CEMIR
Centre of Molecular Inflammation Research

Norwegian Centre of Excellence

noTBsec

New intervention strategy for tuberculosis: blocking multiple essential targets

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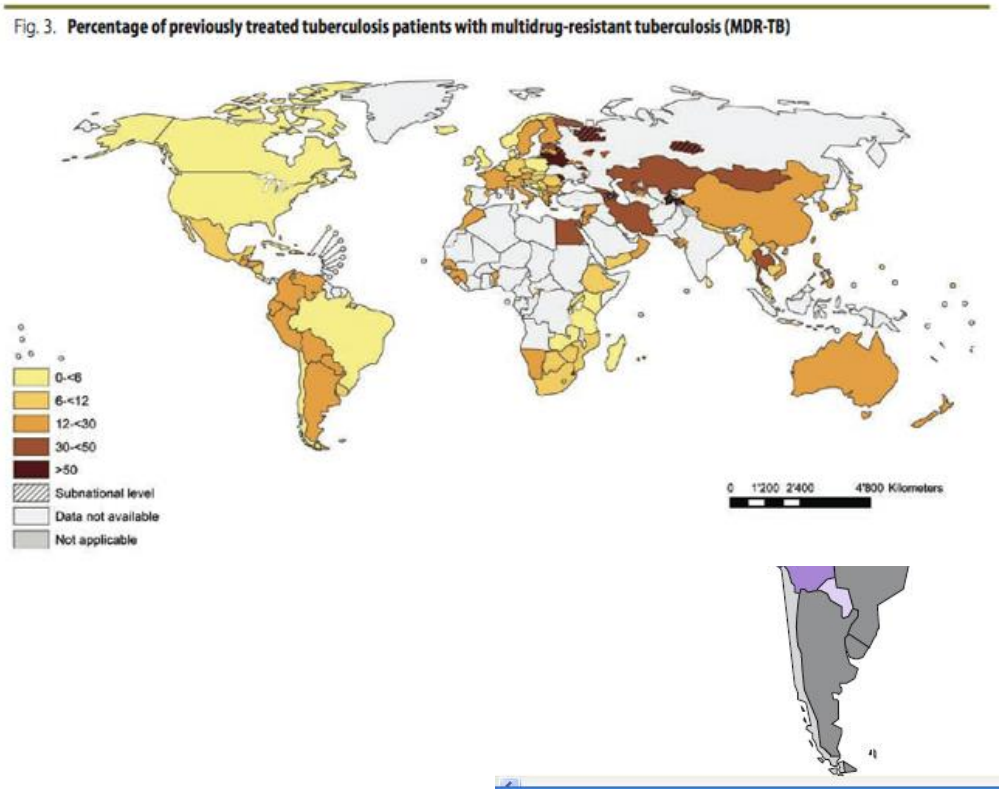
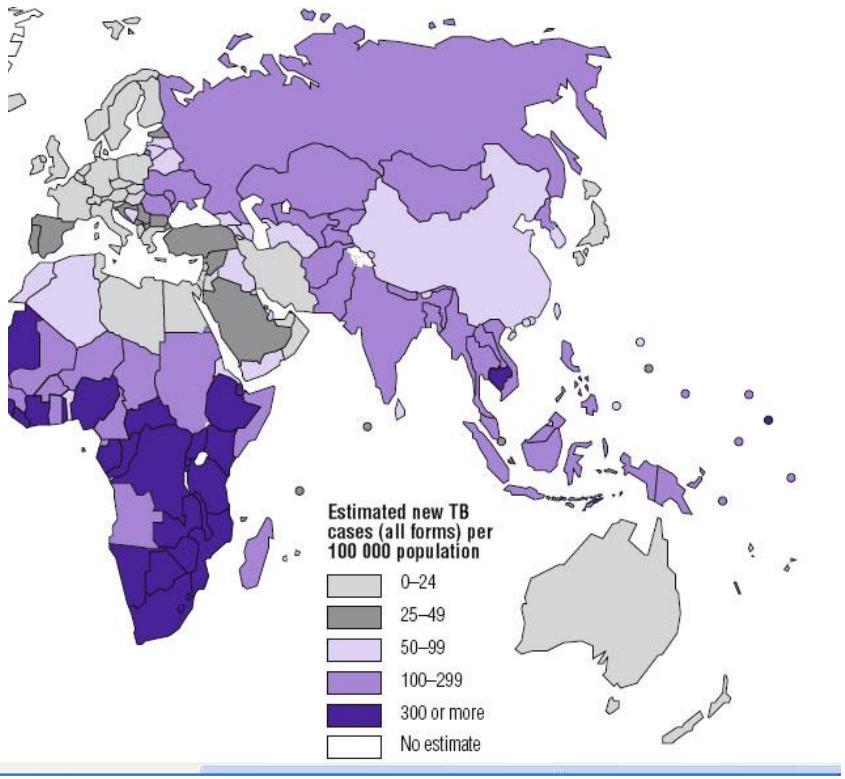
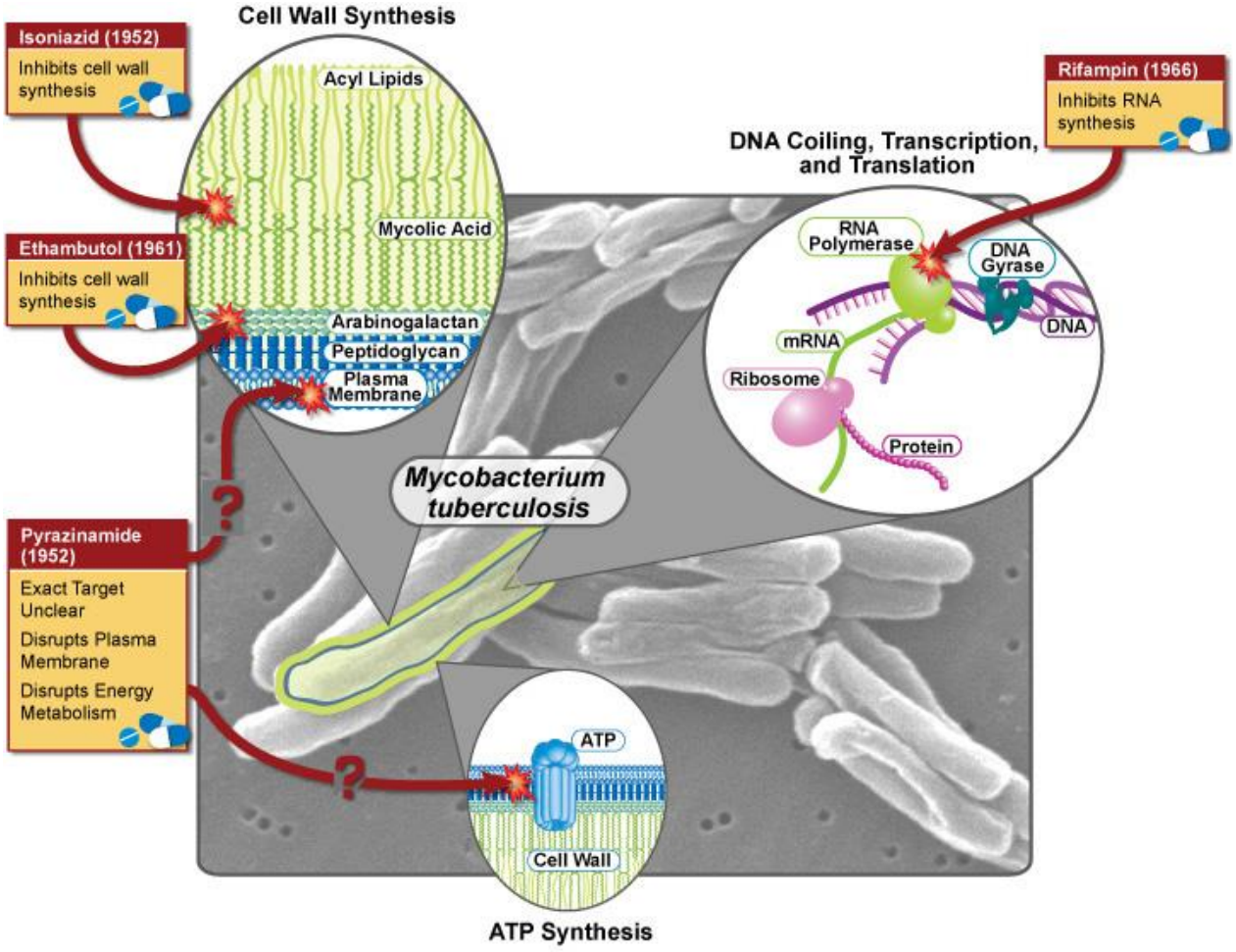
Why focus on tuberculosis?

