

Fagfelleleverte vitenskapelige publikasjoner fra K-res og samarbeidspartnere:

2024:

Deciphering *Staphylococcus aureus*-host dynamics using dual activity-based protein profiling of ATP-interacting proteins. Ahator SD, Hegstad K, Lentz CS, Johannessen M. mSystems. 2024 May 16;9(5):e0017924. PMID: [38656122](#)

Comprehensive virulence profiling and evolutionary analysis of specificity determinants in *Staphylococcus aureus* two-component systems. Ahator SD, Wenzl K, Hegstad K, Lentz CS, Johannessen M. mSystems. 2024 Apr 16;9(4):e0013024. PMID: [38470253](#)

The first vanE-type vancomycin resistant *Enterococcus faecalis* isolates in Norway - phenotypic and molecular characteristics. Al Rubaye M, Janice J, Bjørnholt JV, Löhr IH, Sundsfjord A, Hegstad K. J Glob Antimicrob Resist. 2024 Mar; 36:193-199. PMID: [38154751](#)

Risk of death in *Klebsiella pneumoniae* bloodstream infections is associated with specific phylogenetic lineages. Fostervold A, Raffelsberger N, Hetland MAK, Bakksjø R, Bernhoff E, Samuelsen Ø, Sundsfjord A, Afset JE, Berntsen CF, Bævre-Jensen R, Ebbesen MH, Gammelsrud KW, Guleng AD, Handal N, Jakovljević A, Johal SK, Marvik Å, Natvik A, Sandnes RA, Tofteland S, Bjørnholt JV, Löhr IH; Assoc. on behalf of The Norwegian Study Group on *Klebsiella pneumoniae*. J Infect. 2024 May;88(5):106155. PMID: [38574775](#)

Activity-based protein profiling of serine hydrolases and penicillin-binding proteins in *Enterococcus faecium*. Grunnvåg JS, Hegstad K, Lentz CS. FEMS Microbes. 2024 May 15;5:xtae015. PMID: [38813097](#)

Gentamicin should remain part of the empirical sepsis regimen for adults. Grønmo MM, Møller-Stray J, Akselsen PE, Lindemann PC, Fostervold A, Knudsen CV, Knudsen PK, Lindbæk M, Tonby K, Sundsfjord A. Tidsskr Nor Lægeforen. 2024 Feb 26;144(3). PMID: [38415563](#)

FilmArray (BCID2) provides essential and timely results in bloodstream infections in small acute care hospitals without conventional microbiology services. Harboe-Sjåvik H, Endresen KH, Åsheim S, Sundsfjord A. APMIS. 2024 Apr;132(4):267-276. PMID: [38214228](#)

The first tigecycline resistant *Enterococcus faecium* in Norway was related to tigecycline exposure. Hegstad K, Pöntinen AK, Bjørnholt JV, Quist-Paulsen E, Sundsfjord A. J Glob Antimicrob Resist. 2024 Mar; 36:112-115. PMID: [38122982](#)

Single-cell phenotypic profiling and backtracing exposes and predicts clinically relevant subpopulations in isogenic *Staphylococcus aureus* communities. Hira J, Singh B, Halder T, Mahmutovic A, Ajayi C, Sekh AA, Hegstad K, Johannessen M, Lentz CS. Commun Biol. 2024 Oct 1;7(1):1228. PMID: [39354092](#)

Emergence of vancomycin-resistant enterococci from vancomycin-susceptible enterococci in hospitalized patients under antimicrobial therapy. Janice J, Wagner TM, Olsen K, Hegstad J, Hegstad K. J Glob Antimicrob Resist. 2024 Mar; 36:116-122. PMID: [38128726](#)

Deep sequencing of *Escherichia coli* exposes colonisation diversity and impact of antibiotics in Punjab, Pakistan. Khawaja T, Mäklin T, Kallonen T, Gladstone RA, Pöntinen AK, Mero S, Thorpe HA, Samuelsen Ø, Parkhill J, Izhar M, Akhtar MW, Corander J, Kantele A. Nat Commun. 2024 Jun 18;15(1):5196. PMID: [38890378](#)

