

Fagfelleurderte vitenskapelige publikasjoner:

2021:

Alternative vanHAX promoters and increased vanA-plasmid copy number resurrect silenced glycopeptide resistance in *Enterococcus faecium*. Wagner TM, Janice J, Sivertsen A, Sjögren I, Sundsfjord A, Hegstad K. J Antimicrob Chemother 2021 03 12;76(4):876-882. PMID: [33367710](#)

Evaluation of the Amplex eazyplex® SuperBug Acineto test for detection of acquired OXA and NDM carbapenemases in *Acinetobacter* spp. Haldorsen BC, Janice J, Samuelsen Ø. J Glob Antimicrob Resist 2021 03;24():340-341. Epub 2021 feb 8. PMID: [33571709](#)

Piggybacking on Niche Adaptation Improves the Maintenance of Multidrug-Resistance Plasmids. Kloos J, Gama JA, Hegstad J, Samuelsen Ø, Johnsen PJ. Mol Biol Evol 2021 07 29;38(8):3188-3201. PMID: [33760032](#)

Cryptic β -Lactamase Evolution Is Driven by Low β -Lactam Concentrations. Fröhlich C, Gama JA, Harms K, Hirvonen VHA, Lund BA, van der Kamp MW, Johnsen PJ, Samuelsen Ø, Leiros HS. mSphere 2021 04 28;6(2). Epub 2021 apr 28. PMID: [33910990](#)

Carbapenem Resistance Determinants Acquired through Novel Chromosomal Integrations in Extensively Drug-Resistant *Pseudomonas aeruginosa*. Janice J, Agyepong N, Owusu-Ofori A, Govinden U, Essack SY, Samuelsen Ø, Sundsfjord A, Pedersen T. Antimicrob Agents Chemother 2021 06 17;65(7):e0028921. Epub 2021 jun 17. PMID: [33941520](#)

The global dissemination of hospital clones of *Enterococcus faecium*. van Hal SJ, Willems RJL, Gouliouris T, Ballard SA, Coque TM, Hammerum AM, Hegstad K, Westh HT, Howden BP, Malhotra-Kumar S, Werner G, Yanagihara K, Earl AM, Raven KE, Corander J, Bowden R. Genome Med 2021 03 30;13(1):52. Epub 2021 mar 30. PMID: [33785076](#)

Gastrointestinal carriage of *Klebsiella pneumoniae* in a general adult population: a cross-sectional study of risk factors and bacterial genomic diversity. Raffelsberger N, Hetland MAK, Svendsen K, Småbrekke L, Löhr IH, Andreassen LLE, Brisse S, Holt KE, Sundsfjord A, Samuelsen Ø, Gravningen K. Gut Microbes 2021 Jan-Dec;13(1):1939599. PMID: [34182896](#)

Bacterial Membrane-Derived Vesicles Attenuate Vancomycin Activity against Methicillin-Resistant Microorganisms 2021 Sep 29;9(10). Epub 2021 sep 29. Kumaraswamy M, Wiull K, Joshi B, Sakoulas G, Kousha A, Vaaje-Kolstad G, Johannessen M, Hegstad K, Nizet V, Askarian F. PMID: [34683376](#)

Bacterial genomic epidemiology with mixed samples. Mäklin T, Kallonen T, Alanko J, Samuelsen Ø, Hegstad K, Mäkinen V, Corander J, Heinz E, Honkela A. Microb Genom 2021 Nov;7(11). PMID: [34779765](#)

Risk of cervical intraepithelial neoplasia grade 3 or higher (CIN3+) among women with HPV-test in 1990-1992, a 30-year follow-up study. Riibe MØ, Sørbye SW, Simonsen GS, Sundsfjord A, Ekgren J, Maltau JM. Infect Agent Cancer 2021 Jun 22;16(1):46. Epub 2021 jun 22. PMID: [34158090](#)

Burden, Antibiotic Resistance, and Clonality of *Shigella* spp. Implicated in community-acquired acute diarrhea in Lilongwe, Malawi. Trop Med Infect Dis 2021 Apr 28;6(2). Epub 2021 apr 28. PMID: [33925030](#)

High prevalence of multidrug resistant ESBL- and plasmid mediated AmpC-producing clinical isolates of *Escherichia coli* at Maputo Central Hospital, Mozambique. Estaleva CEL, Zimba TF, Sekyere JO, Govinden U, Chenia HY, Simonsen GS, Haldorsen B, Essack SY, Sundsfjord A. BMC Infect Dis 2021 Jan 06;21(1):16. Epub 2021 jan 6. PMID: [33407206](#)

The chemotherapeutic drug methotrexate selects for antibiotic resistance. Guðmundsdóttir JS, Fredheim EGA, Koumans CIM, Hegstad J, Tang PC, Andersson DI, Samuelsen Ø, Johnsen PJ. *EBioMedicine* 2021 Dec;74():103742. Epub 2021 des 11. PMID: [34902789](#)

A high-throughput multiplexing and selection strategy to complete bacterial genomes. Arredondo-Alonso S, Pöntinen AK, Cléon F, Gladstone RA, Schürch AC, Johnsen PJ, Samuelsen Ø, Corander. *JGigascience* 2021 Dec 09;10(12). PMID: [34891160](#)

A nationwide genomic study of clinical *Klebsiella pneumoniae* in Norway 2001-15: introduction and spread of ESBLs facilitated by clonal groups CG15 and CG307. Fostervold A, Hetland MAK, Bakksjø R, Bernhoff E, Holt KE, Samuelsen Ø, Simonsen GS, Sundsfjord A, Wyres KL, Löhr IH. *J Antimicrob Chemother* 2021 Dec 22. Epub 2021 des 22. PMID: [34935048](#)

2020:

Efficacy of mecillinam against clinical multidrug-resistant *Escherichia coli* in a murine urinary tract infection model. Zykov IN, Frimodt-Møller N, Småbrekke L, Sundsfjord A, Samuelsen Ø. *Int. J. Antimicrob. Agents*. 2020;55(2),105851. [31770624](#)

Role of Horizontal Gene Transfer in the Development of Multidrug Resistance in *Haemophilus influenzae*. *mSphere*. Hegstad K, Mylvaganam H, Janice J, Josefsen E, Sivertsen A, Skaare D. 2020 Jan 29;5(1). pii: e00969-19. doi: 10.1128/mSphere.00969-19. [31996416](#)

ZN148 Is a Modular Synthetic Metallo- β -Lactamase Inhibitor That Reverses Carbapenem Resistance in Gram-Negative Pathogens In Vivo. Ørjan Samuelsen, Ove Alexander Høgmoen Åstrand, Christopher Fröhlich, Adam Heikal, Susann Skagseth, Trine Josefine Olsen Carlsen, Hanna-Kirsti S Leiros, Annette Bayer, Christian Schnaars, Geir Kildahl-Andersen, Silje Lauksund, Sarah Finke, Sandra Huber, Tor Gjølven, Adriana Magalhaes Santos Andresen, Ole Andreas Økstad, Pål Rongved. *Antimicrob Agents Chemother*. 2020 May 21;64(6):e02415-19. doi: 10.1128/AAC.02415-19. Print 2020 May 21. [32179522](#)

Cross-border spread of bla_{NDM-1}- and bla_{OXA-48}-positive *Klebsiella pneumoniae*: a European collaborative analysis of whole genome sequencing and epidemiological data, 2014 to 2019. Ludden C, Lötsch F, Alm E, Kumar N, Johansson K, Albiger B, Huang TD, Denis O, Hammerum AM, Hasman H, Jalava J, Räisänen K, Dortet L, Jousset AB, Gatermann S, Haller S, Cormican M, Brennan W, Del Grosso M, Monaco M, Schouls L, Samuelsen Ø, Pirš M, Cerar T, Oteo-Iglesias J, Pérez-Vázquez M, Sjöström K, Edquist P, Hopkins KL, Struelens MJ, Palm D, Monnet DL, Kohlenberg A. Ludden C, Lötsch F, Alm E, Kumar N, Johansson K, Albiger B, Huang TD, Denis O, Hammerum AM, Hasman H, Jalava J, Räisänen K, Dortet L, Jousset AB, Gatermann S, Haller S, Cormican M, Brennan W, Del Grosso M, Monaco M, Schouls L, Samuelsen Ø, Pirš M, Cerar T, Oteo-Iglesias J, Pérez-Vázquez M, Sjöström K, Edquist P, Hopkins KL, Struelens MJ, Palm D, Monnet DL, Kohlenberg A. *Euro Surveill*. 2020 May;25(20):2000627. doi: 10.2807/1560-7917.ES.2020.25.20.2000627. [32458791](#)

