MINISTERIO
DE CIENCIA, INNOVACIÓN
Y UNIVERSIDADES

CURRICULUM VITAE (maximum 4 pages)

AGENCIA
ESTATAL DE
INVESTIGACIÓN

Part A. PERSONAL INFORMATION

CV date	14/01/2021

First and Family name	Lubertus Bijlsma	
Researcher codes	WoS Researcher ID	H-2835-2015
	SCOPUS Author ID	14036891200
	Open Researcher and Contributor ID (ORCID)	0000-0001-7005-8775

A.1. Current position

Name of University	University Jaume I			
Department	Research Institute for Pesticides and Water			
Address and Country	Avda. Vicent Sos Baynat, s/n 12071 Castellón, Spain			
Phone number	(+34) 964387382	E-mail	bijlsma@uji.es	
Current position	Personal Investigador (Researcher)	From	01/01/2021	
Key words	aquatic environment, organic pollutants, wastewater surveillance, chromatography/mass spectrometry, non-target analysis			

A.2. Education

PhD	University	Year
BSc. Chemistry	Hogeschool van Utrecht (the Netherlands)	2001
MSc. Chemistry	Universitat Jaume I	2008
PhD Chemistry	Universitat Jaume I	2014

A.3. JCR articles, h Index, thesis supervised…

Index h: 31 (SCOPUS), 29 (Web of Science, WOS)
Total number of publications: 61 / Q1: 54, 4 book chapters and 5 in scientific magazines
First author: 21, corresponding-author: 12, co-author: 38
Articles classified as Top/highly cited papers ISI: 10
Total citations (SCOPUS): 2890   **Average citations per article**: 44.46
Average citations per year (last 5 years, not including 2021): 422
Citation metrics: top 2% of my main discipline, https://doi.org/10.1371/journal.pbio.3000918
Supervision: Post-Doc: 1, PhD thesis: 1, Master theses: 3, Visiting PhD students: 6

Part B. CV SUMMARY *(max. 3500 characters, including spaces)*

My research strived to **improve water treatment processes as well as to find solutions to different environmental challenges related to contaminants using the last advances in analytical chemistry**. I developed new strategies to identify known and unknown chemicals and evaluate the performance of water treatments as well as contribute to the development of new technologies in this field. Also, **I developed a cutting-edge approach called wastewater-based epidemiology (WBE) that uses wastewater produced by a society as a source of information** and to assess community health-related aspects.

I carried out my PhD at University Jaume I, and focused on advancing towards a comprehensive understanding on the presence as well as the removal of illicit drugs and the possible formation of transformation products during water treatment. Moreover, as co-founder of an international network (SCORE), I got highly involved in the development, streamlining and improving WBE as novel scientific discipline. During this period, I published 16 articles, one of his papers got the **SETAC Best Publication award 2012** and my **international PhD** (excellent cum laude) received the **extraordinary award for PhD thesis** by the UJI.

After my PhD studies, I was contracted as **post-doc researcher** by the Environmental and Public Health Analytical Chemistry research group of UJI and embedded in an EU-funded project NPS-Euronet. I performed international **post-doc research stays** at EAWAG (Switzerland); Univ. Antwerp (Belgium); Mario Negri Institute (Italy); Institute Marine Research (Norway) (1 year), and developed innovative workflows and modelling strategies for the discovery of WBE biomarkers as well as creative improvements for a comprehensive assessment of the overall efficiency of water treatment . Subsequently, I **moved to Univ. of Amsterdam** (1 year) to explore WBE as holistic tool to assess human exposure to pesticides. During this period, I officially collaborated in writing **4 projects/tenders as co-applicant that**

obtained funding (€1,200,000) and was member of the management committee, progress committee and leader of 3 working packages. Currently, I am **principal investigator** of a project (€ 50.000) that provide an early warning SARS-CoV-2 surveillance within the university's faculties and student residence.

