

Jorik Bot

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Education

- 2014–2018 **MSc Biology**, *Wageningen University & Research*.
Major: Health and Disease
- 2011–2014 **BSc Biology**, *Wageningen University & Research*.
Major: Organismal and Developmental Biology
Minor: Wildlife Biodiversity
- 2005–2011 **VWO**, *OSG de Hogeberg*, Texel.
Study program: Natuur en Techniek, Natuur en Gezondheid

MSc Thesis

- Title *Developing CRISPR-Cas12a into an in vivo genomic cut and paste system for prokaryotes*
- Supervisors John van der Oost, Sjoerd Creutzburg
- Description CRISPR-Cas12a (previously known as Cpf1) is an RNA guided endonuclease, like its more well known relative CRISPR-Cas9. However, unlike Cas9, Cas12a performs a staggered cut upon target recognition. We explored whether complementary sticky ends generated by Cas12a could be used for efficient deletions or insertions.
- Techniques Molecular cloning, bacterial genome editing using CRISPR and λ -Red, *in vitro* transcription, SDS-PAGE and Urea-PAGE.

MSc Internship

- Title *Induction of cell death with CRISPR-Cas13a*
- Supervisors Niels Geijzen, Peng Shang
- Description Contrary to Cas9 or Cas12, CRISPR-Cas13a cleaves RNA. Furthermore, after target recognition Cas13a behaves as a general RNase, indiscriminately cleaving target and non-target RNA. We tried to use this collateral RNA cleavage to induce cell death in cells expressing a specific transcript.
- Techniques Protein production and purification using FPLC, cell culture (KBM7, HEK293, MEFs), transfection, RT-qPCR, ligation independent cloning, protein transduction using iTOP and FACS.

Experience

Vocational

- 2018-present **PhD student**, *Hubrecht Institute/LUMC*, Geijzen group.

2018 **Technician**, *Hubrecht Institute*, Geijsen group.

After my internship I continued as a technician in the Geijsen group, working on the same project.

Miscellaneous

2015, 2016 **Teaching Assistant**, *Wageningen University & Research*.
Modelling Biological Systems

2014 **Teaching Assistant**, *Wageningen University & Research*.
Human and Animal Biology II

2014–2015 **Treasurer Foreign Excursion Committee**,
Student Association B.V.W. 'Biologica'.

Languages

Dutch **Native language**

English **Fluent**

German **Basic knowledge**

Computer skills

Programming **Basic knowledge of Python and R**

MS Office **Experienced with Word, Excel and PowerPoint**

Licenses and Certifications

- Article 9 certificate (Laboratory Animal Science)
- Drivers licence B

Interests

Sports Road cycling and mountain biking

Music Playing guitar and drums