

# BONGLEE KIM, M.D., Ph.D.



**Position;** -Associate Professor of Department of Pathology, College of Korean Medicine, Kyung Hee University, 26 Kyunghedae-ro, Dongdaemun-gu, Seoul, 02453, Republic of Korea

-Chair of Department of Cancer Preventive Material Development, Kyung Hee University

-Group leader of Korean Medicine-Based Drug Repositioning Cancer Research Center

**Address;** 961, Department of Pathology, College of Korean Medicine, Kyung Hee University, 1 Hoegi-dong, Dongdaemun-gu, Seoul 130-701, Republic of Korea

**Tel;** (Lab) 82-2-961-9217, (Cell) 82-10-9000-1406

**E-mail;** [bongleekim@khu.ac.kr](mailto:bongleekim@khu.ac.kr)

## **Education;**

B.S. 2003.3~2009.2 Department of Korean Medicine, Kyung Hee University, Seoul, South Korea

M.S. 2010.3~2012.2 Department of Korean Medical Science, Kyung Hee University, Seoul, South Korea

Ph.D 2012.3~2014.2 Department of Korean Medical science, Kyung Hee University, Seoul, South Korea

### **Professional Experience;**

Associate professor 2015.4~ present Department of Korean Medicine, Kyung Hee University, Seoul, South Korea

Post doctor fellow 2014.2~ 2015.03 Department of Biomedical Sciences, Texas Tech University, Health Science Center, Amarillo, Texas, USA

Research assistant 2010.3~2014.2 Department of Korean Medicine, Kyung Hee University, Seoul, South Korea

Clinical Doctor 2009.3~2009.10 Kyunghee Hwa-Dam clinic, Seoul, South Korea  
2009.10~2009.12 Chung-Dam Kyunghee clinic, Seoul, South Korea

### **Dissertation title;**

1. M.S. thesis: Brazilin induces apoptosis and suppresses histone deacetylase in multiple myeloma U266 cells
2. Ph.D. thesis: Inhibitory effect of melatonin from *Uncaria rhynchophylla* on invasion and epithelial to mesenchymal transition in non-small cell lung cancer cells targeting ZNF746
3. Ph.D. thesis: Inhibition of ZNF746 suppresses invasion and epithelial to mesenchymal transition in H460 non-small cell lung cancer cells.

### **Editorial board member;**

1. 2022 ~ present Antioxidants (SCIE), Guest editor. Special Issue "Antioxidants and

Hypoxia in Cancer Therapy"

2. 2022 ~ present International Journal of Molecular Sciences (SCIE), Guest editor. Special Issue "The Role of Autophagy in Cancer Therapies"
3. 2022 ~ present Frontiers in Biomaterials Science (SCIE), Guest editor. Special Issue "Natural products and cancer therapy"
4. 2022 ~ present Frontiers in Pharmacology (SCIE), Guest editor. Special Issue "Overcoming drug resistance in cancer and serious pathogenic infections: Natural product-based bio-actives as new drug leads"
5. 2022 ~ present Frontiers in Pharmacology (SCIE), Guest editor. Special Issue "Acute non hepA–E Hepatitis of Unknown Origin and Aetiology"
6. 2022 ~ present Frontiers in Pharmacology, Frontiers in Oncology (SCIE), Guest editor. Special Issue "Anti-Cancer Effects of Natural Products against Reproductive Cancers"
7. 2022 ~ present International Journal of Molecular Sciences (SCIE), Guest editor. Special Issue "Evolution of Cancer Pharmacological Treatment: Natural Compounds as Adjuvants for Cancer Treatments"
8. 2021 ~ present International Journal of Molecular Sciences (SCIE), Guest editor. Special Issue "MicroRNAs in Cancer Therapy"
9. 2021 ~ present International Journal of Molecular Sciences (SCIE), Guest editor. Special Issue "State-of-the-Art Molecular Oncology in Korea"
10. 2019 ~ present Evidence-Based Complementary and Alternative Medicine (SCIE), Editorial board member
11. 2019 ~ present Processes (SCIE), Editorial board member
12. 2019 ~ present Processes (SCIE), Section board member
13. 2019 ~ present Advances in Traditional Medicine (SCOPUS), Associate editor
14. 2019~ present Journal of Visualized Experiments (SCIE), Guest editor
15. 2019~ present Processes (SCIE), Guest editor. Special Issue "Cancer Systems Biology

and Natural Products"

