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## EDUCATION

*M.S, Applied Mathematics, Konkuk University, Aug 2018 [Advisor: Yangjin Kim]*  
*B.S, Konkuk University, Seoul, Republic of Korea, Feb, 2017*

## EMPLOYMENT

1. Research Assistant [ Mar, 2023 - Dec, 2023 ] *2023 Seoul Science High School R&E Program, Korea Ministry of Education, Republic of Korea, Konkuk University*
2. Research Assistant [ Mar, 2022 - Dec, 2022 ] *2022 Seoul Science High School R&E Program, Korea Ministry of Education, Republic of Korea, Konkuk University*
3. Research Assistant [ Mar, 2021 - Dec, 2021 ] *2021 Seoul Science High School R&E Program, Korea Ministry of Education, Republic of Korea, Konkuk University*
4. Research Assistant [ Mar, 2020 - Dec, 2020 ] *2020 Seoul Science High School R&E Program, Korea Ministry of Education, Republic of Korea, Konkuk University*
5. Teaching Assistant [ Sep, 2019 - Dec, 2019 ] *Calculus, Konkuk University, Mathematics, South Korea*
6. Teaching Assistant [ Mar, 2017 - Dec, 2018 ] *Calculus, Konkuk University, Mathematics, South Korea*
7. Teaching Assistant [Jul 17-19, 2018], *Teacher Education Program, Korea Foundation for the Advancement of Science & Creativity, Republic of Korea, Konkuk University*
8. Teaching Assistant [Nov 16-17, 2017] *Teacher Education Program, Korea Foundation for the Advancement of Science & Creativity, Republic of Korea, Konkuk University*

## PUBLICATIONS

Published/accepted

1. Yangjin Kim, **Junho Lee**, Chaeyoung Lee, and Sean Lawler, *Role of senescent tumor cells in building a cytokine shield in the tumor microenvironment: mathematical modeling*, J Math Biol, 86(1), 14, Dec 2022. [ <https://doi.org/10.1007/s00285-022-01850-z> ] (Invited paper for the Special Issue Honouring Avner Friedman)
2. **Junho Lee**, Jin Su Kim and Yangjin Kim<sup>†</sup>, *Atorvastatin-mediated rescue of cancer-related cognitive changes in combined anticancer therapies*, PLoS Comp Biol, 17(10): e1009457, Oct 20, 2021. [ <https://doi.org/10.1371/journal.pcbi.1009457> ] [IF=4.42; top 10% ].
3. **Junho Lee**, Donggu Lee, Sean Lawler, Yangjin Kim<sup>†</sup>, *Role of neutrophil extracellular traps in regulation of lung cancer invasion and metastasis: Structural Insights from a Computational Model*, PLoS Comp Biol, 17(2): e1008257, Feb 2021, <https://doi.org/10.1371/journal.pcbi.1008257> [IF=4.42; top 10% ].
4. Yangjin Kim, **Junho Lee**, Donggu Lee and Hans G. Othmer<sup>†</sup>, *Synergistic Effects of Bortezomib-OV Therapy and Anti-Invasive Strategies in Glioblastoma: A Mathematical Model*, Cancers, 11(2), 215, Feb 13, 2019. [doi:10.3390/cancers11020215] [IF=6.1]
5. Yangjin Kim, Donggu Lee, **Junho Lee**, Seongwon Lee, Sean Lawler, *Role of tumor-associated neutrophils in regulation of tumor growth in lung cancer development: A mathematical model*, PLoS One, 14(1): e0211041, Jan 28, 2019. [IF=2.74]
6. Yangjin Kim, Wanho Lee, Hyejin Jeon, Sookkyung Lim, Soyeon Roh, Donggu Lee, **Junho Lee**, and Sean Lawler, *The role of microenvironment in regulation of cell infiltration in glioblastoma*, Springer volume 'Cell Movement: Modeling and Applications', Editors: Stolarska, Magdalena, Tarfulea, Nicoleta E, 27-60, 2018. ISBN 978-3-319-96842-1
7. Shinji Nakaoka, Sota Kuwahara, Changhyeong Lee, Hyejin Jeon, **Junho Lee**, Yasuhiro Takeuchi, and Yangjin Kim, *Chronic inflammation in the epidermis: A mathematical model*, Appl. Sci. 6(9), 252, Sep 2016 doi:10.3390/app6090252. [IF=1.726]

Submitted/in revision :

In preparation :