Structural and biochemical characterization of the environmental MBLs MYO-1, ECV-1 and SHD-1. Fröhlich C, Sørum V, Huber S, Samuelsen Ø, Berglund F, Kristiansson E, Kotsakis SD, Marathe NP, Larsson DGJ, Leiros HS. *J Antimicrob Chemother*. 2020 Sep 1;75(9):2554-2563. doi: 10.1093/jac/dkaa175. [32464640](#)

Host dependent maintenance of a bla_{NDM-1}-encoding plasmid in clinical *Escherichia coli* isolates. Gama JA, Kloos J, Johnsen PJ, Samuelsen Ø. Host dependent maintenance of a bla_{NDM-1}-encoding

plasmid in clinical *Escherichia coli* isolates. *Sci Rep*. 2020 Jun 9;10(1):9332. doi: 10.1038/s41598-020-66239-8. [32518312](#)

Horizontal Plasmid Transfer among *Klebsiella pneumoniae* Isolates Is the Key Factor for Dissemination of Extended-Spectrum β -Lactamases among Children in Tanzania. Pedersen T, Tellevik MG, Kommedal Ø, Lindemann PC, Moyo SJ, Janice J, Blomberg B, Samuelsen Ø, Langeland N. *mSphere*. 2020 Jul 15;5(4):e00428-20. doi: 10.1128/mSphere.00428-20. [32669470](#)

Structural insights into the enhanced carbapenemase efficiency of OXA-655 compared to OXA-10. Leiros HS, Thomassen AM, Samuelsen Ø, Flach CF, Kotsakis SD, Larsson DGJ. *FEBS Open Bio*. 2020 Sep;10(9):1821-1832. doi: 10.1002/2211-5463.12935. Epub 2020 Aug 8. [32683794](#)

Integrated chromosomal and plasmid sequence analyses reveal diverse modes of carbapenemase gene spread among *Klebsiella pneumoniae*. David S, Cohen V, Reuter S, Sheppard AE, Giani T, Parkhill J; European Survey of Carbapenemase-Producing Enterobacteriaceae (EuSCAPE) Working Group; ESCMID Study Group for Epidemiological Markers (ESGEM), Rossolini GM, Feil EJ, Grundmann H, Aanensen DM. (2020) *Proc Natl Acad Sci U S A*. 2020 Sep 23:202003407. doi: 10.1073/pnas.2003407117. [32968015](#)

β -lactam and fluoroquinolone resistance in Enterobacteriaceae from imported and locally-produced chicken in Mozambique. Sara Lino Faife, Tomas Zimba, John Osei Sekyere, Usha Govinden, Hafizah Y Chenia, Gunnar Skov Simonsen, Arnfinn Sundsfjord, Sabiha Y Essack. *J Infect Dev Ctries* 2020;14(5):471-78. [32525833](#)

Epidemiological and molecular characterization of *Streptococcus pneumoniae* carriage strains in pre-schoolchildren in Arkhangelsk, northern European Russia, prior to the introduction of conjugate pneumococcal vaccines. V. Vorobieva S. Jensen, A-S Furberg, H-C Slotved, T. Bazhukova, B. Haldorsen, D. A. Caugant, A. Sundsfjord, P. Valentiner-Branth and G. S. Simonsen. *BMC Infectious Diseases* (2020) 20:279. [32293324](#)

Antibiotic Sensitivity Screening of *Klebsiella* spp. and *Raoultella* spp. Isolated from Marine Bivalve Molluscs Reveal Presence of CTX-M-Producing *K. pneumoniae*. Fredrik Håkonsholm, Marit A K Hetland, Cecilie S Svanevik, Arnfinn Sundsfjord, Bjørn Tore Lunestad, Nachiket P Marathe. *Microorganisms*. 2020 Nov 30;8(12):1909. [33266320](#)

Alternative vanHAX promoters and increased vanA-plasmid copy number resurrect silenced glycopeptide resistance in *Enterococcus faecium*. Theresa Maria Wagner, Jessin Janice, Audun Sivertsen, Ingegerd Sjögren, Arnfinn Sundsfjord, Kristin Hegstad. *J Antimicrob Chemother*. 2020 Dec 26;dkaa541. [33367710](#)

2019:

The fight to keep resistance at bay, epidemiology of carbapenemase producing organisms (CPOs), vancomycin resistant enterococci (VRE) and methicillin resistant *Staphylococcus aureus* (MRSA) in Norway, 2006 - 2017. Elstrøm P, Astrup E, Hegstad K, Samuelsen Ø, Enger H, Kacelnik O *PLoS One* 2019;14(2):e0211741. Epub 2019 feb 4: PMID: [30716133](#)

OXA-48-Mediated Ceftazidime-Avibactam Resistance Is Associated with Evolutionary Trade-Offs. Fröhlich C, Sørum V, Thomassen AM, Johnsen PJ, Leiros HS, Samuelsen Ø. *mSphere* 2019 03 27;4(2). Epub 2019 mar 27. PMID: [30918055](#)

Worsening epidemiological situation of carbapenemase-producing Enterobacteriaceae in Europe, assessment by national experts from 37 countries, July 2018. Brolund A, Lagerqvist N, Byfors S, Struelens MJ, Monnet DL, Albiger B, Kohlenberg A, Euro Surveill 2019 02;24(9). PMID: [30862330](#)

Synthesis and biological evaluation of zinc chelating compounds as metallo- β -lactamase inhibitors. Kildahl-Andersen G, Schnaars C, Prandina A, Radix S, Le Borgne M, Jordheim LP, Gjøen T, Andresen AMS, Lauksund S, Fröhlich C, Samuelsen Ø, Rongved P, Åstrand OAH. Medchemcomm 2019 Apr 01;10(4):528-537. Epub 2019 mar 8. PMID: [31057732](#)

Epidemic of carbapenem-resistant *Klebsiella pneumoniae* in Europe is driven by nosocomial spread. David S, Reuter S, Harris SR, Glasner C, Feltwell T, Argimon S, Abudahab K, Goater R, Giani T, Errico G, Aspbury M, Sjunnebo S, Feil EJ, Rossolini GM, Aanensen DM, Grundmann H. Nat Microbiol 2019 Nov;4(11):1919-1929. Epub 2019 jul 29. PMID: [31358985](#)

Genomic characterization of multidrug-resistant ESBL-producing *Klebsiella pneumoniae* isolated from a Ghanaian teaching hospital. Agyepong N, Govinden U, Owusu-Ofori A, Amoako DG, Allam M, Janice J, Pedersen T, Sundsfjord A, Essack S Int J Infect Dis 2019 Aug;85():117-123. Epub 2019 mai 23. PMID: [31129424](#)

Whole-Genome Sequences of Two Multidrug-Resistant *Acinetobacter baumannii* Strains Isolated from Patients with Urinary Tract Infection in Ghana. Agyepong N, Govinden U, Owusu-Ofori A, Allam M, Ismail A, Pedersen T, Sundsfjord A, Essack S. Microbiol Resour Announc 2019 Aug 01;8(31). Epub 2019 aug 1. PMID: [31371532](#)

Choice of antibiotics – important change in test results from the microbiologist. Lindemann PC, Gammelsrud KW, Löhr IH, Akselsen PE, Lindbæk M, Sundsfjord A. Tidsskr Nor Laegeforen 2019 09 10;139(12). Epub 2019 sep 9. PMID: [31502781](#)

2018:

Dissemination and characteristics of a novel plasmid-encoded carbapenem-hydrolyzing class D beta-lactamase, OXA-436 from four patients involving six different hospitals in Denmark. 2018. Samuelsen Ø, Hansen F, Aasnæs B, Hasman H, Lund BA, Leiros HS, Lilje B, Janice J, Jakobsen L, Littauer P, Søres LM, Holzkecht BJ, Andersen LP, Stegger M, Andersen PS, Hammerum AM. Antimicrob Agents Chemother. 2017 Oct 23. pii: AAC.01260-17. doi: 10.1128/AAC.01260-17. PubMed PMID: [29061750](#)

