

Lotte Jelsbak
Associate Professor
Department of Science and Environment
Molecular and Medical Biology
Type of address: Postal address.
Universitetsvej 1
28A.2
DK-4000
Roskilde
Denmark
Email: ljelsbak@ruc.dk
Phone: +45 4674 2216
Web address: <https://forskning.ruc.dk/da/persons/ljelsbak>,
<https://forskning.ruc.dk/da/persons/ljelsbak>



Publications

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.

På sporet af hvordan bakterier bliver resistente

Jelsbak, L., Andreasen, M. R., Hansen, K. H. & Schønning, K., 31 Jul 2024, gylle.dk.

Jagten på bakteriers resistensmekanismer

Jelsbak, L., Andreasen, M. R., Hansen, K. H. & Schønning, K., 22 Apr 2024, In: Aktuell Naturvidenskab. 2024, 2, p. 18-19 2 p.

Identification of a CTX-M-255 β -lactamase containing a G239S substitution selectively conferring resistance to penicillin/ β -lactamase inhibitor combinations

Andreasen, M. R., Rick, T., Alexandersen, N. R., Hansen, K. H., Schou Pedersen, M., Warweitsky, J. K., Botelho, C. M., Häussler, S., Jelsbak, L. & Schønning, K., 1 Apr 2024, In: Journal of Antimicrobial Chemotherapy. 79, 4, p. 810-814 5 p.

The global transcriptomes of *Salmonella enterica* serovars Gallinarum, Dublin and Enteritidis in the avian host

Fei, X., Schroll, C., Huang, K., Christensen, J. P., Christensen, H., Lemire, S., Kilstrup, M., Thomsen, L. E., Jelsbak, L. & Olsen, J. E., Sept 2023, In: Microbial Pathogenesis. 182, 106236.

Global transcriptomic response of the AI-3 isomers 3,5-DPO and 3,6-DPO in *Salmonella* Typhimurium

Lallement, C., Goldring, W. & Jelsbak, L., Apr 2023, In: Archives of microbiology. 205, 4, 7 p., 117.

Complete Genome Sequences of Extraintestinal Pathogenic *Escherichia coli* Clinical Isolates from Danish Ulcerative Colitis Patients

Meski, S., Struve, C., Mirsepasi-Lauridsen, H. C., Petersen, A. M., Jelsbak, L., Skovgaard, O. & Krogfelt, K. A., Feb 2023, In: Microbiology Resource Announcements. 12, 2

Complete Genome Sequence of a Multidrug-Resistant *Klebsiella pneumoniae* Environmental Isolate from Zanzibar, Tanzania, Harboring Novel Insertion Elements and Two *bla*CTX-M-15 Genes

Lallement, C., Krogfelt, K. A., Skovgaard, O. & Jelsbak, L., Aug 2022, In: Microbiology Resource Announcements. 11, 8 August, e00263-22.

Efficacy of piperacillin-tazobactam and cefotaxime against *Escherichia coli* hyperproducing TEM-1 in a mouse peritonitis infection model

Hertz, F. B., Andreasen, M. R., Almind, S. R., Nielsen, K. L., Hansen, K. H., Jelsbak, L., Frimodt-Møller, N. & Schønning, K., Apr 2022, In: International Journal of Antimicrobial Agents. 59, 4, 106543.

Piperacillin-Tazobactam Resistance Mechanisms in *Escherichia coli* and Identification of a CTX-M-255 β -Lactamase Selectively Conferring Resistance to Penicillin/ β -Lactamase Inhibitor Combinations

Andreasen, M. R., Hansen, K. H., Pedersen, M. S., Møllerup, S., Jelsbak, L. & Schønning, K., 2022, bioRxiv.

Isolation and characterization of human pathogenic multidrug resistant bacteria associated with plastic litter collected in Zanzibar

Rasool, F. N., Saavedra, M. A., Pamba, S., Perold, V., Mmochi, A. J., Maalim, M., Simonsen, L., Buur, L., Hundsbaek Pedersen, R., Syberg, K. & Jelsbak, L., 5 Mar 2021, In: Journal of Hazardous Materials. 405, 405, 124591.

Blærebetændelse: sådan skjuler bakterierne sig i din krop

Enig, S., Pedersen, S. M. S. B., Nielsen, N. E., Sadolin, L. E. R., Nielsen, M. K. M. & Jelsbak, L., 2021, In: Aktuell Naturvidenskab. 2021, 1, 4 p.

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Polyamine depletion has global effects on stress and virulence gene expression and affects HilA translation in *Salmonella enterica* serovar typhimurium

Guerra, P. R., Liu, G., Lemire, S., Nawrocki, A., Kudirkienė, E., Møller-Jensen, J., Olsen, J. E. & Jelsbak, L., 1 Apr 2020, In: Research in Microbiology. 171, 3-4, p. 143-152 10 p.

