

Curriculum Vitae

PERSONAL INFORMATION

Name: Oftedal, Bergithe Eikeland

Date of birth: 22051979, Female

Nationality: Norwegian

Researcher unique identifier: orcid.org/0000-0003-4248-7737

Civil status: Married, one child born 2011

EDUCATION

2007- 2012 PhD, Dissertation 10.02.2012. Faculty of Medicine and Dentistry, Department of Clinical Science, UiB (UiB), Norway. Supervised by Professor Eystein Husebye

2003- 2005 Master of Science, Faculty of Mathematics and Natural Sciences, Department of Molecular Biology, UiB, Norway. Supervised by Professor Rune Male

CURRENT AND PREVIOUS POSITIONS

2019 - Researcher, KG Jebsen Centre for autoimmune diseases, Faculty of Medicine and Dentistry, Department of Clinical Science, UiB

2016 - 2019 Researcher, Department of Paediatrics, University of Oxford and Faculty of Medicine and Dentistry, Department of Clinical Science, UiB. Funded by NRC mobility grant

2012 – 2016 Postdoctoral fellow, Faculty of Medicine and Dentistry, Department of Clinical Science, UiB,

2005-2007 Lab-technician, NorDiag ASA, Norway

FELLOWSHIPS, AWARDS AND PRIZES

2019 Søren Falch Junior Prize, UoB

2013-2014 Travel grant from Faculty of Medicine and Dentistry, Department of Clinical Science, UiB

MOBILITY

2016-2018 Department of Paediatrics, Weatherall Institute of Molecular Medicine, University of Oxford, England

2013-2014 Department of Genetics and Molecular Pathology, Centre for Cancer Biology, An Alliance Between SA Pathology and the University of South Australia, Australia

SUPERVISION OF GRADUATE STUDENTS AND RESEARCH FELLOWS

All supervised at Faculty of Medicine, Department of Clinical Science, UiB

2020 - Co-supervisor of PhD student Thea Sjøgren

2020 – Main supervisor Erasmus student Sarah Braun

2019 – 2020 Main supervisor Master students Einevoll and Sjøgren

2017 – 2020 Co-supervisor of PhD student Sigrid Aslaksen

2015 – 2019 Co-supervisor of PhD student Øyvind Bruserud

2011 – 2019 Co-supervisor of Master students Heimli (2019), Østre (2012), and Mustafavi (2013)

TEACHING ACTIVITIES

2021 Lecturer in Basal Immunology HUIMM320, Department of Clinical Science, UiB

2015 Lecturer in Immunology BIO128 at Bergen University College

2015 Lecturer in parts of Cell Biology at Bergen University College

2012-2016 Course supervisor, Basic Course in Medical and Health Related Research, at the Faculty of Medicine and Dentistry, UiB, various time points

2009 +2011 Lecturer in parts of MOL212 Immunology, at Department of Molecular Biology, UiB

ORGANISATION OF SCIENTIFIC MEETINGS

2010 - 2016 Part of the organising committee for the Day of Immunology, on behalf of Norwegian Society for Immunology on an annual basis

2010 Member of the arrangement committee of the Norwegian Biochemical Society national winter meeting 2010, including international speakers and 250 participants.

INSTITUTIONAL RESPONSIBILITIES

2020 - Institute representative in the Covid-19 Frontrunners for digital teaching, UiB

2021 - Leader, evaluation committee of PhD thesis, Sunniva Sakkestad, Dep. of Clinical Science, UiB

2020 - Leader, evaluation committee of PhD thesis, Man Hung Choi, Dep. of Clinical Science, UiB

- 2020-2019-2019 -2019 -2018-20202016201520152014–20162013
- Sensor for Bachelor thesis in Nutrition, Dep. of Clinical Science, UiB
Sensor for written exams at BIO128, Bergen University College, Norway
Member of reference group for Committee for carrier policy lead by Pro-Rector Hagen, UiB
Deputy member of the election committee at the Dep. of Clinical Science, UiB
Mid-term evaluator of 4 PhD candidates, Department of Clinical Science, UiB
Leader, evaluation committee of PhD thesis, Knut Anders Mosevoll, Dep of Clinical Science, UiB
Leader, evaluation committee of PhD thesis, M. Karlsen, Dep of Clinical Science, UiB
Sensor for written exams at BIO128, Bergen University College, Norway
Representative in the extended research committee at the Faculty of Medicine and Dentistry, Dep. of Clinical Science, UiB
Sensor for two master exams in Nutrition at the Faculty of Medicine, UiB