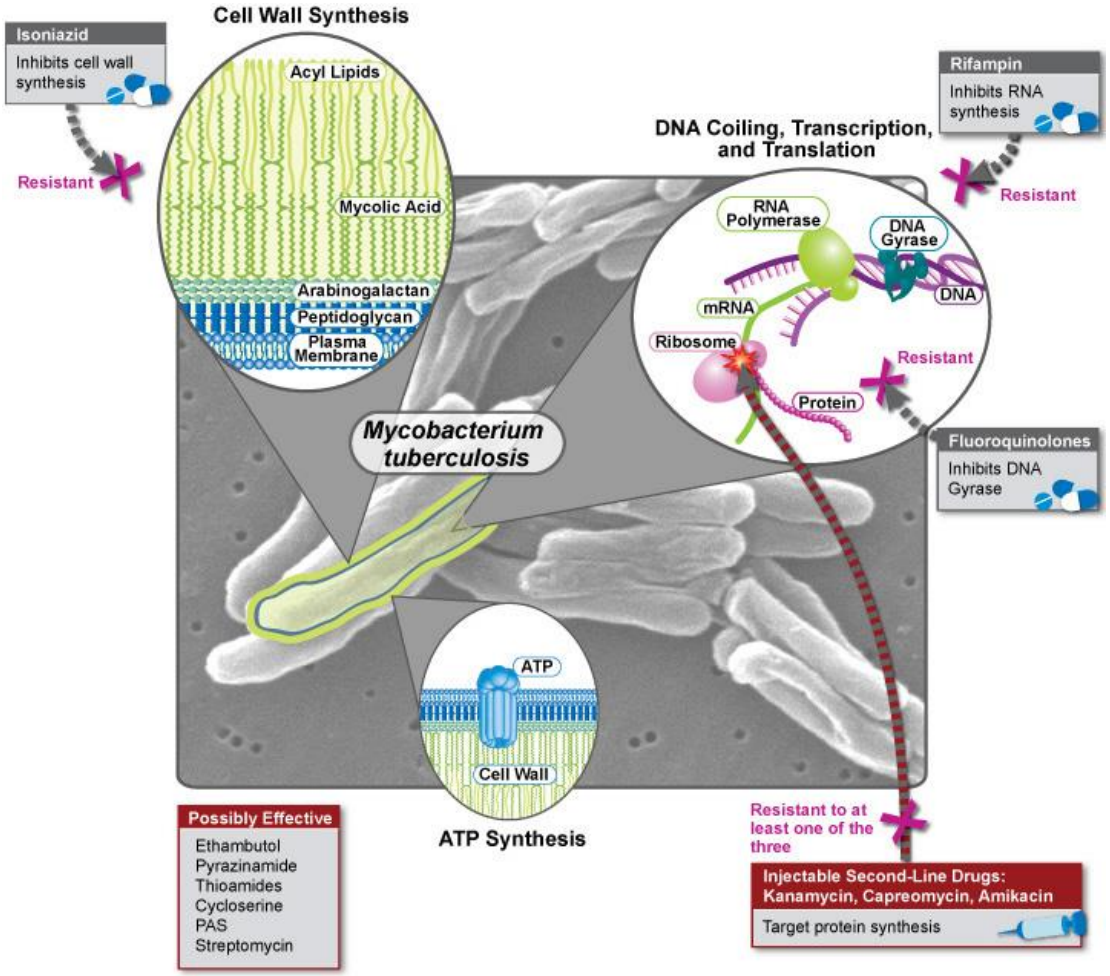




Treatment regime in tuberculosis



Antibiotic resistance in tuberculosis



JPIAMR project: noTBsec

- New intervention strategy for tuberculosis: blocking multiple essential targets

What is our idea?

