

AVVISO PER DOTTORANDI e POSTDOC

Il giorno 17/05/2023 alle ore 12:00
nell'Aula Seminari del Dipartimento di Scienze e
Tecnologie Chimiche

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Laboratory of Microbiology, Wageningen University
Researcher & Founder/Chief Technology Officer (CTO)
at Scope Biosciences

Terrà una presentazione dal titolo:

Type III CRISPR-Cas, diagnostics and beginning a start-up
during your PhD

Proponente: Prof. Alessandro Porchetta

Abstract:

Type III CRISPR-Cas systems are part of an unique adaptive bacterial immune system that has evolved to deal with bacteriophage infections in a very efficient manner. Characteristic of type III CRISPR-Cas is the Cas10 subunit, key in the multifaceted defense response upon infection of the host. One of the main activities of the Cas10 subunit is the production of signaling molecules, shown to be part of an elaborate defense network that ultimately can lead to cell death. Fundamental understanding of this system has led to the development of a CRISPR-Cas based diagnostic technology that has resulted in a Wageningen University spin-off company. The journey of starting a company like this during my PhD will also be touched upon in this talk.

Reference

[1] Steens, J. A., Zhu, Y., Taylor, D. W., Bravo, J. P., Prinsen, S. H., Schoen, C. D., ... & Staals, R. H. (2021). SCOPE enables type III CRISPR-Cas diagnostics using flexible targeting and stringent CARF ribonuclease activation. *Nature communications*, 12(1), 5033.