

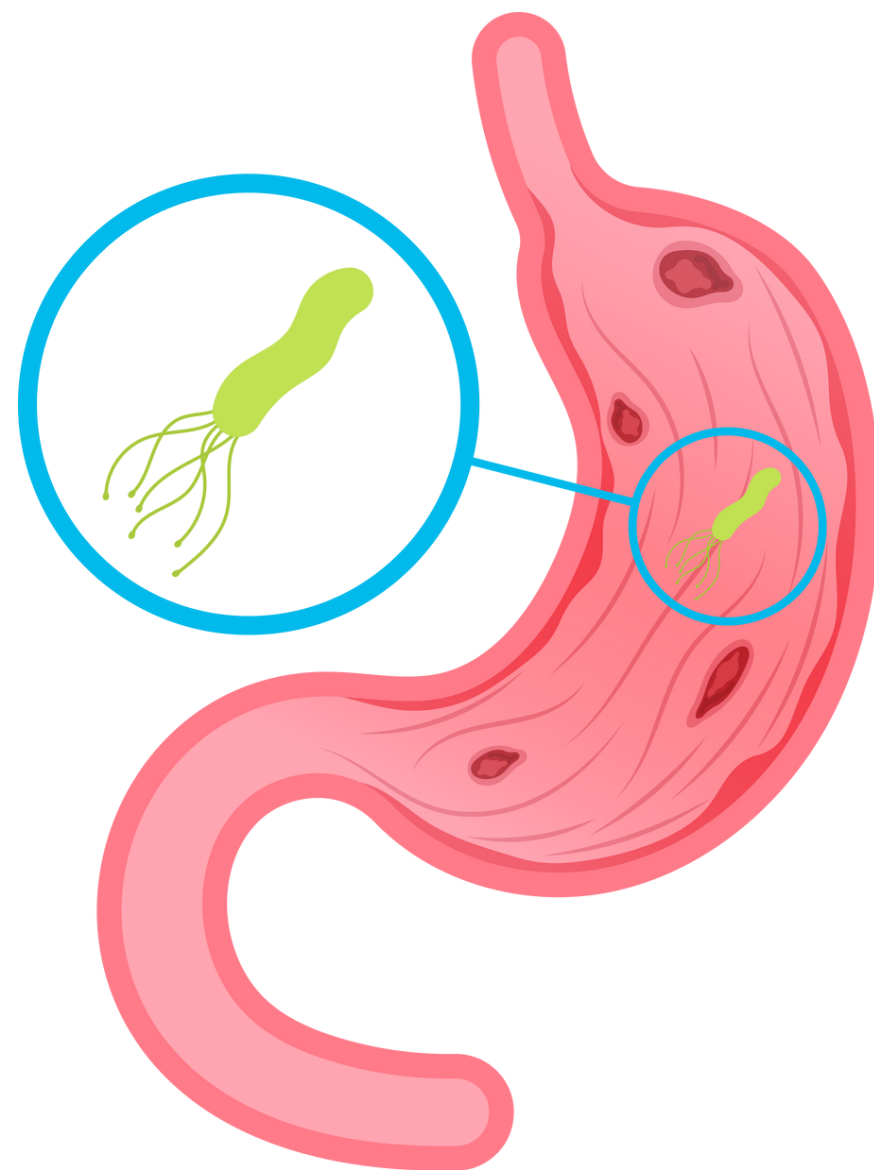
**CHEMICAL PROFILE EVALUATION AND
ACTIVITY OF *Tamarindus indica* L. SEEDS ON
Helicobacter pylori AND UREASE**