In past six years, I evolved to an international recognized expert of the two research lines built. Despite a relatively short academic career to date (PhD obtained in November 2014), I achieved an exceptionally strong track record in conducting interdisciplinary research. Overall, my research has been published in **61 peer-reviewed papers** and 4 book chapters (H-index: 31), and more than 60 conference communications (**8 invited talks**), which positions me within the **top 2% of scientists of my main discipline**. I have been **lecturer** in 3 international PhD courses and 3 national masters (Univ of Almería, Girona, Jaume I and Pais Vasco). I co-supervised 3 master theses and currently **supervise** 1 PhD student and 1 post-doc researcher. Furthermore, I was (i) **member of the jury** of 5 PhD dissertations (ii) **member of scientific - organizing committees** of 5 international conferences, (iii) **chair** of 2 plenary sessions (iv) **guest-editor** of Sci. Total Environ 2016. At present, I am member of the **Associate Advisory Board** of J. Mass Spectrom and the **Editorial Board** of Sci. Total Environ and **vice-coordinator** of the SCORE network consisting of 71 members, 98 WWTPs in 37 countries.

Part C. RELEVANT MERITS

C.1. Publications most relevant last 10 years (for full list please see ORCID 0000-0001-7005-8775)(*corresponding author)

- **L Bijlsma***, Y Picó, V Andreu, (…), M Ventura, JB Quintana* (**2021**) The embodiment of wastewater data for the estimation of illicit drug consumption in Spain. *Science of the Total Environment* accepted **IF: 6.551**

- **L Bijlsma***, R Bade, F Been, A Celma, S Castiglioni (**2021**) Perspectives and challenges associated with the determination of new psychoactive substances in urine and wastewater – A tutorial. *Analytica Chimica Acta, 1145: 132-147* **IF: 5.977**

- A Celma, JV Sancho, EL Schymanski, D Fabregat-Safont, M Ibáñez, J Goshawk, G Barknowitz, F Hernández, **L. Bijlsma*** (**2020**) Improving Target and Suspect Screening High-Resolution Mass Spectrometry Workflows in Environmental Analysis by Ion Mobility Separation. *Environmental Science and Technology, 54: 15120-15131.* **IF: 7.864**

- **L Bijlsma***, MHG Berntssen, S Merel (**2019**) A refined nontarget workflow for the investigation of metabolites through the prioritization by in silico prediction tools. *Analytical Chemistry, 91: 6321 – 6328.* **IF:6.350**

- **L Bijlsma**, R Bade, A Celma, L Mullin, G Cleland, S Stead, F Hernández, JV Sancho* (**2017**) Prediction of Collision Cross Section values for small molecules: application to pesticide residue analysis. *Analytical Chemistry, 89: 6583 – 6589.* **(IF: 6.042)**

- E Gracia-Lor*, S Castiglioni, R Bade, …, E Zuccato, **L Bijlsma*** (**2017**). Measuring biomarkers in wastewater as a new source of epidemiological information: Current state and future perspectives. *Environment International, 99: 131 – 150.* **IF: 7.297**

- F Béen, **L Bijlsma**, L Benaglia, …, P Esseiva, C Ort* (**2016**) Assessing geographical differences in illicit drug consumption—A comparison of results from epidemiological and wastewater data in Germany and Switzerland. *Drug and Alcohol Dependence, 161: 189-199.* **IF: 3.222**

- **L Bijlsma**, C Boix, WMA Niessen, M Ibáñez, JV Sancho, F Hernández* (**2013**) Investigation of degradation products of cocaine and benzoylecgonine in the aquatic environment. *Science of the Total Environment, 443: 200 – 208.* **(IF: 3.163)**

- M van der Aa*, **L Bijlsma**, E Emke, E Dijkman, ALN van Nuijs, B van de Ven, F Hernández, A Versteegh, P de Voogt (**2013**) Risk assessment for drugs of abuse in the Dutch watercycle. *Water Research, 47: 1848 – 1857.* **(IF: 5.323)**