Enterococcus faecium produces membrane vesicles containing virulence factors and antimicrobial resistance related proteins. Wagner T, Joshi B, Janice J, Askarian F, Škalko-Basnet N, Hagestad OC, Mekhlif A, Wai SN, Hegstad K, Johannessen M. 2018. J Proteomics. pii: S1874-3919(18)30229-X. doi: 10.1016/j.jprot.2018.05.017. PubMed PMID: [29857065](#)

Recommendations to address the difficulties encountered when determining linezolid resistance from whole genome sequencing data. Beukers AG, Hasman H, Hegstad K, van Hal SJ. 2018. Antimicrob Agents Chemother. pii: AAC.00613-18. doi: 10.1128/AAC.00613-18. PubMed PMID: [29844046](#)

Performance of the EUCAST disc diffusion method and two MIC methods in detection of Enterobacteriaceae with reduced susceptibility to meropenem: the NordicAST CPE study. 2018. Haldorsen B, Giske CG, Hansen DS, Orri Helgason K, Kahlmeter G, Löhr IH, Matuschek E, Österblad M, Rantakokko-Jalava K, Wang M, Småbrekke L, Samuelsen Ø, Sundsfjord A. J Antimicrob Chemother. 2018 Oct 1;73(10):2905. doi: 10.1093/jac/dky339. PubMed PMID: [30124883](#)

The Enterococcus Cassette Chromosome: a genomic variation enabler in enterococci. 2018. Sivertsen A, Janice J, Pedersen T, Wagner TM, Hegstad J, Hegstad K. mSphere 3:e00402-18. doi: 10.1128/mSphere.00402-18. PubMed PMID: [30404935](#)

Synthesis and preclinical evaluation of TPA-based zinc chelators as metallo- β -lactamase inhibitors. Schnaars C, Kildahl-Andersen G, Prandina A, Popal R, Radix SL, Le Borgne M, Gjoen T, Andresen AMS, Heikal A, Økstad OA, Fröhlich C, Samuelsen Ø, Lauksund S, Jordheim LP, Rongved P, Åstrand OAH. 2018. ACS Infect Dis. 2018 Jul 19. doi: 10.1021/acsinfectdis.8b00137. [Epub ahead of print]. PubMed PMID: [30022668](#)

Escherichia coli sequence type 410 is causing new international high-risk clones. 2018. Roer L, Overballe-Petersen S, Hansen F, Schønning K, Wang M, Røder BL, Hansen DS, Justesen US, Andersen LP, Fulgsang-Damgaard D, Hopkins KL, Woodford N, Falgenhauer L, Chakraborty T, Samuelsen Ø, Sjöström K, Johannesen TB, Ng K, Nielsen J, Ethelberg S, Stegger M, Hammerum AM, Hasman H. mSphere Jul 18;3(4). pii: e00337-18. doi: 10.1128/mSphere.00337-18. PubMed PMID: [30021879](#)

Pharmacokinetics and Pharmacodynamics of fosfomycin and its activity against ESBL-, plasmid-mediated AmpC- and carbapenemase-producing *Escherichia coli* in a murine urinary tract infection model. 2018. Zykov IN, Samuelsen Ø, Jakobsen L, Småbrekke L, Andersson DI, Sundsfjord A, Frimodt-Møller N. Antimicrob Agents Chemother. 2018 May 25;62(6). pii: e02560-17. PubMed PMID: [29581117](#)

Spread of plasmid-encoded NDM-1 and GES-5 carbapenemases among extensively drug-resistant and pandrug-resistant clinical Enterobacteriaceae in Durban, South Africa. 2018. Pedersen T, Osei Sekyere J, Govinden U, Moodley K, Sivertsen A, Samuelsen Ø, Essack SY, Sundsfjord A. Antimicrob Agents Chemother. 2018 Apr 26;62(5). pii: e02178-17. doi: 10.1128/AAC.02178-17. Print 2018 May. PubMed PMID: [29507063](#)

Detection of carbapenemases with a newly developed commercial assay using Matrix Assisted Laser Desorption Ionization-Time of Flight. 2018. Rapp E, Samuelsen Ø, Sundqvist M. J Microbiol Methods. 2018 Mar;146:37-39. PubMed PMID: [29360488](#)

Use of a commercially available microarray to characterize antibiotic-resistant clinical Isolates of *Klebsiella pneumoniae*. 2018. Charnock C, Samuelsen Ø, Nordlie AL, Hjeltnes B. Curr Microbiol. 75:163–172. PubMed PMID: [28940091](#)

Conserved collateral antibiotic susceptibility networks in diverse clinical strains of *Escherichia coli*. 2018. Podnecky NL, Fredheim EGA, Kloos J, Sørnum V, Primicerio R, Roberts AP, Rozen DE, Samuelsen Ø, Johnsen PJ; Nat. Commun. 2018 Sep 10;9(1):3673. doi: 10.1038/s41467-018-06143-y. PubMed PMID: [30202004](#)

Update on prevalence and mechanisms of resistance to linezolid, tigecycline and daptomycin in enterococci in Europe: Towards a common nomenclature. 2018. Bender JK, Cattoir V, Hegstad K, Sadowy E, Coque TM, Westh H, Hammerum AM, Schaffer K, Burns K, Murchan S, Novais C, Freitas AR, Peixe L, Del Grosso M, Pantosti A, Werner G. Drug Resist Updat. 2018 Nov 2;40:25-39. doi: 10.1016/j.drug.2018.10.002. PubMed PMID: [30447411](#)

Complete Genome Sequence of *Pseudomonas aeruginosa* K34-7, a Carbapenem-Resistant Isolate of the High-Risk Sequence Type 233. 2018. Taiaroa G, Samuelsen Ø, Kristensen T, Økstad OAL, Heikal A. Microbiol Resour Announc. 2018 Aug 2;7(4). pii: e00886-18. doi: 10.1128/MRA.00886-18. eCollection 2018 Aug. PubMed PMID: [30533874](#)

Enterococcus faecium TIR-domain genes are part of a gene cluster which promotes bacterial survival in blood. 2018. Wagner T, Janice J, Paganelli FL, Willems RJ, Askarian F, Pedersen T, Top J, de Haas C, van Strijp JA, Johannessen M, Hegstad K. 2018. Int J Microbiol. 2018:1435820. doi: 10-1155/2018/1435820. PubMed PMID: [30631364](#)

Faecal colonization of *E. coli* and *Klebsiella* spp. producing extended-spectrum beta-lactamases and plasmid-mediated AmpC in Mozambican university students. 2018. Chirindze LM, Zimba TF, Sekyere JO, Govinden U, Chenia HY, Sundsfjord A, Essack SY, Simonsen GS. BMC Infect Dis. 2018 May 30;18(1):244. doi: 10.1186/s12879-018-3154-1. PubMed PMID: [29843632](#)

End non-essential use of antimicrobials in livestock. 2018. Holmes A, Holmes M, Gottlieb T, Price LB, Sundsfjord A. 2018. BMJ. 2018 Jan 29;360:k259. doi: 10.1136/bmj.k259. PubMed PMID: [29378684](#)

2017:

Dissemination and characteristics of a novel plasmid-encoded carbapenem-hydrolyzing class D beta-lactamase, OXA-436 from four patients involving six different hospitals in Denmark. Samuelsen Ø, Hansen F, Aasnæs B, Hasman H, Lund BA, Leiros HS, Lilje B, Janice J, Jakobsen L, Littauer P, Søres LM, Holzknacht BJ, Andersen LP, Stegger M, Andersen PS, Hammerum AM. Antimicrob Agents Chemother. 2017 Oct 23. pii: AAC.01260-17. doi: 10.1128/AAC.01260-17. PubMed PMID: [29061750](#)

Use of a commercially available microarray to characterize antibiotic-resistant clinical isolates of *Klebsiella pneumoniae*. Charnock C, Samuelsen Ø, Nordlie AL, Hjeltnes B. Curr Microbiol. 2017 Sep 22 doi: 10.1007/s00284-017-1361-4. [Epub ahead of print]. PubMed PMID: [28940091](#)

Molecular and epidemiological characterization of carbapenemase-producing Enterobacteriaceae in Norway, 2007-2014. Samuelsen Ø, Overballe-Petersen S, Bjørnholt JV, Brisse S, Doumith M, Woodford N, Hopkins KL, Aasnæs B, Haldorsen B, Sundsfjord A, Norwegian Study Group on CPE. PLoS ONE 2017 Nov 15;12(11):e0187832. PubMed PMID: [29141051](#)

