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## Curriculum Vitae 2013

**Positions:** Professor, University of Copenhagen. Consultant Microbiologist, Department of Clinical Microbiology, Hvidovre Hospital, Hvidovre, Denmark since 1997.

**Responsibilities:** Head of MRSA Knowledge Center. Consultant for Molecular Biology, Virology and Chlamydia section. Head of Research and Development. Founder and Member of Board, QuantiBact A/S.

**Academic degrees:** Medical doctor, University of Copenhagen 1980, Specialist in Clinical Microbiology 1994, Business Economy, Copenhagen College of Business 1992, Doctor of Medical Science 1996.

**Areas of Expertise:** Expert in MRSA, Infection control, HIV and Chlamydia. Has consulted for UNICEF (HIV-testing), for Euro Health Group (Laboratory implementation of a HIV treatment program in Mombasa, Kenya), The Danish National Board of Health, The Danish Environmental Protection Agency, The Danish Medicines Agency, The Danish Cancer Society. A founder of QuantiBact A/S, a Biotech company based on a patent by Henrik Westh and Gorm Lisby. Chairmen of Advisory board SeqNet.org.

**Major Research Focus:** The MRSA KnowledgeCenter has been established to control MRSA in our Region. Our research has a practical approach looking at evolution, epidemiology, typing, carriage, characteristics of patients' illnesses and outcomes, infection-control and eradication therapies with the goal of keeping MRSA out of hospitals.

More than 120 scientific papers and more than 250 presentations at International congresses and meetings. 2300 citations and h-index 27

## Advisor of PhD students

PhD, MD Margit Staum Kaltoft. *Streptococcus pneumoniae in childhood.* 2003.

MD, DMSc Kristian Schønning. *Antibody neutralization ved HIV-1.* 2003

PhD Cand scient Nuno Faria. *Molecular epidemiology of methicillin-resistant Staphylococcus aureus: typing strategies and epidemiology trends* 2009.

PhD, MD Sidsel Böcher. *The influence of eradication of MRSA carriage for spread of MRSA.* 2010

PhD Cand scient Teresa Conceicao. *New methods for typing staphylococci.* 2010.

PhD MD Mette Damkjær Bartels. *Evolution of Community onset MRSA in Copenhagen.* 2011

PhD MD Uffe Schneider. *Properties of twisted intercalated nucleic acid (TINA).* 2011.

PhD student Cand scient Ana Tavares. *Oeiras Portugal. Community associated MRSA in Portugal.* 2008-

PhD student MD Sissel Skovgaard. *How biocides modulate the population of Staphylococcus epidermidis.* Submitted May 2013

PhD student MD Maria Frølund. *New causes of urethritis.* 2010-

PhD student MD Katrine Hartung Hansen, ESBL 2011-

PhD student Cand scient Mara Baldry Antivirulence Therapy (Marie Curie PhD scholarship) 2013-

PhD student MD Mette Pinholdt. *Battling antimicrobial resistance by reducing importance of Enterococcus resistome.* 2013-

## International collaborating partners

Professor Herminia de Lencastre ITQB, Portugal, Professor Alexander Tomasz, Rockefeller University, NY, USA. Alex Friedrich and Bert Niesters, Gröningen, The Netherlands. Uli Nübel, Wernigerode, Germany, Francois Balloux, London, UK, Rory Bowden, Oxford, UK.

## Publications

### One day in Denmark: whole-genome sequence-based analysis of *Escherichia coli* isolates from clinical settings

Rebelo, A. R., Bortolaia, V., Leekitcharoenphon, P., Hansen, D. S., Nielsen, H. L., Ellermann-Eriksen, S., Kemp, M., Røder, B. L., Frimodt-Møller, N., Søndergaard, T. S., Coia, J. E., Østergaard, C., Westh, H. & Aarestrup, F. M., 2 Apr 2025 , In: *The Journal of antimicrobial chemotherapy*. 80, 4, p. 1011-1021 11 p.

### Genomic epidemiology of vancomycin-resistant *Enterococcus faecium* in Eastern Denmark from 2020 to 2022, and identification of vanB Tn1549 insertion sites

Knudsen, M. J. S., Castruita, J. A. S., Rubin, I. M. C., Mollerup, S., Johansen, H. K., Marvig, R. L., Nielsen, K. L., Holzknecht, B. J., Hoppe, M., Kemp, M., Westh, H. & Pinholt, M., 1 Apr 2025, (E-pub ahead of print) In: *European journal of clinical microbiology & infectious diseases : official publication of the European Society of Clinical Microbiology*.