PROJECT MANAGEMENT EXPERIENCE

- 2022-20272021-20242017-20212017-20202016-2019
- “21-Hydroxylase reactive B cells and their immunotherapeutic potential in autoimmune Addison’s disease”. Funded by the Novo Nordic Foundation. 10 000 000 DKK. **Oftedal is the project leader.**
“Will B-cell tell the tales? Autoimmune B cells in autoimmune Addison’s disease”. Funded by the Regional Health Authorities. 3 000 000 NOK, **Oftedal is the project leader.**
“KG Jebsen center for autoimmune disorders”. A national centre established in Bergen, where Oftedal is a principal investigator. Funded by KG Jebsen, 18 000 000.
“Identification of novel monogenic autoimmune syndromes”. Partners are Husebye, Bratland and Wolff. Funded by Norwegian Research Council, 4 000 000 NOK.
“New perspectives on regulation of peripheral tissue antigen expression within the thymus”. **Oftedal is the project leader.** Partners are Georg Hölländer and Eystein Husebye. Funded by the Norwegian Research Council. 3 328 000 NOK

COMMISSIONS OF TRUST

- 2020-2018-2018-2016-2009-2009-2007-20112004
- Board member Norwegian Society for Immunology
Associated Editor, Understanding Health, Frontiers for Young Minds
Review Editor in Immunological Tolerance and Regulation, Frontiers
Reviewer for Molecular Immunology, Scandinavian Journal of Immunology, International Journal of Human Anatomy, Frontiers in Immunology, Nature Communications Biology
Board member Norwegian Society of Immunology, Bergen Branch
Member, Research Network “Norwegian Society of Immunology”
Board member Norwegian Biochemical Society, Bergen, Norway
Student representative in the educational committee at the Faculty of Mathematics and Natural Sciences, Department of Molecular Biology, UiB, and leader of the student organization at institute of molecular biology, UiB

MEMBERSHIPS OF ACADEMIES / SCIENTIFIC SOCIETIES

- 2010 - dd Member of the Norwegian Society for Immunology

MAJOR COLLABORATIONS

- o Professor Georg Hölländer, Weatherall Institute of Molecular Medicine, University of Oxford, Oxford, UK
- o Dr. Adam Handel, Weatherall Institute of Molecular Medicine, University of Oxford, Oxford, UK
- o Professor Hamish S. Scott, Molecular Pathology, SA Health, Adelaide, Australia
- o Professor Jakub Abramson, Weismann Institute of Science, Rehovot, Israel
- o MD PhD Elizaveta Orlova, Children’s hospital in Moscow, Russia

TALKS AND CONFERENCES

- 2016 Invited speaker, 12th Annual Symposium on Primary Immunodeficiency Diseases, California, USA
2016 Selected speaker at the 43rd Scandinavian Society for Immunology meeting, Turku, Finland.
2015 Selected speaker at The Thymus Meeting 2015, Venice, Italy
2015 Invited speaker at the Norwegian Immunological Society annual meeting

CAREER BREAKS

10.02.2011-10.09.2011 Maternity-leave, 7 months

RESEARCH PROFILE

Since my dissertation in February 2012 with the thesis “Autoimmune polyendocrine syndrome type I, -Novel diagnostic assays and immune regulation”, I have been interested in the autoimmune regulator (AIRE) gene which is expressed in the thymus, and how malfunction of this gene cause organ-specific autoimmune disease. I am particularly fascinated by the thymus microenvironment and its essential function in establishing immunologic tolerance, and how this is broken in patients with organ specific autoimmune diseases, and my research stay with Professor Georg Holländer extended my knowledge and methodological repertoire in this regard. I have acquired additional skills in genetics and analysis of genome data, which is reflected by my research-stay with Professor Hamish Scott. This trait has already led to one excellent publication, and I aim to follow and expand this in future studies. My long-term goal is to characterise genetic and molecular mechanisms of gene regulation within the adaptive immune system that are crucial for the development of tolerant T cells and B cells and combine this knowledge in multivariant disease models to better predict the onset of autoimmune tissue destruction. Expected outcomes may have direct consequences for patient diagnosis, care and follow-up, as well as collateral findings that might influence other aspects of a healthy immune system (e.g. cancer). I am interested in establishing high throughput methods and have established single cell sequencing at the Department of Clinical Science, and to keep my translation perspective by combine information from mice models with well characterised human materials. In addition, I am ambitious to extend my international network with the possibility for long-term collaborations.