## **Publications;**

1. Nurkolis F, Taslim NA, Qhabibi FR, Kang S, Moon M, Choi J, Choi M, Park MN, Mayulu N, **Kim B.** Ulvophyte Green Algae *Caulerpa lentillifera*: Metabolites Profile and Antioxidant, Anticancer, Anti-Obesity, and In Vitro Cytotoxicity Properties. *Molecules*. 2023 Jan 31;28(3):1365. doi: 10.3390/molecules28031365.
2. Rahman MA, Saikat ASM, Rahman MS, Islam M, Parvez MAK, **Kim B.** Recent Update and Drug Target in Molecular and Pharmacological Insights into Autophagy Modulation in Cancer Treatment and Future Progress. *Cells*. 2023 Jan 31;12(3):458. doi: 10.3390/cells12030458.
3. Goel H, Kumar R, Tanwar P, Upadhyay TK, Khan F, Pandey P, Kang S, Moon M, Choi J, Choi M, Park MN, **Kim B\***, Saeed M. Unraveling the therapeutic potential of natural products in the prevention and treatment of leukemia. *Biomed Pharmacother* . 2023 Feb 1;160:114351. doi: 10.1016/j.biopha.2023.114351.
4. Eid RA, Eldeen MA, Soltan MA, Al-Shraim M, Aldehri M, Alqahtani LS, Alsharif G, Albogami S, Jafri I, Fayad E, Park MN, Bibi S, Behairy MY, **Kim B\***, Zaki MSA. Integrative analysis of WDR12 as a potential prognostic and immunological biomarker in multiple human tumors. *Front Genet*. 2023 Jan 16;13:1008502. doi: 10.3389/fgene.2022.1008502. eCollection 2022.
5. Ribeiro RIMA, **Kim B\***. Editorial: Anti-cancer effects of natural products against reproductive cancers. *Front Pharmacol*. 2023 Jan 16;14:1132795. doi: 10.3389/fphar.2023.1132795.
6. Eid RA, Alaa Edeen M, Shedid EM, Kamal ASS, Warda MM, Mamdouh F, Khedr SA, Soltan MA,

- Jeon HW, Zaki MSA, **Kim B**. Targeting Cancer Stem Cells as the Key Driver of Carcinogenesis and Therapeutic Resistance. *Int J Mol Sci*. 2023 Jan 16;24(2):1786. doi: 10.3390/ijms24021786.
7. Khouchlaa A, El Baaboua A, El Moudden H, Lakhdar F, Bakrim S, El Menyiy N, Belmehdi O, Harhar H, El Omari N, Balahbib A, Park MN, Zengin G, **Kim B**, Bouyahya A. Traditional Uses, Bioactive Compounds, and Pharmacological Investigations of *Calendula arvensis* L.: A Comprehensive Review. *Adv Pharmacol Pharm Sci*. 2023 Jan 3;2023:2482544. doi: 10.1155/2023/2482544.
8. Kim G, Kim D, Moon H, Yoon DE, Lee S, Ko SJ, **Kim B**, Chae Y, Lee IS. Acupuncture and Acupoints for Low Back Pain: Systematic Review and Meta-Analysis. *Am J Chin Med* . 2022 Dec 31;1-25. doi: 10.1142/S0192415X23500131.
9. Alam S, Dhar A, Hasan M, Richi FT, Emon NU, Aziz MA, Mamun AA, Chowdhury MNR, Hossain MJ, Kim JK, **Kim B**, Hasib MS, Zihad SMNK, Haque MR, Mohamed IN, Rashid MA. Antidiabetic Potential of Commonly Available Fruit Plants in Bangladesh: Updates on Prospective Phytochemicals and Their Reported MoAs. *Molecules* . 2022 Dec 8;27(24):8709. doi: 10.3390/molecules27248709.
10. Shin Y, **Kim B**, Kim W. Cisplatin-Induced Nausea and Vomiting: Effect of Herbal Medicines. *Plants (Basel)* . 2022 Dec 6;11(23):3395. doi: 10.3390/plants11233395.
11. Camilo CJ, Leite DOD, da S Mendes JW, Dantas AR, de Carvalho NKG, Castro JWG, Salazar GJT, Ferreira MKA, de Meneses JEA, da Silva AW, Dos Santos HS, Tavares JF, Silva JPRE, Rodrigues FFG, Cheon C, **Kim B**, da Costa JGM. Analysis toxicity by different methods and anxiolytic effect of the aqueous extract *Lippia sidoides* Cham. *Sci Rep* . 2022 Nov 30;12(1):20626. doi: 10.1038/s41598-022-23999-9.
12. Eid RA, Soltan MA, Eldeen MA, Shati AA, Dawood SA, Eissa M, Zaki MSA, Algahtani M, Theyab