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Schroll, C., Huang, K., Ahmed, S., Kristensen, B. M., Pors, S. E., Jelsbak, L., Lemire, S., Thomsen, L. E., Christensen, J. P., Jensen, P. R. & Olsen, J. E., Mar 2019, In: Veterinary Microbiology. 230, p. 23-31 9 p.

Resistance to piperacillin/tazobactam in *Escherichia coli* resulting from extensive IS26-associated gene amplification of blaTEM-1

Hansen, K. H., Andreasen, M. R., Pedersen, M. S., Westh, H., Jelsbak, L. & Schønning, K., 2019, In: Journal of Antimicrobial Chemotherapy. 74, 11, p. 3179-3183 5 p.

Putrescine biosynthesis and export genes are essential for normal growth of avian pathogenic *Escherichia coli*

Guerra, P. R., Herrero-Fresno, A., Ladero, V., Redruello, B., Pires dos Santos, T., Spiegelhauer, M. R., Jelsbak, L. & Olsen, J. E., 27 Dec 2018, In: BMC Microbiology. 18, 226, 12 p., 226.

Extensive IS26 mediated gene duplication of blaTEM-1 as a cause of resistance to piperacillin-tazobactam in *Escherichia coli*

Jelsbak, L., Andreasen, M. R., Hansen, K. H., Pedersen, M. S., Schønning, K., Westh, H., Hansen, T. A. & Pedersen, M., 2018.

Health risk associated with plastic debris on the Island of Zanzibar: – Importance of associated pathogenic bacteria and implications for local communities

Syberg, K., Buur, L., Jelsbak, L. & Simonsen, L., 2018.

Isolation and characterization of macrophage adapted *Salmonella Typhimurium* persister clones

Jelsbak, L., Sørensen, M. M., Lind Lauridsen, K., Skovgaard, O. & Nybo Othendal Nielsen, M., 2018.

Isolation and characterization of macrophage adapted *Salmonella Typhimurium* persister clones

Jelsbak, L., Sørensen, M. M. & Lind Lauridsen, K., 2018.

Multiple roles of putrescine and spermidine in stress resistance and virulence of *Salmonella enterica* serovar Typhimurium

Espinell, I. C., Guerra, P. R. & Jelsbak, L., 1 Jun 2016, In: Microbial Pathogenesis. 95, p. 117–123 7 p.

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Søndberg, E. & Jelsbak, L., 8 Mar 2016, In: BMC Microbiology. 16, 1, 11 p., 30.

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Jelsbak, L., 2016, In: Aktuell Naturvidenskab. 2016, 5, p. 20-21 2 p.

The in vitro redundant enzymes PurN and PurT are both essential for systemic infection of mice in Salmonella enterica serovar Typhimurium

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Utilization and control of ecological interactions in polymicrobial infections and community-based microbial cell factories

Wigneswaran, V., Amador Hierro, C. I., Jelsbak, L., Sternberg, C. & Jelsbak, L., 2016, In: F1000Research. 5, p. 1-7 1 p., 421.

CTX-M-1 β -lactamase expression in Escherichia coli is dependent on cefotaxime concentration, growth phase and gene location

S.B. Kjeldsen, T., Overgaard, M., Nielsen, S. S., Bortolaia, V., Jelsbak, L., Sommer, M., Guardabassi, L. & Olsen, J. E., 2015, In: Journal of Antimicrobial Chemotherapy. 70, 1, p. 62-70 9 p.

Identification of metabolic pathways essential for fitness of Salmonella Typhimurium in vivo.

Jelsbak, L., Hartman, H., Schroll, C., Rosenkrantz, J. T., Lemire, S., Wallrodt, I., Thomsen, L. E., Poolman, M., Kilstrup, M., Jensen, P. R. & Olsen, J. E., 2014, In: PLoS One. 0101869.

Identification of potential drug targets in Salmonella enterica sv. Typhimurium using metabolic modelling and experimental validation

Hartman, H., Fell, D. A., Rossell, S., Jensen, P. R., Woodward, M. J., Thorndahl, L., Jelsbak, L., Olsen, J. E., Raghunathan, A., Daefler, S. & Poolman, M. G., 2014, In: Microbiology. 160, 6, p. 1252-1266

Polyamines are essential for virulence in Salmonella enterica serovar Gallinarum despite evolutionary decay of polyamine biosynthesis genes.

Schroll, C., Christensen, J. P., Christensen, H., Pors, S. E., Thorndahl, L., Jensen, P. R., Olsen, J. E. & Jelsbak, L., 2014, In: Veterinary Microbiology. 170, 1-2, p. 144-150

Removal of the phage-shock protein PspB causes reduction of virulence in Salmonella enterica serovar Typhimurium independently of NRAMP1

Wallrodt, I., Jelsbak, L., Thomsen, L. E., Brix, L., Lemire, S., Gautier, L., Nielsen, D. S., Jovanovich, G., Buck, M. & Olsen, J. E., 2014, In: Journal of Medical Microbiology. 63, 6, p. 788-95

The putative thiosulfate sulfurtransferases PspE and GlpE contribute to virulence of Salmonella Typhimurium in the mouse model of systemic disease.