LIST OF PEER REVIEWED PUBLICATIONS

h-index: 13; number of total peer-reviewed publications 29; 26 original papers, 3 review papers, in addition 2 book chapters. Number of citations: 456 (webofknowledge.com)

Manuscripts under review:

Aire-expressing ILC3 like cells are essential for induction of Candida-specific Th17 1response

J Dobeš, A Binyamin, **BE Oftedal**, ..., ES Husebye, J Abramson

Second revision with Nature Immunology

Original papers:

28. *Transcriptional Changes in Regulatory T Cells From Patients With Autoimmune Polyendocrine Syndrome Type 1 Suggest Functional Impairment of Lipid Metabolism and Gut Homing.*

Berger AH, Bratland E, Sjøgren T, Heimli M, Tyssedal T, Bruserud Ø, Johansson S, Husebye ES, **Oftedal BE**, Wolff ASB.

Front Immunol. 2021 Aug 30;12:722860. doi: 10.3389/fimmu.2021.722860. eCollection 2021.

27. *Mechanistic dissection of dominant AIRE mutations in mouse models reveals AIRE autoregulation*

Yael Goldfarb, Tal Givony, Noam Kadouri, Jan Dobeš, Cristina Peligero-Cruz, Itay Zalayat, Golda Damari, Bareket Dassa, Shifra Ben-Dor, Yael Gruper, **Bergithe E Oftedal**, Eirik Bratland, Martina M Erichsen, Amund Berger, Ayelet Avin, Shir Nevo, Uku Haljasorg, Yael Kuperman, Adi Ulman, Rebecca Haffner-Krausz, Ziv Porat, Ulus Atasoy, Dena Leshkowitz, Eystein S Husebye, Jakub Abramson

J Exp Med. 2021 Nov 1;218(11):e20201076. doi: 10.1084/jem.20201076. Epub 2021 Sep 3.

26. *The chaperonin CCT8 controls proteostasis essential for T cell maturation, selection, and function*

Bergithe E Oftedal, Stefano Maio, Adam Handel, Madeleine PJ White, Duncan Howie, Simon Davis, Nicolas Prevot, Ioanna A. Rota, Mary E Deadman, Benedikt M Kessler, Roman Fischer, Nikolaus S Trede, Erdinc Sezgin, Rick M Maizels, Georg A Holländer

Nature Communications Biology, Commun Biol 4, 681 (2021). <https://doi.org/10.1038/s42003-021-02203-0>

25. *The natural history of 21-hydroxylase autoantibodies in autoimmune Addison's disease*

Anette Boe Wolff, Lars Breivik, Karl Ove Hufthammer, Marianne Aardal Grytaas, Eirik Bratland, Eystein Sverre Husebye, and **Bergithe Eikeland Oftedal**

DOI: <https://doi.org/10.1530/EJE-20-1268>, Volume/Issue: Volume 184: Issue 4, Page Range: 607–615

24. *GWAS for autoimmune Addison's disease identifies multiple risk loci and highlights AIRE in disease susceptibility.*

D Eriksson, EC Røyrvik, M Aranda-Guillén, AH Berger, N Landegren, HA Alvarez, Å Hallgren, M Grytaas, S Ström, E Bratland, I Botusan, **BE Oftedal** ,..., S Johansson, O Kämpe, ES Husebye.

Nat Commun. 2021 Feb 11;12(1):959. doi: 10.1038/s41467-021-21015-8.

23. *Coexistence of Congenital Adrenal Hyperplasia and Autoimmune Addison's Disease.*

Aslaksen S, Methlie P, Vigeland MD, Jøssang DE, Wolff AB, Sheng Y, **Oftedal BE**, Skinningsrud B, Undlien DE, Selmer KK, Husebye ES, Bratland E.