- A, Abdel-Daim MM, **Kim B.** Assessment of RACGAP1 as a Prognostic and Immunological Biomarker in Multiple Human Tumors: A Multiomics Analysis. *Int J Mol Sci.* 2022 Nov 15;23(22):14102. doi: 10.3390/ijms232214102.
13. An J, An S, Choi M, Jung JH, **Kim B.** Natural Products for Esophageal Cancer Therapy: From Traditional Medicine to Modern Drug Discovery. *Int J Mol Sci.* 2022 Nov 4;23(21):13558. doi: 10.3390/ijms232113558.
14. Dalli M, Daoudi NE, Abrigach F, Azizi SE, Bnouham M, **Kim B\***, Gseyra N. In vitro  $\alpha$ -amylase and hemoglobin glycation inhibitory potential of *Nigella sativa* essential oil, and molecular docking studies of its principal components *Front Pharmacol.* 2022 Oct 20;13:1036129. doi: 10.3389/fphar.2022.1036129. eCollection 2022.
15. S M S, Naveen NR, Rao GK, Gopan G, Chopra H, Park MN, Alshahrani MM, Jose J, Emran TB, **Kim B.** A spotlight on alkaloid nanoformulations for the treatment of lung cancer *Front Oncol.* 2022 Oct 18;12:994155. doi: 10.3389/fonc.2022.994155. eCollection 2022.
16. Kim DB, Lee DK, Cheon C, Ribeiro RIMA, **Kim B.** Natural Products for Liver Cancer Treatment: From Traditional Medicine to Modern Drug Discovery *Nutrients.* 2022 Oct 12;14(20):4252. doi: 10.3390/nu14204252.
17. Park MN, Rahman MA, Rahman MH, Kim JW, Choi M, Kim JW, Choi J, Moon M, Ahmed KR, **Kim B.** Potential Therapeutic Implication of Herbal Medicine in Mitochondria-Mediated Oxidative Stress-Related Liver Diseases *Antioxidants (Basel).* 2022 Oct 17;11(10):2041. doi: 10.3390/antiox11102041.
18. Mujahid MH, Upadhyay TK, Khan F, Pandey P, Park MN, Sharangi AB, Saeed M, Upadhye VJ, **Kim B.** Metallic and metal oxide-derived nanohybrid as a tool for biomedical applications. *Biomed Pharmacother.* 2022 Nov;155:113791. doi: 10.1016/j.biopha.2022.113791.