**Maternal-Fetal Outcomes and Antibody Transfer, Depending on the Trimester of SARS-CoV-2 Infection in Non-Vaccinated Women-A Danish Nationwide Prospective Cohort Study**

Fich, L., Christiansen, A.-M. H., Hviiid, K. V. R., Aabakke, A. J. M., Hoffmann, E., Ingham, A., Ollé-López, J., Bello-Rodríguez, J., Juul-Larsen, H. G., Kelstrup, L., Perslev, K., Clausen, T. D., Rode, L., Vinter, C., Hedermann, G., Vestgaard, M. J., Farlie, R., Sørensen, A., Sundtoft, I. & Godtfredsen, A. C. & 17 others, Burmester, L. W., Lindman, J., Severinsen, E. R., Kann, C. E., Hansen, C. B., Petersen, M. M. B. S., Egerup, P., Zedeler, A., Boje, A. D., Bertelsen, M.-L. M. F., Prætorius, L., Kristensen, A. G., Jørgensen, F. S., Westh, H., Jørgensen, H. L., la Cour Freiesleben, N. & Nielsen, H. S., 12 Mar 2025, In: International Journal of Molecular Sciences. 26, 6, 2533.

**Dried blood spot: A diagnostic detection method for HBV, HCV and HIV nucleic acid using a single drop of blood**

Nilsson, S. S., Demant, J., Thønning, S., Weis, N., Westh, H. & Pinholt, M., Mar 2025, In: Diagnostic Microbiology and Infectious Disease. 111, 3, p. 116661 116661.

**Minimum inhibitory concentration distribution of Mecillinam in clinical *Staphylococcus saprophyticus* isolates from Europe**

Andreasen, M. R., Jansåker, F., Iversen, J., Lawal, O. U., Miragaia, M., Gonçalves, L., Paixão, P., Gonçalves, E., Toscano, C., Luzon, M. D., Urbaś, M., Jelsbak, L., Westh, H. & Knudsen, J. D., Mar 2025, In: Journal of Global Antimicrobial Resistance. 41, p. 253-257 5 p.

**Immune changes in pregnancy: associations with pre-existing conditions and obstetrical complications at the 20th gestational week-a prospective cohort study**

Westergaard, D., Lundgaard, A. T., Vomstein, K., Fich, L., Hviiid, K. V. R., Egerup, P., Christiansen, A.-M. H., Nielsen, J. R., Lindman, J., Holm, P. C., Hartwig, T. S., Jørgensen, F. S., Zedeler, A., Kolte, A. M., Westh, H., Jørgensen, H. L., la Cour Freiesleben, N., Banasik, K., Brunak, S. & Nielsen, H. S., 18 Dec 2024, In: BMC Medicine. 22, 1, 583.

**Faecal sample storage without ethanol for up to 24 h followed by freezing performs better than storage with ethanol for shotgun metagenomic microbiome analysis in patients with inflammatory and non-inflammatory intestinal diseases and healthy controls**

Grønbæk, I. M. B., Mollerup, S., Halkjær, S. I., Paulsen, S. J., Pinholt, M., Westh, H. & Petersen, A. M., 15 Nov 2024, In: BMC Research Notes. 17, 1, p. 340 340.

**Development of a PCR assay for rapid and accurate detection of an emerging vanB *Enterococcus faecium* clone in the Capital Region of Denmark**

Knudsen, M. J. S., Barker Jensen, C., Jørgensen, R. L., Petersen, A. M., Qvist Kristiansen, G., Lisby, J. G., Worning, P., Westh, H. & Pinholt, M., 7 Nov 2024, In: JAC-antimicrobial resistance. 6, 6, p. dlae180 dlae180.

**The microbiome of the appendix differs in patients with and without appendicitis: A prospective cohort study**

Fonnes, S., Mollerup, S., Paulsen, S. J., Holzknecht, B. J., Westh, H. & Rosenberg, J., Jun 2024, In: Surgery. 175, 6, p. 1482-1488 7 p.