Emergence of *Escherichia coli* ST131 carrying carbapenemase genes, European Union/European Economic Area, August 2012 to May 2024. Kohlenberg A, Svartström O, Apfalter P, Hartl R, Bogaerts P, Huang TD, Chudejova K, Malisova L, Eisfeld J, Sandfort M, Hammerum AM, Roer L, Räisänen K, Dortet L, Bonnin RA, Tóth Á, Tóth K, Clarke C, Cormican M, Griškevičius A, Khonyongwa K, Meo M, Niedre-Otomere B, Vangravs R, Hendrickx AP, Notermans DW, Samuelsen Ø, Caniça M, Manageiro V, Müller V, Mäkitalo B, Kramar U, Pirs M, Palm D, Monnet DL, Alm E, Linkevicius M. Euro Surveill. 2024 Nov;29(47):2400727. PMID: [39574387](#)

Pangenome-spanning epistasis and coselection analysis via de Bruijn graphs. Kuronen J, Horsfield ST, Pöntinen AK, Mallawaarachchi S, Arredondo-Alonso S, Thorpe H, Gladstone RA, Willems RJL, Bentley SD, Croucher NJ, Pensar J, Lees JA, Tonkin-Hill G, Corander J. Genome Res. 2024 Aug 20;34(7):1081- 1088. PMID: [39134411](#)

Hospital toilets and drainage systems as a reservoir for a long-term polyclonal outbreak of clinical infections with multidrug-resistant *Klebsiella oxytoca* species complex. Larsen AL, Pedersen T, Sundsfjord A, Ross TA, Guleng AD, Haug JB, Pöntinen AK, Samuelsen Ø. Infect Prev Pract. 2024 Dec 21;7(1):100430. PMID: [39868417](#)

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Pseudomonas aeruginosa antimicrobial susceptibility profiles, resistance mechanisms and international clonal lineages: update from ESGARS-ESCMID/ISARPAE Group. Oliver A, Rojo-Molinero E, Arca-Suarez J, Bešli Y, Bogaerts P, Cantón R, Cimen C, Croughs PD, Denis O, Giske CG, Graells T, Daniel Huang TD, Iorga BI, Karatuna O, Kocsis B, Kronenberg A, López-Causapé C, Malhotra-Kumar S, Martínez LM, Mazzariol A, Meyer S, Naas T, Notermans DW, Oteo-Iglesias J, Pedersen T, Pirš M, Poeta P, Poirel L, Pournaras S, Sundsfjord A, Szabó D, Tambić-Andrašević A, Vatcheva-Dobrevska R, Vitkauskienė A, Jeannot K; ESGARS-ISARPAE members. Clin Microbiol Infect. 2024 Apr;30(4):469-480. PMID: [38160753](#)

Modulation of multidrugresistant clone success in *Escherichia coli* populations: a longitudinal, multi-country, genomic and antibiotic usage cohort study. Pöntinen AK, Gladstone RA, Pesonen H, Pesonen M, Cléon F, Parcell BJ, Kallonen T, Simonsen GS, Croucher NJ, McNally A, Parkhill J, Johnsen PJ, Samuelsen Ø, Corander J. Lancet Microbe. 2024 Feb;5(2):e142-e150. PMID: [38219757](#)

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Interactions between commensal *Enterococcus faecium* and *Enterococcus lactis* and clinical isolates of *Enterococcus faecium*. Wagner TM, Pöntinen AK, Fenzel CK, Engi D, Janice J, Almeida-Santos AC, Tedim AP, Freitas AR, Peixe L, van Schaik W, Johannessen M, Hegstad K. FEMS Microbes. 2024 Mar 9;5: xtae009. PMID: [38606354](#)

Adaptive cell wall thickening in *Enterococcus faecalis* is associated with decreased vancomycin susceptibility. Wagner TM, Pöntinen AK, Al Rubaye M, Sundsfjord A, Hegstad K. Clin Microbiol Infect. 2024 Mar;30(3): 396.e1-396.e5. PMID: [38065364](#)

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2023:

