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EDUCATION:

2018. Aug. **Ph.D** in Entomology, University of Kentucky. Lexington, Kentucky, USA
Thesis title: The mechanism of RNA interference and its application in Arthropods
Advisor: Dr. Subba Reddy Palli
2011. Aug. **M.S** in Biomodulation, Seoul National University. Seoul, South Korea
Thesis title: Synergic repellency of selected plant essential oil mixtures with vanillin against *Aedes aegypti* and its application Advisor: Dr. Hyoungh Wook Kwon
2006. Dec. **B.S** in Biology, Minor in Mathematics, Western Kentucky University. Bowling Green, Kentucky, USA Advisor: Dr. Keith Philips

CARRERS:

- 2025.09 - Present **Associate Professor**, Department of Agricultural Convergence Technology, Jeonbuk National University, Jeonju, South Korea
- 2021.09 - 2025. 08 **Assistant Professor**, Department of Agricultural Convergence Technology, Jeonbuk National University, Jeonju, South Korea
- 2021.04 - 2021. 08 **Principal Scientist**, Genolution. Seoul, South Korea
- 2020.05 - 2021. 03 Research Associate, Oregon State University, Department of Horticulture, USA
P.I.: Dr. Man Yeon Choi
- 2018.09 - 2020.05 Research Associate, Cornell University, Department of Entomology, USA. P.I.: Dr. Angela Douglas
- 2011.09 - 2012.06 Research Assistant, Seoul National University
- 2007.04 - 2009.07 Computer System Manager, Nielsen Company, Seoul, Korea
- 2006 Fall Undergraduate Research Assistant, Western Kentucky University, Department of Biology, Advisor: Dr. Claire Rinehart

RESEARCH TOPICS:

- Insect Molecular Biology
- Insect Physiology
- Virus Research
- Transcriptomics and Genomics

PUBLICATIONS:

- Hyun-Soo Kim, Huipeng Pan, Subba Reddy Palli, **June-Sun Yoon***. Assessment of RNA interference effectiveness mediated by siRNA sequences and structures in *Drosophila* S2 cells. **Insect Biochemistry and Molecular Biology** 185. 104418 (2025)
- Hyun-Soo Kim, **June-Sun Yoon***. A New Volvovirus Isolate from the Korean Two-spotted Cricket (*Gryllus bimaculatus*) and the Analysis of its Genome. **Journal of Insects as Food and Feed**. (2025)
- Sthitaprajna Sahoo, Subba Reddy Palli, **June-Sun Yoon***. Donghyun Shin* Computational Insights into the Coleopteran-Specific StaufenC in dsRNA Processing. **ACS Omega**. (2025)
- Zhaoyang Li, Ziqi Cheng, **June-Sun Yoon**, Chunxiao Yang, Fei Li, Xuguo Zhou, Youjun Zhang, Huipeng Pan. The cleavage of dsRNA by StaufenC into siRNA affects the RNAi efficiency in the 28-spotted ladybeetle, *Henosepilachna vigintioctopunctata*. **Pesticide Biochemistry and Physiology**. 106688 (2025)
- Zhaoyang Li, Yalin Ruan, Chuqiao Zhou, Junna Liu, Yajie Wang, **June-Sun Yoon**, Xuguo Zhou, Youjun Zhang, Chunxiao Yang and Huipeng Pan. RNAi assay in the 28-spotted ladybeetle *Henosepilachna vigintioctopunctata* suggests nuclear receptor HR3 as a potential molecular target for pest control. **Pest Management Science** (2025)
- Zhaoyang Li, **June-Sun Yoon**, Zexin Zhong, Yalin Ruan, Chunxiao Yang, Xuguo Zhou, Youjun Zhang, Huipeng Pan. HvStaufenC contributes to the high RNAi efficiency in the 28-spotted ladybeetle, *Henosepilachna vigintioctopunctata*. **Insect Biochemistry and Molecular Biology** (2025)
- Hyun-Soo Kim, Eunsun Kim, Kyungbo Kim, **June-Sun Yoon***. Antibody development for the diagnosis of *Oryctes rhinoceros* nudivirus **Entomological Research**. (2024)
<https://doi.org/10.1111/1748-5967.70005>
- Chandran Krishnaraj, Misgana Mengistu Asmare, **June-Sun Yoon***, Soon-Il Yun*. *In silico* mechanistic insights of ecofriendly synthesized AgNPs, SeNPs, rGO and Ag&SeNPs@rGONM's for biological applications and its toxicity evaluation using *Artemia salina* **Chemosphere**. (2024)
- Eunsun Kim, Hyeon-Jun Koo, Jiyoung Kim, Ju Hyeon Baek, Chan-Ouk Kim, Kibeom Park, **June-Sun Yoon**. Crisis in South Korea Cricket Farms: Occurrence of *Gryllus bimaculatus* densovirus and its spread. **Journal of Insects as Food and Feed**. 10 1905-1916 (2024)
- Eunsun Kim, Ji-Young Kim, Wontae Kim, Seokhyun Lee, Kwan-Ho Park, **June-Sun Yoon**. Complete genome sequence of an oryctes rhinoceros nudivirus isolated from Korean rhinoceros beetles (*Trypoxylus dichotomus*) in Korea. **Virus Research**. Sep (2023)
- Keon Mook Seong, Woo Jin Kim, **June-Sun Yoon**. Past and Present of Double-stranded RNA as a Sacbrood Virus Inhibitor for Asian Honeybee, *Apis cerana*. **Journal of Apiculture**. Vol.38 No.1. 93 - 101 (2023)
- **June-sun Yoon**, Seung-Joon Ahn and Man-yeon Choi. Selection and Comparative Gene

