Environmental forensics investigation of sewers leaking pollutants into groundwater

A non-target analysis study

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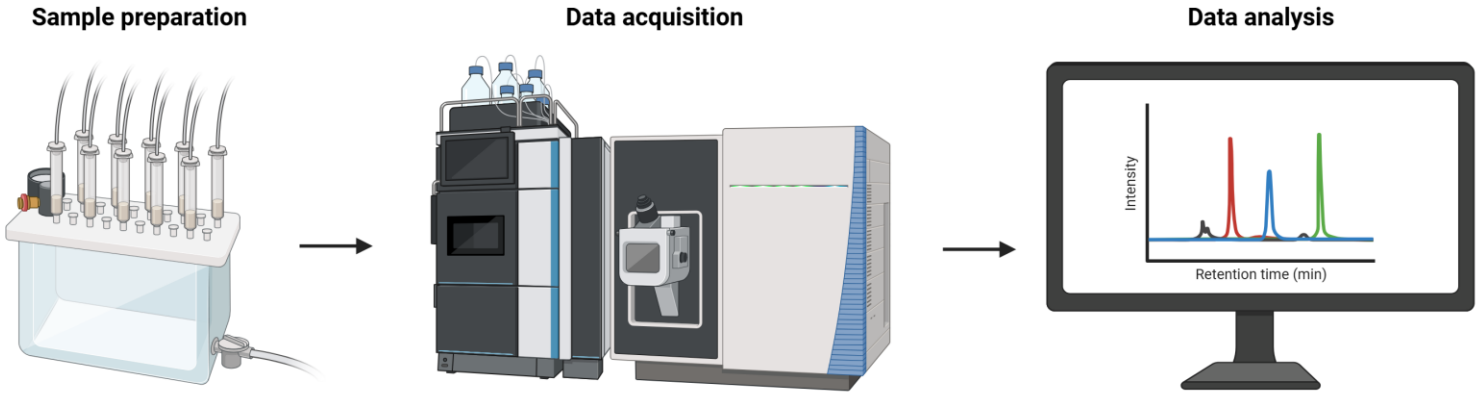
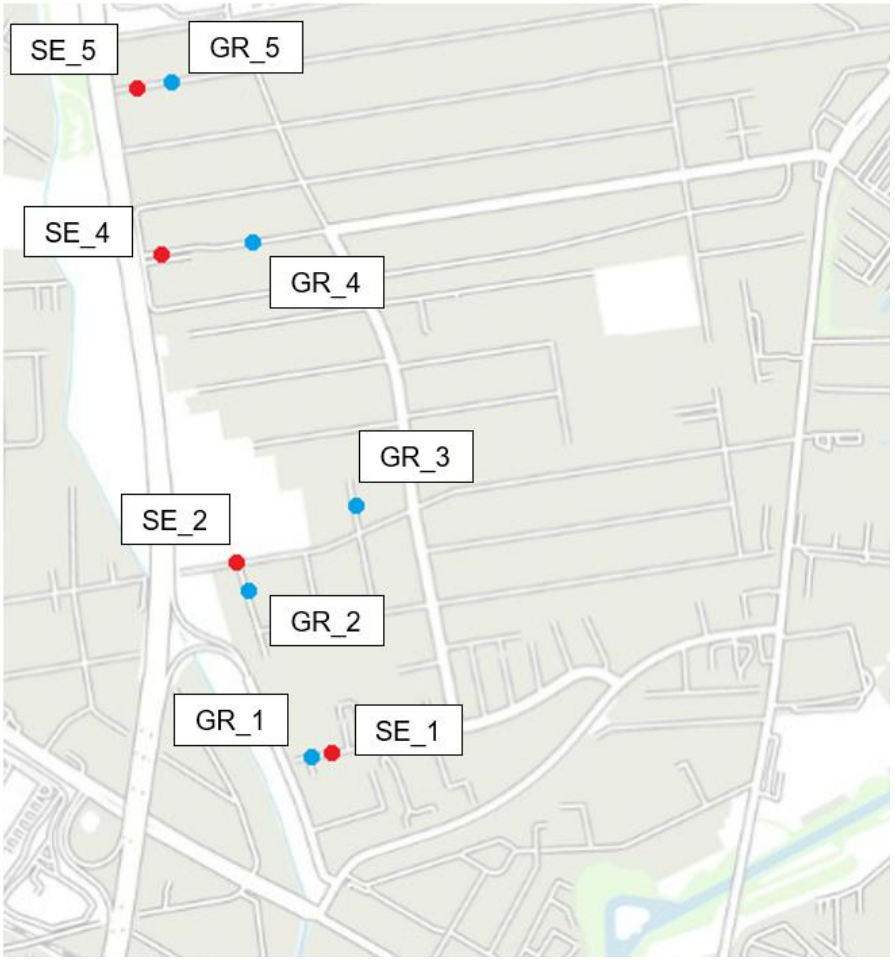
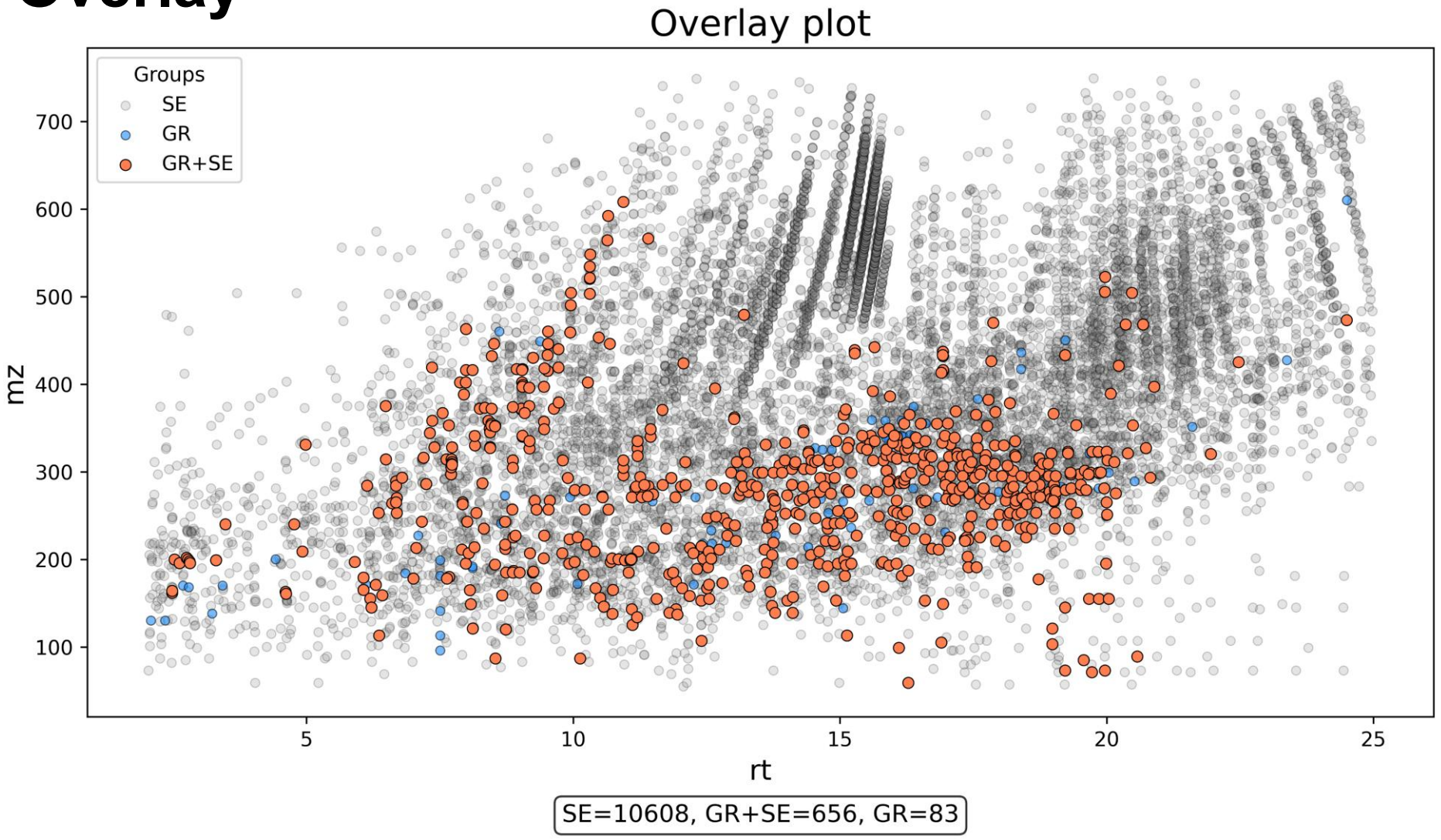
Introduction