**Predicting the primary infection source of *Escherichia coli* bacteremia using virulence-associated genes**

Ilsby, C. S., Hertz, F. B., Westh, H., Monk, J., Worning, P., Johansen, H. K., Hansen, K. H. & Pinholt, M., Apr 2024, In: European journal of clinical microbiology & infectious diseases : official publication of the European Society of Clinical Microbiology. 43, 4, p. 641-648 8 p.

**Gonorrhoea on the rise in Denmark since 2022: distinct clones drive increase in heterosexual individuals**

Pedersen, T. R., Wessman, M., Lindegaard, M., Hallstrøm, S., Westergaard, C., Brock, I., Dzajic, E., Holmgård, D. B., Salgård Jensen, C., Justesen, U. S., Kornum, J. B., Søndergaard, T. S., Thomsen, M. K., Westh, H., Østergaard, C., Hoffmann, S. & Stegger, M., 15 Feb 2024, In: Rapid Communications in Mass Spectrometry. 29, 7, 2400059.

**Long-term carriage and evolution of VREfmLong-term carriage and evolution of vancomycin-resistant *Enterococcus faecium*: a genomic study on consecutive isolates**

Knudsen, M. J. S., Samaniego Castruita, J. A., Mollerup, S., Holzknecht, B. J., Hoppe, M., Westh, H., Pinholt, M. & Rubin, I. M. C., Feb 2024, In: JAC-antimicrobial resistance. 6, 1, p. dlad153 dlad153.

**The impact of acute SARS-CoV-2 on testicular function including insulin-like factor 3 [INSL3] in men with mild COVID-19: A longitudinal study**

Lauritsen, M. P., Kristensen, T. L., Bo Hansen, C., Schneider, U. V., Talbot, A. L., Skytte, A.-B., Petersen, J. H., Johannsen, T. H., Zedeler, A., Albrethsen, J., Juul, A., Priskorn, L., Jørgensen, N., Westh, H., Freiesleben, N. L. C. & Nielsen, H. S., Feb 2024, In: *Andrology*. 12, 2, p. 437-446 10 p.

**Within-host genomic evolution of methicillin-resistant *Staphylococcus aureus* in long-term carriers**

Larsen, T. G., Worning, P., Samaniego Castruita, J. A., Westh, H. & Bartels, M. D., 11 Jan 2024, In: *Applied microbiology and biotechnology*. 108, 1, p. 95 9 p.

**Whole genomes from bacteria collected at diagnostic units around the world 2020**

Nag, S., Larsen, G., Szarvas, J., Birkedahl, L. E. K., Gulyás, G. M., Ciok, W. J., Lagermann, T. M., Tafaj, S., Bradbury, S., Collignon, P., Daley, D., Dougnon, V., Fabiyi, K., Coulibaly, B., Dembélé, R., Nikiema, G., Magloire, N., Ouindgueta, I. J., Hossain, Z. Z. & Begum, A. & 58 others, Donchev, D., Diggle, M., Turnbull, L., Lévesque, S., Berlinger, L., Sogaard, K. K., Guevara, P. D., Valderrama, C. D., Maikanti, P., Amlerova, J., Drevinek, P., Tkadlec, J., Dilas, M., Kaasch, A., Westh, H. T., Bachtarzi, M. A., Amhis, W., Salazar, C. E. S., Villacis, J., Lúzon, M. A. D., Palau, D. B., Duployez, C., Paluche, M., Asante-Sefa, S., Moller, M., Ip, M., Mareković, I., Pál-Sonnevend, A., Cocuzza, C. E., Dambrauskiene, A., Macanze, A., Cossa, A., Mandomando, I., Nwajiobi-Princewill, P., Okeke, I. N., Kehinde, A. O., Adebiyi, I., Akintayo, I., Popoola, O., Onipede, A., Blomfeldt, A., Nyquist, N. E., Bocker, K., Ussher, J., Ali, A., Ullah, N., Khan, H., Gustafson, N. W., Jarrar, I., Al-Hamad, A., Luvira, V., Pavéenkittiporn, W., Baran, I., Mwansa, J. C. L., Sikakwa, L., Yamba, K., Hendriksen, R. S. & Aarestrup, F. M., 16 Sept 2023, In: *Scientific Data*. 10, 1, p. 628 628.

