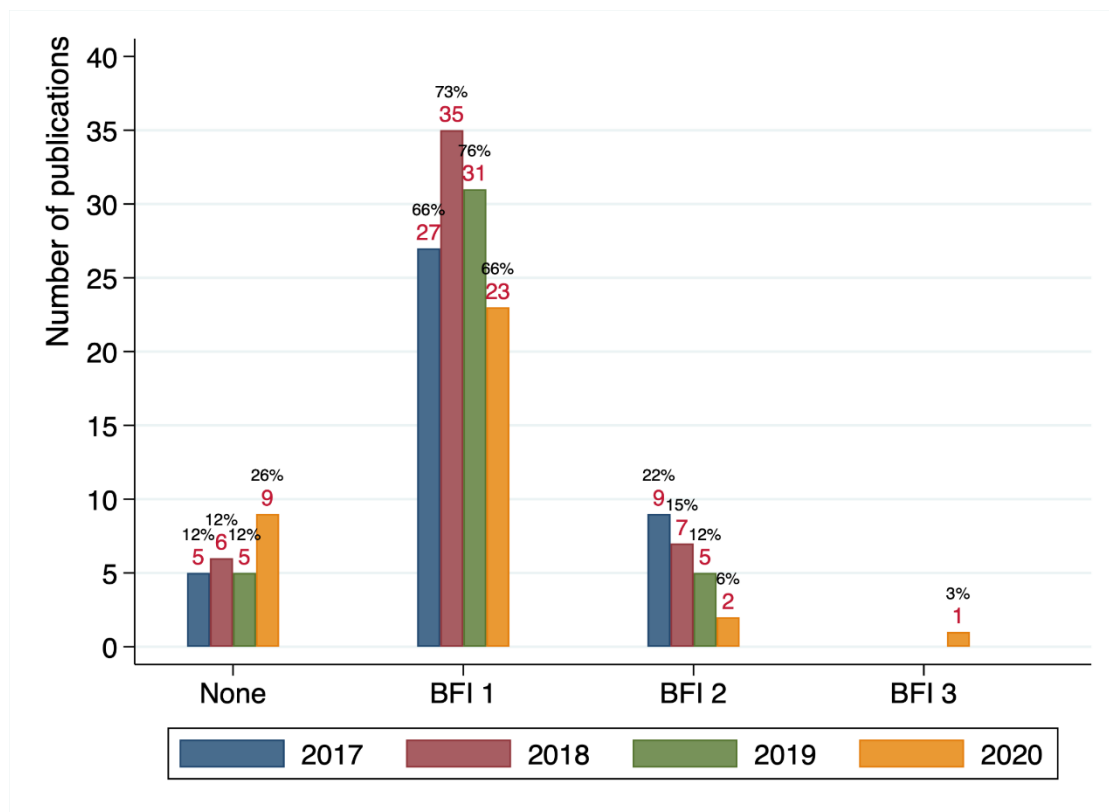
Raul Sanchez-Lopez, **Michal Fereczkowski**, **Tobias Neher**, Sebastien Santurette, Torsten Dau
Trends in Hearing. December 3, 2020. (Impact factor 2.244). BFI 1

35. Assessing real-life benefit from hearing-aid noise management: SSQ12 vs. ecological momentary assessment with acoustic data-logging

Klaudia Edinger Andersson, Line Storm Andersen, Jeppe Høy Christensen, **Tobias Neher**
American Journal of Audiology. December 30, 2020. (Impact factor 0.865)

Impact factor and BFI 2017-2020

	2017	2018	2019	2020
Publications with IF	37 (9)	41 (7)	37 (4)	34 (1)
Total IF	117,9	108,1	114,5	142,8
Range	1,1-7,7	1,1-7,4	1,1-24,5	0,9-33,8
Median	2,5	2,4	2,4	2,3



Scientific meetings

Due to the Covid-19 situation the scientific meetings have been minimized.

In 2020 The Research Unit at the Department of ORL—Head and Neck Surgery and Audiology has been represented at the following scientific meetings:

International meetings:

- Botulinum Toxin Injection in Head & Neck Region, London (Bahareh B. Philipsen)
- Medical Expert Training in NBI Endoscopy in the Management of the UADT Tumors, Italy (Gita Jørgensen)
- American Research of Otorhinology Midwinter meeting (Jesper H. Schmidt)

Benchmarking analysis with other institutes

Head & Neck Surgery and Audiology, Odense University Hospital

Researchers: 15

Scholarly Output: 159 (Citation Count 1,343)

Citations per Publication 8.4

Field-Weighted Citation Impact 1.27

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

Researchers: 12

Scholarly Output: 57 (Citation Count 741)

