Tuan-Dung NGO (29 years)
3, rue Conrad Killian
38950 St Martin le Vinoux
Tel: +33779821597
Mail: ngotuandung1991@gmail.com
Nationality: Vietnamese

PhD in Biochemistry

Competences

Techniques

- **Biochemistry**: Protein purification, SDS-page, Western blot, SEC-MALLS, CD; HPLC and Mass spectrometry analysis; Protein-ligand interaction, ELISA, HTRF, Microscale thermophoresis (MST).
- **Cellular biology and host-pathogen interaction**: Mammalian cell culture, Classic fluorescence microscopy and automated microscopy (high-content screening and analysis), Biological image analysis, Fluorimetry, LDH (viability) and MTT (proliferation) assays.
- **Molecular biology**: DNA preparation, Cloning, Site directed mutagenesis (Quick change, Q5-KLD), transformation, transfection, PCR, sequencing.

Informatics

- **Basic**: Microsoft office, Inkscape, GIMP, ImageJ - Fiji, Image Lab, SnapGene and Chemdraw.
- **Programing and data analysis**: 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

03/2021 – present

Post-doc: Met&OR team, CBM laboratory, IRIG, CEA-Grenoble, France
Missions:
- Bio-orthogonal chemistry for the study of copper homeostasis in mammalian cells.

Used techniques:
- Molecular biology, biochemistry and cellular biology, click chemistry *in vivo*.
- Fluorescent microscopy and imaging.
- Data analysis: Excel and R language.

12/2019 – 11/2020 (12 months)

Post-doc: CBO team, CERMAV laboratory (UPR 5301), St Martin d'Hères, France
Missions:
- Definition of a potential method in glycoprotein synthesis for therapeutic protein development.

Used techniques:
- Molecular biology, recombinant enzyme production, biochemical activity, Click chemistry.
- Glycosylation of peptide and protein; Analyses TLC, HPLC and Mass Spectrometry
- Data analysis: Excel and R language.

12/2015-02/2019 (39 months)

PhD student: PBRC team (ERL 5261), BCI laboratory (UMR 1036), IRIG, Grenoble, France
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 months)

Engineer trainee: PBRC team, BCI lab, IRIG, Grenoble, France (Final internship)
Mission:
- Study the role of the T3SS ATPase in *P. aeruginosa*.

Used techniques:
- Molecular biology, Protein expression and purification.

2014 (3 months)	**Engineer trainee: LGCIE lab, Insa de Lyon, France (Internship of 4 years engineer student)** **Mission :** ▪ 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.
2013 (3 months)	**Trainee: Genetic engineering laboratory, Institute of Biotechnology, Hanoi, Vietnam** **Mission :** ▪ Study glucosidase genes founded in the gut flora of termite. ▪ Identify new enzyme for the degradation of agricultural residues. **Used techniques:** ▪ DNA cloning, recombinant protein expression and purification.

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 IRIG 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

January 2021	Oriane Moyne., Florence Castelli., Dominique J. Bicout., Julien Boccard., Boubou Camara., Benoit Cournoyer., Eric Faudry., Samuel Terrier., Dalil Hannani., Sarah Huot-Marchand., Claire Léger., Max Maurin., **Tuan-Dung Ngo**., Caroline Plazy., Robert A. Quinn., Ina Attree., François Fenaille., Bertrand Toussaint and Audrey Le Gouëllec. ***"Metabotypes of Pseudomonas aeruginosa correlate with antibiotic resistance, virulence and clinical outcome in Cystic Fibrosis chronic infections".*** **Metabolites.** DOI: 10.3390/metabo11020063
July 2020	**Tuan-Dung Ngo.,** Caroline Perdu., Bakhos Jneid., Michel Ragno., Julia Novion Ducassou., Alexandra Kraut., Yohann Couté., Charles Stopford., 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".*** **JMB.** DOI: 10.1016/j.jmb.2020.10.024)
September 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".*** **ACS Infect. Dis.** DOI: 10.1021/acsinfecdis.9b00154

Communications

January 2021	**Oral scientific communication (video conferencing)** in the conference of G-RREMI (groupe Régional de Recherche en Microbiologie des Interactions), Auvergne Rhône-Alpes, France.
November 2018	**Oral communication** in the conference of SFM (Société Française Microbiologie), in Paris.
February 2018	**Poster communication** in the 19th 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 18th 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 17th conference of VLM (Vaincre la Mucoviscidose) association, in Paris.

Personal qualities

Humanise	Rigorous, persevering, autonomous
Skill	Spirit of analysis and synthesis

References

MET&OR team, CBM laboratory, IRIG, CEA-Grenoble	▪ Dr. Aurélien DENIAUD. E-mail: *aurelien.deniaud@cea.fr*
CBO team, CERMAV laboratory (UPR 5301), St Martin d'Hères	▪ Dr. Sébastien FORT. E-mail : *sebastien.fort@cermav.cnrs.fr* ▪ Dr. Sylvie ARMAND. E-mail : *sylvie.armand@cermav.cnrs.fr*
PBRC team (ERL 5261), BCI laboratory (UMR 1036), IRIG, Grenoble	▪ Dr. Eric FAUDRY. E-mail: *eric.faudry@cea.fr* ▪ Dr. Ina ATTREE-DELIC. E-mail: *ina.attree-delic@cea.fr*
« Département de Pharmaco-chimie moléculaire, UGA, Grenoble »	▪ Dr. Yung-Sing WONG. E-mail: *yung-sing.wong@univ-grenoble-alpes.fr*