Tuan-Dung NGO (27 years old)

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Nationality. Vietnamese

Biochemical and Biotechnology Engineer PhD in Microbiology

Competences

Techniques

- **Proteomics**: Purification, chromatography, SEC-MALLS, CD, biochemical studies of protein-ligand interaction, ELISA, HTRF, Microscale thermophoresis (MST).
- Cellular biology and host-pathogen interaction: Cellular culture, classic fluorescence microscopy and automated microscopy (high-content screening and analysis), fluorimetry, LDH and MTT assays.
- Molecular biology: Cloning, quick change mutagenesis, transformation, PCR, sequencing

Informatics

- Basic: Windows, Microsoft office, Inkscape, ImageJ, Image Lab and SnapGene
- Programming language: R, Rcpp and PHP
- Other: MySQL, HTML, CSS, WordPress, R Markdown and Git control version

Language

Vietnamese: Native French and English : Advanced level (reading, writing and speaking)

Working experiences

2015- 2018 (3 years)

PhD student: PBRC team (ERL5261), BCI laboratory (U1036), BIG, Grenoble

Missions: Study the functioning of the Type III secretion system (T3SS) ATPase PscN in *Pseudomona*

- aeruginosa.
- Identify and characterize chemical compounds inhibiting the interaction of T3SS proteins.
- Test the efficacy of chemical compounds on the protection of eukaryotic cells against infection by *P. aeruginosa*.

Used techniques:

- Molecular biology, biochemistry and protein purification.
- Cellular biology, interaction of host-pathogen and automated fluorescence microscopy.
- Data analysis: Excel and R language.

2015 (6 month)

Engineer trainee: PBRC team, BCI lab, BIG, Grenoble (Final internship)

Mission:

• Study the role of the T3SS ATPase in *P. aeruginosa*.

Used techniques:

• Molecular biology, Protein expression and purification.

2014

(3 month)

Engineer trainee: Insa de Lyon (Internship of 4 years engineer student)

• Evaluate the performance of the UV disinfection reactor / H_2O_2 for the treatment of water.

Used techniques:

Bacterial viability assays, bacterial culture, fluorescence microscopy and HPLC

Education – Diplomas

2015 - 2018

PhD in microbiology graduated at Doctoral school of Chemistry and Life Sciences of Grenoble.

2010 - 2015

Engineer in Biochemistry and Biotechnology graduated at "Institut National de Science Appliquée (INSA)" in Lyon.

Hobby et activities

Hobby

Sport: Football, Volley-ball, Tennis

Film et cinema

Activities

- Moderator (chairman) of young researcher meetings at BIG institute at CEA-Grenoble
- Member de « Innovdoc », expertise of PhD student in the service of companies. https://www.innovdoc.org
- Personal website: https://qcjun2191.github.io/index.html.

Supplementary information

Publications

Submitted in April 2019 **Tuan-Dung Ngo.**, Sophie Plé., Aline Thomas., Caroline Barette., Antoine Fortuné., Younes Bouzidi., Marie-Odile Fauvarque., Rossimiriam Pereira de Freitas., Flaviane Francisco Hilário., Ina Attrée., Yung-Sing Wong., and Eric Faudry. (2019). "Chimeric protein-protein interface inhibitors allow efficient inhibition of Type III secretion machinery and Pseudomonas aeruginosa virulence". ASC Infectious Diseases

Manuscript in preparation

Tuan-Dung Ngo., Michel Ragno., Caroline Perdu., Bakhos Jneid., Andrea Dessen., Ina Attree., Arne Rietsch., and Eric Faudry. "The gate-keeper PopN complex acts on the ATPase PscN to regulate the T3SS secretion switch from early to middle substrates in Pseudomonas aeruginosa"

Communications

November 2018	Oral communication in the conference of SFM (Société Française Microbiologie), in Paris.
February 2018	Poster communication in the 19 th conference of VLM (Vaincre la Mucoviscidose) association, in Paris.
December 2017	Oral communication in the conference of G-RREMI (groupe Régional de Recherche en Microbiologie des Interactions), in Lyon.
February 2017	Oral communication and Poster communication in the «European Young Investigators Meeting 2017 on Cystic Fibrosis », in Paris.
February 2017	Poster communication in the 18 th conference of VLM (Vaincre la Mucoviscidose) association, in Paris.
April 2016	Poster communication in the « Type III Secretion System Meeting 2016 », Tubingen, Germany.
February 2016	Poster communication in the 17 th conference of VLM (Vaincre la Mucoviscidose) association, in Paris.

Personal qualities

Humanise Rigorous, persevering, autonomous

Skill Spirit of analysis and synthesis

References

PBRC team (ERL5261), BCI laboratory (U1036), BIG, Grenoble

- Dr. Eric FAUDRY. E-mail: eric.faudry@cea.fr
- Dr. Ina ATTREE-DELIC. E-mail: <u>ina.attree-delic@cea.fr</u>
- « Département de Pharmaco-chimie moléculaire, UGA, Grenoble »
- Dr. Yung-Sing WONG. E-mail: yung-sing.wong@univ-grenoble-alpes.fr