The population structure of vancomycin-resistant and -susceptible *Enterococcus faecium* in a low-prevalence antimicrobial resistance setting is highly influenced by circulating global hospital-associated clones. Al Rubaye M, Janice J, Bjørnholt JV, Kacelnik O, Haldorsen BC, Nygaard RM, Hegstad J, Sundsfjord A, Hegstad K, The Norwegian Vre Study Group. Microb Genom. 2023 Dec;9(12):001160. PMID: [38112685](#)

The first vanE-type vancomycin resistant *Enterococcus faecalis* isolates in Norway - phenotypic and molecular characteristics. Al Rubaye M, Janice J, Bjørnholt JV, Löhr IH, Sundsfjord A, Hegstad K. J Glob Antimicrob Resist. 2023 Dec 27; 36:193-199. PMID: [38154751](#)

Evolutionary and functional history of the *Escherichia coli* K1 capsule. Arredondo-Alonso S, Blundell-Hunter G, Fu Z, Gladstone RA, Fillol-Salom A, Loraine J, Cloutman-Green E, Johnsen PJ, Samuelsen Ø, Pöntinen AK, Cléon F, Chavez-Bueno S, De la Cruz MA, Ares MA, Vongsouvath M, Chmielarczyk A, Horner C, Klein N, McNally A, Reis JN, Penadés JR, Thomson

NR, Corander J, Taylor PW, McCarthy AJ. Nat Commun. 2023 Jun 15;14(1):3294.

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Fra lokalt til nasjonalt utbrudd av *Pseudomonas aeruginosa*. Asfeldt AM, Myrbakk T, Grimnes G, Kildal AB, Pedersen TA, Littauer P, Bogetvedt T, Kroken BA, Nerskogen BJ, Høgli JU, Åsheim S. Tidsskr Nor Laegeforen. 2023 May 29;143(8). [PMID: 37254978](#)

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The population-level impact of *Enterococcus faecalis* genetics on intestinal colonization and extraintestinal infection. Chaguza C, Pöntinen AK, Top J, Arredondo-Alonso S, Freitas AR, Novais C, Torres C, Bentley SD, Peixe L, Coque TM, Willems RJL, Corander J. Microbiol Spectr. 2023 Dec 12;11(6): e0020123. doi: 10.1128/spectrum.00201-23. Epub 2023 Oct 9.

[PMID: 37811975](#)

The first tigecycline resistant *Enterococcus faecium* in Norway was related to tigecycline exposure. Hegstad K, Pöntinen AK, Bjørnholt JV, Quist-Paulsen E, Sundsfjord A. J Glob Antimicrob Resist. 2023 Dec 19; 36:112-115. [PMID: 38122982](#)

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Within-patient and global evolutionary dynamics of *Klebsiella pneumoniae* ST17. Hetland MAK, Hawkey J, Bernhoff E, Bakksjø RJ, Kaspersen H, Rettedal SI, Sundsfjord A, Holt KE, Löhr IH. Microb Genom. 2023 May;9(5): mgen001005. [PMID: 37200066](#)

Emergence of vancomycin-resistant enterococci from vancomycin-susceptible enterococci in hospitalized patients under antimicrobial therapy. Janice J, Wagner TM, Olsen K, Hegstad J, Hegstad K. J Glob Antimicrob Resist. 2023 Dec 19; 36:116-122. [PMID: 38128726](#)

Improving antibiotic prescribing for uncomplicated UTIs. Lindbæk M, Sundsfjord A. BMJ. 2023 Nov 2; 383:2456. [PMID: 37918860](#)

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Nationwide, population-based observational study of the molecular epidemiology and temporal trend of carbapenemase-producing Enterobacterales in Norway, 2015 to 2021. Ljungquist O, Haldorsen B, Pöntinen AK, Janice J, Josefsen EH, Elstrøm P, Kacelnik O; Norwegian Study Group on CPE; Sundsfjord A, Samuelsen Ø; Members of The Norwegian Study Group on CPE. *Euro Surveill.* 2023 Jul;28(27):2200774. [PMID: 37410381](#)