**Immune Changes in Pregnancy: Associations with Pre-existing Conditions and Obstetrical Complications at the 20th Gestational Week - A Prospective Cohort Study**

Westergaard, D., Lundgaard, A. T., Vomstein, K., Olsen, L. F., Hviid, K. V. R., Egerup, P., Christiansen, A.-M. H., Nielsen, J. R., Lindman, J., Holm, P. C., Hartwig, T. S., Jørgensen, F. S., Zedeler, A., Kolte, A. M., Westh, H., Jørgensen, H. L., Freiesleben, N. L. C., Banasik, K., Brunak, S. & Svarre Nielsen, H., 15 Aug 2023, (medRxiv : the preprint server for health sciences).

**Antibiotic-free vaginal microbiota transplant with donor engraftment, dysbiosis resolution and live birth after recurrent pregnancy loss: a proof of concept case study**

Wrønding, T., Vomstein, K., Bosma, E. F., Mortensen, B., Westh, H., Heintz, J. E., Mollerup, S., Petersen, A. M., Ensign, L. M., DeLong, K., van Hylckama Vlieg, J. E. T., Thomsen, A. B. & Nielsen, H. S., Jul 2023, In: *EClinicalMedicine*. 61, p. 102070 102070.

**Diarrhoea-causing microorganisms are rare in adult patients undergoing diagnostic laparoscopy for suspected appendicitis: a prospective observational cohort study**

Fonnes, S., Rasmussen, T., Holzknecht, B. J., Olesen, C. S., Olsen, J. H. H., Schmidt, L., Alder, R., Sørensen, S. G., Gülen, S., Klarskov, L. L., Krogefelt, K. A., Westh, H. & Rosenberg, J., Jun 2023, In: *APMIS - Journal of Pathology, Microbiology and Immunology*. 131, 6, p. 284-293 10 p.

**Whole genome sequencing reveals two genetically distinct MRSA outbreaks among people who inject drugs and homeless people in Copenhagen**

Bartels, M. D., Holm, M. K. A., Worning, P., Stavad, B., Schneider, U. V., Meiniche, H., Thiesen, H. & Westh, H., Jun 2023, In: *APMIS - Journal of Pathology, Microbiology and Immunology*. 131, 6, p. 294-302 9 p.

**SARS-CoV-2 spike mRNA vaccine sequences circulate in blood up to 28 days after COVID-19 vaccination**

Samaniego Castruita, J. A., Schneider, U. V., Mollerup, S., Leineweber, T. D., Weis, N., Bukh, J., Pedersen, M. S. & Westh, H., Mar 2023, In: *APMIS - Journal of Pathology, Microbiology and Immunology*. 131, 3, p. 128-132 5 p.

**Estimated Roles of the Carrier and the Bacterial Strain When Methicillin-Resistant *Staphylococcus aureus* Decolonization Fails: a Case-Control Study**

Holm, M. K. A., Jørgensen, K. M., Bagge, K., Worning, P., Pedersen, M., Westh, H., Monk, J. M. & Bartels, M. D., 26 Oct 2022, In: *Microbiology spectrum*. 10, 5, p. 1-12 12 p., e0129622.

**Synbiotic Intervention with Lactobacilli, Bifidobacteria, and Inulin in Healthy Volunteers Increases the Abundance of Bifidobacteria but Does Not Alter Microbial Diversity**

Rubin, I. M. C., Mollerup, S., Broholm, C., Baker, A., Holm, M. K. A., Pedersen, M. S., Pinholt, M., Westh, H. & Petersen, A. M., 11 Oct 2022, In: *Applied and Environmental Microbiology*. 88, 19, p. e0108722

**Emergence of circulating influenza A H3N2 viruses with genetic drift in the matrix gene: Be alert of false negative test results**

Jørgensen, R. L., Lerche, C. J., Pedersen, M. S., Kirkby, N., Botnen, A. B., Trebbien, R., Nilsson-Møller, S., Pinholt, M., Nielsen, A. C. Y., Westh, H., Lisby, J. G. & Schneider, U. V., Oct 2022, In: APMIS - Journal of Pathology, Microbiology and Immunology. 130, 10, p. 612-617 6 p.

