

Mahmoud Soliman

Department of Pathology & Clinical Pathology

Faculty of Veterinary Medicine

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Google Scholar:

https://scholar.google.com.eg/citations?user=uzUDa5MdddAAAAJ&hl=en&user=RYYX_ggAAAAJ

EXPERIENCE

- 13 years in Veterinary Pathology and Virology research for academia.
- More than 7 years teaching experience in veterinary pathology at undergraduate and postgraduate level.
- Authored over 32 publications in peer-reviewed journals and conference presentations and filled 4 patents.
- Extensive hands-on experience in the characterization of the virus-host interaction, such as enteric viruses (rotaviruses and caliciviruses) and influenza virus.
- Extensive hands-on experience in studying the host signaling pathways required by virus infection.
- Extensive hands-on experience in identifying the cellular receptors and endocytic mechanism of virus.
- Hands-on experience in the development of vaccines.
- Hands-on experience in culturing human induced pluripotent stem cells (iPSCs) and differentiate them to nerve cells or intestinal organoid.
- Hands-on experience in culturing different cell lines (passage, seeding, stocking) and preparation of primary cell culture.
- Hands-on experience in gene editing by using CRISPR technology.
- Hands-on experience in virus propagation in cell culture and embryonated eggs.

- Hands-on experience in virus titration using plaque assay, TCID₅₀, FFU, and virus staining for TEM.
- Hands-on experience in DNA and RNA extractions, primer pairs design, PCR, RT-PCR, real-time PCR, immunofluorescence.
- Hands-on experience in transformation and cloning, protein expression using eukaryotic and baculovirus expression systems, SDS-PAGE, western blot, ELISA.
- Hands-on experience in Bioinformatics as gene primers design, sequencing analysis, sequences alignment, and phylogenetic analysis.
- Hands-on experience in the production of virus-like particles (VLP) using Baculovirus expression system.
- Hand-on experience in the necropsy of different animals (experimental, farm, and pet animals).
- Hand-on experience in histological techniques as tissue processing, using ordinary and cryomicrotomes, staining using H&E and different special stains, immunohistochemistry.
- Excellent communication skills and organizational abilities.

RESEARCH POSITIONS

Postdoctoral Researcher

March 2022 –2024

*Department of Immunology
UT Southwestern Medical Center
Dallas, Texas 75390, USA*

- Conduct research to understand host-pathogen interactions by leveraging functional genomic CRISPR/Cas9 screens.
- Differentiate of human induced pluripotent stem cell (iPSCs) into motor neurons to understand the neurotropism of enterovirus infection in children with AFM.
- Perform receptor hunting of human norovirus.
- Define how viruses infect cells and how the host cell restricts viral infection.

- Generate new hypotheses, design experiments, carry out the experiments, interpret the data, and present the data and proper documentation to the PI.

Postdoctoral Fellow

November 2020 – December 2021

*Laboratory of Veterinary Pathology
College of Veterinary Medicine
Chonnam National University
Gwangju 61186, South Korea*

- Investigation of the project focuses on “Identification of the mechanism in the formation of viroplasm by livestock rotaviruses”.
- Identifying the mechanism by which porcine sapovirus disrupts tight junction to use occludin as a coreceptor.
- Identifying the transcription factors involved in rotavirus and influenza virus replication.
- Identifying the rotavirus protein(s) involved in the induction of necroptosis.
- Write and publish articles in peer-reviewed journals/digests that highlight findings from research and experimental activities ensuring consistency with the highest standards of academic publication.
- Utilize appropriate and current techniques/protocols in experimental laboratory management to ensure integrity and security of the experimental process, comprehensive documentation, and replicability of experimental procedures
- Training of postdoctoral fellows.
- Graduate and undergraduate student supervision and research proposal writing.
- Highly involved in the group research directions and management discussions.

WORK POSITIONS

1 JAN 2024: ASSISTANT PROFESSOR

*Department of Pathology & Clinical Pathology
Faculty of Veterinary Medicine
Assiut University
Assiut 71526, Egypt*

2 DEC 2018 – NOV 2020: LECTURER

*Department of Pathology & Clinical Pathology
Faculty of Veterinary Medicine
Assiut University
Assiut 71526, Egypt*

- Conduct undergraduate and postgraduate courses, including general, anatomical, special, and clinical pathology.
- Participate in the diagnostic services and anatomical pathology of animal cases consulting with the veterinary teaching hospital and local clinics.
- Advised students on coursework and career potential.
- Promoted student success by being available to students outside of the class and office hours, through email, special appointments, and an evening review session prior to the final exam.
- Positively contributed to the preparation, development, and delivery of course content and coordination.
- Grading of the student exams.
- Assist the head professor of the department with administrative matters.
- Participate in faculty development and meetings.