Impact of extensive antibiotic treatment on faecal carriage of antibiotic-resistant enterobacteria in children in a lowresistance prevalence setting. Knudsen PK, Brandtzaeg P, Høiby EA, Bohlin J, Samuelsen Ø, Steinbakk M, Abrahamsen TG, Müller F, Gammelsrud KW. PLoS One. 2017 Nov 7;12(11):e0187618. doi:10.1371/journal.pone.0187618. eCollection 2017. PubMed PMID: [29112974](#)

First environmental sample containing plasmid-mediated colistin-resistant ESBL-producing *Escherichia coli* detected in Norway. Jørgensen SB, Søråas A, Arnesen LS, Leegaard T, Sundsfjord A, Jenum PA APMIS. 2017;125:822-825. PubMed PMID: [28640456](#)

Faecal carriage of extended spectrum β -lactamase producing *Escherichia coli* and *Klebsiella pneumoniae* after urinary tract infection - A three year prospective cohort study. Jørgensen SB, Søråas A, Sundsfjord A, Liestøl K, Leegaard TM, Jenum PA. PLoS One. 2017;12:e0173510. PubMed PMID: [28267783](#)

Complete Genome Sequence of a Multidrug-Resistant, blaNDM-1-Expressing *Klebsiella pneumoniae* K66-45 Clinical Isolate from Norway. Heikal A, Samuelsen Ø, Kristensen T, Økstad OA. Genome Announc. 2017;5:e00601-17. PubMed PMID: [28684580](#)

Structural Insights into TMB-1 and the Role of Residues 119 and 228 in Substrate and Inhibitor Binding. Skagseth S, Christopheit T, Akhter S, Bayer A, Samuelsen Ø, Leiros HS. Antimicrob Agents Chemother. 2017;61:e02602-16. PubMed PMID: [28559248](#)

Metallo- β -lactamase inhibitors by bioisosteric replacement: Preparation, activity and binding. Skagseth S, Akhter S, Paulsen MH, Muhammad Z, Lauksund S, Samuelsen Ø, Leiros HS, Bayer A. Eur J Med Chem. 2017;135:159-173. PubMed PMID: [28445786](#)

The role of whole genome sequencing in antimicrobial susceptibility testing of bacteria: report from the EUCAST Subcommittee. Ellington MJ, Ekelund O, Aarestrup FM, Canton R, Doumith M, Giske C, Grundman H, Hasman H, Holden MT, Hopkins KL, Iredell J, Kahlmeter G, Köser CU, MacGowan A, Mevius D, Mulvey M, Naas T, Peto T, Rolain JM, Samuelsen Ø, Woodford N. Clin Microbiol Infect. 2017;23:2-22. PubMed PMID: [27890457](#)

Occurrence of carbapenemase-producing *Klebsiella pneumoniae* and *Escherichia coli* in the European survey of carbapenemase-producing Enterobacteriaceae (EuSCAPE): a prospective, multinational study. Grundmann H, Glasner C, Albiger B, Aanensen DM, Tomlinson CT, Andrasević AT, Cantón R, Carmeli Y, Friedrich AW, Giske CG, Glupczynski Y, Gniadkowski M, Livermore DM, Nordmann P, Poirel L, Rossolini GM, Seifert H, Vatopoulos A, Walsh T, Woodford N, Monnet DL; European Survey of Carbapenemase-Producing Enterobacteriaceae (EuSCAPE) Working Group. Lancet Infect Dis. 2017;17:153-163. PubMed PMID: [27866944](#)

Low biological cost of carbapenemase-encoding plasmids following transfer from *Klebsiella pneumoniae* to *Escherichia coli*. Di Luca MC, Sørnum V, Starikova I, Kloos J, Hülter N, Naseer U, Johnsen PJ, Samuelsen Ø. J Antimicrob Chemother. 2017;72:85-89. PubMed PMID: [27591293](#)

2016:

Identification of a novel IMI carbapenemase variant (IMI-9) in *Enterobacter cloacae* complex. Di Luca MC, Skaare D, Aasnaes B, Sundsfjord A, Samuelsen Ø. Int J Antimicrob Agents 2016 Dec;48(6):764-765. Epub 2016 sep 29. Pubmed PMID: [27742202](#)

A patient with sepsis following a burn injury in Pakistan. Onarheim H, Brekke RL, Leiva RA, Oma DH, Kolstad H, Samuelsen Ø, Sundsfjord A, Mylvaganam H. Tidsskr Nor Laegeforen 2016 Aug;136(14-15):1228-32. Epub 2016 aug 23. Pubmed PMID: [27554565](#)

Multilevel population genetic analysis of *vanA* and *vanB* *Enterococcus faecium* causing nosocomial outbreaks in 27 countries (1986-2012). Freitas AR, Tedim AP, Francia MV, Jensen LB, Novais C, Peixe L, Sánchez-Valenzuela A, Sundsfjord A, Hegstad K, Werner G, Sadowy E, Hammerum AM, Garcia-Migura L, Willems RJ, Baquero F, Coque TM. J Antimicrob Chemother 2016 Dec;71(12):3351-3366. Epub 2016 aug 15. Pubmed PMID: [27530756](#)

Understanding the mechanisms and drivers of antimicrobial resistance. Holmes AH, Moore LS, Sundsfjord A, Steinbakk M, Regmi S, Karkey A, Guerin PJ, Piddock LJ. Lancet 2016 Jan 09;387(10014):176-87. Epub 2015 nov 18. Pubmed PMID: [26603922](#)

The antimicrobial activity of mecillinam, nitrofurantoin, temocillin and fosfomicin and comparative analysis of resistance patterns in a nationwide collection of ESBL-producing *Escherichia coli* in Norway 2010-2011. Zykov IN, Sundsfjord A, Småbrekke L, Samuelsen Ø. Infect Dis (Lond) 2016 Feb;48(2):99-107. Epub 2015 sep 28. Pubmed PMID: [26414659](#)

First detection of a carbapenemase-producing Enterobacteriaceae in Iceland. Helgason KO, Jelle AE, Gudlaugsson O, Edvardsson V, Findlay J, Hopkins KL, Woodford N, Samuelsen Ø, Hardarson HS. J Glob Antimicrob Resist 2016 Sep;6():73-4. Epub 2016 mai 2. Pubmed PMID: [27530843](#)

A Silenced *vanA* Gene Cluster on a Transferable Plasmid Caused an Outbreak of Vancomycin-Variable Enterococci. Sivertsen A, Pedersen T, Larssen KW, Bergh K, Rønning TG, Radtke A, Hegstad K. Antimicrob Agents Chemother 2016 Jul;60(7):4119-27. Epub 2016 jun 20. Pubmed PMID: [27139479](#)

Role of Residues W228 and Y233 in the Structure and Activity of Metallo- β -Lactamase GIM-1. Skagseth S, Carlsen TJ, Bjerga GE, Spencer J, Samuelsen Ø, Leiros HK. Antimicrob Agents Chemother 2016 Feb;60(2):990-1002. Epub 2015 des 7. PubMed PMID: [26643332](#)

2015:

Investigating the mobilome in clinically important lineages of *Enterococcus faecium* and *Enterococcus faecalis*. Mikalsen T, Pedersen T, Willems R, Coque TM, Werner G, Sadowy E, van Schaik W, Jensen LB, Sundsfjord A, Hegstad K. BMC Genomics 2015;16():282. Epub 2015 apr 10. PubMed PMID: [25885771](#)

Extended-spectrum β -lactamase-producing Enterobacteriaceae among pregnant women in Norway: prevalence and maternal-neonatal transmission. Rettedal S, Löhr IH, Bernhoff E, Natås OB, Sundsfjord A, Øymar K. J Perinatol 2015 Nov;35(11):907-12. Epub 2015 jul 9. PubMed PMID: [26507147](#)

Persistence of a pKPN3-like CTX-M-15-encoding IncFIK plasmid in a *Klebsiella pneumonia* ST17 host during two years of intestinal colonization. Löhr IH, Hülter N, Bernhoff E, Johnsen PJ, Sundsfjord A, Naseer U. PLoS One 2015;10(3):e0116516. Epub 2015 mar 4 PubMed PMID: [25738592](#)

