**EDUCATION**

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| 2015 – 2019 | **Doctor of Philosophy (Biotechnology)**  *University of Wollongong, Sydney, Australia*  *With Examiners’ Commendation for Outstanding Thesis* |
| 2010 – 2014 | **Bachelor of Science (Chemistry)**  *Swinburne University of Technology, Melbourne, Australia*  *First-Class Honours* |

**WORK EXPERIENCE**

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| 2022 - current | **Lab Manager**  *Laboratory of Molecular biology*  *The Institute of Biotechnology, Hue University, Hue, Vietnam* |
| Feb 2019 – Mar 2022 | **Postdoctoral Scientist**  *The Francis Crick Institute, London, United Kingdom* |
|  | •Studied how human cells repair their DNA to prevent cancer development  •Purified human DNA repair proteins and developed novel biochemical assays  •Wrote project proposals and obtained funding from the European Molecular Biology Organization (EMBO)  •Present progress and results in seminars, team meetings and scientific journals |
| Aug 2014 – Feb 2015 | **Maths and Science Teacher**  *Everest Education, HCMC, Vietnam* |
|  | *•*Taught maths and science for year 4, year 8 and year 10 students with class sizes ranging from 5 to 16  *•*Designed teaching materials that was fun and engaging  *•*Helped organize school events: Young Maker Challenge, a city-wide programming competition for high school students in HCMC |

**PhD DISSERTATION**

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| Mar 2015 – Jan 2019 | **Single-molecule live-cell imaging of transcription-coupled repair in *Escherichia coli***  Mentors: Professor Antoine van Oijen and Dr. Harshad Ghodke |
|  | •Created knock-in and knock-out in *Escherichia coli* using Lambda Red recombination and CRISPR-Cas9 technology  •Imaged fluorescently labelled proteins in live single cells using single-molecule fluorescence microscopy  •Wrote MATLAB codes to track foci movement in live cells  •Performed simulations in MATLAB to determine the influence of photobleaching rate in kinetic measurements obtained from single-particle tracking |

**SCIENTIFIC PUBLICATIONS**

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| •**Ho, H.N.,** West, S.C. (2022) *PNAS*, Generation of double Holliday junction DNAs and their dissolution/resolution within a chromatin context.  •**Ho, H.N.,** van Oijen, A.M., Ghodke, H. (2020) *Nature Communications*, Single-molecule imaging reveals molecular coupling between transcription and DNA repair machinery in live cells.  •Ghodke, H., **Ho, H.N.,** van Oijen, A.M. (2020) *Nature Communications*, Single-molecule live-cell imaging reveals parallel pathways of prokaryotic nucleotide excision repair.  •**Ho, H.N.,** van Oijen, A.M., Ghodke, H. (2019) *Biophysical Journal*, Identification of multiple kinetic populations of DNA-binding proteins in live cells.  •**Ho, H.N.**, van Oijen, A.M., Ghodke, H. (2018) *Nature Communications*, The transcription-repair coupling factor Mfd associates with RNA polymerase in the absence of exogenous damage.  •**Ho\*, H.N.**, Ghodke\*, H., van Oijen, A.M. (2017) *Biochemical Society Transactions*, Single-molecule live-cell imaging of bacterial DNA repair and damage tolerance.  •Quinn, M.D.J, Ho, H.N., Notley, S. (2013) ACS *Applied Materials and Interfaces*, Aqueous Dispersions of Exfoliated Molybdenum Disulfide for Use in Visible-Light Photocatalysis. |

**COURSERA CERTIFICATES**

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| 2020 | •Structuring Machine Learning Projects  •Neural Networks and Deep Learning  •Convolutional Neural Networks  •Sequence Models  •Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization |

**ACHIEVEMENTS**

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| 2020 – 2022 | EMBO Postdoctoral Fellowship  •For the best young researchers in Molecular Biology in Europe |
| 2020 | Sir David Cooksey Prize in Translation in recognition of efforts in response to COVID-19 |
| 2018 | IHMRI Publication of the Year Award |

**EXTRA-CURRICULAR ACTIVITIES**

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| Jul – Oct 2020 | **COVID-19 testing volunteer**  The Francis Crick Institute, London, United Kingdom  •Operated qPCR machines and communicated results with clinicians |
| 2017 – 2018 | **Vice-President**  Early-Mid-Career-Researcher Network, Sydney, Australia  •Organized career workshops to connect young researchers with industry leaders |