**Rapid in vivo development of resistance to daptomycin in vancomycin-resistant *Enterococcus faecium* due to genomic alterations**

Mollerup, S., Elmeskov, C., Pinholt, M., Sejersen, T. S., Pedersen, M. S., Worning, P., Frees, D. & Westh, H., 13 Aug 2022, In: FEMS Microbiology Letters. 369, 1, fnac063.

**No Effect of *Lactobacillus rhamnosus* GG on Eradication of Colonization by Vancomycin-Resistant *Enterococcus faecium* or Microbiome Diversity in Hospitalized Adult Patients**

Rubin, I. M. C., Mollerup, S., Broholm, C., Knudsen, S. B., Baker, A., Helms, M., Holm, M. K. A., Kallemose, T., Westh, H., Dahl Knudsen, J., Pinholt, M. & Petersen, A. M., 29 Jun 2022, In: Microbiology spectrum. 10, 3, e0234821.

**A randomized, placebo-controlled, double-blinded trial of MRSA throat carriage treatment, with either standard decolonization alone or in combination with oral clindamycin**

Holm, M. K. A., Meiniche, H. K., Pedersen, M., Eriksen, H. B., Westh, H., Holzknecht, B. J. & Bartels, M. D., 16 Jun 2022, In: Trials. 23, 1, p. 1-8 8 p., 502.

**One Day in Denmark: Comparison of Phenotypic and Genotypic Antimicrobial Susceptibility Testing in Bacterial Isolates From Clinical Settings**

Rebelo, A. R., Bortolaia, V., Leekitcharoenphon, P., Hansen, D. S., Nielsen, H. L., Ellermann-Eriksen, S., Kemp, M., Røder, B. L., Frimodt-Møller, N., Søndergaard, T. S., Coia, J. E., Østergaard, C., Westh, H. & Aarestrup, F. M., 10 Jun 2022, In: Frontiers in Microbiology. 13, p. 804627 804627.

**Attributable mortality of vancomycin resistance in ampicillin-resistant *Enterococcus faecium* bacteremia in Denmark and the Netherlands: A matched cohort study**

Rottier, W. C., Pinholt, M., Van Der Bij, A. K., Arpi, M., Blank, S. N., Nabuurs-Franssen, M. H., Ruijs, G. J. H. M., Tersmette, M., Ossewaarde, J. M., Groenwold, R. H., Westh, H. & Bonten, M. J. M., Jun 2022, In: Infection Control and Hospital Epidemiology. 43, 6, p. 719-727 9 p.

**The use of core genome multilocus sequence typing to determine the duration of vancomycin-resistant *Enterococcus faecium* outbreaks**

Søndergaard Knudsen, M., Maria Cecilia Rubin, I., Gisselø, K., Mollerup, S., Munk Petersen, A., Pinholt, M., Westh, H. & Damkjaer Bartels, M., Jun 2022, In: APMIS - Journal of Pathology, Microbiology and Immunology. 130, 6, p. 323-329 7 p., 13216.

**Topical niclosamide (ATx201) reduces *Staphylococcus aureus* colonization and increases Shannon diversity of the skin microbiome in atopic dermatitis patients in a randomized, double-blind, placebo-controlled Phase 2 trial**

Weiss, A., Delavenne, E., Matias, C., Lagler, H., Simon, D., Li, P., Hansen, J. U., Dos Santos, T. P., Jana, B., Priemel, P., Bangert, C., Bauer, M., Eberl, S., Nussbaumer-Pröll, A., Anne Österreicher, Z., Matzneller, P., Quint, T., Weber, M., Nielsen, H. M. & Rades, T. & 17 others, Johansen, H. K., Westh, H., Kim, W., Mylonakis, E., Friis, C., Guardabassi, L., Pace, J., Lundberg, C. V., M'Zali, F., Butty, P., Sørensen, N., Nielsen, H. B., Toft-Kehler, R., Guttman-Yassky, E., Stingl, G., Zeitlinger, M. & Sommer, M., May 2022, In: Clinical and Translational Medicine. 12, 5, p. 1-21 21 p., e790.

**One Day in Denmark: Nationwide point-prevalence survey of human bacterial isolates and comparison of classical and whole-genome sequence-based species identification methods**

Rebelo, A. R., Ibafet, T., Bortolaia, V., Leekitcharoenphon, P., Hansen, D. S., Nielsen, H. L., Ellermann-Eriksen, S., Kemp, M., Røder, B. L., Frimodt-Møller, N., Søndergaard, T. S., Coia, J. E., Østergaard, C., Pedersen, M., Westh, H. & Aarestrup, F. M., 11 Feb 2022, In: PLoS One. 17, 2, p. 1-17 17 p., e0261999.

