

Fra Ivy League til yversundhed – en rejse til Cornell

Lærke Boye Astrup

HUSDYRBAR 25.09.20225

STØTTET AF

Mælkeafgiftsfonden

SEGES
INNOVATION

Yversundhed – en ensom oplevelse...



Formål med rejse

Generelle strategiske mål:

- Ønske om øget internationalt netværk
- Ønske om international medvirken i/input til kommende projekt(ideer)

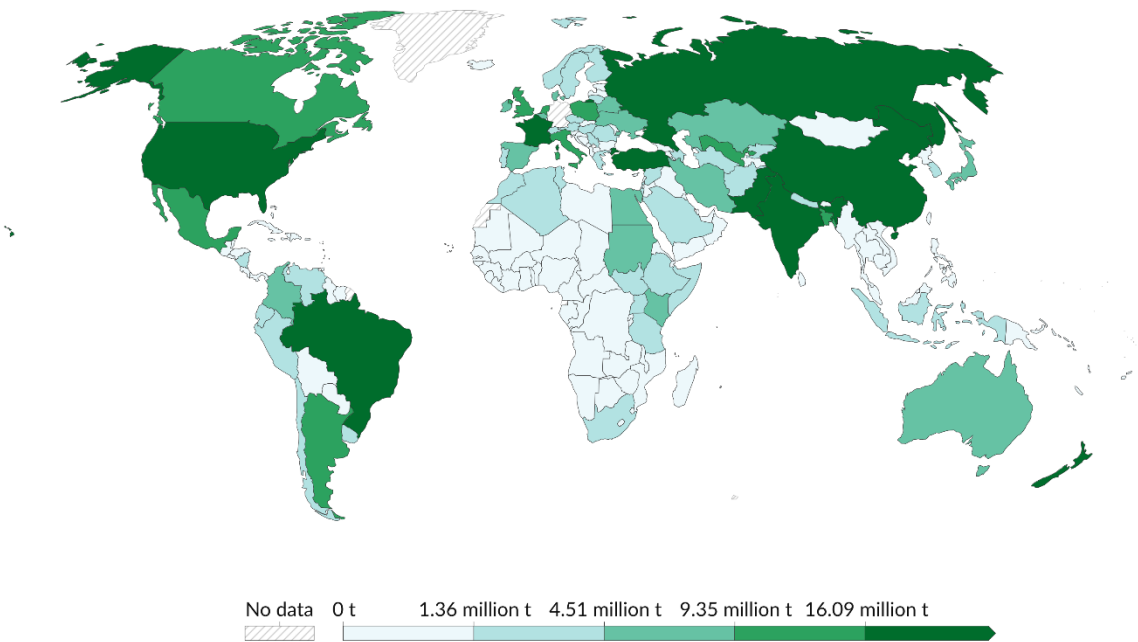
Projektspecifikke mål:

- Ønske om medvejlederskab på PhD
- Behov for afklaring af laboratoriestandarder i aktuelt MAF-projekt

Hvorfor Cornell University?

Milk production, 2022

Our World
in Data



Data source: UN Food and Agriculture Organization (FAO) CC BY
Note: Milk represents the raw equivalents of all dairy products including cheese, yoghurt, cream and milk consumed as the final product.



Hvorfor Cornell University?



Quick Facts

LOCATION
Ithaca, New York

FOUNDED
1865

IDENTITY
Private university, public mission

16,128
UNDERGRADUATE STUDENTS

10,665
GRADUATE AND PROFESSIONAL STUDENTS

2,950
FACULTY

52
NOBEL LAUREATES

\$459M
UNDERGRADUATE GRANT AID (FY25)





Om Københavns Universitet

Om Københavns Universitet [Om universitetet](#) > Tal og fakta

Organisation
Ledelse
Strategi
Tal og fakta

- Bygninger
- Bæredygtighed
- Forskning
- Kapitalforvaltning
- Medarbejdere
- Ranglisteplacering
- Statistikberedskab
- Studerende
- Teknologioverførsel
- Værdi for samfundet
- Økonomi
- Årsrapport

Profil og historie
Besøg universitetet
Kontakt

Tal og fakta om universitetet

36.760 studerende	10.695 medarbejdere, heraf 6.172 forskere
13.945 forskningspublikationer	5.- bedste universitet i Europa
11,3 milliarder kroner i omsætning	1.100.436 kvadratmeter bygningsareal

- [Grundlagt i 1479](#)
- [6 fakulteter](#), [36 institutter](#) og flere end [200 forskningscentre](#)
- [10 nobelpristagere](#)
- [37 statsministre](#)
- [34 OL-medaljer](#) er vundet af 21 alumner
- [4 campusområder](#) i København og en campus i Taastrup
- [8 museer og forskningshaver](#), blandt andre Statens Naturhistoriske Museum, Medicinsk Museion og Øresundsakvariet

QMPS – vores tvilling i USA...