19. Islam F, Muni M, Mitra S, Emran TB, Chandran D, Das R, Rauf A, Safi SZ, Chidambaram K, Dhawan M, Cheon C, **Kim B**. Recent advances in respiratory diseases: Dietary carotenoids as choice of therapeutics. *Biomed Pharmacother.* 2022 Nov;155:113786. doi: 10.1016/j.biopha.2022.113786. Epub 2022 Sep 30.
20. Park J, Ahn CH, Lee HJ, Sim DY, Park SY, **Kim B**, Shim BS, Lee D, Kim S. Antioxidant-Based Preventive Effect of Phytochemicals on Anticancer Drug-Induced Hepatotoxicity. *Antioxid Redox Signal.* 2022 Oct 14. doi: 10.1089/ars.2022.0144.
21. Akash S, Kumer A, Rahman MM, Emran TB, Sharma R, Singla RK, Alhumaydhi FA, Khandaker MU, Park MN, Idris AM, Wilairatana P, **Kim B**. Development of new bioactive molecules to treat breast and lung cancer with natural myricetin and its derivatives: A computational and SAR approach. *Front Cell Infect Microbiol.* 2022 Sep 27;12:952297. doi: 10.3389/fcimb.2022.952297. eCollection 2022.
22. Biswas P, Dey D, Biswas PK, Rahaman TI, Saha S, Parvez A, Khan DA, Lily NJ, Saha K, Sohel M, Hasan MM, Al Azad S, Bibi S, Hasan MN, Rahmatullah M, Chun J, Rahman MA, **Kim B**. A Comprehensive Analysis and Anti-Cancer Activities of Quercetin in ROS-Mediated Cancer and Cancer Stem Cells. *Int J Mol Sci.* 2022 Oct 4;23(19):11746. doi: 10.3390/ijms231911746.
23. Bhattacharjee R, Kumar L, Dhasmana A, Mitra T, Dey A, Malik S, **Kim B\***, Gundamaraju R. Governing HPV-related carcinoma using vaccines: Bottlenecks and breakthroughs. *Front Oncol.* 2022 Sep 13;12:977933. doi: 10.3389/fonc.2022.977933. eCollection 2022.
24. Rahman MM, Sarker MT, Alam Tumpa MA, Yamin M, Islam T, Park MN, Islam MR, Rauf A, Sharma R, Cavalu S, **Kim B**. Exploring the recent trends in perturbing the cellular signaling pathways in cancer by natural products. *Front Pharmacol.* 2022 Sep 8;13:950109. doi: 10.3389/fphar.2022.950109. eCollection 2022.

25. Karthic A, Roy A, Lakkakula J, Alghamdi S, Shakoori A, Babalghith AO, Emran TB, Sharma R, Lima CMG, **Kim B\***, Park MN, Safi SZ, de Almeida RS, Coutinho HDM. Cyclodextrin nanoparticles for diagnosis and potential cancer therapy: A systematic review. *Front Cell Dev Biol.* 2022 Sep 8;10:984311. doi: 10.3389/fcell.2022.984311. eCollection 2022.
26. Kim DS, Lee HJ, Sim DY, Park JE, Park Y, **Kim B**, Shim B, Kim SH. The underlying hepatoprotective mechanism of PKC#963 in alcohol or carbon tetrachloride induced liver injury via inhibition of iNOS, COX-2, and p-STAT3 and enhancement of SOD and catalase. *Phytother Res.* 2022 Sep 23. doi: 10.1002/ptr.7630. Online ahead of print.
27. Benali T, Jaouadi I, Ghchime R, El Omari N, Harboul K, Hammani K, Rebezov M, Shariati MA, Mubarak MS, Simal-Gandara J, Zengin G, Park MN, **Kim B\***, Mahmud S, Lee LH, Bouyahya A. The Current State of Knowledge in Biological Properties of Cirsimaritin. *Antioxidants (Basel).* 2022 Sep 19;11(9):1842. doi: 10.3390/antiox11091842.
28. Islam F, Mitra S, Emran TB, Khan Z, Nath N, Das R, Sharma R, Awadh AAA, Park MN, **Kim B**. *Molecules.* 2022 Sep 3;27(17):5686. doi: 10.3390/molecules27175686.. *Molecules.* 2022 Sep 3;27(17):5686. doi: 10.3390/molecules27175686.
29. Kim S, Cheon C, **Kim B**, Kim W. The Effect of Ginger and Its Sub-Components on Pain. *Plants (Basel).* 2022 Sep 2;11(17):2296. doi: 10.3390/plants11172296.
30. Upadhyay TK, Trivedi R, Khan F, Pandey P, Sharangi AB, Goel H, Saeed M, Park MN, **Kim B**. Potential Therapeutic Role of Mesenchymal-Derived Stem Cells as an Alternative Therapy to Combat COVID-19 through Cytokines Storm. *Cells.* 2022 Aug 29;11(17):2686. doi: 10.3390/cells11172686.
31. Dantas LBR, Alcântara IS, Júnior CPS, de Oliveira MRC, Martins AOBPB, Dantas TM, Ribeiro-Filho J, Coutinho HDM, Passos FRS, Quintans-Júnior LJ, Almeida JRGS, Cruz-Martins N, **Kim**