Front Endocrinol (Lausanne). 2019 Sep 27;10:648. doi: 10.3389/fendo.2019.00648.

22. *Identification and characterization of rare toll-like receptor 3 variants in patients with autoimmune Addison's disease.*

Aslaksen S, Wolff AB, Vigeland MD, Breivik L, Sheng Y, **Oftedal BE**, Artaza H, Skinningsrud B, Undlien DE, Selmer KK, Husebye ES, Bratland E.

J Transl Autoimmun. 2019 May 28;1:100005. doi: 10.1016/j.jtauto.2019.100005.

21. *21-hydroxylase autoantibodies are more prevalent in Turner syndrome but without an association to the autoimmune polyendocrine syndrome type 1.*

Berglund A, Cleemann L, **Oftedal BE**, Holm K, Husebye ES, Gravholt CH.

Clin Exp Immunol. 2018 Oct 29. doi: 10.1111/cei.13231. PMID: 30372540

20. *Oral microbiota in autoimmune polyendocrine syndrome type 1.*

Bruserud Ø, Siddiqui H, Marthinussen MC, Chen T, Jonsson R, **Oftedal BE**, Olsen I, Husebye ES, Wolff AB.

J Oral Microbiol. 2018 Feb 26;10(1):1442986. doi: 10.1080/20002297.2018.1442986. PMID: 29503707

19. *Altered Immune Activation and IL-23 Signaling in Response to Candida albicans in Autoimmune Polyendocrine Syndrome Type 1.*

Bruserud Ø, Bratland E, Hellesen A, Delaleu N, Reikvam H, **Oftedal BE**, Wolff ASB.

Front Immunol. 2017 Sep 1;8:1074. doi: 10.3389/fimmu.2017.01074. eCollection 2017.

PMID: 28919897

18. *Salivary gland dysfunction in patients with autoimmune polyendocrine syndrome type 1*

Bergithe E. Oftedal, Mihaela Cuida, Martina M. Erichsen, Maria Tveiterås, Anja Østre, Daniel Hammenfors, Malin Johnsson, Kai Kisand, Reinhild Klein, Roland Jonsson, Anette S. B. Wolff..

Autoimmunity. 2017 Jun;50(4):211-222. doi: 10.1080/08916934.2017.1344972. Epub 2017 Jul 7.

PMID: 28686485

17. *Expanding the phenotypic and genotypic landscape of autoimmune polyendocrine syndrome type-1.*

Elizaveta M. Orlova, Leila S. Sozaeva, Maria A. Kareva, **Bergithe E. Oftedal**, Anette S.B. Wolff, Lars Breivik, Ekaterina Y. Zakharova, Olle Kämpe, Per M. Knappskog, Valentina A. Peterkova, Eystein S. Husebye. J Clin Endocrinol Metab. 2017 Sep 1;102(9):3546-3556. doi: 10.1210/jc.2017-00139. PMID: 28911151

16. *T cell receptor assessment in autoimmune disease requires access to the most adjacent immunologically active organ*

Oftedal, B.E., Lundgren, B.A., Hamm, D., Finstermeier, K., Gan, P.Y., Holdsworth, S.R., Hahn, C.N., Schreiber, A.W., and Scott, H.S.

J Autoimmun. 2017 Mar 15. pii: S0896-8411(16)30344-4. doi: 10.1016/j.jaut.2017.03.002. [Epub ahead of print]. PMID: 28318808

15. *A Variant in the BACH2 Gene Is Associated With Susceptibility to Autoimmune Addison's Disease in Humans*

Pazderska A, **Oftedal BE**, Napier CM, Ainsworth HF, Husebye ES, Cordell HJ, Pearce SH, Mitchell AL. J Clin Endocrinol Metab. 2016 Nov;101(11):3865-3869. Epub 2016 Sep 28. PMID: 27680876

14. A longitudinal follow-up of Autoimmune polyendocrine syndrome type 1.

Bruserud Ø, **Oftedal BE**, Landegren N, Erichsen M, Bratland E, Lima K, Jørgensen AP, Myhre AG, Svartberg J, Fougner KJ, Bakke Å, Nedrebø BG, Mella B, Breivik L, Viken MK, Knappskog PM, Marthinussen MC, Løvås K, Kämpe O, Wolff AB, Husebye ES.