3 MARCH 2012 – AUG 2018: TEACHING ASSISTANT

*Laboratory of Veterinary Pathology
College of Veterinary Medicine
Chonnam National University
Gwangju 61186, South Korea*

- Conduct undergraduate courses, including anatomical pathology.

- Participate in the diagnosis and anatomical pathology of animal cases visited from the veterinary teaching hospital, local zoo, and local clinics.
- Participate in monthly meeting for discussion of different animal cases.
- Assisting in the planning and development of research programs.
- Supervise of student participation in departmental research endeavors.

4 MAY 2009 – FEB 2012: LECTURER ASSISTANT

*Department of Pathology & Clinical Pathology
Faculty of Veterinary Medicine
Assiut University
Assiut 71526, Egypt*

- Conduct undergraduate courses, including general, anatomical, special, and clinical pathology.
- Advised students on coursework and career potential.
- Enforce school and class rules to help teaching students proper behavior.
- Help teachers prepare for lessons by getting materials ready or setting up equipment.
- Help supervise students in class, between classes, during lunch and recess, and on field trips.

EDUCATION

- **March 2014 – August 2018: Ph.D. in Veterinary Medicine (Virology)**, Laboratory of Veterinary Pathology, College of Veterinary Medicine, Chonnam National University, Gwangju, South Korea (Thesis title: Molecular Characterization of Host Cellular Signaling Pathways Involved in Rotavirus Entry and Infection).
 - Characterized the host cellular signaling molecules triggered by rotavirus to induce endosomal acidification and virus uncoating.
 - Characterized the mechanism by which rotavirus modulates the tight junction integrity to enter the polarized epithelial cells.
 - Investigated and characterized the role of the host cellular protein Cereblon in lipid droplet biosynthesis and rotavirus viroplasm formation required for viral progeny production.

- Characterized the mechanism of cell death necroptosis in rotavirus-infected cells.
- **March 2012 – February 2014: M.Sc. in Veterinary Medicine (Virology)**, Laboratory of Veterinary Pathology, College of Veterinary Medicine, Chonnam National University, Gwangju, South Korea (Thesis title: Pathogenicity Characterization of Duck Hepatitis A Virus Infection in South Korea).
 - Studied the epidemiological prevalence and comparative pathogenicity of different strains of hepatitis virus in Korean ducks.
- **September 2003 – June 2008: B.Sc. in Veterinary Medical Sciences**, Faculty of Veterinary Medicine, Assiut University, Assiut, Egypt

COMPUTER SKILLS

- Windows, MS Office, Data analysis: GraphPad prism, Excel and ImageJ, Data representation: Adobe Photoshop and Adobe Illustrator. Endnote, SnapGene.

HONORS & AWARDS

- **2020-2021: Publication Awards** from Assiut University, Egypt.
- **2018: Scientific Excellence Award and honor Student** from Chonnam National University, South Korea.
- **2016: The Best Oral Presentation Award** for “Canine Hepatic Cirrhosis” from the Korean Society of Veterinary Pathology.
- **2014-2018: Chonnam National University Scholarship** for pursuing PhD degree at College of Veterinary Medicine, Chonnam National University, South Korea.
- **2012-2014: Chonnam National University Scholarship** for pursuing master degree at College of Veterinary Medicine, Chonnam National University, South Korea.
- **2003-2008: Recognition Award** over the five years in my college, Assiut University, Egypt.

MEMBERSHIPS

- **2008 – Present:** Member in the Egyptian Veterinarians Syndicate.
 - **2008 – Present:** Member in the Egyptian Veterinary Medical Association.
 - **2009 – 2012:** Member in the Egyptian Society of Cattle Diseases.
 - **2012 – 2018:** Member in the Korean Society of Veterinary Pathology.
 - **2015 – Present:** in the American Society for Microbiology.
 - **2018 – 2020:** Member in the European Society of Virology.
 - **2018 – 2020:** Member in the European Society of Veterinary Virology.
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PROFESSIONAL EXPERIENCE

Journal Reviewer:

- Frontiers in Microbiology.
- Virology.
- Virus Genes
- International Journal of Biological Macromolecules.