- B\***, de Menezes IRA. In vivo and in silico anti-inflammatory properties of the sesquiterpene valencene. *Biomed Pharmacother.* 2022 Sep;153:113478. doi: 10.1016/j.biopha.2022.113478. Epub 2022 Jul 29.
32. Macêdo NS, Barbosa CRDS, Bezerra AH, Silveira ZS, da Silva L, Coutinho HDM, Dashti S, **Kim B\***, da Cunha FAB, da Silva MV. Evaluation of ellagic acid and gallic acid as efflux pump inhibitors in strains of *Staphylococcus aureus*. *Biol Open.* 2022 Oct 15;11(10):bio059434. doi: 10.1242/bio.059434. Epub 2022 Oct 7.
33. Islam MK, Islam MR, Rahman MH, Islam MZ, Amin MA, Ahmed KR, Rahman MA, Moni MA, **Kim B.** Bioinformatics Strategies to Identify Shared Molecular Biomarkers That Link Ischemic Stroke and Moyamoya Disease with Glioblastoma. *Pharmaceutics.* 2022 Jul 28;14(8):1573. doi: 10.3390/pharmaceutics14081573.
34. Assaggaf HM, Naceiri Mrabti H, Rajab BS, Attar AA, Hamed M, Sheikh RA, Omari NE, Menyiy NE, Belmehdi O, Mahmud S, Alshahrani MM, Park MN, **Kim B\***, Zengin G, Bouyahya A. Singular and Combined Effects of Essential Oil and Honey of *Eucalyptus Globulus* on Anti-Inflammatory, Antioxidant, Dermatoprotective, and Antimicrobial Properties: In Vitro and In Vivo Findings. *Molecules.* 2022 Aug 11;27(16):5121. doi: 10.3390/molecules27165121.
35. Mumu M, Das A, Emran TB, Mitra S, Islam F, Roy A, Karim MM, Das R, Park MN, Chandran D, Sharma R, Khandaker MU, Idris AM, **Kim B.** Fucoxanthin: A Promising Phytochemical on Diverse Pharmacological Targets. *Front Pharmacol.* 2022 Aug 2;13:929442. doi: 10.3389/fphar.2022.929442. eCollection 2022.
36. Ullah MA, Islam NN, Moin AT, Park SH, **Kim B.** Evaluating the Prognostic and Therapeutic Potentials of the Proteasome 26S Subunit, ATPase ( PSMC) Family of Genes in Lung Adenocarcinoma: A Database Mining Approach. *Front Genet.* 2022 Jul 22;13:935286. doi:

10.3389/fgene.2022.935286. eCollection 2022.

