Lotte Jelsbak
Lektor
Institut for Naturvidenskab og Miljø
Molecular and Medical Biology
Adressetype: Postaddresse.
Universitetsvej 1
28A.2
DK-4000
Roskilde
Danmark
E-mail: ljelsbak@ruc.dk
Telefon: +45 4674 2216
Hjemmeside: https://forskning.ruc.dk/da/persons/ljelsbak,
https://forskning.ruc.dk/da/persons/ljelsbak

Publikationer

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, I: Journal of Global Antimicrobial Resistance. 41, s. 253-257 5 s.

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, I: Aktuel Naturvidenskab. 2024, 2, s. 18-19 2 s.

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, I: Journal of Antimicrobial Chemotherapy. 79, 4, s. 810-814 5 s.

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., sep. 2023, I: 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, I: Archives of microbiology. 205, 4, 7 s., 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, I: 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, I: 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, I: 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., Mollerup, 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., Pedersen, R. H., Syberg, K. & Jelsbak, L., 5 mar. 2021, I: 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, I: Aktuel Naturvidenskab. 2021, 1, 4 s.

Microplastics in the human digestive environment: a focus on the potential and challenges facing in vitro gut model development
Fournier, E., Etienne-Mesmin, L., GROOTAERT, C., Jelsbak, L., Syberg, K., BLANQUET-DIOT, S. & Mercier-Bonin, M., 2021, I: Journal of Hazardous Materials. 415, 415, 125632.

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., Kudirkiene, E., Møller-Jensen, J., Olsen, J. E. & Jelsbak, L., 1 apr. 2020, I: Research in Microbiology. 171, 3-4, s. 143-152 10 s.

The SPI-19 encoded type-six secretion-systems (T6SS) of Salmonella enterica serovars Gallinarum and Dublin play different roles during infection
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, I: Veterinary Microbiology. 230, s. 23-31 9 s.

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, I: Journal of Antimicrobial Chemotherapy. 74, 11, s. 3179-3183 5 s.

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, I: BMC Microbiology. 18, 226, 12 s., 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
Espinel, I. C., Guerra, P. R. & Jelsbak, L., 1 jun. 2016, I: Microbial Pathogenesis. 95, s. 117–123 7 s.

Salmonella Typhimurium undergoes distinct genetic adaption during chronic infections of mice
Søndberg, E. & Jelsbak, L., 8 mar. 2016, I: BMC Microbiology. 16, 1, 11 s., 30.

Highly expressed amino acid biosynthesis genes revealed by global gene expression analysis of Salmonella enterica serovar Enteritidis during growth in whole egg are not essential for this growth.
Jakočiūnė, D., Herrero-Fresno, A., Jelsbak, L. & Olsen, J. E., 2016, I: International Journal of Food Microbiology. 224, s. 40-46 7 s.

Super-Salmonella gør os klogere på tarminfektioner
Jelsbak, L., 2016, I: Aktuel Naturvidenskab. 2016, 5, s. 20-21 2 s.

The in vitro redundant enzymes PurN and PurT are both essential for systemic infection of mice in Salmonella enterica serovar Typhimurium
Jelsbak, L., Mortensen, M. I. B., Kilstrup, M. & Olsen, J. E., 2016, I: Infection and Immunity. 84, 7, s. 2076-2085 10 s.

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, I: F1000Research. 5, s. 1-7 1 s., 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, I: Journal of Antimicrobial Chemotherapy. 70, 1, s. 62-70 9 s.

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, I: P L o S 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, I: Microbiology. 160, 6, s. 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, I: Veterinary Microbiology. 170, 1-2, s. 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, I: Journal of Medical Microbiology. 63, 6, s. 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, I: P L o S 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, I: 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, I: P L o S 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, I: International Journal of Medical Microbiology. 300, 4, s. 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, I: 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 flere, 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, I: Nature Biotechnology.

Regulating pilin expression reveals a threshold for S motility in Myxococcus xanthus.
Jelsbak, L. & kaiser, D., 2005, I: 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, I: Journal of Bacteriology.

Projekter

Antimicrobial Discovery in Human Commensal Bacteria
Jelsbak, L. (Hovedvejleder), Iversen, S. (Projektdeltager) & Andersen, P. S. (Bivejleder)
01/02/2020 → 31/01/2023

Klarlægning af dynamik og mekanismer for smitte med Salmonella fra kronisk inficerede individer
Jelsbak, L. (Projektdeltager)
Aase og Einar Danielsens Fond
01/11/2015 → 31/10/2016

Mechanisms of chronic infection of food-production animals by Salmonella
Jelsbak, L. (Projektleder)
01/02/2013 → 31/03/2017

Molecular mechanisms of a novel intercellular signal controlling virulence and biofilm formation in Salmonella Typhimurium
Jelsbak, L. (Projektleder), Goldring, W. (Projektdeltager) & Lallement, C. (Projektdeltager)
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. (Hovedvejleder), Andreasen, M. R. (Projektdeltager), Schønning, K. (Bivejleder) & Hansen, K. H. (Bivejleder)
04/12/2017 → 30/06/2022

Molekylære mekanismer for kroniske Salmonella infektioner
Jelsbak, L. (Projektdeltager)
Brdr Hartmanns 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