Guest Editor:

- Frontiers in Urology.
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SUPERVISION of PhD and master students

- Doctoral (PhD) students:
 - 2020 – Present: Muhammad Sharif, Laboratory of Veterinary Pathology, College of Veterinary Medicine, Chonnam National University, South Korea.
 - 2019 – 2020: Walla Hassan, Department of Pathology & Clinical Pathology, Faculty of Veterinary Medicine, Assiut University, Egypt.
 - Master (Msc) students:
 - 2020 – Present: Sahar Abd El-Rahman, Molecular Biology Researches & Studies Institute, Assiut University, Egypt.
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LIST OF PUBLICATIONS

Patent Applications

1. Cho KO, Kang MI, Park JG, Kim JY, Son KY, **Soliman M**, Alfajaro MM, Baek YB, Cho EH. 2020. **Alive attenuated vaccine composition of KWD20V-102 strain for protecting bovine coronavirus infection**. South Korea. Patent number: KR20200020539A. <https://patents.google.com/patent/KR20200020539A/en>.
2. Kang MI, Cho KO, Son KY, Park JG, Kim JY, **Soliman M**, Seo JY, Alfajaro MM, Baek YB, Cho EH. 2019. **Mixed live attenuated vaccine composition for protecting porcine rotavirus infection**. South Korea. Patent number: KR102060369B1. <https://patents.google.com/patent/KR102060369B1/en?q=KR102060369B1>.
3. Cho KO, Kang MI, Son KY, Kim JY, **Soliman M**, Park JG, Seo JY, Alfajaro MM, Baek YB, Cho EH. 2019. **Mixed live attenuated vaccine composition for protecting bovine rotavirus infection**. South Korea. Patent number: KR20190108882A. <https://patents.google.com/patent/KR20190108882A/en?q=KR20190108882A>.
4. Cho KO, Alfajaro MM, Choi JS, Kim DS, Seo JY, Kim JY, Park JG, **Soliman M**, Baek YB, Cho EH, Kwon J, Kang MI. 2017. **Pharmaceutical composition for preventing or treating calicivirus infection**. South Korea. Patent number: KR101805394B1. <https://patents.google.com/patent/KR101805394B1/en?q=KR101805394B1>.

Journal Publications

1. Ibrahim A, Fahmy HM, Mahmoud GA, **Soliman M**, Elshahawy AM. 2024. **New strategies for sterilization and preservation of fresh fish skin grafts**. Scientific Reports 14:1253. DOI:1038/s41598-024-51608-4.
2. Sharif M, Baek YB, Thu H, **Soliman M**^{*}, Cho KO. **Porcine sapovirus-induced RIPK1-dependent necroptosis is proviral in LLC-PK cells**. PLoS One 18: e0279843. DOI:10.1371/journal.pone.0279843. ***Co-corresponding author**.
3. Ahmad AA, Moris MN, Monib MEM, **Soliman M**, Al-Thagfan SS, Huseein EAM. 2023. **Eugenol essential oil and nanoemulsion as antihydatic agents with antifibrotic and immunomodulatory effects in cystic echinococcosis**. Tropical Medicine and Infectious Disease 8, 253. DOI: 10.3390/tropicalmed8050253.

