Thuy-Linh Le

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EDUCATION

2020 **Ph.D.** in Genetics, Université de Paris, France

Thesis: Genetics of Hirschsprung Disease

Advisor: Prof. Stanislas Lyonnet

2016 M.S. in Genetics, Paris Descartes University, France

Thesis: Oligogenic model of Isolated form of Hirschsprung Disease

Advisor: Prof. Stanislas Lyonnet

2014 M.B.B.S., Hanoi Medical University, Vietnam

Thesis: Laparoscopic cholecystectomy as a treatment of Acute cholecystitis

Advisor: Prof. Bao-Long Tran

EXPERIENCES

2020 - present Postdoctoral Researcher, Institut Pasteur, Paris, France

Human Genetics and Cognitive Function Laboratory

Team leader: Prof. Thomas Bourgeron

2016 - 2020 PhD Candidate, Institut Imagine, INSERM UMR1163, Paris, France

Embryology and Genetics of Malformations Laboratory

Team leader: Prof. Jeanne Amiel

SKILLS

Wet lab PCR, RT-qPCR, DNA sequencing, In vitro RNA synthesis,

Site-directed mutagenesis, Cell culture, Plasmid transfection,

Western Blot, Immunohistochemistry, IncuCyte[®] live-cell imaging

Zebrafish genome editing by morpholino and CRISPR/Cas9

Zebrafish and mouse mutant phenotype analysis –

Dissection, Histopathology and Confocal Microscopy/Spinning Disk

Dry lab Exome analysis – Variant prioritisation and Segregation study

In silico mutagenesis and protein crystal structure analysis (Chimera) Image analysis (ImageJ, Imaris), Data analysis and visualisation (R)

Programming C, SQL, Python

Languages Vietnamese (native), French (DALF C1), English (IELTS 7.5)

FUNDINGS

2020	Fellowship of Excellence for Young Investigators, ESHG Conference
2019 - 2020	PhD Fellowship, Fondation pour la Recherche Médicale
2016 - 2019	PhD Fellowship, French Ambassy in Vietnam
2015 - 2016	MS scholarship, French Ambassy in Vietnam
2014 - 2015	MS scholarship, Agence Universitaire de la Francophonie

INVITED TALKS

"Mapping and Identifying Genetic Susceptibility to Hirschsprung Disease." Graduate course: Human Genetics and Pathologies, Université de Paris, January 27, 2021.

PRESENTATIONS

"Biallelic mutations of SMO in humans cause a broad spectrum of developmental anomalies due to abnormal Hedgehog signalling."

ESHG Conference 2020, June 6-9, 2020, oral presentation.

"Biallelic mutations in ERBB3 cause variable defects in multiple neural crest derivatives in humans."

YR2I Congress, Paris, France, May 23, 2019, oral presentation.

GRS-GRC Neural Crest and Cranial Placodes, Lucca, Italy, April 14-19, 2019, poster.

ENS Development Meeting, Boston, USA, April 8-11, 2018, poster.

"New generation sequencing allows identification of rare variants in the oligogenic model of Hirschsprung disease."

Assises de Génétique Humaine et Médicale 9, Nantes, France, January 24-26, 2018, poster. Assises de Génétique Humaine et Médicale 8, Lyon, France, February 3-5, 2016, poster.

PUBLICATIONS

- [1] **Thuy-Linh Le** et al. Dysregulation of the NRG1-ERBB pathway causes a developmental disorder with gastrointestinal dysmotility in humans. *The Journal of Clinical Investigation*, January 2021.
- [2] **Thuy-Linh Le** et al. Bi-allelic Variations of *SMO* in Humans Cause a Broad Spectrum of Developmental Anomalies Due to Abnormal Hedgehog Signaling. *American Journal of Human Genetics*, 106(6):779–792, June 2020.
- [3] Hongsheng Gui et al. Whole exome sequencing coupled with unbiased functional analysis reveals new Hirschsprung disease genes. *Genome Biology*, 18(1):48, March 2017.
- [4] Clara Sze-Man Tang et al. Trans-ethnic meta-analysis of genome-wide association studies for Hirschsprung disease. *Human Molecular Genetics*, 25(23):5265–5275, December 2016.
- [5] Thi Lua Nguyen et al. Survey-based cancer mortality in the Lao PDR, 2007-08. Asian Pacific journal of cancer prevention, 12(10):2495-2498, 2011.

[&]quot;New genes in syndromic Hirschsprung Disease involve the NRG1-ERBB and SHH pathways." Imagine Seminar, Institut *Imagine*, October 26, 2020.

REFEREES

Prof. Stanislas Lyonnet Director, Institut *Imagine* Professor, Université de Paris stanislas.lyonnet@inserm.fr

Dr. Nadège Bondurand Research Director, Institut *Imagine* nadege.bondurand@inserm.fr Prof. Jeanne Amiel Team leader, Institut *Imagine* Professor, Université de Paris jeanne.amiel@inserm.fr

Dr. Sophie Thomas Researcher, Institut *Imagine* sophie.thomas@inserm.fr