[Home](#) [Diagnostic Services](#) [Testing Laboratories](#) **[Programs](#)** [Veterinary Resources](#) [Contact Us](#)

[CVM](#) > [Animal Health Diagnostic Center](#) > [Programs](#) >

Quality Milk Production Services

Mission

High-quality milk and consumer trust through improved management, udder health, and reduced antibiotic drug use

Based on science and innovative outreach

By the numbers

25 staff members

>300K cultures annually

>500 farm visits annually

Research

- Optimization of milk harvest
- Employee training
- Artificial intelligence in milk quality

Outreach

- Newsletter
- Training modules
- Scientific publications

Important Links

- [Submission forms](#)
- [Order supplies](#)
- [Fee schedule and services](#)
- [Sampling instructions](#)
- [Shipping instructions](#)
- [Billing and payment information](#)

QUALITY MILK PRODUCTION SERVICES

[QMPS DC305 Pathogen Codes and Information](#)

[Education](#)

[Services](#)

[About](#)

QMPS Locations

Canton, NY

- Director: Dr. Paul Virkler, pdv3@cornell.edu
- Phone: [315-379-3930](tel:315-379-3930) or [877-645-5523](tel:877-645-5523)

Cobleskill, NY

- Director: Dr. Mike Zurakowski, mjz6@cornell.edu
- Phone: [518-255-5681](tel:518-255-5681) or [877-645-5524](tel:877-645-5524)

Ithaca, NY

- Program Director: Dr. Wolfgang Heuwieser, wh13@cornell.edu
- Phone: [607-255-8202](tel:607-255-8202) or [877-645-5522](tel:877-645-5522)