J Clin Endocrinol Metab. 2016 Jun 2:jc20161821. [Epub ahead of print] PMID: 27253668

13. Dominant mutations in the autoimmune regulator AIRE are associated with common organ-specific autoimmune diseases

Bergithe E. Oftedal, Alexander Hellesen, Martina Moter Erichsen, Eirik Bratland, Ayelet Vardi, Jaakko Perheentupa, E. Helen Kemp, Torunn Fiskerstrand, Marte K. Viken, Anthony P. Weetman, Sarel J. Fleishman, Siddharth Banka, William G. Newman, W.A.C Sewell, Leila S. Sozaeva, Tetyana Zayats, Kristoffer Haugarvoll, Elizaveta M. Orlova, Jan Haavik, Stefan Johansson, Per M. Knappskog, Kristian Løvås, Anette S. B. Wolff, Jakub Abramson, Eystein S. Husebye

Immunity. 2015 Jun 16;42(6):1185-96. doi: 10.1016/j.immuni.2015.04.021. PMID: 26084028

Citations: 54 (webofknowledge.com)

Impact factor: 24.1

12. Revealing Missing Human Protein Isoforms Based on Ab Initio Prediction, RNA-seq and Proteomics

Hu, Z.-Q., Scott, H.S., Qin, G.-G., Zheng, G.-Y., Chu, X., Xie, L., Adelson, D.L., **Oftedal, B.E.**, Venugopal, P., Babic, M., Hahn, C.N., Bing Zhang, B., Wang, X.-J., Nan Li, N., and Wei, C.-C.

SCIENTIFIC REPORTS 2015 Volume: 5, Article Number: 10940

11. 8q13.1-q13.2 Deletion Associated With Inferior Cerebellar Vermian Hypoplasia and Digital Anomalies: A New Syndrome?

Mordaunt D, **Oftedal BE**, Scott HS, Coates D, Barnett C

Pediatr Neurol. 2015 Feb;52(2):230-4.e1. doi: 10.1016/j.pediatrneurol.2014.09.002. PMID: 25693585

10. Clinical and Serologic Parallels to APS-I in Patients with Thymomas and Autoantigen Transcripts in Their Tumors.

Wolff ASB, Kärner J, Owe JF, **Oftedal BE**, Gilhus NE, Erichsen MM, Kämpe E, Meager A, Peterson P, Kisand K, Willcox N, Husebye ES

J Immunol. 2014 Oct 15;193(8):3880-90. doi: 10.4049/jimmunol.1401068. PMID: 25230752

9. ARMC5 MUTATIONS ARE COMMON IN FAMILIAL BILATERAL MACRONODULAR ADRENAL HYPERPLASIA.

Gagliardi L, Schreiber AW, Hahn CN, Feng J, Cranston T, Boon H, Hotu C, **Oftedal BE**, Cutfield R, Adelson DL, Braund WJ, Gordon RD, Rees DA, Grossman AB, Torpy DJ, Scott HS.

J Clin Endocrinol Metab. 2014 Jun 6:jc20141265. PMID:24905064

Citations: 36 (webofknowledge.com)

8. A novel cell-based assay for measuring neutralizing autoantibodies against type I interferons in patients with autoimmune polyendocrine syndrome type 1.

Breivik L, **Oftedal BE**, Bøe Wolff AS, Bratland E, Orlova EM, Husebye ES.

Clin Immunol. 2014 Jul;153(1):220-7. doi: 10.1016/j.clim.2014.04.013. Epub 2014 May 2.

7. Anti-Cytokine Autoantibodies Preceding Onset of Autoimmune Polyendocrine Syndrome Type I Features in Early Childhood.

Wolff AS, Sarkadi AK, Maródi L, Kärner J, Orlova E, **Oftedal BE**, Kisand K, Oláh E, Meloni A, Myhre AG, Husebye ES, Motaghedi R, Perheentupa J, Peterson P, Willcox N, Meager A.

