

Konstantinos (Kostas) Tsolis

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Leuven, Belgium



Work experience in the industry

2020/05 - present Data Scientist at **Evonik Porphyrio N.V.**
Leuven, Belgium

2018/07-2020/05 Data Scientist/Python Developer at **Keyrus Life-Science**, Waterloo, Belgium

2017/03-2018/07 Data Scientist – Consultant at **Keyrus N.V.** Strombeek-Bever, Belgium

Education & Research experience in academia

2012-2017 **PhD in Biomedical Sciences**, KU Leuven, Rega Institute, Dpt. of Microbiology & Immunology, Leuven, Belgium

Thesis title Development of proteomics workflows and study of the mechanism for secretion through T3SS in Enteropathogenic *E. coli*.

2008-2011 **MSc. Clinical applications of molecular medicine**, Dpt. of Medicine, Univ. of Thessaly, Larissa, Greece.

Thesis title Characterization of Tumor-antigen specific CD8 T-cells in cord blood.

2003-2008 **BSc. Biochemistry & Biotechnology**, Dpt. of Biochemistry & Biotechnology, Univ. of Thessaly, Larissa, Greece.

Thesis title Molecular identification of enteroviruses in 5' untranslated region (UTR).

Certifications, Trainings & Workshops

2021 Deep Learning by Deeplearning.ai (Coursera)

2021 Natural Language Processing by Deeplearning.ai specialization (Coursera)

2019 Architecting with Google Kubernetes Engine Specialization (Coursera)

2019 M103 MongoDB Basic Cluster Administration (MongoDB University)

2016 EMBO Practical Course - Targeted proteomics: Experimental design and data analysis, Barcelona, Spain

2014 EMBO Practical Course - Biomolecular interaction analysis: From molecules to cells, Porto, Portugal

Core skills

Machine learning & Data analysis and Databases

- Classification, regression and clustering methods.
- Deep learning using TensorFlow 2.x and PyTorch.
- Data wrangling in Python and R, Bioinformatics.
- SQL (PostgreSQL, MS SQL Server) NoSQL (MongoDB).

Software development, Infrastructure management and deployment

- Programming languages: Python, R, Kotlin, SQL, JavaScript, HTML.
- Test-Driven Development (TDD).
- Microservices, Domain-Driven-Design (DDD), event-driven architectures.
- Docker, Kubernetes, Helm.
- Cloud computing. Experience with Microsoft Azure, AWS, GCP.

Proteomics

- High-throughput proteomics: experimental design, sample preparation, instrument setup and data analysis.
- Targeted proteomics.
- Hands-on experience with Orbitrap QE and Elite mass spectrometers coupled with Dionex Ultimate 3000 and EASY-nLC-1200 UPLC instruments.
- Proteomics data analysis using MaxQuant, Skyline.

Molecular biology - biochemistry

- Protein expression and purification and Genetic engineering.
- Cell-cultures (bacterial/eukaryotic/viruses), Working experience with viruses and pathogenic bacteria in a biosafety level 2 lab.

Selected Publications

1. Destouni A., **Tsolis KC**, et. al. (2021) **Expert Rev Proteomics**. 1-13, [PMID: 34348542](#)
2. Li X., **Tsolis KC**, et. al. (2021) **Alzheimer's & Dementia**, 17(6):946-958, [PMID: 33871169](#)
3. **Tsolis KC**, et. al., (2019) **Molecular and Cellular Proteomics**, 10.1074, [PMID: 30498012](#)
4. Rebets Y., **Tsolis KC**, et. al., (2018) **Frontiers in Microbiology**, 10:9-3033, [PMID: 30619125](#)
5. Busche T., **Tsolis KC**, et al., (2018) **Frontiers in Microbiology**, 9:1174, [PMID: 29915569](#)
6. **Tsolis, C.K.**, Tsare, E.P., et. al., (2018) **Microbial Cell Factories**, 17:43, [PMID: 29544487](#)
7. Hamed, M.B., et. al., (2017) **Molecular Cell Factories**, 16:232, [PMID: 29274637](#)
8. Portaliou, G.A., **Tsolis, C.K.**, et. al., (2017) **EMBO Journal**, 36, 3517-3531, [PMID: 29109154](#)
9. Koepff, J., Keller, M., **Tsolis, C.K.**, et. al., (2017) **Biotechnology and Bioengineering**, 144, 2011-2022, [PMID: 28436005](#)
10. **Tsolis, C.K.**, and Economou, A., (2017) **Methods in Enzymology** 586, 15-36, [PMID: 28137561](#)
11. **Tsolis, C.K.**, et al., (2016) **J. Proteome Res.**, 15 (6), 1995–2007, [PMID: 27146950](#)
12. Portaliou, A.G., **Tsolis, C.K.**, et al., (2015) **Trends in Biochemical Sciences**. 41:175-189, [PMID: 26520801](#)
13. **Tsolis, C.K.**, et. al., (2015) **Clinical Proteomics**. 12:12, [PMID: 25945082](#)
14. Papanastasiou, M., et. al., (2015) **Proteomics**, 16: 85-97, [PMID: 26466526](#)
15. Kyriakopoulou, Z., **Tsolis, K.**, et. al., (2012) **Archives in Virology**. 158, 103–111. [PMID: 22983155](#)