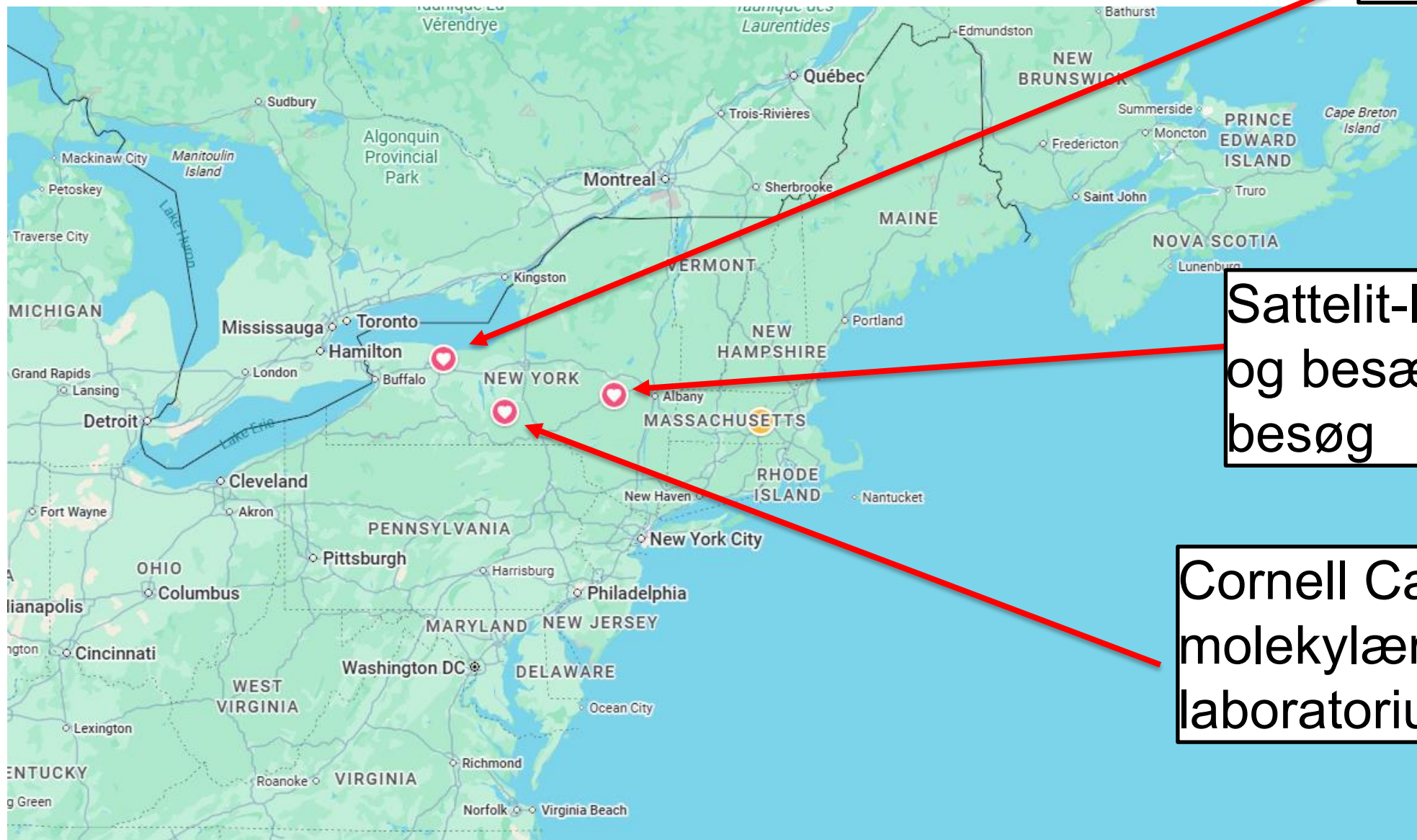
Warsaw, NY

- Program Director: Dr. Wolfgang Heuwieser,

SEGES
INNOVATION

14 dages besøg i USA sommer 2025

Konference



Sattelit-laboratorium
og besætnings-
besøg

Cornell Campus og
molekylært
laboratorium

Sattelitlaboratorium og besætningsbesøg

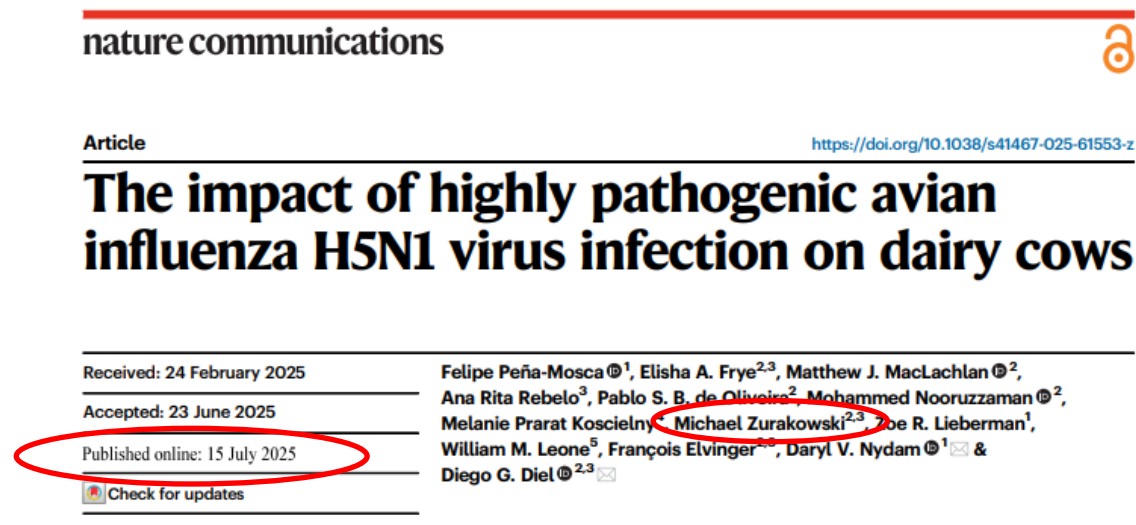


Sattelitlaboratorium og besætningsbesøg



Udveksling af laboratorie-erfaring

- Nye protokoller hjemtaget til Dk for miljøprøver, vandkvalitet, foder-mikrobiologi og tankanlægsanalyser.
- Udveksling af projektideer
- Invitation til at vejlede PhD, samt til at besøge SEGES incl. Workshop + kursus for mælkekvalitetsholdet 😊



Konference, National mastitis Council, regional meeting



Nye tider, nye mælkeprodukter....