Pseudomonas aeruginosa antimicrobial susceptibility profiles, resistance mechanisms and international clonal lineages: update from ESGARS-ESCMID/ISARPAE Group. Oliver A, Rojo-Molinero E, Arca-Suarez J, Bešli Y, Bogaerts P, Cantón R, Cimen C, Croughs PD, Denis O, Giske CG, Graells T, Daniel Huang TD, Iorga BI, Karatuna O, Kocsis B, Kronenberg A, López-Causapé C, Malhotra-Kumar S, Martínez LM, Mazzariol A, Meyer S, Naas T, Notermans DW, Oteo-Iglesias J, Pedersen T, Pirš M, Poeta P, Poirel L, Pournaras S, Sundsfjord A, Szabó D, Tambić-Andrašević A, Vatcheva-Dobrevska R, Vitkauskienė A, Jeannot K; ESGARS-ISARPAE members. *Clin Microbiol Infect.* 2023 Dec 30: S1198- 743X(23)00634-1. [PMID: 38160753](#)

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Adaptive cell wall thickening in *Enterococcus faecalis* is associated with decreased vancomycin susceptibility. Wagner TM, Pöntinen AK, Al Rubaye M, Sundsfjord A, Hegstad K. Clin Microbiol Infect. 2023 Dec 6:S1198-743X(23)00575-X. [PMID: 38065364](#)

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Molecular Epidemiological Characterisation of ESBL- and Plasmid-Mediated AmpC-Producing *Escherichia coli* and *Klebsiella pneumoniae* at Kamuzu Central Hospital, Lilongwe, Malawi. Choonara FE, Haldorsen BC, Janice J, Mbanga J, Ndhlovu I, Saulosi O, Maida T, Lampiao F, Simonsen GS, Essack SY, Sundsfjord A. Trop Med Infect Dis 2022 Sep 14;7(9). Epub 2022 sep 14. PMID: [36136656](#)

Large increase in bloodstream infections with carbapenem-resistant *Acinetobacter* species during the first 2 years of the COVID-19 pandemic, EU/EEA, 2020 and 2021. Pete Kinross 1 2, Carlo Gagliotti 3 2, Hanna Merk 1, Diamantis Plachouras 1, Dominique L Monnet 1, Liselotte Diaz Högborg 1; EARS-Net Study Group 4; EARS-Net Study Group participants. Euro Surveill 2022 Nov;27(46). PMID: [36398574](#)

Intracellular Transposition and Capture of Mobile Genetic Elements following Intercellular Conjugation of Multidrug Resistance Conjugative Plasmids from Clinical Enterobacteriaceae Isolates. Tansirichaiya S, Goodman RN, Guo X, Bulgasmis I, Samuelsen Ø, Al-Haroni M, Roberts AP. Microbiol Spectr 2022 Feb 23;10(1): e0214021. Epub 2022 jan 19. PMID: [35044219](#)

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Characterization and Fitness Cost of Tn 7100, a Novel Integrative and Conjugative Element Conferring Multidrug Resistance in *Haemophilus influenzae*. Johannessen H, Anthonisen II, Zecic N, Hegstad K, Ranheim TE, Skaare D. Front Microbiol 2022;13():945411. Epub 2022 jul 22. PMID: [35935209](#)

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The interplay between community and hospital *Enterococcus faecium* clones within health-care settings: a genomic analysis. van Hal SJ, Willems RJL, Gouliouris T, Ballard SA, Coque TM, Hammerum AM, Hegstad K, Pinholt M, Howden BP, Malhotra-Kumar S, Werner G, Yanagihara K, Earl AM, Raven KE, Corander J, Bowden R, Lancet Microbe 2022 Feb;3(2): e133. PMID: [35146465](#)

Detection of *Klebsiella pneumoniae* human gut carriage: a comparison of culture, qPCR, and whole metagenomic sequencing methods. Lindstedt K, Buczek D, Pedersen T, Hjerde E, Raffelsberger N, Suzuki Y, Brisse S, Holt K, Samuelsen Ø, Sundsfjord A. Gut Microbes. 2022;14: e2118500. PMID: [36045603](#)

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](#)

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