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INTRODUCTION

Helicobacter pylori



High global prevalence

- 43.9% of the world's population

Serious gastric consequences

- Gastritis
- Peptic ulcers
- Gastric cancer

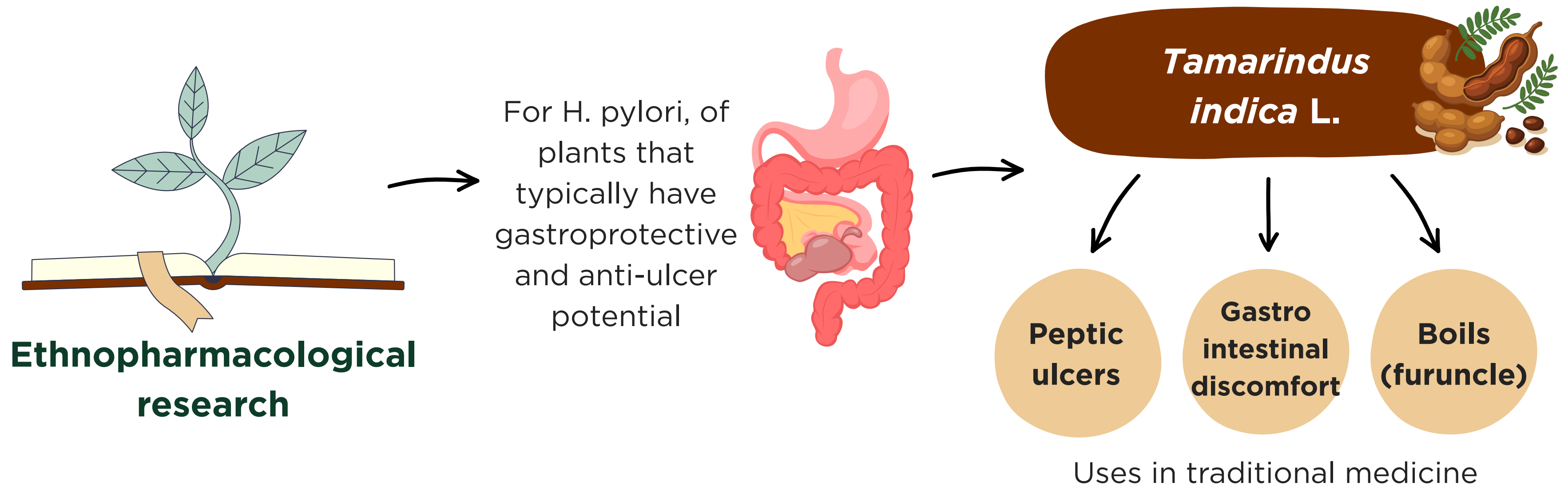
High rates of resistance to the antibiotics

- Higher resistance rates:**
- Metronidazole 27 - 69%
 - Levofloxacin 14 - 34%

(Chen et al., 2024; Zhang et al., 2021; Besagio et al., 2021; Costa et al., 2021; Lee; Dore; Graham, 2022; Clarke, 2024).