- Groundwater is a key drinking water source
- Organic micropollutants are commonly detected
- Leaking sewage and aging urban infrastructure can contribute to contamination
- Non-target analysis allows detection of both known and unexpected pollutants

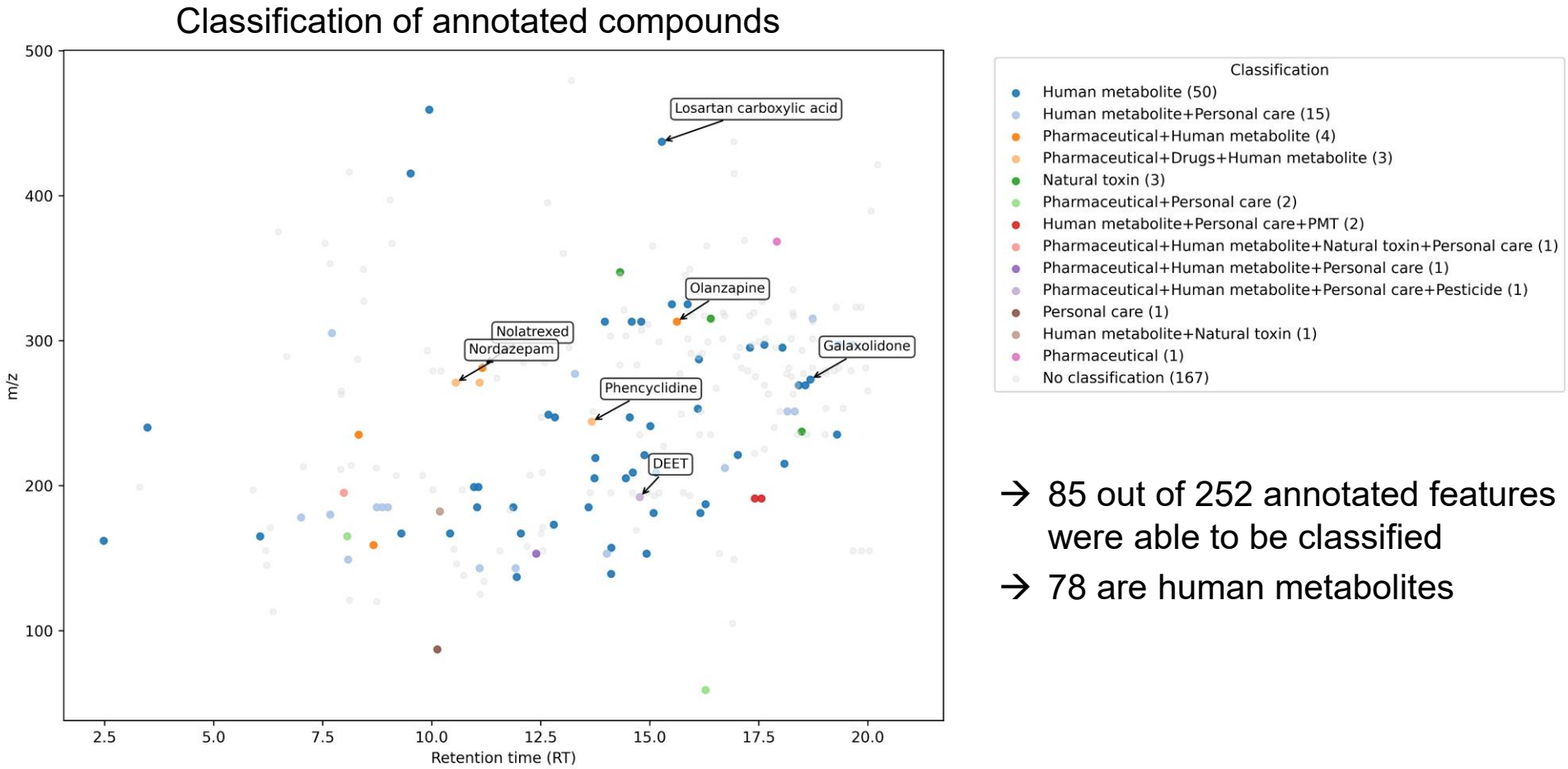




Overlay


Overlay plot
Groups
SE
GR
GR+SE
mz
rt
100
200
300
400
500
600
700
5
10
15
20
25
SE=10608, GR+SE=656, GR=83

Classification



→ 85 out of 252 annotated features were able to be classified

→ 78 are human metabolites

Thank you for your attention