

Curriculum vitae



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WORK EXPERIENCE

Mar 2019–Present

Research assistant

Functional Genomic Biochemistry Laboratory, Jeju National University (South Korea)

- Projects Undertaken:
 - Pentadecanoic acid, an odd-chain fatty acid, suppresses the stemness of mcf-7/sc human breast cancer stem-like cells through JAK2/STAT3 signaling.
 - Pentadecanoic acid overcomes Tamoxifen resistance by regulation of estrogen receptor alpha in breast cancer stem-like cells.
 - Odd-chain fatty acids as novel histone deacetylase 6 (HDAC6) inhibitors.
 - Metabolic and lipidomic characterization of radio-resistant MDA-MB-231 human breast cancer cells to investigate potential therapeutic targets.
 - AMPK as a metabolic regulator in breast cancer stem cells.

Feb 2017

Experimental Course in Biotechnology in Medicine

Faculty of Medicine, University of Tsukuba (Japan)

- Workshop on Infection Diagnosis: Laboratory course for diagnosing bacterial pathogenic species.
- Identification and characterization of pathogenic bacteria from patient samples.

August 2015–Jul 2017

Research student

Stem Cell Institute, Vietnam National University HCMC - University of Science (Vietnam)

- Screening of natural compounds with biological activity against breast and liver cancer cells.
- Identification of dendritic cell therapy in cancer treatments.
- Establishment of *in-vitro* and *in-vivo* cancer models.

EDUCATION AND TRAINING

Mar 2019–Feb 2021

Master of Science in Interdisciplinary Graduate Program in Advanced Convergence Technology and Science

Jeju National University (Korea)

- GPA: 4.5/4.5
- Advisors:** Prof. Somi Kim Cho and Dr. Meran Keshawa Ediriweera
- Thesis title: "Pentadecanoic acid as a novel anti-cancer agent in human breast cancer stem-like MCF-7/SC cells"

Sep 2013–Oct 2017

Bachelor of Science in Biotechnology

Vietnam National University – Ho Chi Minh City (VNU-HCM) University of Science (Vietnam)

- GPA: 3.00/4.00
- Advisor:** Dr. Sinh Truong Nguyen (Stem Cell Institute, Vietnam National University HCMC - University of Science)
- Thesis title: "Development of three-dimensional cell model using human hepatocellular carcinoma (HepG2) cell line by hanging-drop technique."

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PERSONAL SKILLS

- Language(s)
- English
 - Vietnamese

Job-related skills

Professional skills:

- Molecular biology: Western blot, co-immunoprecipitation, specific gene silencing with siRNA, RNA extraction, real-time polymerase chain reaction, polymerase chain reaction.
- Cell biology: cell culture, flow cytometry analysis, reactive oxygen species measurement, invasion assay, wound healing assay, glutathione measurement, Aldehyde dehydrogenase activity measurement, Hoechst staining, propidium iodide staining, cell viability assay, Karyotype, lipid droplet staining.
- Animal experiments: orthotopic injection of breast cancer cells into BALB/C nude mice.
- Data analysis: Prism version 6.01, Calcsyn, Image J, Xeno browser, Kaplan-Meier, Compusyn.

ADDITIONAL INFORMATION

Honours and awards

- Brain Korean scholarship for international graduate students who are studying in Korea (2020).
- Eureka award – Best scientific research award for Vietnamese students (2017).
- Scholarship for fabulous students from Phu Yen province who are studying in Ho Chi Minh City, Vietnam (2015 & 2017).
- Scholarship for excellent undergraduate students from Alumni of Biotechnology Faculty, University of Science, Ho Chi Minh City (2014).
- VietSeeds Foundation scholarship for excellent undergraduate students (2013-2017).

Publications

- **Ngoc B T[†]**, Y Thi-Kim Nguyen[†], JY Moon, Meran K E, SK Cho. (2020). Pentadecanoic Acid, an Odd-Chain Fatty Acid, Suppresses the Stemness of MCF-7/SC Human Breast Cancer Stem-Like Cells through JAK2/STAT3 Signaling. *Nutrients* 12 (6):1663
- Meran K E[†], **Ngoc B T[†]**, Y Lim, & SK Cho (2021). Odd-Chain Fatty Acids as Novel Histone Deacetylase 6 (HDAC6) Inhibitors. *Biochimie*, 186, 147-156.
- Sinh T N, Nghia M D, Duyen H-K T, **Ngoc B T**, Phuc H V, Mai T T N & Phuc Van Pham. (2020). Isopanduratin A Isolated from *Boesenbergia pandurata* Reduces HepG2 Hepatocellular Carcinoma Cell Proliferation in Both Monolayer and Three-Dimensional Cultures. In *Cancer Biology and Advances in Treatment* (pp. 131-143).
- Hwanhui Lee, Myeongsun Kim, Jeong Yung Moon, **Ngoc BT**, Y Thi-Kim Nguyen, Somi Kim Cho, Hyung-Kyoon Choi. Metabolic And Lipidomic Characterization of Radi-oresistant MDA-MB-231 Human Breast Cancer Cells to Investigate Potential Therapeutic Targets. (2021). *Analytical and Bioanalytical Chemistry*. (Under review).
- **Ngoc B T**, Meran K E, SK Cho. (2020). Pentadecanoic acid Overcoming Tamoxifen Resistance by Regulation of Estrogen Receptor Alpha in Breast Cancer Stem-Like Cells. (2021). (In preparation)
- Y Thi-Kim Nguyen, **Ngoc BT**, V Nguyen-Phuong Truong, Meran K E, HK Kim, SK Cho. AMPK Activation Reduces Stemness Characteristics of MCF-7/SC Human Breast Cancer Stem-Like Cells through Targeting Glucose Metabolism. (2021). (In preparation)

References

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