Identify drugs that target several essential processes in the bacterium

Type VII secretion systems

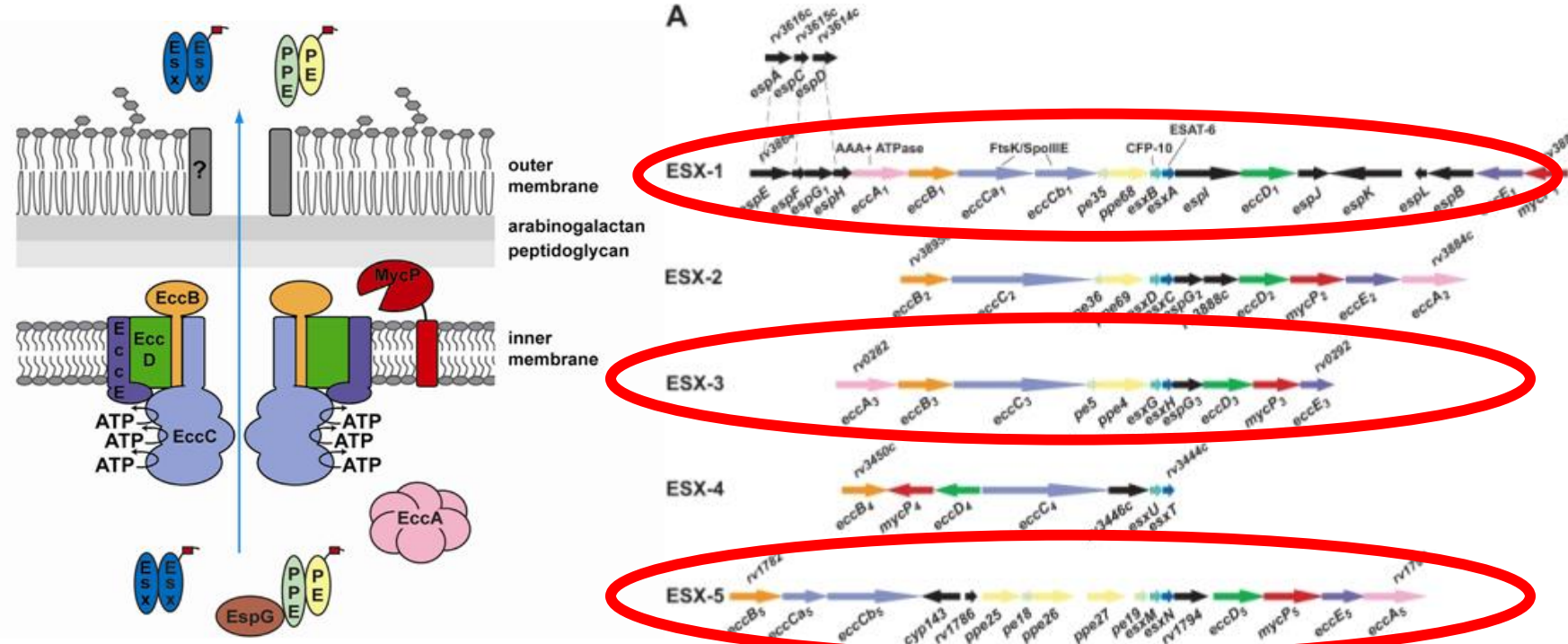
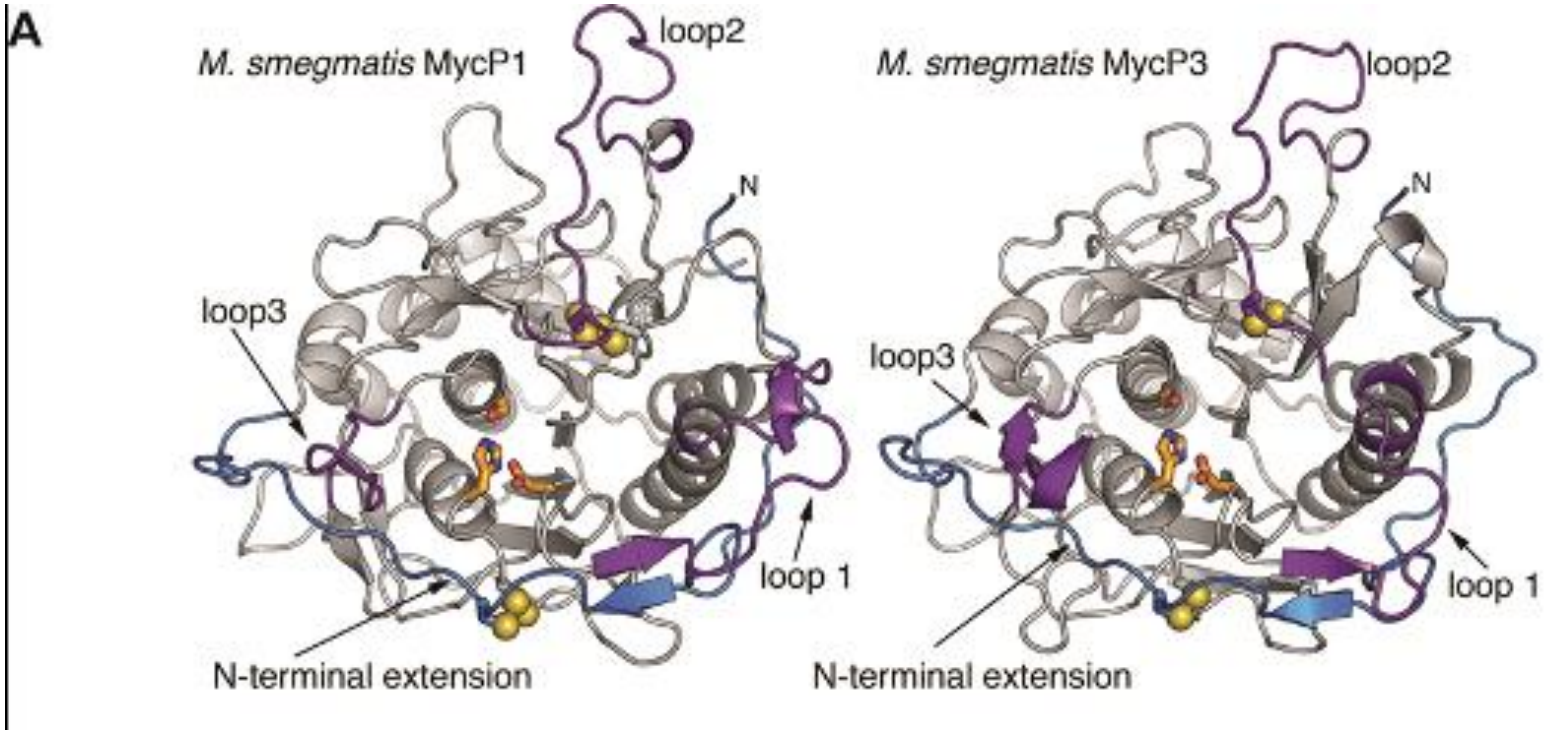