**Genomic analysis of 600 vancomycin-resistant *Enterococcus faecium* reveals a high prevalence of ST80 and spread of similar vanA regions via IS1216E and plasmid transfer in diverse genetic lineages in Ireland**

Egan, S. A., Kavanagh, N. L., Shore, A. C., Mollerup, S., Samaniego Castruita, J. A., O'Connell, B., McManus, B. A., Brennan, G. I., Pinholt, M., Westh, H. & Coleman, D. C., 2 Feb 2022, In: The Journal of antimicrobial chemotherapy. 77, 2

, p. 320-330 11 p., dkab393.

**Substantial Decrease in Vancomycin-Resistant Enterococcus faecium Outbreak Duration and Number of Patients During the Danish COVID-19 Lockdown: A Prospective Observational Study**

Gisselø, K. L., Rubin, I. M. C., Knudsen, M. S., From-Hansen, M., Stangerup, M., Kavalaris, C. P., Pinholt, M., Mollerup, S., Westh, H., Bartels, M. D. & Petersen, A. M., Jan 2022, In: *Microbial drug resistance* (Larchmont, N.Y.). 28, 1, p. 73-80 8 p.

**Next-generation sequencing in routine clinical microbiology and infectious diseases: an ESGMD-ESGEM ESCMID postgraduate course**

Aamot, H. V., Claas, E. C. J., Couto, N., Westh, H., Greub, G. & Rossen, J., 2022, In: *ScienceDirect Connections Newsletter*. 49-50

**Forekomst af SARS-CoV-2 i sæd og påvirkning af de mandlige reproduktive organer ved COVID-19**

Hansen, C. B., Leineweber, T. D., Jørgensen, N., Schneider, U. V., Westh, H., Freiesleben, N. L. C., Svarre Nielsen, H. & Lauritsen, M. P., 20 Dec 2021, In: *Ugeskrift for Læger*. 183, V07210573, p. 1 9 p.

**Presence of SARS-CoV-2 in semen and the impact of COVID-19 on the male reproductive system**

Hansen, C. B., Leineweber, T. D., Jørgensen, N., Schneider, U. V., Westh, H., Freiesleben, N. L. C., Nielsen, H. S. & Lauritsen, M. P., 20 Dec 2021, In: *Ugeskrift for Laeger*. 183, 51, p. 1-9 9 p., V07210573.

**Danish Whole-Genome-Sequenced *Candida albicans* and *Candida glabrata* Samples Fit into Globally Prevalent Clades**

Szarvas, J., Rebelo, A. R., Bortolaia, V., Leekitcharoenphon, P., Schröder Hansen, D., Nielsen, H. L., Nørskov-Lauritsen, N., Kemp, M., Røder, B. L., Frimodt-Møller, N., Søndergaard, T. S., Coia, J. E., Østergaard, C., Westh, H. & Aarestrup, F. M., 12 Nov 2021, In: *Journal of fungi* (Basel, Switzerland). 7, 11, p. 1-12 12 p., 962.

**A major outbreak of covid-19 at a residential care home**

Andersen, C. Ø., Buch, I., Castruita, J. A. S., Jakobsen, N. G., Jensen, C. B., Westh, H., Marvig, R. L., Pedersen, M. S., Schønning, K. & Pinholt, M., 1 Oct 2021, In: *Danish Medical Journal*. 68, 10, A03210227.

**Evaluation of the Hologic Panther Fusion MRSA Assay for the detection of MRSA in ESwab specimens obtained from nose, throat, and perineum**

Bartels, M. D., Knudsen, D., Westh, H. & Schønning, K., Oct 2021, In: *European journal of clinical microbiology & infectious diseases : official publication of the European Society of Clinical Microbiology*. 40, 10, p. 2177-2183 7 p.