4. Ibrahim A, Kamel WH, **Soliman M**. 2022. **Efficacy of gelatin sponge in the prevention of post-surgical intra-abdominal adhesion in a rat model**. Res Vet Sci. 152:26–33. DOI: 10.1016/j.rvsc.2022.07.018.
5. Abd-Elkareem M, **Soliman M**, Abd El-Rahman MAM, Abou Khalil NS. 2022. **Effect of *Nigella sativa L.* seed on the kidney of monosodium glutamate challenged rats**. Front Pharmacol. 13. Doi: 10.3389/fphar.2022.789988.
6. Abo-Hiemad HM, Nassar AY, Shatat AR, Mohamed MA, **Soliman M**, Abdelrady YA, Sayed AM. 2022. **Protective effect of Copper II-albumin complex against aflatoxin B1-induced hepatocellular toxicity: the impact of Nrf2, NF-κB and PPAR-γ in these protective effects**. J Food Biochem. e14160. Doi: 10.1111/jfbc.14160
7. Abo-Hiemad HM, Mohamed MA, Nassar AY, Shatat AR, **Soliman M**, Sayed AM. 2022. **Impact of Copper II-albumin complex on kidney impairment induced by aflatoxin B1 in rats**. Egypt J Chem. 65:69-78. Doi: 10.21608/ejchem.2022.100401.4686.
8. Abd-Elkareem M, **Soliman M**, Abd El-Rahman MAM, Abou Khalil NS. 2022. **The protective effect of *Nigella sativa* seeds against monosodium glutamate-induced hepatic dysfunction in rats**. Toxicology Reports. 9:147–153. Doi: 10.1016/j.toxrep.2022.01.014.
9. **Soliman M**, Seo JY, Baek YB, Park JG, Kang MI, Cho KO, Park SI. 2021. **Opposite effects of apoptotic and necroptotic cellular pathways on rotavirus replication**. J Virol. 96:e01222–21. Doi: 10.1128/JVI.01222-21.
10. Naveed A, Baek YB, **Soliman M**, Sharif M, Park SI, Kang MI. 2021. **Sterol regulatory element-binding proteins involved in reprogramming of lipid droplet formation after rotavirus infection**. Korean J Vet Serv.44(4):195–207. DOI: 10.7853/kjvs.2021.44.4.195.
11. **Soliman M**, Sadek AA, Abdelhamid HN, Hussein K. 2021 **Graphene oxide-cellulose nanocomposite accelerates skin wound healing**. Res Vet Sci. 137:262–273. DOI: 10.1016/j.rvsc.2021.05.013.
12. Sharif M, Baek YB, Naveed A, Stalin N, Kang MI, Park SI, **Soliman M***, Cho KO. 2021. **Porcine Sapovirus-Induced Tight Junction Dissociation via Activation of RhoA/ROCK/MLC Signaling Pathway**. J Virol. 95:200051–21. DOI: 10.1128/jvi.00051-21. *Co-corresponding author.

13. Ibrahim A, Hassan D, Kelany N, Kotb S, **Soliman M**^{*}. 2020. **Validation of Three Different Sterilization Methods of Tilapia Skin Dressing: Impact on Microbiological Enumeration and Collagen Content.** *Front Vet Sci.* 7. DOI: 10.3389/fvets.2020.597751. ***Corresponding author.**
14. Ibrahim A, **Soliman M**^{*}, Kotb S, Ali MM. 2020. **Evaluation of fish skin as a biological dressing for metacarpal wounds in donkeys.** *BMC Vet Res.* 16:1-10. DOI: 10.1186/s12917-020-02693-w. ***Co-first author.**
15. Gareh A, **Soliman M**, Saleh AA, El-Gohary FA, El-Sherbiny HMM, Mohamed RH, Elmahallawy EK. 2020. **Epidemiological and Histopathological Investigation of Sarcocystis spp. in Slaughtered Dromedary Camels (Camelus dromedarius) in Egypt.** *Veterinary Sciences.* 7:162. DOI: 10.3390/vetsci7040162.
16. Park JG, Alfajaro MM, Cho EH, Kim JY, **Soliman M**, Baek YB, Park CH, Kang MI, Park SI, Cho KO. 2019. **Development of a live attenuated trivalent porcine rotavirus A vaccine against disease caused by recent strains most prevalent in South Korea.** *Vet Res.* 50:2. DOI: 10.1186/s13567-018-0619-6.
17. Lee SK, Lee N, Cho KO, **Soliman M**, Yun M, Choi J. 2019. **Echocardiographic features of indirect Gerbode defect in a cat.** *Korean J Vet Res.* 59(3):161–3. DOI: 10.14405/KJVR.2019.59.3.161.
18. Alfajaro MM, Kim JY, Laure Barbé, Cho EH, Park JG, **Soliman M**, Baek YB, Kang MI, Kim SH, Kim GJ, Park SI, Le Pendu J, Cho KO. 2019. **Dual recognition of sialic acid and α Gal epitopes by the VP8 domains of the bovine rotavirus G6P[5] WC3 and of its mono-reassortant G4P[5] RotaTeq vaccine strains.** *J Virol.* 93:e00941-19. DOI: 10.1128/jvi.00941-19.
19. **Soliman M**^{*}, Park JG, Park SI. 2019. **Comparative pathogenicity of duck hepatitis A virus type 1 and 3 infections in South Korea.** *Pak Vet J.* 39:271-277. DOI: 10.29261/pakvetj/2019.055. ***First author.**
20. **Soliman M**^{*}, Kim DS, Kim C, Seo JY, Kim JY, Park JG, Alfajaro MM, Baek YB, Cho EH, Park SI, Kang MI, Chang KO, Goodfellow I, Cho KO. 2018. **Porcine sapovirus Cowden strain enters LLC-PK cells via clathrin- and cholesterol-dependent endocytosis with the requirement of dynamin II.** *Vet Res.* 49:92. DOI: 10.1186/s13567-018-0584-0. ***First author.**