J Clin Immunol. 2013 Oct 26. [Epub ahead of print

Citations: 27 (webofknowledge.com)

6. *Radioligand-Binding Assay Reveals Distinct Autoantibody Preferences for Type I Interferons in APS I and Myasthenia Gravis Subgroups.*

Hapnes L, Willcox N, **Oftedal BE**, Owe JF, Gilhus NE, Meager A, Husebye ES, Wolff AS.
J Clin Immunol. 2011 Nov 30. [Epub ahead of print] PMID: 22127461

5. *Measuring autoantibodies against IL-17F and IL-22 in autoimmune polyendocrine syndrome type I by radioligand binding assay using fusion proteins.*

Oftedal BE, Kämpe O, Meager A, Ahlgren KM, Lobell A, Husebye ES, Wolff AS.
Scand J Immunol. 2011 Apr 28. [Epub ahead of print] PMID:21535082

4. *Flow cytometry study of blood cell subtypes reflects autoimmune and inflammatory processes in autoimmune polyendocrine syndrome type I.*

Wolff AS, **Oftedal BE**, Kisand K, Ersvaer E, Lima K, Husebye ES.
Scand J Immunol. 2010 Jun;71(6):459-67. PMID: 20500699
Citations: 24 (webofknowledge.com)

3. *Radioimmunoassay for autoantibodies against interferon omega; its use in the diagnosis of autoimmune polyendocrine syndrome type I.*

Oftedal BE, Wolff AS, Bratland E, Kämpe O, Perheentupa J, Myhre AG, Meager A, Purushothaman R, Ten S, Husebye ES.
Clin Immunol. 2008 Oct;129(1):163-9. Epub 2008 Aug 16. PMID: 18708298
Citations: 39 (webofknowledge.com)

2. *AIRE variations in Addison's disease and autoimmune polyendocrine syndromes (APS): partial gene deletions contribute to APS I.*

Bøe Wolff AS, **Oftedal B**, Johansson S, Bruland O, Løvås K, Meager A, Pedersen C, Husebye ES, Knappskog PM.
Genes Immun. 2008 Mar;9(2):130-6. Epub 2008 Jan 17. PMID: 18200029
Citations: 24 (webofknowledge.com)

1. *Ligand-dependent protein interactions of the estrogen receptors using the yeast two-hybrid system.*

Oftedal BE, Ladstein S, Telle W, Male R.
Ann N Y Acad Sci. 2005 Apr;1040:420-5. PMID: 15891078

Review paper:

4. *B Cells and Autoantibodies in AIRE Deficiency*

Anette S. B. Wolff, Sarah Braun, Eystein S. Husebye and **Bergithe E. Oftedal**
Biomedicine 2021, 9, 1274. <https://doi.org/10.3390/biomedicine9091274>

3. *The prospects of single-cell analysis in autoimmunity.*

Sulen A, Islam S, Wolff A, **Oftedal BE**.
Scand J Immunol. 2020 Sep 1:e12964. doi: 10.1111/sji.12964.

2. *New ERA of therapy for endocrine autoimmune disorders*

Oftedal BE, Wolff ASB.
Scand J Immunol. 2020 Aug 27. doi: 10.1111/sji.12961.

1. *AIRE-mutations and autoimmune disease.*

Bruserud Ø, **Oftedal BE**, Wolff AB, Husebye ES.
Curr Opin Immunol. 2016 Aug 6;43:8-15. doi: 10.1016/j.coi.2016.07.003. [Epub ahead of print] Review. PMID: 27504588

Book Chapters:

2. The Natural History of APS1

-Pathogenesis and Long-Term Follow-Up

Anette S. B. Wolff, **Bergithe E. Oftedal**, and Eystein S. Husebye

Springer Nature Switzerland AG 2019. A. Colao et al. (eds.), Polyendocrine Disorders and Endocrine Neoplastic Syndromes, *Endocrinology*, https://doi.org/10.1007/978-3-319-73082-0_2-1

1. Aire Mutations and Autoimmune Diseases

Wolff A.S.B., **Oftedal B.E.**

In: Passos G. (eds) *Thymus Transcriptome and Cell Biology*. Springer, Cham. (2019).

https://doi.org/10.1007/978-3-030-12040-5_8. <https://doi.org/10.1007/978-3-030-12040-5>

Print ISBN: 978-3-030-12039-9. Online ISBN: 978-3-030-12040-5