- **L Bijlsma**, E Emke, F Hernández, P De Voogt* (**2012**). Investigation of drugs of abuse and relevant metabolites in Dutch sewage water by liquid chromatography coupled to high resolution mass spectrometry. *Chemosphere, 89: 1399 – 1406.* **IF: 3.137**

C.2. Research projects

International

- "Europe-wide Sewage analysis to Monitor Emerging drug problems (EuSeME)", EU DG Migration and Home Affairs, JUST-2018-AG-DRUGS 861602, PI: Dr. P de Voogt (KWR, the Netherlands), 2019-2021, 725.718 €
  Role: **Co-applicant**, **member of the Progress Committee**, **coordinator of Working Package (WP) 4**

- "Identification and assessment of new psychoactive substances: a European network (NPS-Euronet)", EU DG Migration and Home Affairs, HOME/2014/JDRU/AG/DRUG/7086, PI: Dr. E Zuccato (Mario Negri Institute, Italy), 2016-2018, 480.863 €
  Role: **Post-doc researcher** and **member of the Progress Committee**

- "New and Emerging Challenges And Opportunities In Wastewater Reuse (NEREUS)" COST- ES1403, European Cooperation in the field of Scientific and Technical Research, PI: Dr. D Fatta-Kassinos (University of Cyprus, Cyprus), 2014-2018, 4.000.000 €
  Role: **Management Committee (MC) substitute** and **team member**

- "Sewage biomarker analysis for community health assessment (SCORE)" COST-ES1307, European Cooperation in the field of Scientific and Technical Research, PI: Dr. K Thomas (NIVA, Norway), 2014-2018, 3.700.000 €
  Role: **Spanish national delegate, member of MC**, **coordinator of WP 1**

- "A new paradigm in drug use and human health risk assessment: Sewage profiling at the community level (SEWPROF)", ITN - Marie Curie, PITN-GA-2012-317205, PI: Dr. B Kasprzyk-Hordern (University of Bath, UK), 2012-2016, 4.178.230 €
  Role: **Team member** and **Training Leader Deputy**

National

- "Exploración de las aguas residuales como indicador complementario, rápido y objetivo sobre el consumo de sustancias de abuso", DG para el Plan Nacional Sobre Drogas, PI: Dr. JB Quintana, Universidade de Santiago de Compostela, 2021-2023, 106.944 €
  Role: **Co-applicant, team member**

- "Monitorización de la pandemia Covid19 en el entorno universitario a través del análisis de las aguas residuales (COVID_WATER UJI)", University Jaume I, **PI: Dr. L Bijlsma**, 2020-2021, 50.000 €

- "El papel de las aguas residuales en la detección de Covid19: Evolución de la pandemia y rol en el control preventivo de futuros rebrotes (COVIDWATER)", Generalitat Valenciana, AVI, PI: Dr. JG Berlanga, FACSA (grupo Gimeno), 2020-2021, 52.500 €
  Role: **Team member**

- "Red Española de Análisis de Aguas Residuales con fines Epidemiológicos (ESAR-net)", MINECO, Ref CTM2016-81935-REDT, PI: Dr. JB Quintana, Universidade de Santiago de Compostela, 2017-2018, 20.000 €
  Role: **Team member**

- "Desarrollo de estrategias analíticas, basadas en el uso de técnicas avanzadas de espectrometría de masas, en el campo de la salud pública", Generalitat Valenciana Grupos Excelencia PROMETEO/2009/054 and PROMETEO II/2014/023, PI: Dr. F Hernández, Universidad Jaume I, 2009 – 2016, 240.520 €
  Role: **Researcher**

C.3. Contracts

- "Multi-city study on wastewater: Summary and analysis of data collection"(EMCDDA service contract, CT.17.SDI.0082.1.0), European Monitoring Centre for Drugs and Drug Addiction, PI: M Reid (NIVA, Norway), 2017-2021, 80.000 €
  Role: **Co-applicant, member of the Management Committee (MC)**

- "Wastewater Analysis of Traces of illicit drugs-related Chemicals for law enforcement and public Health (WATCH)," EU service contract HOME/2015/ISFP/PR/DRUG/0062, PI: P de Voogt (KWR, the Netherlands) 2016 - 2018 250.000 €
  Role: **Co-applicant, member of the MC, Coordinator of WP 1**.