INTRODUCTION

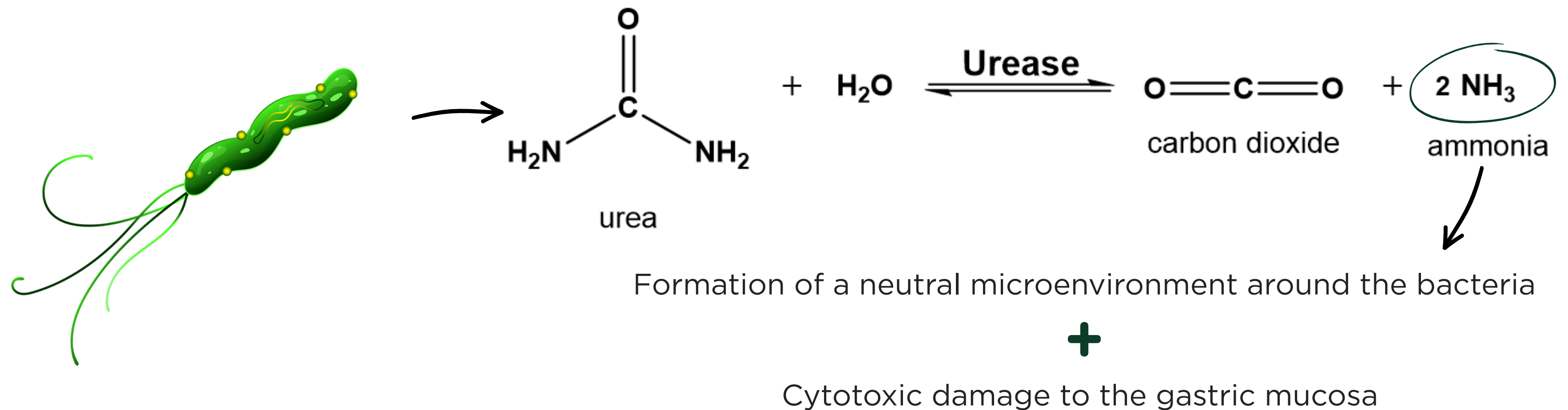
New therapeutic alternatives



(Manandhar; Luitel; Dahal, 2019; Kuru, 2014; Freitas; Silva, 2023).

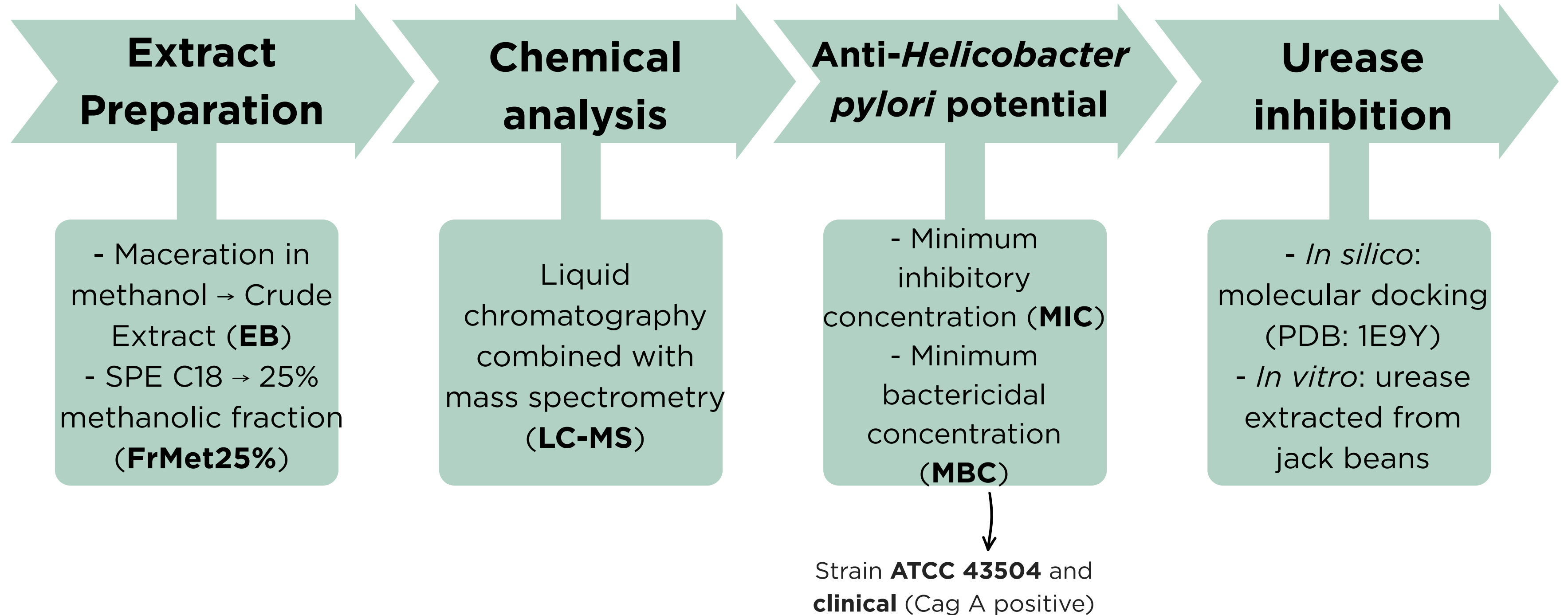
INTRODUCTION

Urease



(Ansari; Yamaoka, 2017; Debowski et al., 2017)