Identification of VIM-2-producing *Pseudomonas aeruginosa* from Tanzania is associated with sequence types 244 and 640 and the location of blaVIM-2 in a TniC integron. Moyo S, Haldorsen B, Aboud S, Blomberg B, Maselle SY, Sundsfjord A, Langeland N, Samuelsen Ø. Antimicrob Agents Chemother 2015 Jan;59(1):682-5. Epub 2014 okt 20. PubMed PMID: [25331700](#)

CRISPR-cas subtype I-Fb in *Acinetobacter baumannii*: evolution and utilization for strain subtyping. Karah N, Samuelsen Ø, Zarrilli R, Sahl JW, Wai SN, Uhlin BE. PLoS One 2015;10(2):e0118205. Epub 2015 feb 23. PubMed PMID: [25706932](#)

Structural and biochemical characterization of VIM-26 shows that Leu224 has implications for the substrate specificity of VIM metallo- β -lactamases. Leiros HK, Edvardsen KS, Bjerga GE, Samuelsen Ø. FEBS J 2015 Mar;282(6):1031-42. Epub 2015 feb 6. PubMed PMID: [25601024](#)

2014:

His224 alters the R2 drug binding site and Phe218 influences the catalytic efficiency of the metallo- β -lactamase VIM-7. Leiros Hanna-Kirsti S, Skagseth Susann, Edvardsen Kine Susann Waade, Lorentzen Marit Sjo, Bjerga Gro Elin Kjæreng, Leiros Ingar, Samuelsen Ørjan. Antimicrob Agents Chemother 2014 Aug;58(8):4826-36. Epub 2014 jun 9. PubMed PMID: [24913158](#)

Evaluation of the total MBL confirm kit (ROSCO) for detection of metallo- β -lactamases in *Pseudomonas aeruginosa* and *Acinetobacter baumannii*. Hansen Frank, Hammerum Anette M, Skov Robert, Haldorsen Bjørg, Sundsfjord Arnfinn, Samuelsen Orjan. Diagn Microbiol Infect Dis 2014 Aug;79(4):486-8. Epub 2013 des 10. PubMed PMID: [24857168](#)

Increased prevalence of aminoglycoside resistance in clinical isolates of *Escherichia coli* and *Klebsiella spp.* in Norway is associated with the acquisition of AAC(3)-II and AAC(6')-Ib. Haldorsen Bjørg C, Simonsen Gunnar Skov, Sundsfjord Arnfinn, Samuelsen Orjan, Norwegian Study Group on Aminoglycoside Resistance. Diagn Microbiol Infect Dis 2014 Jan;78(1):66-9. Epub 2013 okt 14. PubMed PMID: [24231381](#)

Emergence of mutation-based linezolid-resistant invasive *Enterococcus faecalis* in a haemodialysis patient in Norway. Thilesen Carina M, Bjørrang Ola, Skrede Thomas, Aronsen Tommy, Aasnaes Bettina, Sundsfjord Arnfinn, Hegstad Kristin. APMIS 2014 Jan;122(1):83-4. Epub 2013 mai 8. PubMed PMID: [23656533](#)

Emergence of clonally related multidrug resistant *Haemophilus influenzae* with penicillin-binding protein 3-mediated resistance to extended-spectrum cephalosporins, Norway, 2006 to 2013. Skaare D, Anthonisen II, Kahlmeter G, Matuschek E, Natås Ob, Steinbakk M, Sundsfjord A, Kristiansen BE Euro Surveill 2014;19(49). Epub 2014 des 11. PubMed PMID: [25523969](#)

Within-population distribution of trimethoprim resistance in *Escherichia coli* before and after a community-wide intervention on trimethoprim use. Sundqvist Martin, Granholm Susanne, Naseer Umaer, Rydén Patrik, Brolund Alma, Sundsfjord Arnfinn, Kahlmeter Gunnar, Johansson Anders. *Antimicrob Agents Chemother* 2014 Dec;58(12):7492-500. Epub 2014 okt 6. PubMed PMID: [25288078](#)

Extended-spectrum beta-lactamase-producing bacteria are not detected in supragingival plaque samples from human fecal carriers of ESBL-producing Enterobacteriaceae. Søråas Arne, Olsen Ingar, Sundsfjord Arnfinn, Handal Trude, Bjørang Ola, Jenum Pål Arne. *J Oral Microbiol* 2014;6(). Epub 2014 aug 20. PubMed PMID: [25206941](#)

Multilocus sequence typing and ftsI sequencing: a powerful tool for surveillance of penicillin-binding protein 3-mediated beta-lactam resistance in nontypeable *Haemophilus influenzae*. Skaare Dagfinn, Anthonisen Inger Lill, Caugant Dominique A, Jenkins Andrew, Steinbakk Martin, Strand Linda, Sundsfjord Arnfinn, Tveten Yngvar, Kristiansen Bjørn-Erik. *BMC Microbiol* 2014;14():131. Epub 2014 mai 20. PubMed PMID: [24884375](#)

High rate of per oral mecillinam treatment failure in community-acquired urinary tract infections caused by ESBL-producing *Escherichia coli*. Søråas Arne, Sundsfjord Arnfinn, Jørgensen Silje Bakken, Liestøl Knut, Jenum Pål A. *PLoS One* 2014;9(1):e85889. Epub 2014 jan 15. PubMed PMID: [24454943](#)

Cluster of linezolid-resistant *Enterococcus faecium* ST117 in Norwegian hospitals. Hegstad Kristin, Longva Jørn-Åge, Hide Reidar, Aasnæs Bettina, Lunde Tracy M, Simonsen Gunnar Skov. *Scand J Infect Dis* 2014 Oct;46(10):712-5. Epub 2014 aug 19. PubMed PMID: [25134650](#)

A multicentre hospital outbreak in Sweden caused by introduction of a vanB2 transposon into a stably maintained pRUM-plasmid in an *Enterococcus faecium* ST192 clone. Sivertsen Audun, Billström Hanna, Melefors Öjar, Liljequist Barbro Olsson, Wisell Karin Tegmark, Ullberg Måns, Özenci Volkan, Sundsfjord Arnfinn, Hegstad Kristin. *PLoS One* 2014;9(8):e103274. Epub 2014 aug 25. PubMed PMID: [25153894](#)

Performance of the EUCAST disk diffusion method, the CLSI agar screen method, and the Vitek 2 automated antimicrobial susceptibility testing system for detection of clinical isolates of *Enterococci* with low- and medium-level VanB-type vancomycin resistance: a multicenter study. Hegstad Kristin, Giske Christian G, Haldorsen Bjørg, Matuschek Erika, Schønning Kristian, Leegaard Truls M, Kahlmeter Gunnar, Sundsfjord Arnfinn, NordicAST VRE Detection Study Group. *J Clin Microbiol* 2014 May;52(5):1582-9. Epub 2014 mar 5. PubMed PMID: [24599985](#)

High prevalence of faecal carriage of ESBL-producing Enterobacteriaceae in Norwegian patients with gastroenteritis. Jørgensen Silje Bakken, Samuelsen Orjan, Sundsfjord Arnfinn, Bhatti Sidra Ahmad, Jørgensen Ingvild, Sivapathasundaram Thusanth, Leegaard Truls Michael. *Scand J Infect Dis* 2014 Jun;46(6):462-5. Epub 2014 apr 4. PubMed PMID: [24702690](#)

2013:

ICESluvan, a 94-kilobase mosaic integrative conjugative element conferring interspecies transfer of VanB-type glycopeptide resistance, a novel bacitracin resistance locus, and a toxin-antitoxin stabilization system. Bjørkeng Eva K, Hjerde Erik, Pedersen Torunn, Sundsfjord Arnfinn, Hegstad Kristin. *J Bacteriol* 2013 Dec;195(23):5381-90. Epub 2013 sep 27. PubMed PMID: [24078615](#)

Evaluation of a new real-time PCR assay (Check-Direct CPE) for rapid detection of KPC, OXA-48, VIM, and NDM carbapenemases using spiked rectal swabs. Nijhuis Roel, Samuelsen Orjan, Savelkoul Paul, van Zwet Anton. *Diagn Microbiol Infect Dis* 2013 Dec;77(4):316-20. Epub 2013 okt 14. PubMed PMID: [24135412](#)

Risk factors for community-acquired urinary tract infections caused by ESBL-producing enterobacteriaceae--a case-control study in a low prevalence country. Søråas Arne, Sundsfjord Arnfinn, Sandven Irene, Brunborg Cathrine, Jenum Pål A. *PLoS One* 2013;8(7):e69581. Epub 2013 jul 23. PubMed PMID: [23936052](#)