Expression of Midgut-Specific Targets for *Drosophila suzukii*. **Insects**. 14(1): 76 (2023)

- **June-sun Yoon**, Chang Yoon Ji, Keon Mook Seong and Man-yeon Choi. Current and Future of dsRNA-mediated Pest Management. **Korean Journal of Applied Entomology**. 61(1): 211-219 (2022)
- Briana E Price, **June-Sun Yoon**, Man-Yeon Choi, Jana C Lee. Effects of nonnutritional sugars on lipid and carbohydrate content, physiological uptake, and excretion in *Drosophila suzukii*. **Archives of Insect Biochemistry and Physiology**. 109.2. e21860 (2022)
- **June-Sun Yoon**, Seung-Joon Ahn, Christina M Flinn, Man-Yeon Choi. Identification and functional analysis of dsRNases in spotted-wing drosophila, *Drosophila suzukii* **Archives of Insect Biochemistry and Physiology** 107 (4), e21822 (2021)
- Kyungbo Kim, Jinmo Koo, **June-Sun Yoon**, Subba Reddy Palli. Coleopteran-specific StaufenC functions like *Drosophila melanogaster* Loquacious-PD in dsRNA processing **RNA Biology** 11 Aug 2021:1-11 (2021)
- **June-Sun Yoon**, Kyungbo Kim, Subba Reddy Palli. Double-stranded RNA in exosomes: Potential systemic RNA interference pathway in the Colorado potato beetle, *Leptinotarsa decemlineata* **Journal of Asia-Pacific Entomology** Volume 23, Issue 4, 1160-1164 (2020)
- **June-Sun Yoon**, Hong-gang Tian, John G McMullen, Seung Ho Chung, Angela E Douglas. Candidate genetic determinants of intraspecific variation in pea aphid susceptibility to RNA interference. **Insect Biochemistry and Molecular Biology** volume 123, Article number: 103408 (2020)
- **June-Sun Yoon**, Jinmo Koo, Smitha George, Subba Reddy Palli. Evaluation of inhibitor of apoptosis genes as targets for RNAi-mediated control of insect pests. **Archives of Insect Biochemistry and Physiology** Volume 104, Issue 4 (2020)
- **June-Sun Yoon**, Dipak K. Sahoo, Indu B Maiti, Subba Reddy Palli. Identification of target genes for RNAi-mediated control of the Twospotted Spider Mite. **Scientific Reports** volume 8, Article number: 14687 (2018)
- **June-Sun Yoon**, Kanakachari Mogilicherla, Dhandapani Gurusamy, Xien Chen, Shankar C. R. R. Chereddy, Subba Reddy Palli. Double-stranded RNA binding protein, Staufen, is required for the initiation of RNAi in coleopteran insects. **Proc. Natl. Acad. Sci. USA, PNAS**, August 14, 115 (33) 8334-8339 (2018)
- Sean D. Schoville, Yolanda H. Chen,, **June-Sun Yoon**, Stephen Richards. A model species for agricultural pest genomics: the genome of the Colorado potato beetle, *Leptinotarsa decemlineata* (Coleoptera: Chrysomelidae). **Scientific Reports** 8(1):1931 (2018)
- **June-Sun Yoon**, Dhandapani Gurusamy, Subba Reddy Palli Accumulation of dsRNA in endosomes contributes to inefficient RNA interference in the fall armyworm, *Spodoptera frugiperda*. **Insect Biochemistry and Molecular Biology** 90, 53-60 (2017)

- **June-Sun Yoon**, Jayendra Nath Shukla, Zhong Jun Gong, Kanakachari Mogilicherla, Subba Reddy Palli, RNA interference in the Colorado potato beetle, *Leptinotarsa decemlineata*: Identification of key contributors. **Insect Biochemistry and Molecular Biology** 78, 78-88 (2016)
- **June-Sun Yoon***, Soon-Il Kim*, Sung-Hwa Lee, Young-Joon Ahn, Hyung Wook Kwon. Toxicity and synergic repellency of plant essential oil mixtures with vanillin against *Aedes aegypti* (Diptera: Culicidae). **Journal of Medical Entomology** 49(4):876-85 (2012)
- Soon-Il Kim, **June-Sun Yoon**, Je Won Jung, Ki-Bae Hong, Young-Joon Ahn, Hyung wook Kwon. Toxicity and repellency of origanum essential oil and its components against *Tribolium castaneum* (Coleoptera: Tenebrionidae) adults. **Journal of Asia-Pacific Entomology**. 13(4): 369-373. (2010)

LEADERSHIP

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|-----------|---|
| 2019 | Insecticidal RNAi: New Invertebrate Targets, Mode of Action and Resistance at Entomological Society of America (ESA), Symposium Organizer/Moderator |
| 2017-2021 | Korean Young Entomologists (KYE) at Entomological Society of America (ESA), Symposium Organizer/Moderator |
| 2013-2015 | Korean Bioscientists Association at University of Kentucky (KBAUK) in KSEA-KY Chapter; President |

PROFESSIONAL AFFILIATIONS:

- International Congress of Entomology
- Entomological Society of America
- Korean Society of Applied Entomology
- Korean Scholar Association at University of Kentucky (KSAUK)