21. **Soliman M***, Cho EH, Park JG, Kim JY, Alfajaro MM, Baek YB, Kim DS, Kang MI, Park SI, Cho KO. 2018. **Rotavirus-induced early activation of the RhoA/ROCK/MLC signaling pathway mediates the disruption of tight junctions in polarized MDCK cells.** *Sci Rep.* 8:13931. DOI: 10.1038/s41598-018-32352-y. ***First author.**
22. Alfajaro MM, Cho EH, Kim DS, Kim JY, Park JG, **Soliman M**, Baek YB, Park CH, Kang MI, Park SI, Cho KO. 2018. **Early porcine sapovirus infection disrupts tight junction and uses occludin as a co-receptor.** *J Virol.* 93:4. DOI: 10.1128/jvi.01773-18.
23. **Soliman M***, Kim DS, Park JG, Kim JY, Alfajaro MM, Baek YB, Cho EH, Park CH, Kang MI, Park SI, Cho KO. 2018. **Phosphatidylinositol 3-Kinase/Akt and MEK/ERK signaling pathways facilitate sapovirus trafficking and late endosomal acidification for viral uncoating in LLC-PK cells.** *J Virol.* 92:e01674-18. DOI: 10.1128/jvi.01674-18. ***First author.**
24. Alfajaro MM, Cho EH, Park JG, Kim JY, **Soliman M**, Baek YB, Kang MI, Park SI, Cho KO. 2018. **Feline calicivirus- and murine norovirus-induced COX-2/PGE2 signaling pathway has proviral effects.** *PLoS One.* 13(7):e0200726. DOI: 10.1371/journal.pone.0200726.
25. Cho EH, **Soliman M***, Alfajaro MM, Kim JY, Seo JY, Park JG, Kim DS, Baek YB, Kang MI, Park SI, Le Pendu J, Cho KO. 2018. **Bovine nebovirus interacts with a wide spectrum of histo-blood group antigens.** *J Virol.* 92(9):e02160-17. DOI: 10.1128/jvi.02160-17. ***Co-first author.**
26. **Soliman M***, Seo JY, Kim DS, Kim JY, Park JG, Alfajaro MM, Baek YB, Cho EH, Kwon J, Choi JS, Kang MI, Park SI, Cho KO. 2018. **Activation of PI3K, Akt, and ERK during early rotavirus infection leads to V-ATPase-dependent endosomal acidification required for uncoating.** *PLoS Pathog.* 14(1):e1006820. DOI: 10.1371/journal.ppat.1006820. ***First author.**
27. Kim JY, Kim DS, Seo JY, Park JG, Alfajaro MM, **Soliman M**, Baek YB, Cho EH, Park SJ, Kang MI, Cho KO. 2017. **Glycan-specificity of four neuraminidase-sensitive animal rotavirus strains.** *Vet Microbiol.* 207:159-163. DOI: 10.1016/j.vetmic.2017.06.016.
28. Alfajaro MM, Choi JS, Kim DS, Seo JY, Kim JY, Park JG, **Soliman M**, Baek YB, Cho EH, Kwon J, Kwon HJ, Park SJ, Lee WS, Kang MI, Hosmillo M, Goodfellow I, Cho KO. 2017. **Activation of COX-2/PEG2 promotes sapovirus replication via the inhibition of nitric oxide production.** *J Virol.* 91(3): e01656-16. DOI: 10.1128/jvi.01656-16.