Wallrodt, I., Jelsbak, L., Thorndahl, L., Thomsen, L. E., Lemire, S. & Olsen, J. E., 2013, In: PLoS One. 8, 8, e70829.

Trapping and proteomic identification of cellular substrates of the ClpP protease in Staphylococcus aureus.

Feng, J., Michalik, S., Varming, A. N., Andersen, J. H., Albrecht, D., Jelsbak, L., Krieger, S., Ohlsen, K., Hecker, M., Gerth, U. & Ingmer, H., 2013, In: Journal of Proteome Research. 12, 2

Polyamines Are Required for Virulence in Salmonella enterica Serovar Typhimurium

Jelsbak, L., Thomsen, L. E., Wallrodt, I., Jensen, P. R. & Olsen, J. E., 30 Apr 2012, In: PLoS One. 0036149.

Growth phase-dependent regulation of the global virulence regulator Rot in clinical isolates of *Staphylococcus aureus*.
Jelsbak, L., Hemmingsen, L., Donat, S., Ohlsen, K., Westh, H. T., Ingmer, H. & Frees, D., 2010, In: International Journal of Medical Microbiology. 300, 4, p. 229-236

The Chaperone ClpX Stimulates Expression of *Staphylococcus aureus* Protein A by Rot Dependent and Independent Pathways

Jelsbak, L., Ingmer, H., Valihrach, L., Cohn, M. T., Christiansen, M. H. G., Kallipolitis, B. H. & Frees, D., 2010, In: P L o S One. 0012752.

Complete genome sequence of the myxobacterium *Sorangium cellulosum*.

Schneiker, S., Perlova, O., kaiser, O., Gerth, K., Alici, A., Altmeyer, M., Bartels, D., Bekel, T., Beyer, S., Bode, E., Bode, H., Bolten, C., Choudhuri, J., Doss, S., Elnakady, Y., Frank, B., Gaigalat, L., Goesmann, A., Groeger, C. & Gross, F. & 38 others, Jelsbak, L., Jelsbak, L., Kalinowski, J., Kegler, C., Knauber, T., Konietzny, S., Kopp, M., Krause, L., krug, D., Linke, B., Mahmud, T., Martinez-Arias, R., McHardy, A., Merai, M., Meyer, F., Mormann, S., Munoz-Dorado, J., Perez, J., Pradella, S., Rachid, S., Raddatz, G., Rosenau, F., Ruckert, C., Sasse, F., Scharfe, M., Schuster, S., Suen, G., Treuner-Lange, A., Velicer, G., Vorholter, F., Weissman, K., Welch, R., Whitworth, D., Wilhelm, S., Wittmann, C., Blocker, H., Puhler, A. & Muller, R., 2007, In: Nature Biotechnology.

Regulating pilin expression reveals a threshold for S motility in *Myxococcus xanthus*.

Jelsbak, L. & kaiser, D., 2005, In: Journal of Bacteriology.

Sigma54 enhancer binding proteins and *Myxococcus xanthus* fruiting body development.

Jelsbak, L., Jakobsen, J., Jelsbak, L., Welch, R., Cummings, C., Goldman, B., Stark, E., Slater, S. & kaiser, D., 2004, In: Journal of Bacteriology.

Projects

Antimicrobial Discovery in Human Commensal Bacteria

Jelsbak, L. (Supervisor), Iversen, S. (Project participant) & Andersen, P. S. (Co-supervisor)

01/02/2020 → 31/01/2023

Klarlægning af dynamik og mekanismer for smitte med *Salmonella* fra kronisk inficerede individer

Jelsbak, L. (Project participant)

Aase og Einar Danielsens Fond

01/11/2015 → 31/10/2016

Mechanisms of chronic infection of food-production animals by *Salmonella*

Jelsbak, L. (Project manager)

01/02/2013 → 31/03/2017

Molecular mechanisms of a novel intercellular signal controlling virulence and biofilm formation in *Salmonella* Typhimurium

Jelsbak, L. (Project manager), Goldring, W. (Project participant) & Lallement, C. (Project participant)

01/05/2020 → 30/04/2022

Molecular mechanisms of resistance development and in vivo drug tolerance of *E. coli* to two antibiotics in clinical use

Jelsbak, L. (Supervisor), Andreasen, M. R. (Project participant), Schønning, K. (Co-supervisor) & Hansen, K. H. (Co-supervisor)

04/12/2017 → 30/06/2022

Molekylære mekanismer for kroniske *Salmonella* infektioner

Jelsbak, L. (Project participant)

Brdr Hartmann's Fond

01/09/2017 → 31/08/2018

Education

2003:Cand. Scient, University of Southern Denmark.

2009:PhD, University of Copenhagen.

Academic employments

2003-2004: Research Assistant, Stanford University, California, USA.

2004-2008:PhD-student, University of Copenhagen.

2009-2013: Post Doc, University of Copenhagen.

2013-2014:Assistant Professor, University of Copenhagen.

Dec 2014-: Associate Professor, Roskilde University