C.5. Conferences/workshops

62 communications at national and international conferences, 33 oral (presenter 16) and 29 poster presentations. **8 invited/keynote speaker (5 international)**

Member of the Scientific Committee of 4 international conferences: 2nd International Conference on Challenges and Solutions related to Xenobiotics and Antimicrobial Resistance, Framework of Urban Wastewater Reuse "XENOWAC II" Limassol (Cyprus); 2nd, 3rd and 4th International Conference on Wastewater-based drug epidemiology Monte Verità 2015 (Switzerland), Lisbon 2017 (Portugal) and Foshan 2019 (China)

Member of the Organizing Committee of the NPS-Euronet Conference: Identification and assessment of new psychoactive substances. 2018, Lisbon (Portugal)

Chair of session "Addressing the key scientific issues – technical advances in wastewater-based epidemiology" Testing the Waters III. 2017, Lisbon (Portugal)

Chair of session "Non-target analysis in environmental sciences: the state of the art and future perspectives" SETAC Europe 30th Annual Meeting. 2020, SciCon (virtual)

C.6. Post-doc research visits abroad (Total 2 years)

EAWAG, dept. Urban Water Management (Switzerland) 3 months, 2015

University of Antwerp, dept. Toxicological Centre (Belgium) 3 months, 2016

Mario Negri Institute, dept. Environmental Health Sciences (Italy) 3 months, 2018

Institute of Marine Research, dept. Feed Safety (Norway) 3 months, 2018

University of Amsterdam, IBED (Netherlands) 1 year, 2019 - 2020

C.7. Experience as lecturer

- Liquid Chromatography coupled to Mass Spectrometry. Course 2018/2019 and 2019/2020. *Máster Universitario Oficial en Laboratorio Avanzado de Química*. University of Almería, Spain. 5h/year (total 1 credit).

- Wastewater-based epidemiology and biomarkers. Course 2020/2021. *Máster Interuniversitario en Técnicas Cromatográficas Aplicadas*. University of Girona. Spain. 10h/year (total 1 credits) obtained grant of Banco de Santander as external teacher.

- Laboratory practical. Course 2020/2021. *Máster Interuniversitario en Técnicas Cromatográficas Aplicadas*. University of Jaume I. Spain. 20h/year (total 2 credits)

- Toxicologia Forense Medioambiental. Course 2020/2021. *Máster de Analysis Forense*. University of the Basque Country. Spain. 5h/year (total 0.5 credit).

- 3 international PhD courses, 1 seminar in Universities and Research Institutes. 2h/seminar.

C.8. Research awards

2019: Best Oral Communication at XIX Reunion SECyTA, Santiago de Compostela,

2019: Best Oral Communication at II International Conference on Cannabis and its Derivatives: Health, Education and Legislation. Catoira (Pontevedra)

2016: Premi Extraordinari de Doctorat, "extraordinary prize for PhD Thesis" (UJI)

2012: Eurofins Best Publication Award (SETAC-Europe) for Bijlsma et al. Chemosphere, 89:1399 – 1406 (2012). Glasgow, Scotland.

C.9. Other merits

Editorial responsibilities: Guest-editor for Sci. Total Environ., Vol. 565, 2016 (IF: 4.610), Member of the Associate Advisory Board of J. Mass Spectrom (since 2019) and the Editorial Board of Sci. Total Environ (since 2020). **Reviewed papers**: > 50 (40 in Publons). **Projects evaluated**: 3, Belgian Federal Science Policy Office (BELSPO). **Memberships**: NORMAN network, since 2012; Spanish Society of Mass Spectrometry (SEEM), since 2009; Society of Environmental Toxicology and Chemistry (SETAC), since 2020. **Member of PhD tribunal**: 5. **Vice-coordinator of the SCORE network** (71 members, 98 WWTPs from 37 countries), since January 2020.