29. Bae J, **Soliman M**, Kim H, Kang S, Kim W, Ahn S, Cho K, Choi J, Kim S, Park J, Kim S, Do Y, Yoo J, Yu D. 2017. **Rapid exacerbation of renal function after administration of hydroxyethyl starch in a dog.** J Vet Med Sci. 79(9):1591-1595. DOI: 10.1292/jvms.17-0196.
30. Kim DS, Kang MI, Son KY, Bak GY, Park JG, Hosmillo M, Seo JY, Kim JY, Alfajaro MM, **Soliman M**, Baek YB, Cho EH, Lee JH, Kwon J, Choi JS, Goodfellow I, Cho KO. 2016. **Pathogenesis of Korean sapelovirus A in piglets and chicks.** J Gen Virol. 97(10): 2566-2574. DOI: 10.1099/jgv.0.000571.
31. Park JG, Park SI, Woo NI, Kim DS, Seo JY, Alfajaro MM, Kim JY, **Soliman M**, Baek YB, Cho EH, Kwon J, Choi JS, Kang MI, Matthijnsens J, Cho KO. 2016. **Whole genomic characterization of Korean porcine G8P[7] reassortant rotaviruses.** Arch Virol. 161(10): 2835-2841. DOI: 10.1007/s00705-016-2945-1.
32. Kim DS, Son KY, Koo KM, Kim JY, Alfajaro MM, Park JG, Hosmillo M, **Soliman M**, Baek YB, Cho EH, Lee JH, Kang MI, Goodfellow I, Cho KO. 2016. **Porcine Sapelovirus uses α 2,3-linked sialic acid on GD1a ganglioside as a receptor.** J Virol. 90(8):4067–407715. DOI: 10.1128/jvi.02449-15.
33. Bak GY, Kang MI, Son KY, Park JG, Kim DS, Seo JY, Kim JY, Alfajaro MM, **Soliman M**, Baek YB, Kwon J, Choi JS, Park SI, Cho KO. 2016. **Occurrence and molecular characterization of sapelovirus A in diarrhea and non-diarrhea feces of different age group pigs in one Korean pig farms.** J Vet Med Sci. 78(12). DOI: 10.1292/jvms.16-0237.
34. Jeong YJ, Matthijnsens J, Kim DS, Kim JY, Alfajaro MM, Park JG, Hosmillo M, Son KY, **Soliman M**, Baek YB, Kwon J, Choi JS, Kang MI, Cho KO. 2015. **Genetic diversity of the VP7, VP4 and VP6 genes of Korean porcine group C rotaviruses.** Vet Microbiol. 176(1-2):61-69. DOI: 10.1016/j.vetmic.2014.12.024.
35. **Soliman M**^{*}, Alfajaro MM, Lee MH, Jeong YJ, Kim DS, Son KY, Kwon J, Choi JS, Lim JS, Choi JS, Lee TU, Cho KO, Kang MI. 2015. **The prevalence of duck hepatitis A virus types 1 and 3 on Korean duck farms.** Arch Virol. 160:493-498. DOI: 10.1007/s00705-014-2264-3. ***First author.**