1. Yangjin Kim<sup>†</sup>, Donggu Lee, **Junho Lee**, and Sean Lawler, *Role of tumor-associated neutrophils and neutrophil elastase in regulation of lung cancer growth and growth patterns*, in revision, 2021.
2. Yoshihiro Otani\*, Yangjin Kim\*, **Junho Lee**, Ji Young Yoo, Samantha Chao, Jessica Swanner, Toshihiko Shimizu, Cole T Lewis, Jin Muk Kang, Sara A Murphy, Josue Pineda, Kimberly Rivera Caraballo, Bridgitte E Palacios, Bangxing Hong, E Antonio Chiocca, Hiroshi Nakashima, Sean E Lawler, Yeshavanth Banasavadi-Siddegowda, John Heiss, Yuanqing Yan, Abhinav K Jain, Arif O Harmanci, Scott D. Olson, Guangsheng Pei, Zhongming Zhao, Avner Friedman<sup>†</sup>, Balveen Kaur<sup>†</sup>, *Activated NOTCH induced monocyte recruitment suppresses anti-tumor immunity with virotherapy*, Nature Immunology (IF: 20), 2021, submitted.

Conference

Conferences/Workshops :

1. (Talk) "Role of CXCL12 in regulation of T cell invasion", 2023 ICIAM Conference, Waseda University, Tokyo, Japan [August 20-25, 2023]

2. (Poster) “*Atorvastatin-mediated rescue of cancer-related cognitive changes in combined anti-cancer therapies*”, ICIAM 2023 Satellite Workshop: Stochastic Modeling and Data Analysis for Biological Systems, Institute for Basic Science (IBS), Daejeon, Korea [August 16-18, 2023]
3. (Talk) “*Role of senescent tumor cell in building a cytokine shield in tumor microenvironment: mathematical models*”, Society for Mathematical Biology Annual Meeting - 2023, The Ohio State University, Columbus, Ohio [July 16-21, 2023]
4. (Poster) “*Atorvastatin-mediated rescue of cancer-related cognitive changes in combined anti-cancer therapies*”, Dynamical Systems in the Life Sciences, The Ohio State University, Columbus, Ohio [July 13-15, 2023]
5. (Talk) “*Role of senescent tumor cell in building a cytokine shield in tumor microenvironment: mathematical models*”, The 8th CIJK Conference on Mathematical and Theoretical Biology, Sono Belle, Jeju, Republic of Korea [June 27-July 1, 2023]
6. (Talk) “*Role of senescent tumor cell in building a cytokine shield in tumor microenvironment: mathematical models*”, 2023 KSIAM Spring Conference, Alpensia, Pyeongchang, Republic of Korea [May 19-21, 2023]
7. 2022 ECMTB-SMB joint Conference, Heidelberg, Germany [ Sep 19-23, 2022 ]
8. (Talk) “*Role of senescent tumor cell in building a cytokine shield in tumor microenvironment: mathematical models*”, 2022 Annual Conference of KSMB, Venezia Hotel & Resort, Yeosu, Republic of Korea [June 24-26, 2022]
9. 2022 KSIAM Spring Conference, IBS, Daejeon, Republic of Korea [May 27-29, 2022]
10. (Talk) “*Atorvastatin-mediated rescue of chemo-brain in combined anticancer therapies*”, 2021 KSIAM Annual Meeting, Venyn Busan BEXCO (Online & Offline Hybrid, Busan, Republic of Korea [Dec 2-5, 2021]
11. (Talk) “*Atorvastatin-mediated rescue of cancer-related cognitive changes in combined anti-cancer therapies*”, 2021 KSMB Annual Meeting, Online [August 26-28, 2021]
12. (Talk) “*Role of neutrophil extracellular traps in regulation of lung cancer invasion: a Computational Model*”, 2021 KSIAM Annual Meeting, Gangneung TopsTen Hotel, Gangneung, Republic of Korea [June 25-27, 2021]
13. (Talk) *Role of neutrophil extracellular traps in regulation of lung cancer invasion: a Computational Model*, 2021 SMB Annual Meeting, Online [June 13-17, 2021]
14. (Poster) “*Synergetic Effects of Bortezomib-OV Therapy and Anti-Invasive Strategies in Glioblastoma: A Mathematical Model*”, 2020 SMB Virtual Annual Meeting, [Aug 17, 2020]
15. (Talk) “*Role of tumor-associated neutrophils and NE in regulation of lung cancer growth and growth patterns*”, 2019 KSIAM Annual Meeting, Venezia Hotel & Resort, Yeosu, Republic of Korea [Nov 8-10, 2019]
16. (Talk) “*Synergistic Effects of Bortezomib-OV Therapy and Anti-Invasive Strategies in Glioblastoma: A Mathematical Model*”, The 7th China-India-Japan-Korea International Conference on Mathematical Biology, University of Science and Technology Beijing, Beijing, China [August 23-27, 2019]
17. (Poster) “*Synergistic Effects of Bortezomib-OV Therapy and Anti-Invasive Strategies in Glioblastoma: A Mathematical Model*”, 2019 Annual Conference of KSMB, Seogwipo KAL Hotel, Jeju, Republic of Korea [June 20-22, 2019]
18. (Talk) “*Synergistic Effects of Bortezomib-OV Therapy and Anti-Invasive Strategies in Glioblastoma: A Mathematical Model*”, 2019 The 14th SIAM East Asian Section Conference, Wuhan University, Wuhan, China [June 14-16, 2019]