Characterisation of the plasmidome within *Enterococcus faecalis* isolated from marginal periodontitis patients in Norway. Song Xiaobo, Sun Jinglu, Mikalsen Theresa, Roberts Adam P, Sundsfjord Arnfinn PLoS One 2013;8(4):e62248. Epub 2013 apr 30. PubMed PMID: [23646122](#)

[Aminoglycosides should still be used in empirical sepsis treatment]. Lindemann Paul Christoffer, Haldorsen Bjørg C, Smith Ingrid, Sjursen Haakon, Mylvaganam Haima Tidsskr Nor Laegeforen 2013 May;133(10):1054-5. PubMed PMID: [23712163](#)

Antibiotic resistant enterococci-ales of a drug resistance gene trafficker. Werner Guido, Coque Teresa M, Franz Charles M A P, Grohmann Elisabeth, Hegstad Kristin, Jensen Lars, van Schaik Willem, Weaver Keith. Int J Med Microbiol 2013 Aug;303(6-7):360-79. Epub 2013 mar 8. PubMed PMID: [23602510](#)

Long-term faecal carriage in infants and intra-household transmission of CTX-M-15-producing *Klebsiella pneumoniae* following a nosocomial outbreak. Löhr Iren Høyland, Rettedal Siren, Natås Olav B, Naseer Umaer, Oymar Knut, Sundsfjord Arnfinn. J Antimicrob Chemother 2013 May;68(5):1043-8. Epub 2013 jan 3. PubMed PMID: [23288401](#)

Carbapenemase-producing Enterobacteriaceae in Europe: a survey among national experts from 39 countries, February 2013. Glasner C, Albiger B, Buist G, Tambic Andrasevic A, Canton R, Carmeli Y, Friedrich A W, Giske C G, Glupczynski Y, Gniadkowski M, Livermore D M, Nordmann P, Poirel L, Rossolini G M, Seifert H, Vatopoulos A, Walsh T, Woodford N, Donker T, Monnet D L, Grundmann H, eUtils.ItemsChoiceType2[]. Euro Surveill 2013;18(28). Epub 2013 jul 11. PubMed PMID: [23870096](#)

Large IncHI2-plasmids encode extended-spectrum β -lactamases (ESBLs) in *Enterobacter* spp. bloodstream isolates, and support ESBL-transfer to *Escherichia coli*. Nilsen E, Haldorsen B C, Sundsfjord A, Simonsen G S, Ingebretsen A, Naseer U, Samuelsen O, eUtils.ItemsChoiceType2[] Clin Microbiol Infect 2013 Nov;19(11):E516-8. Epub 2013 jun 25. PubMed PMID: [23800169](#)

A long-term low-frequency hospital outbreak of KPC-producing *Klebsiella pneumoniae* involving intergenus plasmid diffusion and a persisting environmental reservoir. Tofteland Ståle, Naseer Umaer, Lislevand Jan Helge, Sundsfjord Arnfinn, Samuelsen Orjan. PLoS One 2013;8(3):e59015. Epub 2013 mar 11. PubMed PMID: [23536849](#)

Identification of Enterobacteriaceae isolates with OXA-48 and coproduction of OXA-181 and NDM-1 in Norway. Samuelsen Ørjan, Naseer Umaer, Karah Nabil, Lindemann Paul Christoffer, Kanestrøm Anita, Leegaard Truls M, Sundsfjord Arnfinn. J Antimicrob Chemother 2013 Jul;68(7):1682-5. Epub 2013 mar 5. PubMed PMID: [23463214](#)

Dissemination of a carbapenem-resistant *Acinetobacter baumannii* strain belonging to international clone II/sequence type 2 and harboring a novel AbaR4-like resistance island in Latvia. Saule Mara, Samuelsen Ørjan, Dumpis Uga, Sundsfjord Arnfinn, Karlson Aija, Balode Arta, Miklasevics Edvins, Karah Nabil. Antimicrob Agents Chemother 2013 Feb;57(2):1069-72. Epub 2012 des 10. PubMed PMID: [23229482](#)

Crystal structures of *Pseudomonas aeruginosa* GIM-1: active-site plasticity in metallo- β -lactamases. Borra Pardha Saradhi, Samuelsen Ørjan, Spencer James, Walsh Timothy R, Lorentzen Marit Sjo, Leiros Hanna-Kirsti S. Antimicrob Agents Chemother 2013 Feb;57(2):848-54. Epub 2012 des 3 PubMed PMID: [23208706](#)

Prevalence and population structure of *Staphylococcus aureus* nasal carriage in healthcare workers in a general population. The Tromsø Staph and Skin Study. Olsen K, Sangvik M, Simonsen G S, Sollid J U E, Sundsfjord A, Thune I, Furberg A-S. Epidemiol Infect 2013 Jan;141(1):143-52. Epub 2012 mar 22 PubMed PMID: [22440487](#)

Risk factors for acquisition of CTX-M-15 extended-spectrum beta-lactamase-producing *Klebsiella pneumoniae* during an outbreak in a neonatal intensive care unit in Norway. Rettedal Siren, Høyland Löhr Iren, Natås Olav, Sundsfjord Arnfinn, Øymar Knut. Scand J Infect Dis 2013 Jan;45(1):54-8. Epub 2012 sep 19. PubMed PMID: [22991960](#)

2012:

First outbreak of extended-spectrum β -lactamase-producing *Klebsiella pneumoniae* in a Norwegian neonatal intensive care unit; associated with contaminated breast milk and resolved by strict cohorting. Rettedal Siren, Löhr Iren H, Natås Olav, Giske Christian G, Sundsfjord Arnfinn, Øymar Knut
APMIS 2012 Aug;120(8):612-21. Epub 2012 mar 24. PMID: [22779683](#)

A nationwide study of mechanisms conferring reduced susceptibility to extended-spectrum cephalosporins in clinical *Escherichia coli* and *Klebsiella* spp. isolates. Tofteland Ståle, Dahl Kristin H, Aasnæs Bettina, Sundsfjord Arnfinn, Naseer Umaer. Scand J Infect Dis 2012 Dec;44(12):927-33. Epub 2012 sep 19. PMID: [22991975](#)

Multi-locus variable number of tandem repeat analysis for rapid and accurate typing of virulent multidrug resistant *Escherichia coli* clones. Naseer Umaer, Olsson-Liljequist Barbro E, Woodford Neil, Dhanji Hiran, Cantón Rafael, Sundsfjord Arnfinn, Lindstedt Bjørn-Arne. PLoS One 2012;7(7):e41232. Epub 2012 jul 27. PMID: [22859970](#)

Increased high-level gentamicin resistance in invasive *Enterococcus faecium* is associated with aac(6')Ie-aph(2?)Ia-encoding transferable megaplasmids hosted by major hospital-adapted lineages. Rosvoll Torill C S, Lindstad Belinda L, Lunde Tracy M, Hegstad Kristin, Aasnaes Bettina, Hammerum Anette M, Lester Camilla H, Simonsen Gunnar S, Sundsfjord Arnfinn, Pedersen Torunn. FEMS Immunol Med Microbiol 2012 Nov;66(2):166-76. Epub 2012 jun 27. PMID: [22672387](#)

[Last chance for effective antibiotics?]. Dahle Ulf R, Wester Astrid Louise, Samuelsen Ørjan, Sundsfjord Arnfinn. Tidsskr Nor Laegeforen 2012 Aug;132(15):1725-6. PMID: [22929934](#)

Insights into the global molecular epidemiology of carbapenem non-susceptible clones of *Acinetobacter baumannii*. Karah Nabil, Sundsfjord Arnfinn, Towner Kevin, Samuelsen Ørjan. Drug Resist Updat 2012 Aug;15(4):237-47. Epub 2012 jul 27. PMID: [22841809](#)

Crystal structure of the mobile metallo- β -lactamase AIM-1 from *Pseudomonas aeruginosa*: insights into antibiotic binding and the role of Gln157. Leiros Hanna-Kirsti S, Borra Pardha S, Brandsdal Bjørn Olav, Edvardsen Kine Susann Waade, Spencer James, Walsh Timothy R, Samuelsen Orjan. Antimicrob Agents Chemother 2012 Aug;56(8):4341-53. Epub 2012 jun 4. PMID: [22664968](#)

