

BIOTECH Therapy



NL4TB



Technology matured by

#Tuberculosis

#Antibiotic

#Antibioresistance

Achievements

- 200 synthesized analogues → Anti-tuberculosis MIC - 10 nM
- Active on non-replicating drug tolerant tuberculosis
- Mycobacterium specific inhibitor of electron transport (image)
- No cytotoxicity
- **Pharmacokinetic/ADME properties:**
 - $400 < MW < 550 \text{ g.mol}^{-1}$; $3.5 < \text{LogD} < 5$, High solubility
 - Chemically and metabolically stable
 - *In vivo* $t_{1/2} > 6 \text{ h}$; $C_{\text{max}} > 10 \mu\text{M}$, accumulation in lungs
- *In vivo* POC established in *M. marinum* infected zebrafish

On going

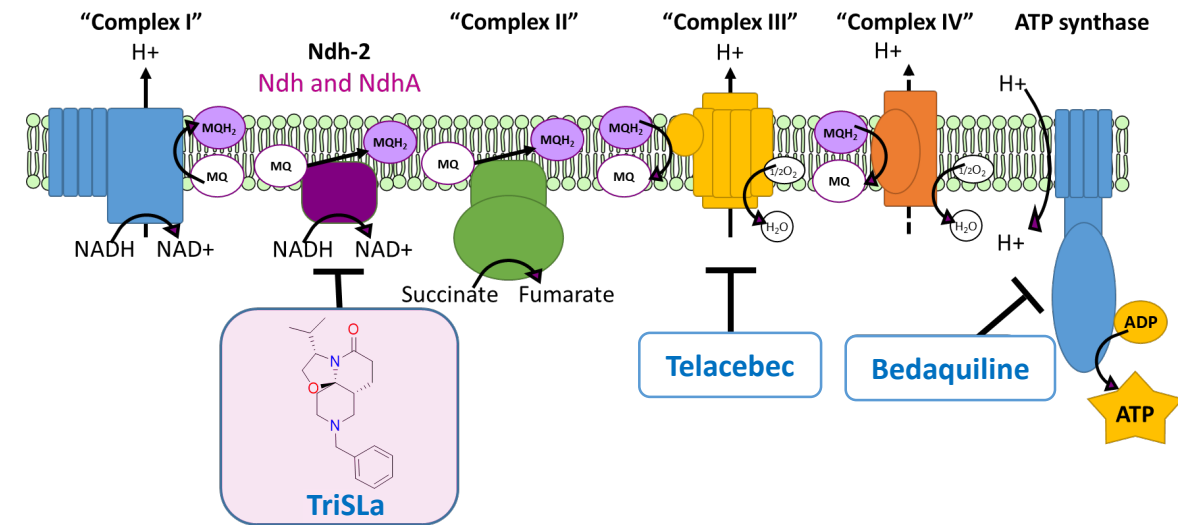
In vivo POC mouse model

IP status

Priority date: June 7th 2022

Novel Narrow Spectrum Antibiotic against Mycobacteria

Tricyclic-Spirolactams (TriSLa compounds)
(*Mycobacterium tuberculosis, abscessus, avium*)



- ✓ Suffocates Mycobacteria
- ✓ Stops ATP production
- ✓ Dysregulates NADH cofactor balance

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CONTACT SATT Nord

Bruna GIOIA | Business Developer | bruna.gioia@sattnord.fr