Det hurtigst voksende mælke-brand i USA med salg på over 3 mia. i 2024

Cornell Campus og molekylært laboratorium



Next-level in-house DNA-diagnostics



Next-level in-house DNA-diagnostics

Vet. Sci. 2023, 10, 530

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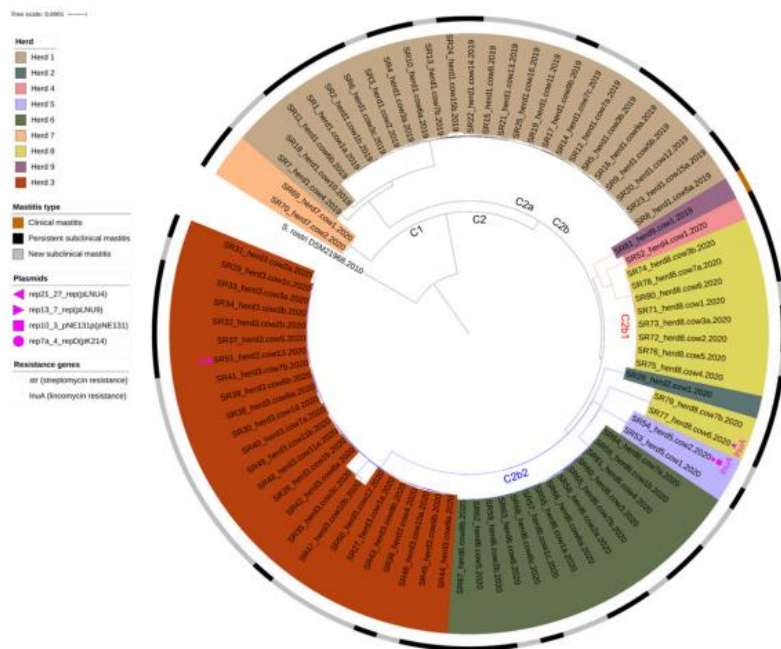
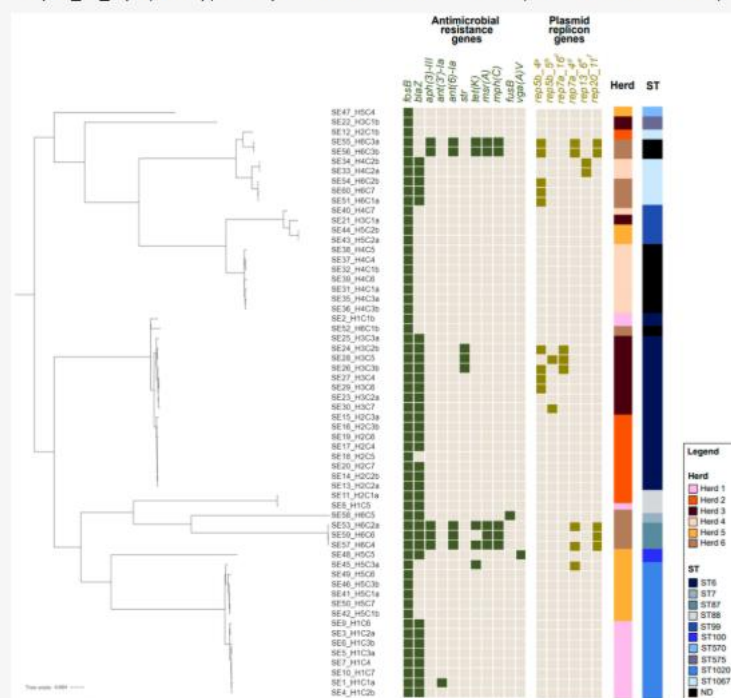


Figure 1. Maximum-likelihood phylogenetic tree based on the core genome of 81 *S. rostri* isolates from bovine mastitis and *S. rostri* DSM 21968 (GenBank Accession no. GCF002902145) as a reference (tree re-rooted from the reference). The test isolates were labeled from SRI-SR81 (S for “*Staphylococcus*”, R for “*rostri*”) and assigned a herd and cow number. In cows with *S. rostri* in >1 quarters, the isolates were additionally named a–d depending on the number of *S. rostri*-positive quarters as follows: “a” for the isolate from the *S. rostri*-positive quarter number 1; “b” for the positive quarter number 2; and so forth.

Figure 1. Core-genome phylogeny of 60 *S. epidermidis* isolates from SCM in Danish dairy cows. The isolates are named according to isolate number (SE1 to SE60), herd number (H1 to H6), and cow number (C1 to C7). The isolates are further named “a” or “b” in cases of cows with *S. epidermidis* in two quarters of the udder. The phylogenetic tree is annotated with ARGs (dark green for positive) and plasmid replicon genes (light green for positive). a rep5b_4_SAP106B007(SAP106B). b rep5b_5_SAP108B006(SAP108B). c rep7a_4_repD(pK214). d rep7a_16_repC(Cassette). e rep13_6_rep(pLNU1). f rep20_11_repA(VRSa). ST is presented in blue color scheme (ND = ST not determined).



Mapping Antimicrobial Resistance in *Staphylococcus epidermidis* Isolates from Subclinical Mastitis in Danish Dairy Cows. Antibiotics, 2025, DC., Kløve, ML., Strube, PMH., Heegaard, LB., Astrup.

Comparative Genomics of *Staphylococcus rostri*, an Undescribed Bacterium Isolated from Dairy Mastitis. Veterinary Sciences, 2023, DC., Kløve, M. Farre, ML., Strube, LB., Astrup.

Tak for tiden – nogen spørgsmål?

