

# Bibliometric analysis of pharmaceuticals occurrence in water bodies

## Subtheme 3: Emerging pollutants and managing wastewater and waste

### Introduction and Objective

- Pharmaceuticals are part of a growing market corresponding to USD 1.25 trillion (Peña et al. 2021)
- Poor WWTP removing efficiency
- Release of effluent in water bodies

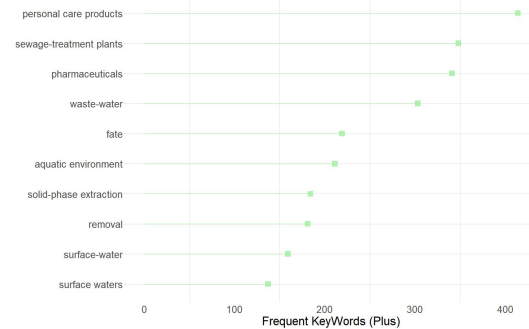


This study aims to verify the evolution of studies about the occurrence of pharmaceuticals in water bodies in a global perspective.

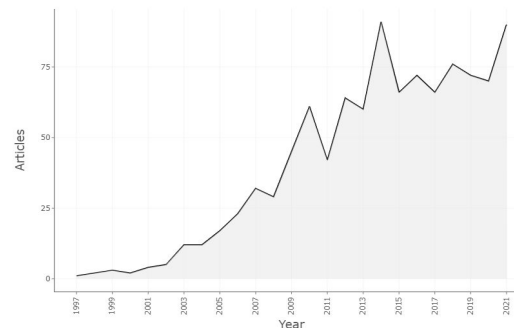
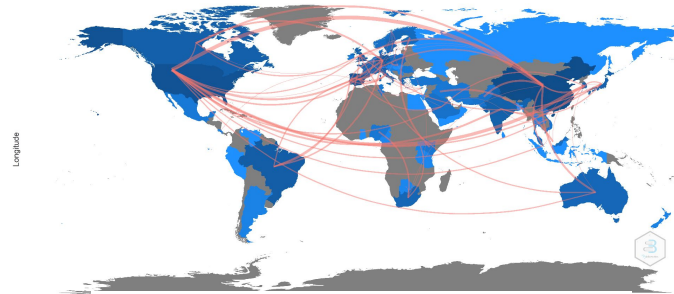
### Methods

- 1997 – 2021
- “pharmaceuticals” and “occurrence”
- English idiom
- Biblioshiny app (Bibliometrix, RStudio)

### Discussion



Country Collaboration Map



### Conclusion

After 2003 a growing trend in investigations is observed. Strong affiliations between institutions were observed with 18 up to 44 investigations published.

### References

González Peña, O. I., López Zavala, M. Á., & Cabral Ruelas, H. (2021). Pharmaceuticals market, consumption trends and disease incidence are not driving the pharmaceutical research on water and wastewater. *International journal of environmental research and public health*, 18(5), 2532.

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