Jochem Nelen

✉ jnelen@ucam.edu

in linkedin.com/in/jochem-nelen/

Profile

I am a driven life scientist who graduated as a Master in Biochemistry and Biotechnology from the University of Antwerp, and is currently a PhD-student at UCAM. My thesis project is in collaboration with Eurofins-VillaPharma, and under supervision of Prof. Pérez-Sánchez. The focus of my PhD is the application of computational drug discovery techniques, in order to find compounds that can be used to treat various diseases that are of relevance to Eurofins-Villapharma.

Education

UCAM Universidad Católica San Antonio de Murcia | Murcia, Spain   2021-Present
PhD-student at BIO-HPC
- Scope: The discovery and optimization of ligands against protein targets using computational drug discovery techniques
- Key words: *in silico* drug design, molecular docking, virtual screening
- Thesis Director: Horacio Pérez-Sánchez

University of Antwerp | Antwerp, Belgium   2018-2021
MSc Biochemistry and Biotechnology
- Major: Systems biology
- Minor: Research
- Key Modules: Datamining, Applied Bioinformatics, Protein technology and Proteomics, Medical Cell Biology, Gene and Genome technology
- Master Thesis (February – June 2021)
  - Title: *FEP viewer: a user-friendly webtool to display free energy perturbation calculations*
  - Summary: Development of an easy-to-use webtool which is able to orderly display previously performed free energy perturbation (FEP) calculations, as well as initiating new FEP calculations.
  - Promotor: Prof. Dr. Hans De Winter
  - Laboratory of Medicinal Chemistry (UAMC) , University of Antwerp
- FELASA A,B,C accreditation

University of Antwerp | Antwerp, Belgium   2015-2019
BSc Biochemistry and Biotechnology
- Key Modules: Bioinformatics, Statistics, Organic Chemistry, Molecular Biology, Genetics, Cellular Biology, Immunology, Integrated Metabolism
- Internship associated with Bachelor Thesis (March-April 2019)
  - Title: *Systematic meta-analysis of resistance markers for Isoniazid of Mycobacterium tuberculosis*
  - Promotor: Prof. Dr. Kris Laukens, Supervisor: Emmanuel Rivière
  - Adrem Datalab, University of Antwerp

- o The results from this internship contributed to a published paper, which resulted in co-authorship: https://doi.org/10.1016/j.cmi.2020.07.004

Experience

Laboratory of Medicinal Chemistry (UAMC) | University of Antwerp   **August 2020**
Voluntary Internship
Development of a pharmacophore-based conformational sampling tool for small molecules under the supervision of Prof. Dr. Hans De Winter.

Biomina | University of Antwerp   **July 2020**
Voluntary Internship
Development of a Python script which is able to visualize molecular structures in the world Minecraft, a popular 3D game. After providing a SMILES-string as input, the script can build the corresponding molecule in the 3D environment of a minecraft world as either a 2D or 3D molecular structure. This project was performed in association with Biomina, under the supervision of Prof. Dr. Kris Laukens.

Biomina | University of Antwerp   **July 2019**
Voluntary Internship
Development of several Python scripts in order to largely automate the workflow of utilizing their in-house developed TCRex tool. This webtool can be used to predict TCR-epitope binding for human T-cell receptors. This project was completed at Biomina, under the supervision of Prof. Dr. Kris Laukens.

Evonik | Antwerp, Belgium   **July 2018**
Student Job
Laboratory Assistant at the environmental lab of Evonik Antwerp.

Additional Skills

- **Languages:** Dutch (Native), English (Fluent), French (Notion)
- **Microsoft Office:** Proficient in Word, Excel and PowerPoint
- **Programming Languages:** Python (Advanced), R (Intermediate), Java (Intermediate), HTML (Intermediate),   CSS (Intermediate), JavaScript (Intermediate), PHP (Novice)