

# Ahyoung Jang

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## EMPLOYMENT

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### **Korea University**

**Sep, 2019 - Jun, 2020**

- Researcher
- Stem cell and Neurodegeneration
- Research in dysfunction of neurons by deregulation of epigenetic modifying enzymes in neurodegenerative diseases.

## EDUCATION

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### **Ph.D. Student in Neuroscience Program**

**Aug, 2021 - Present**

University of Georgia, United States of America (Advisor: Dr. Anumantha Kanthasamy, Ph.D.)

### **Ph.D. Student in Interdepartmental Neuroscience Program**

**Aug, 2020 - July, 2021**

Iowa State University, United States of America

### **Master's Degree in Integrated Biomedical and Life Science**

**Mar, 2017 - Feb, 2019**

Korea University, South Korea (Advisor: Dr. SungHoi Hong, Ph.D.)

- Stem cell and Neurodegeneration
- Research in establishment of an efficient differentiation protocol for astrocyte and examination of pathogenesis of HD in terms of astrocyte dysfunction to identify the correlation of astrocyte and Huntington's disease.
- Specialized course work including the following: Stem Cell Therapy, Gene Therapy, Glial Neurobiology, Developmental Biology, Experimental Methodology of Brain Science, Advanced Molecular Biology

### **Bachelor of Science in Biological Science**

**Mar, 2012 - Feb, 2017**

Gachon University, South Korea (Advisor: Dr. Yoon-Jae Song, Ph.D.)

- Attended major lecture of Biological Science
- Major Courses: Biochemistry, Biology, Cell Biology, Microbiology, Genetics, Neurobiology

## TEACHING EXPERIENCE

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### Teaching Assistant

- Histopathology Lecture Fall semester, 2018
- Histopathology Lecture Fall semester, 2017

## RESEARCH EXPERIENCE

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### **US Food and Drug administration (FDA)**

**Sep, 2015 - July, 2016**

- Research Intern
- Research in Next Generation Sequencing (NGS) which facilitates molecular methods development for detection and differentiation of *C. cayetanensis* isolates in clinical, food and environmental samples.
- Advisor: Dr. Hediye Nese Cinar, M.D.

### **Biochemistry lab (Gachon Univ. Medical School)**

**Summer 2015**

- Research Assistant
- Advisor: Dr. Euiju Yeo, Ph.D.

### **Biochemistry lab (Gachon Univ.)**

**Mar, 2015 - Jul, 2015**

- Research Assistant
- Advisor: Dr. Sang Yeol Lee, Ph.D.

## **HONORS AND AWARDS**

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- Scholarship for academic excellence, Korea University, 2018
- Scholarship for academic excellence, Gachon University, 2012 – 2016

## **TECHNICAL SKILLS**

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### **Laboratory Techniques**

- Cell Culture (Primary cell, Human/Mouse induced Pluripotent Stem Cell, Human/Mouse Embryonic Stem Cell, Direct conversion)
- Immunostaining (Immunocytochemistry, Immunohistochemistry)
- Western Blot
- Flow Cytometry (Facs)
- Real-time qPCR
- Confocal Microscope
- Gateway Cloning
- Virus-related works
- Tissue Staining (H&E Staining, PAS Staining, Trichrome Staining)
- DNA / RNA Extraction
- Illumina Next Generation Sequencing
- ELISA (Enzyme-Linked Immunosorbent Assay)

## **PUBLICATIONS**

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Hediye Nese Cinar, Gopal Gopinath, Helen R. Murphy, Maria Sonia Almeria, Mauricio Durigan, Dajung Choi, **AhYoung Jang**, Eunje Kim, RaeYoung Kim, Seonju Choi, Jeongu Lee, Yurim Shin, Jieon Lee, Yvonne Qvarnstrom, Theresa K. Benedict, Henry S. Bishop, Alexandre da Silva · Molecular typing of Cyclospora cayetanensis in produce and clinical samples using targeted enrichment of complete mitochondrial genomes and next-generation sequencing. *Parasites & Vectors*, 2020

**[Master's Thesis]** In Vitro Differentiation of Human Induced Neural Stem Cells into Efficient and Functional Astrocytes, 2019

Kyung-Ah Choi, Han-Kyul Park, Insik Hwang, Hyesun Jeong, Hangsoo Park, Seulbee Lee, **Ah-Young Jang**, Yong Namkung, Donghun Hyun, Han-Jin Kwon, Byung Min Yoo, Jeong-Ok Kim, Ki-Cheon Seol, Sunghoi Hong · *Tissue*

inhibitor of metalloproteinase proteins inhibit teratoma growth in mice transplanted with pluripotent stem cells.  
STEM CELLS, 2019

Hediye Nese Cinar, Yvonne Qvarnstrom, Yuping Wei-Pridgeon, Wen Li, Fernanda S. Nascimento, Michael J Arrowood, Helen R. Murphy, **AhYoung Jang**, Eunje Kim, RaeYoung Kim, Alexandre da Silva, Gopal Gopinath · Comparative sequence analysis of *Cyclospora cayetanensis* apicoplast genomes originating from diverse geographical regions. Parasites & Vectors, 2016

## **PATENTS**

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Method for Differentiating Neural Stem Cells into Astrocytes Effectively. Sunghoi Hong, **AhYoung Jang**, Kyunga Choi. Applying (South Korea, PCT, 10-2019-0008256)

## **CONFERENCE PRESENTATIONS**

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### **POSTER PRESENTATIONS**

**Ah-Young Jang\***, Kyung-Ah Choi, Hang-Soo Park, Hyesun Jeong, Seulbee Lee, Yong Namkung, Donghun Hyun and Sunghoi Hong. *In vitro* differentiation of human induced neural stem cells into efficient and functional astrocytes. 73rd Annual Conference of KAOBS: Korean Association of Biological Sciences, August 23, 2018

**AhYoung Jang\***, Eunje Kim\*, RaeYoung Kim\*, AnnHee Im, Helen Murphy, Alexandre J. da Silva, Gopal Gopinath, Hediye Nese Cinar. Developing A Workflow To Obtain Whole Genome Sequences Of *Cyclospora Cayetanensis* From Oocysts: From Purification Of Fecal Samples To Genome Sequencing On Illumina Miseq. American Society for Microbiology DC Branch Spring meeting, April 14, 2016

### **OTHERS**

Hediye Nese Cinar, Yvonne Qvarnstrom, Yuping Wei-Pridgeon, Wen Li, Fernanda S. Nascimento, Michael J Arrowood , Helen R. Murphy, **AhYoung Jang**, Eunje Kim, RaeYoung Kim, Alexandre da Silva<sup>1</sup>, Gopal Gopinath<sup>1</sup>. De novo assembly and comparative sequence analysis of *Cyclospora cayetanensis* apicoplast genomes originating from diverse geographical regions. 2016 IAFP Annual Meeting, St. Louis Missouri, July 31- August 3, 2016

Hediye Nese Cinar, Gopal Gopinath, Dajung Choi, AnnHee Im, RaeYoung Kim, **AhYoung Jang**, Eunje Kim, Helen Murphy, Alexandre DaSilva. Amplicon Sequencing of Mitochondria Genome Using Next Gene Sequencing for Molecular Characterization of *Cyclospora cayetanensis* in Produce. The 91<sup>st</sup> Annual Meeting of The American Society of Parasitologists, Edmonton, Alberta, Canada, July 11-14, 2016