Conference Presentations

1. **Mahmoud Soliman**, Sang-Ik Park, Mun-Il Kang, Kyoung-Oh Cho. Rotavirus-induced RhoA/ROCK/pMLC signaling pathway mediates the disruption of tight junction in epithelial cells. *Korean Society of Veterinary Pathology*, 2017. Oral presentation.
2. **Mahmoud Soliman**, Deok-Song Kim, Soo-Young Ahn, Sang-Ik Park, Mun-Il Kang, Ian Goodfellow, Kyoung-Oh Cho. Activation of PI3K/Akt and MEK/ERK signaling pathways facilitates porcine sapovirus trafficking from early to late endosome. *Korean Society of Veterinary Science*, October, 2016. Oral presentation.
3. Eun-Hyo Cho, Ji-Yun Kim, **Mahmoud Soliman**, Sang-Ik Park, Mun-Il Kang, Jacques Le Pendu, Kyoung-Oh Cho. H type and sialyl-Lewis A type HBGAs act as attachment factors for bovine nebovirus entry. *Korean Society of Veterinary Science*, October, 2016.
4. **Mahmoud Soliman**, Hyun-Woo Kim, Seungjo Park, Do-Hyun Yu, Ji-Hye Choi, Mun-Il Kang, Kyoung-Oh Cho. Canine Hepatic Cirrhosis, *Korean Society of Veterinary Pathology*, 2016. Oral presentation.
5. **Mahmoud Soliman**, Deok-Song Kim, Sang-Ik Park, Mun-Il Kang, Kyoung-Oh Cho. Role of PI3K/Akt and MEK/ERK signaling pathways in endosomal acidification after rotavirus infection. *Link of Veterinary Medicine with Advanced Life Sciences (Korean Society of Veterinary Science)*, Gyeongju, South Korea, October 29-30, 2015. Oral presentation.
6. **Mahmoud Soliman**, Mia Madel Alfajaro, Deok-Song Kim, Kyu-Yeol Son, Jun-Gyu Park, Ji-Yun Kim, Baek-Yon Ben, Mun-Il Kang, Kyoung-Oh Cho. Pathological changes associated with duck hepatitis A virus infection in South Korea. *Korean Society of Veterinary Pathology*, November 2014. Oral presentation.
7. **Mahmoud Soliman**, Mia Madel Alfajaro, Min-Hee Lee, Young-Ju Jeong, Deok-Song Kim, Kyu-Yeol Son, Joseph Kwon, Jong-Soon Choi, Jong-Soo Lim, Jong-Sung Choi, Tae-Uk Lee, Mun-Il Kang, Kyoung-Oh Cho. The prevalence of duck hepatitis A virus types 1 and 3 in Korean duckling farms. *International Conference for Veterinary Technology Development*, Jeju, South Korea, October 2014. Oral presentation.

Seminars and Invited Lectures

1. **Mahmoud Soliman**: Molecular characterization of host cellular proteins during rotavirus entry and infection: Towards therapeutic approaches. Joint congress between Justus-Liebig

University, Giessen/Germany and Assiut University, Assiut/Egypt; (1-5 March 2020).

Keynote Speaker.

2. **Mahmoud Soliman**: Cereblon Plays a Crucial Role in Rotavirus Viroplasm Formation Through Ubiquitination of AMPK. College of Veterinary Medicine, Chonnam National University, South Korea; (July 2020). **Invited Lecture.**
3. **Mahmoud Soliman**: Rotavirus Induces Necroptosis in MA104 Cells Through Receptor-Interacting Protein 1 and Mixed Lineage Kinase Domain-Like Signaling Pathway. College of Veterinary Medicine, Chonnam National University, South Korea; (August 2020). **Invited Lecture.**

PROJECTS

- A member in the project “Industrialization of vaccines and drugs against livestock viral enteritis funded” from Korea Institute of Planning and Evaluation for Technology in Food, Agriculture, and Forestry, South Korea, August 2015 – August 2019.
- A member in the project “Isolation and life cycle investigation of livestock enteric caliciviruses” funded from National Research Foundation of Korea, South Korea, March 2017 – February 2020.

COMMUNITY and ENVIRONMENTAL SERVICE

- Production of human papilloma pseudovirus (PsV) used for Pseudovirion based neutralization assay to detect human papillomavirus (the most the most common sexually transmitted infection) as a cooperation between our team at College of Veterinary Medicine, Chonnam National University and the Vaccine Safety Technology Support Center in South Korea, **July 2021 – November 2021.**

- Production of a combined live vaccine of porcine transmissible gastroenteritis virus and porcine rotavirus SuiShot® TR manufactured by: Choong Ang Vaccine Laboratories Co., Ltd. 1476-37 Yuseong-daero, Yuseong-gu, Daejeon, Republic of Korea. They used our vaccine strain in our patent number KR102060369B1. The product will be released soon in the market.
- Participation in consulting and diagnosis of animal cases visited from the veterinary teaching hospital, local zoo, and local clinics, at College of Veterinary Medicine, Chonnam National University, South Korea, **March 2012 – August 2018**.
- Head of an executive team in the Mobile Veterinary Project sponsored by the Program of Continuous Improvement and Qualification for Accreditation (PCIQA), the Egyptian Ministry of Higher Education, **May 2011 – February 2012**.
- Sharing convoys of veterinary diagnosis and treatment in program of society service and environment development, Faculty of Veterinary Medicine, Assiut University, Assiut, Egypt in villages and towns of Upper Egypt, **2007**.