19. (Poster) “*Synergistic Effects of Bortezomib-OV Therapy and Anti-Invasive Strategies in Glioblastoma: A Mathematical Model*”, 2019 KSIAM spring meeting, Yonsei University, Seoul, Republic of Korea [May 17-18, 2019]
20. (Talk) “*Synergistic Effects of Bortezomib-OV Therapy and Anti-Invasive Strategies in Glioblastoma: A Mathematical Model*”, 2019 A3 workshop on Mathematical Life Science, Peking University, Beijing, China [May 10-12, 2019]
21. (Poster) “*Synergetic effect of bortezomib on oncolytic virus: signaling pathways*”, 2018 KSIAM Annual Meeting, Jeju Ramada Plaza Hotel, Jeju, Republic of Korea [November 02-04, 2018]
22. (Poster) “*Synergetic effect of bortezomib on oncolytic virus: signaling pathways*”, The 5th joint workshop of A3 Foresight Program, Lakai Sandpine Hotel, Gangneung, S. Korea [October 18-20, 2018 (18th)]
23. (Poster) “*Synergetic effect of bortezomib on oncolytic virus: signaling pathways*”, 2018 KSMB conference, Haeundae Grand Hotel, Busan, Republic of Korea [June 28-30, 2018]
24. (Poster) “*Synergetic effect of bortezomib on oncolytic virus: signaling pathways*”, 2018 KSIAM Spring conference, KAIST, Deajeon, Republic of Korea [May 25-26, 2018]
25. (Poster) “*Synergetic effect of bortezomib on oncolytic virus: signaling pathways*”, 2018 International workshop on mathematical biology, Costabella tropical beach hotel buyoung, Mactan island Cebu, Philippines [January 07-10, 2018]
26. 2017 KSIAM Annual Meeting, Haeundae Grand Hotel, Busan, Republic of Korea [November 03-05, 2017]
27. (Poster) “*Bacteria competition in the epidermis: A mathematical model*”, 2017 KSIAM Spring conference, Seoul National University, Seoul, Republic of Korea [June 23-24, 2017]
28. 2016 KSIAM Annual Meeting, Seogwipo KAL Hotel, Jeju, Republic of Korea [November 11-13, 2016]
29. 2016 Summer workshop and Intensive course in bio-medicine, Konkuk University, Seoul, Republic of Korea [August 22-26, 2016]
30. 2016 KSMB conference, Jeju Ramada Hamdeok, Jeju, Republic of Korea [June 16-18, 2016 (18th)]

## GRANTS

1. Research Grant Award entitled “*Development of Hybrid Mathematical Modeling and Anti-cancer Treatment Strategies for the Mechanism of Cognitive Impairment During Chemotherapy*”, Basic Science Research Program (Next generation), National Research Foundation of Korea, Ministry of Education, Republic of Korea [ June, 2020; 2 years ] (40,000,000 KRW)
2. Landahl Travel Grant, Society for Mathematical Biology Annual Meeting - 2023, The Ohio State University, Columbus, Ohio [July 16-21, 2023] (\$900)

## AWARDS

1. KSIAM conference poster award “*Synergetic effect of bortezomib on oncolytic virus: signaling pathways*”, 2018 KSIAM Spring conference Poster session [ May 25-26, 2018]
2. KSMB conference poster award “*Synergistic Effects of Bortezomib-OV Therapy and Anti-Invasive Strategies in Glioblastoma: A Mathematical Model*”, 2019 Annual Conference of KSMB Poster session [June 20-22, 2019]

## VOLUNTEER

1. Society for Mathematical Biology Annual Meeting - 2023, ‘Assistance with Staffing the SMB Booth’, [July 16-21, 2023]
2. The 8th CIJK Conference on Mathematical and Theoretical Biology, ‘Maintenance & Support Team’, [June 27- July 1, 2023]
3. 2022 Annual Conference of KSMB, ‘Maintenance & Support Team’ , [June 24-26, 2022]