Evaluation of ROSCO Neo-Sensitabs for phenotypic detection and subgrouping of ESBL-, AmpC- and carbapenemase-producing Enterobacteriaceae. Hansen Frank, Hammerum Anette M, Skov Robert L, Giske Christian G, Sundsfjord Arnfinn, Samuelsen Orjan. APMIS 2012 Sep;120(9):724-32. Epub 2012 mar 20. PMID: [22882262](#)

Identification and screening of carbapenemase-producing Enterobacteriaceae. Clin Microbiol Infect 2012 May;18(5):432-8. Nordmann P, Gniadkowski M, Giske C G, Poirel L, Woodford N, Miriagou V, eUtils.ItemsChoiceType2[] PMID: [22507110](#)

Rapid evolution and spread of carbapenemases among Enterobacteriaceae in Europe. Cantón R, Akóva M, Carmeli Y, Giske C G, Glupczynski Y, Gniadkowski M, Livermore D M, Miriagou V, Naas T, Rossolini G M, Samuelsen Ø, Seifert H, Woodford N, Nordmann P, eUtils.ItemsChoiceType2[]. Clin Microbiol Infect 2012 May;18(5):413-31. PMID: [22507109](#)

Fecal colonization of VIM-1-producing *Klebsiella pneumoniae* and in vivo transfer of multidrug-resistant IncN plasmid in a renal transplant patient. Naseer Umaer, Eriksen Bjørn Odvar, Sundsfjord Arnfinn, Samuelsen Ørjan. Diagn Microbiol Infect Dis 2012 Apr;72(4):363-6. Epub 2012 feb 1. PMID: [22300955](#)

Genetic and biochemical characterization of a novel metallo- β -lactamase, TMB-1, from an *Achromobacter xylosoxidans* strain isolated in Tripoli, Libya. El Salabi Allaaeddin, Borra Pardha Saradhi, Toleman Mark A, Samuelsen Ørjan, Walsh Timothy R, Antimicrob Agents Chemother 2012 May;56(5):2241-5. Epub 2012 jan 30. PMID: [22290947](#)

Insight into antimicrobial susceptibility and population structure of contemporary human *Enterococcus faecalis* isolates from Europe. Kuch Alicja, Willems Rob J L, Werner Guido, Coque Teresa M, Hammerum Anette M, Sundsfjord Arnfinn, Klare Ingo, Ruiz-Garbajosa Patricia, Simonsen Gunnar S, van Luit-Asbroek Miranda, Hryniewicz Waleria, Sadowy Ewa. J Antimicrob Chemother 2012 Mar;67(3):551-8. Epub 2011 des 29. PMID: [22207599](#)

Sequence types and plasmid carriage of uropathogenic *Escherichia coli* devoid of phenotypically detectable resistance. Bengtsson Stina, Naseer Umaer, Sundsfjord Arnfinn, Kahlmeter Gunnar, Sundqvist Martin. J Antimicrob Chemother 2012 Jan;67(1):69-73. Epub 2011 okt 6. PMID: [21980069](#)

A Trade-off between the Fitness Cost of Functional Integrases and Long-term Stability of Integrons. Starikova Irina, Harms Klaus, Haugen Pål, Lunde Tracy T M, Primicerio Raul, Samuelsen Orjan, Nielsen Kaare M, Johnsen Pål J. PLoS Pathog 2012 Nov;8(11):e1003043. Epub 2012 nov 29. PMID: [23209414](#)

Multiresistente Gram-negative bakterier – et økende globalt helseproblem. Haldorsen B, Samuelsen Ø. Bioingeniøren

2011:

A Diversity of OXA-Carbapenemases and Class 1 Integrins Among Carbapenem-Resistant *Acinetobacter baumannii* Clinical Isolates from Sweden Belonging to Different International Clonal Lineages. Karah Nabil, Giske Christian G, Sundsfjord Arnfinn, Samuelsen Orjan. Microb Drug Resist 2011 Dec;17(4):545-9. Epub 2011 aug 10. PMID: [21830948](#)

Enterococcus faecalis from patients with chronic periodontitis: virulence and antimicrobial resistance traits and determinants. Sun J, Sundsfjord A, Song X. Eur J Clin Microbiol Infect Dis 2011 Jun. Epub 2011 jun 10. PMID: [21660501](#)

Structural and computational investigations of VIM-7: insights into the substrate specificity of vim metallo- β -lactamases. Borra Pardha Saradhi, Leiros Hanna-Kirsti S, Ahmad Rafi, Spencer James, Leiros Ingar, Walsh Timothy R, Sundsfjord Arnfinn, Samuelsen Orjan. J Mol Biol 2011 Aug;411(1):174-89. Epub 2011 mai 30. PMID: [21645522](#)

Molecular characterization of VIM-producing *Klebsiella pneumoniae* from Scandinavia reveals genetic relatedness with international clonal complexes encoding transferable multidrug resistance. Samuelsen Ø, Toleman M A, Hasseltvedt V, Fursted K, Leegaard T M, Walsh T R, Sundsfjord A, Giske C G. Clin Microbiol Infect 2011 Dec;17(12):1811-6. Epub 2011 mai 20. PMID: [21595797](#)

Clustering of polyclonal VanB-type vancomycin-resistant *Enterococcus faecium* in a low-endemic area was associated with CC17-genogroup strains harbouring transferable vanB2-Tn5382 and pRUM-like repA containing plasmids with axe-txe plasmid addiction systems. Bjørkeng Eva, Rasmussen Gunlög, Sundsfjord Arnfinn, Sjöberg Lennart, Hegstad Kristin, Söderquist Bo. APMIS 2011 Apr;119(4-5):247-58. Epub 2011 feb 25. PMID: [21492224](#)

Species identification and molecular characterization of *Acinetobacter* spp. blood culture isolates from Norway. Karah Nabil, Haldorsen Bjørg, Hegstad Kristin, Simonsen Gunnar Skov, Sundsfjord Arnfinn, Samuelsen Ørjan, PubMed.ItemsChoiceType2[]. J Antimicrob Chemother 2011 Apr;66(4):738-44. Epub 2011 jan 19. PMID: [21393175](#)

The CTX-M conundrum: dissemination of plasmids and *Escherichia coli* clones. Naseer Umaer, Sundsfjord Arnfinn. Microb Drug Resist 2011 Mar;17(1):83-97. Epub 2011 jan 31. PMID: [21281129](#)

Retrospective evidence for a biological cost of vancomycin resistance determinants in the absence of glycopeptide selective pressures. Johnsen P J, Townsend J P, Bøhn T, Simonsen G S, Sundsfjord A, Nielsen K M. J Antimicrob Chemother 2011 Mar;66(3):608-10. Epub 2011 jan 7. PMID: [21217128](#)

[How to stop multiresistant bacteria?]. Tveten Yngvar, Sarjomaa Marjut Anneli, Skaare Dagfinn, Grude Nils, Samuelsen Ørjan. Tidsskr Nor Laegeforen 2011 Apr;131(7):698-700. PMID: [21494308](#)

Molecular epidemiology of KPC-2- producing *Klebsiella pneumoniae* isolates in Brazil: the predominance of sequence type 437. Seki Lilliane M, Pereira Polyana S, de Souza Maria da Penha A H, Conceição Magda de S, Marques Elizabeth A, Porto Carlos Oliveira, Colnago Elvira Maria L, Alves Carlene de F M, Gomes Deize, Assef Ana Paula D A Carvalho, Samuelsen Ørjan, Asensi Marise D. Diagn Microbiol Infect Dis 2011 Jun;70(2):274-7. Epub 2011 mar 11. PMID: [21397425](#)

Identification of NDM-1-producing Enterobacteriaceae in Norway. Samuelsen Ørjan, Thilesen Carina M, Heggelund Lars, Vada Anne N, Kümmel Angela, Sundsfjord Arnfinn. J Antimicrob Chemother 2011 Mar;66(3):670-2. Epub 2010 des 16. PMID: [21172785](#)

Emergence of OXA-carbapenemase- and 16S rRNA methylase-producing international clones of *Acinetobacter baumannii* in Norway. Karah Nabil, Haldorsen Bjørg, Hermansen Nils O, Tveten Yngvar, Ragnhildstveit Eivind, Skutlaberg Dag H, Tofteland Ståle, Sundsfjord Arnfinn, Samuelsen Ørjan. J Med Microbiol 2011 Apr;60(Pt 4):515-21. Epub 2010 des 16. PMID: [21163830](#)