Figure 1. Model for type VII secretion.

Structural similarity between ESX-homologues



Who's part of the project in addition to CEMIR?


VU Medical Center, Amsterdam, Netherlands

Wilbert Bitter and Edith Houben

- Secretion system ESX-5
- Zebrafish model of Tuberculosis
- Compound library

Institute Pasteur, Paris, France

Roland Brosch

- Secretion system ESX-1
- Mouse model of Tuberculosis

University of British Columbia, Vancouver, Canada

Charles Thompson

- Novel antibiotic combinations in mycobacteria
- Library of known antibiotics

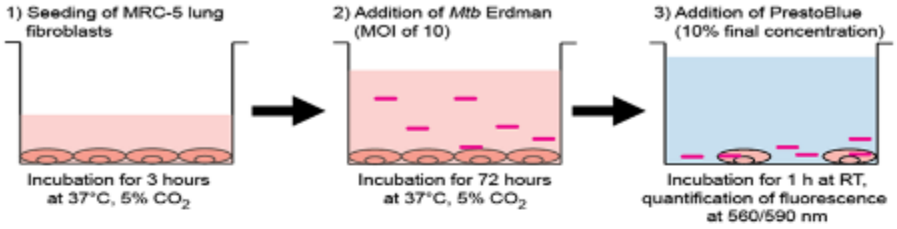
EPFL, Lausanne, Switzerland

Stewart Cole

- Secretion system ESX-1
- Drug discovery screening
- Compound library

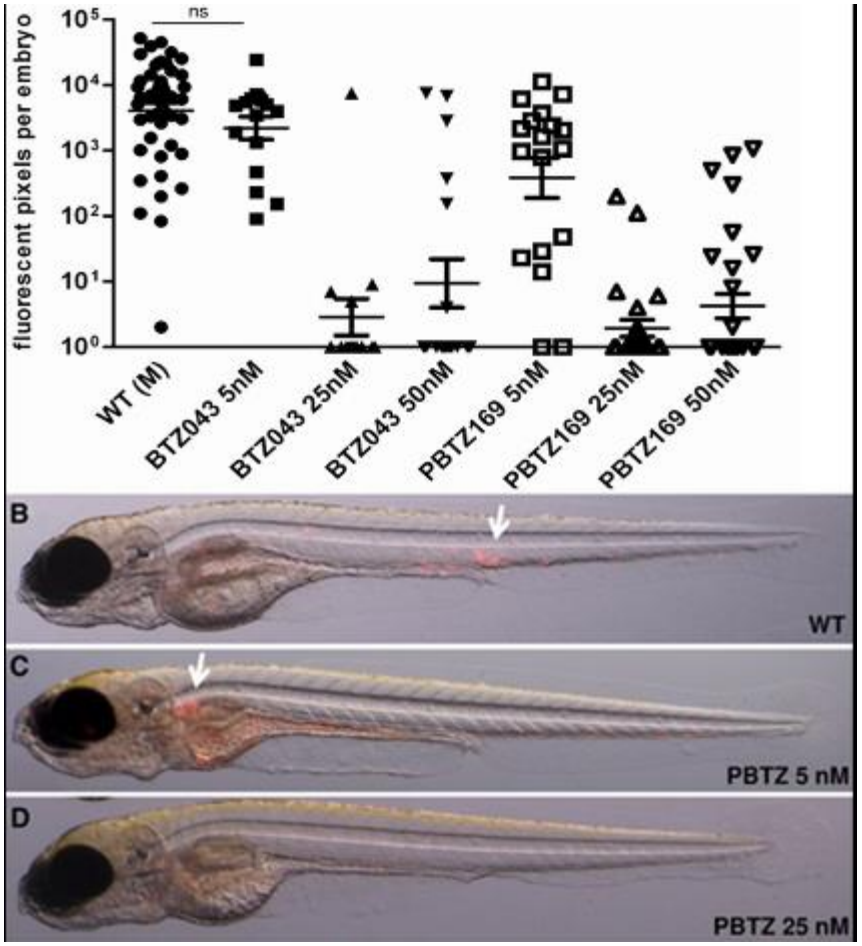
What is our approach?

Example with protein secretion inhibitors

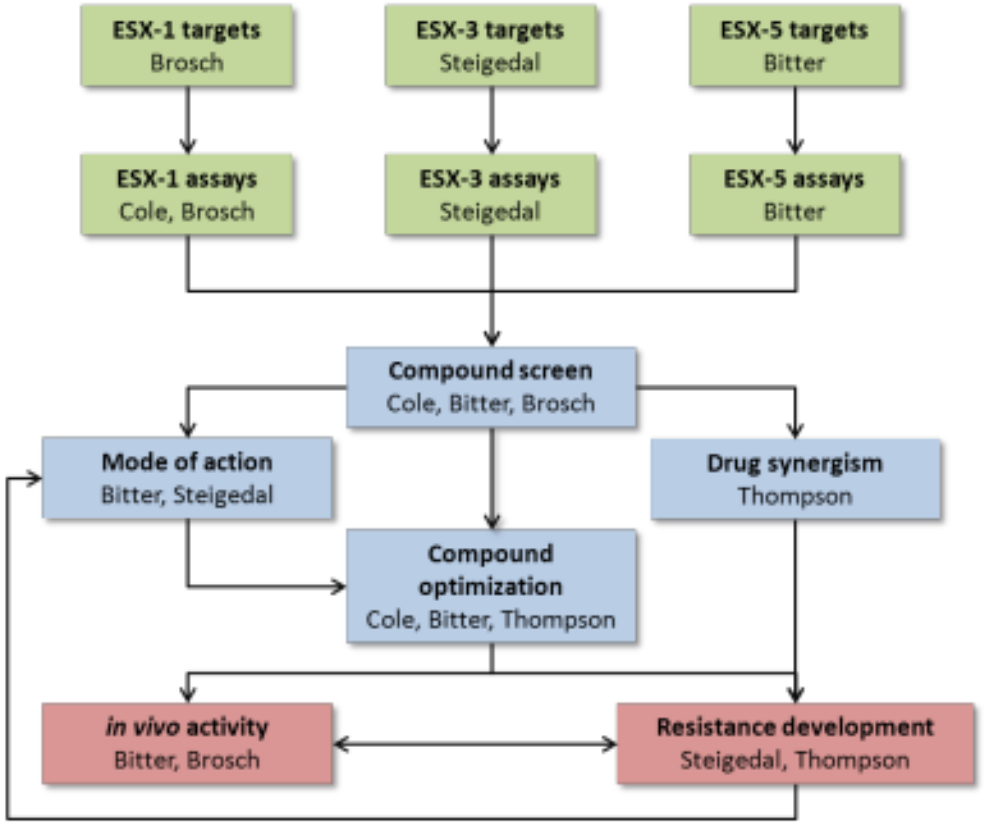


What is our approach?

Validation and combination with known drugs



Summary: What, when and who?



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jpiamr
Joint Programming Initiative on Antimicrobial Resistance

Forskningsrådet

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