**Investigation of the introduction and dissemination of vanB Enterococcus faecium in the Capital Region of Denmark and development of a rapid and accurate clone-specific vanB E. faecium PCR**

Pinholt, M., Mollerup, S., Boye, K., Worning, P., Holzknecht, B. J., Nygaard, S., Nielsen, K. L., Hasman, H., Roer, L., Hammerum, A. M., Westh, H. & Schønning, K., Sept 2021, In: *The Journal of antimicrobial chemotherapy*. 76, 9, p. 2260-2267 8 p., dkab198.

**Staphylococcus saprophyticus Causing Infections in Humans Is Associated with High Resistance to Heavy Metals**

Lawal, O. U., Fraqueza, M. J., Worning, P., Bouchami, O., Bartels, M. D., Goncalves, L., Paixão, P., Goncalves, E., Toscano, C., Empel, J., Urbaś, M., Domínguez, M. A., Westh, H., de Lencastre, H. & Miragaia, M., 17 Jun 2021, In: *Antimicrobial Agents and Chemotherapy*. 65, 7, p. 1-17 17 p., e0268520.

**Staphylococcus saprophyticus From Clinical and Environmental Origins Have Distinct Biofilm Composition**

Lawal, O. U., Barata, M., Fraqueza, M. J., Worning, P., Bartels, M. D., Goncalves, L., Paixão, P., Goncalves, E., Toscano, C., Empel, J., Urbaś, M., Domínguez, M. A., Westh, H., de Lencastre, H. & Miragaia, M., 7 Jun 2021, In: *Frontiers in Microbiology*. 12, p. 1-13 13 p., 663768.

**Rapid Open-Source SNP-Based Clustering Offers an Alternative to Core Genome MLST for Outbreak Tracing in a Hospital Setting**

Szarvas, J., Bartels, M. D., Westh, H. & Lund, O., 1 Apr 2021, In: *Frontiers in Microbiology*. 12, p. 1-8 8 p., 636608.

**The global dissemination of hospital clones of Enterococcus faecium**

van Hal, S. J., Willems, R. J. L., Gouliouris, T., Ballard, S. A., Coque, T. M., Hammerum, A. M., Hegstad, K., Westh, H., Howden, B. P., Malhotra-Kumar, S., Werner, G., Yanagihara, K., Earl, A. M., Raven, K. E., Corander, J., Bowden, R. & Enterococcal Group, 30 Mar 2021, In: *Genome Medicine*. 13, 1, p. 1-12 12 p., 52.

**Foodborne Origin and Local and Global Spread of *Staphylococcus saprophyticus* Causing Human Urinary Tract Infections**

Lawal, O. U., Fraqueza, M. J., Bouchami, O., Worning, P., Bartels, M. D., Gonçalves, M. L., Paixão, P., Gonçalves, E., Toscano, C., Empel, J., Urbaś, M., Domínguez, M. A., Westh, H., de Lencastre, H. & Miragaia, M., Mar 2021, In: *Emerging Infectious Diseases*. 27, 3, p. 880-893 14 p.

**Repeated introduction and spread of the MRSA clone t304/ST6 in Northern Europe**

Bartels, M. D., Worning, P., Andersen, L. P., Bès, M., Enger, H., Ås, C. G., Hansen, T. A., Holzknecht, B. J., Larssen, K. W., Laurent, F., Mäkitalo, B., Pichon, B., Svartström, O. & Westh, H., Feb 2021, In: *Clinical Microbiology and Infection*. 27, 2, p. 284.e1-284.e5

**Prevalence of MRSA nasal carriage among pregnant women in Copenhagen**

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**Sex-associated Risk Factors for Co-infection with *Chlamydia trachomatis* and *Neisseria gonorrhoea* among Patients Presenting to a Sexually Transmitted Infection Clinic**

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## Projects

### Sepsis: Prognosis and evaluation of early diagnosis and intervention

Kofoed, K. (Other), Andersen, O. (Project Manager, organisational), Eugen-Olsen, J. (Project participant), Larsen, K. (Project participant), Nielsen, J. O. (Project participant), Kronborg, G. (Project participant), Lisby, J. G. (Project participant), Westh, H. T. (Project participant), Knudsen, I. J. D. (Project participant), Fenger, M. (Project participant), Carl, P. (Project participant), Østergaard, M. (Project participant), Ellekilde, G. E. (Project participant), Bendtsen, F. (Project participant), Andresen, L. C. K. (Project participant) & Mogensen, T. (Project participant)  
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