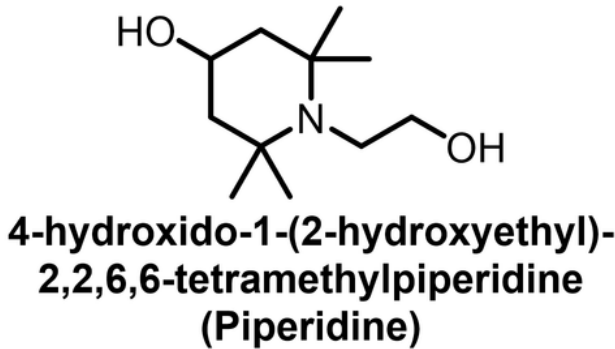
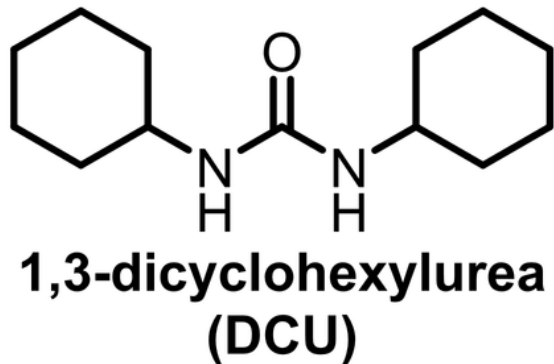
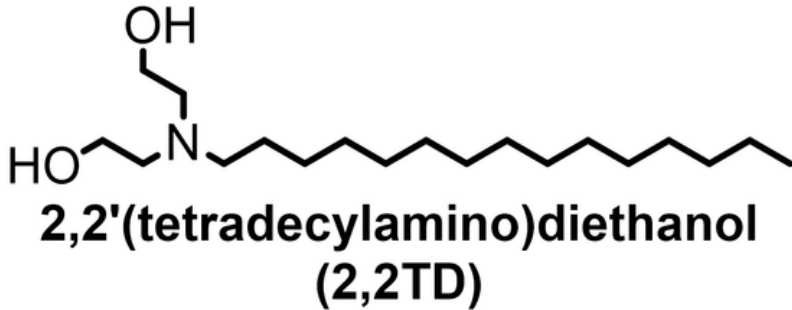
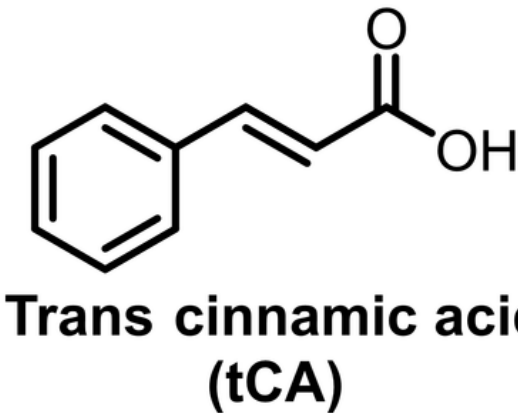
METHODS



(norma CLSI - M07-A12, 2024; Tanaka, Kawase & Tani, 2004)

RESULTS

Main substances noted by LC-MS



Anti-*Helicobacter pylori* potential

SAMPLE	MIC ATCC	MCB ATCC	MIC Clinical strains	MCB Clinical strains
EB	512 µg/mL	1024 µg/mL	512 µg/mL	512 µg/mL
FrMet25%	1024 µg/mL	>1024 µg/mL	512 µg/mL	512 µg/mL
Amoxicillin	0.063 µg/mL	0.125 µg/mL	0.250 µg/mL	0.250 µg/mL

→ According to Wang (2014) classification, this activity is considered **weak to moderate**

(Wang, 2014)

CONCLUSION

**Presence of interesting substances
in the seeds of *T. indica***

**Weak-moderate activity for anti-
H. pylori potential**

**Interesting potential for urease
inhibition**



**THANK YOU FOR
YOUR ATTENTION**

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