Host range of enterococcal vanA plasmids among Gram-positive intestinal bacteria. Werner Guido, Freitas Ana R, Coque Teresa M, Sollid Johanna E, Lester Camilla, Hammerum Anette M, Garcia-Migura Lourdes, Jensen Lars B, Francia Maria V, Witte Wolfgang, Willems R J, Sundsfjord Arnfinn. J Antimicrob Chemother 2011 Feb;66(2):273-82. Epub 2010 des 3. PMID: [21131318](#)

Comparison of disk diffusion, Etest and VITEK2 for detection of carbapenemase-producing *Klebsiella pneumoniae* with the EUCAST and CLSI breakpoint systems. Vading M, Samuelsen Ø, Haldorsen B, Sundsfjord A S, Giske C G. Clin Microbiol Infect 2011 May;17(5):668-74. PMID: [20649801](#)

A sensitive and specific phenotypic assay for detection of metallo- β -lactamases and KPC in *Klebsiella pneumoniae* with the use of meropenem disks supplemented with aminophenylboronic acid, dipicolinic acid and cloxacillin. Giske C G, Gezelius L, Samuelsen Ø, Warner M, Sundsfjord A, Woodford N. Clin Microbiol Infect 2011 Apr;17(4):552-6. PMID: [20597925](#)

2010:

Molecular epidemiology of metallo-beta-lactamase-producing *Pseudomonas aeruginosa* isolates from Norway and Sweden shows import of international clones and local clonal expansion. Samuelsen Orjan, Toleman Mark A, Sundsfjord Arnfinn, Rydberg Johan, Leegaard Truls M, Walder Mats, Lia Astrid, Ranheim Trond E, Rajendra Yashas, Hermansen Nils O, Walsh Timothy R, Giske Christian G. Antimicrob Agents Chemother 2010 Jan;54(1):346-52. Epub 2009 nov 2. PMID: [19884381](#)

PCR-based plasmid typing in *Enterococcus faecium* strains reveals widely distributed pRE25-, pRUM-, pIP501- and pHTbeta-related replicons associated with glycopeptide resistance and stabilizing toxin-antitoxin systems. Rosvoll Torill C S, Pedersen Torunn, Sletvold Hege, Johnsen Pål J, Sollid Johanna E, Simonsen Gunnar S, Jensen Lars B, Nielsen Kaare M, Sundsfjord Arnfinn. FEMS Immunol Med Microbiol 2010 Mar;58(2):254-68. Epub 2009 nov 17. PMID: [20015231](#)

Plasmid-mediated quinolone resistance determinants qnr and aac(6)-Ib-cr in *Escherichia coli* and *Klebsiella* spp. from Norway and Sweden. Karah Nabil, Poirel Laurent, Bengtsson Stina, Sundqvist Martin, Kahlmeter Gunnar, Nordmann Patrice, Sundsfjord Arnfinn, Samuelsen Ørjan, PubMed.ItemsChoiceType2[]. Diagn Microbiol Infect Dis 2010 Apr;66(4):425-31. PMID: [20226333](#)

Urinary tract isolates of Enterobacteriaceae from hospitalized patients in the Arkhangelsk region, Russia: antimicrobial susceptibility and characterization of extended-spectrum beta-lactamases strains. Vorobieva Veronika, Naseer Umaer, Bazhukova Tatiana, Semenova Nadezda, Haldorsen Bjørg C, Aasnaes Bettina, Simonsen Gunnar Skov, Sundsfjord Arnfinn. Scand J Infect Dis 2010 Oct;42(10):797-800. PMID: [20438286](#)

Tn1546 is part of a larger plasmid-encoded genetic unit horizontally disseminated among clonal *Enterococcus faecium* lineages. Sletvold H, Johnsen P J, Wikmark O-G, Simonsen G S, Sundsfjord A, Nielsen K M. J Antimicrob Chemother 2010 Sep;65(9):1894-906. Epub 2010 jun 17. PMID: [20558469](#)

Enterococcus research: recent developments and clinical challenges. Sundsfjord A, Willems R Clin Microbiol Infect 2010 Jun;16(6):525-6. PMID: [20569262](#)

Mobile genetic elements and their contribution to the emergence of antimicrobial resistant *Enterococcus faecalis* and *Enterococcus faecium*. Hegstad K, Mikalsen T, Coque T M, Werner G, Sundsfjord A. Clin Microbiol Infect 2010 Jun;16(6):541-54. PMID: [20569265](#)

ccrABEnt serine recombinase genes are widely distributed in the *Enterococcus faecium* and *Enterococcus casseliflavus* species groups and are expressed in *E. faecium*. Bjørkeng Eva Katrin, Tessema Girum Tadesse, Lundblad Eirik Wasmuth, Butaye Patrick, Willems Rob, Sollid Johanna Ericsson, Sundsfjord Arnfinn, Hegstad Kristin. Microbiology 2010 Dec;156(Pt 12):3624-34. Epub 2010 sep 3. PMID: [20817645](#)

Identification of NDM-1-producing Enterobacteriaceae in Norway. Samuelsen Ørjan, Thilesen Carina M, Heggelund Lars, Vada Anne N, Kümmel Angela, Sundsfjord Arnfinn. J Antimicrob Chemother 2011 Mar;66(3):670-2. Epub 2010 des 16. PMID: [21172785](#)

Emergence of OXA-carbapenemase- and 16S rRNA methylase-producing international clones of *Acinetobacter baumannii* in Norway. Karah Nabil, Haldorsen Bjørg, Hermansen Nils O, Tveten Yngvar, Ragnhildstveit Eivind, Skutlaberg Dag H, Tofteland Ståle, Sundsfjord Arnfinn, Samuelsen Ørjan. J Med Microbiol 2011 Apr;60(Pt 4):515-21. Epub 2010 des 16. PMID: [21163830](#)

Host range of enterococcal *vanA* plasmids among Gram-positive intestinal bacteria. Werner Guido, Freitas Ana R, Coque Teresa M, Sollid Johanna E, Lester Camilla, Hammerum Anette M, Garcia-Migura Lourdes, Jensen Lars B, Francia Maria V, Witte Wolfgang, Willems R J, Sundsfjord Arnfinn. J Antimicrob Chemother 2011 Feb;66(2):273-82. Epub 2010 des 3. PMID: [21131318](#)

Comparison of disk diffusion, Etest and VITEK2 for detection of carbapenemase-producing *Klebsiella pneumoniae* with the EUCAST and CLSI breakpoint systems. Vading M, Samuelsen Ø, Haldorsen B, Sundsfjord A S, Giske C G. Clin Microbiol Infect 2011 May;17(5):668-74. PMID: [20649801](#)

A sensitive and specific phenotypic assay for detection of metallo- β -lactamases and KPC in *Klebsiella pneumoniae* with the use of meropenem disks supplemented with aminophenylboronic acid, dipicolinic acid and cloxacillin. Giske C G, Gezelius L, Samuelsen Ø, Warner M, Sundsfjord A, Woodford N Clin Microbiol Infect 2011 Apr;17(4):552-6. PMID: [20597925](#)

Sporadic occurrence of CMY-2-producing multidrug-resistant *Escherichia coli* of ST-complexes 38 and 448, and ST131 in Norway. Naseer U, Haldorsen B, Simonsen G S, Sundsfjord A. Clin Microbiol Infect 2010 Feb;16(2):171-8. Epub 2009 jun 22. PMID: [19548922](#)

Geographic distribution of *Staphylococcus aureus* causing invasive infections in Europe: a molecular-epidemiological analysis. Grundmann Hajo, Aanensen David M, van den Wijngaard Cees C, Spratt Brian G, Harmsen Dag, Friedrich Alexander W, PubMed.ItemsChoiceType2[]. PLoS Med 2010;7(1):e1000215. Epub 2010 jan 12. PMID: [20084094](#)

Inhibition of gene expression by RNase P. Lundblad Eirik Wasmuth, Altman Sidney. N Biotechnol 2010 Jul;27(3):212-21. Epub 2010 mar 6. PMID: [20211282](#)

Does the wide use of quaternary ammonium compounds enhance the selection and spread of antimicrobial resistance and thus threaten our health? Hegstad Kristin, Langsrud Solveig, Lunestad Bjørn Tore, Scheie Anne Aamdal, Sunde Marianne, Yazdankhah Siamak P. Microb Drug Resist 2010 Jun;16(2):91-104. PMID: [20370507](#)