Citations per Publication 13.0

Field-Weighted Citation Impact 1.27

Massachusetts Eye and Ear Infirmary, Boston, USA

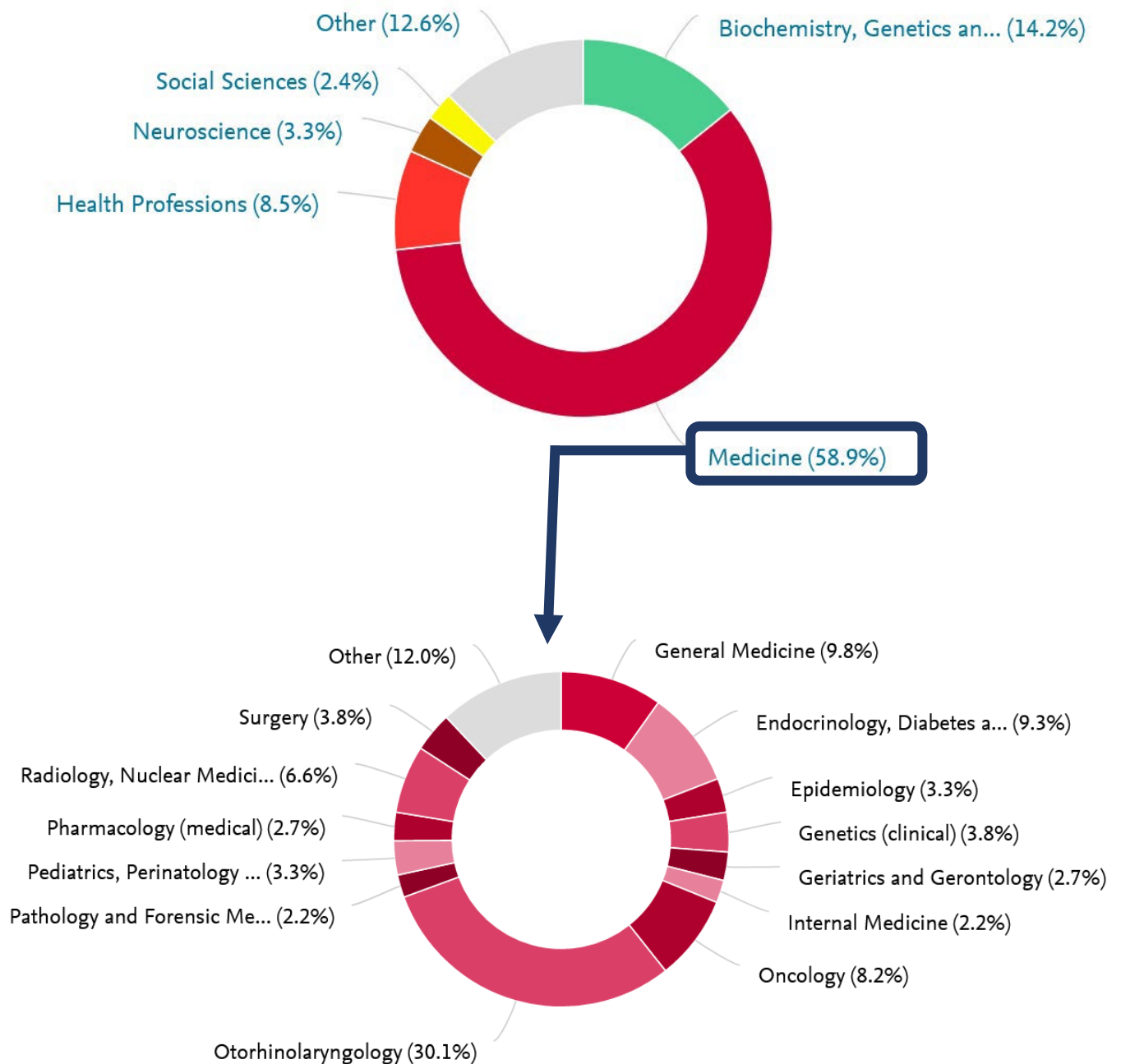
Researchers: 178

Scholarly Output: 3,209 (Citation Count 55,374)

Citations per Publication 17.3

Field-Weighted Citation Impact 2.09

Publications by research areas 2015-2019



Development

Picture of the individual board for our PhD students

NAME:		20__	20__	20__	20__
STUDY PREPARATIONS	Systematic literature review				
	Protocol				
	Permissions				
	Funding applications				
STUDY GOVERNANCE	Supervisor meetings				
	Planned courses				
	Teaching and knowledge dissemination				
	Other research environment				
STUDY 1	Half year reports				
	Statistician approval of power calculation and reporting guideline				
	Data collection				
	Data analysis				
STUDY 2	Manuscript				
	Statistician approval of power calculation and reporting guideline				
	Data collection				
	Data analysis				
STUDY 3	Manuscript				
	Statistician approval of power calculation and reporting guideline				
	Data collection				
	Data analysis				
THESIS	Manuscript				
	Overview				
Overall thesis					

Send a picture of the board to the scientific coordinator: 1st February, 1st April, 1st June, 1st October and 1st December.

● PLANNED AND ON TIME

● BEHIND SCHEDULE

● DONE

We have designed an individual board with an explanatory guidance for each PhD student, containing the formal steps in the PhD education.

Each PhD student will get an individual whiteboard with magnets. Blue magnet (planned and on time), red magnet (behind schedule), green magnet (done).

The results from the individual boards are transferred to the overall vision board. Each PhD student sends a picture of the individual board to the scientific coordinator 1st of February, 1st, April, 1st June, 1st October and 1st December. This provides a systematic overview ideal for monitoring individual progress with the possibility for early intervention if the timetable is not met.

Head of research Christian Godballe will visit the PhD students every six month to talk about their progress based on the whiteboard.

Guidance to the individual board



Professor Christian Godballe
Head of Research and Head of Graduate School,
Faculty of Health Sciences
Research Unit for ORL – Head & Neck Surgery
and Audiology,

Region of
Southern Denmark

OUH
Odense
University Hospital

SDU

Picture of the overall vision board for each of the individual boards

[illegible]

Send a picture of the board to the scientific coordinator: 1st February, 1st April, 1st June, 1st October and 1st December.

● PLANNED AND ON TIME ● BEHIND SCHEDULE ● DONE

Further development plan for 2020 includes following:

Shared decision making

- Shared decision making for patients with a Cochlear Implant

Optimise training programme for nurses

- Implementing competence maps covering thyroid gland courses, nutrition, tracheostomy and laryngectomy

Professional development for all staff groups

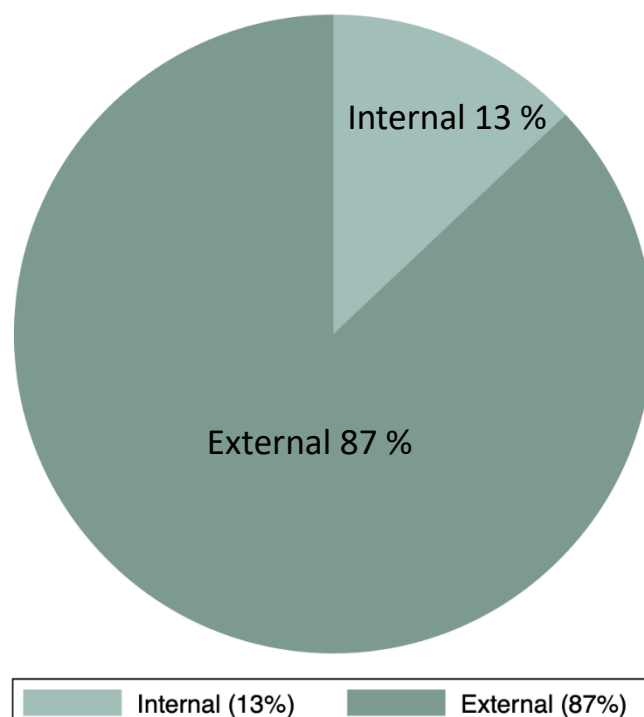
- Initiate weekly professional reflections concerning patient cases

Improve cooperation across sections

- Project day for all professional groups every year (mono- versus interdisciplinary)
- Nurses and secretaries meet with in their profession 2-4 times per year
- New Year reception once a year to provide an overview of last year achievements and plan new goals

Fundings

Fund	Internal	External	Amount	Name
Regionens pulje til datadrevne udviklingsprojekter i udvikling af det nære og sammenhængende sundhedsvæsen	1	0	198.500	Susanne Bird, Susanne L. Andersen og Christina J. Viita
Interfonden	0	1	180.000	Tobias Neher
William Demant Fonden	0	1	2.500.000	Tobias Neher
Overlægerådets Forskningsfond, OUH	1	0	10.000	Chadi N. Abdel-Halim
Harboefonden	0	1	100.000	Chadi N. Abdel-Halim
OUH og Rigshospitalets fælles forskningspulje	1	0	147.000	Trine Printz og Camilla S. Mehlum
Inge og Jørgen Larsens Mindelegat	0	1	15.500	Chadi N. Abdel-Halim
Innovationsfonden + William Demant Fonden	0	1	4.573.810	Jesper Schmidt
Donation/arv	1	0	1.421.850	HHT Centeret
Danmarks Frie Forskningsfond	0	1	2.700.000	Tobias Neher
Kong Christian Den Tiendes Fond	0	1	25.000	Jesper R. Sørensen
OUHs pulje med de frie forskningsmidler	1	0	69.000	Anette D. Kjeldsen
Innovationsfonden + WS Audiology	0	1	2.300.000	Tobias Neher
In total	5	8	14.240.660	



Contact information

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