37. Baral SK, Biswas P, Kaium MA, Islam MA, Dey D, Saber MA, Rahaman TI, M A, Emran TB, Hasan MN, Jeong MK, Han I, Rahman MA, **Kim B**. A Comprehensive Discussion in Vaginal Cancer Based on Mechanisms, Treatments, Risk Factors and Prevention. *Front Oncol*. 2022 Jul 18;12:883805. doi: 10.3389/fonc.2022.883805. eCollection 2022.
38. Suh JY, Lee HJ, Sim DY, Park JE, Ahn CH, Park SY, Shin N, **Kim B**, Shim BS, Kim SH. Hypolipogenic effects of Icariside E4 via phosphorylation of AMPK and inhibition of MID1P1 in HepG2 cells. *Phytother Res*. 2022 Aug 2. doi: 10.1002/ptr.7584. Online ahead of print.
39. Rahman MA, Akter S, Dorotea D, Mazumder A, Uddin MN, Hannan MA, Hossen MJ, Ahmed MS, Kim W, **Kim B**\*, Uddin MJ. Renoprotective potentials of small molecule natural products targeting mitochondrial dysfunction. *Front Pharmacol*. 2022 Jul 15;13:925993. doi: 10.3389/fphar.2022.925993. eCollection 2022.
40. Macêdo NS, de Sousa Silveira Z, Cordeiro PPM, Coutinho HDM, Júnior JPS, Júnior LJQ, Siyadatpanah A, **Kim B**\*, da Cunha FAB, da Silva MV. Inhibition of Staphylococcus aureus Efflux Pump by O-Eugenol and Its Toxicity in Drosophila melanogaster Animal Model. *Biomed Res Int*. 2022 Jul 19;2022:1440996. doi: 10.1155/2022/1440996. eCollection 2022.
41. Chopra H, Bibi S, Goyal R, Gautam RK, Trivedi R, Upadhyay TK, Mujahid MH, Shah MA, Haris M, Khot KB, Gopan G, Singh I, Kim JK, Jose J, Abdel-Daim MM, Alhumaydhi FA, Emran TB, **Kim B**. Chemopreventive Potential of Dietary Nanonutraceuticals for Prostate Cancer: An Extensive Review. *Front Oncol* . 2022 Jul 12;12:925379. doi: 10.3389/fonc.2022.925379.
42. Lee IS, Ko SJ, Lee YN, Lee G, Rahman H, **Kim B**. The Effect of Laminaria japonica on Metabolic Syndrome: A Systematic Review of Its Efficacy and Mechanism of Action. *Nutrients* . 2022 Jul 25;14(15):3046. doi: 10.3390/nu14153046.

43. Ripon Rouf ASM, Amin MA, Islam MK, Haque F, Ahmed KR, Rahman MA, Islam MZ, **Kim B.** Statistical Bioinformatics to Uncover the Underlying Biological Mechanisms That Linked Smoking with Type 2 Diabetes Patients Using Transcriptomic and GWAS Analysis. *Molecules* . 2022 Jul 8;27(14):4390. doi: 10.3390/molecules27144390.
44. do Nascimento Silva Leandro MK, Barbosa Moura JV, Justino de Araújo AC, Freitas PR, Roque Paulo CL, de Sousa AK, Rocha JE, Garcia Leandro LM, Macedo da Silva RO, Costa Dos Santos C, Ribeiro-Filho J, da Luz Lima C, Siyadatpanah A, Seifi Z, **Kim B#**, Coutinho HDM.. Silver Trimolybdate (Ag<sub>2</sub> Mo<sub>3</sub> O<sub>10</sub>·2H<sub>2</sub>O) Nanorods: Synthesis, Characterization, and Photo-Induced Antibacterial Activity under Visible-Light Irradiation. *Bioinorg Chem Appl* . 2022 Jul 9;2022:2260083. doi: 10.1155/2022/2260083.
45. Chandra S, Saklani S, Kumar P, **Kim B#**, Coutinho HDM. Nutraceuticals: Pharmacologically Active Potent Dietary Supplements. *Biomed Res Int* . 2022 Jul 4;2022:2051017. doi: 10.1155/2022/2051017.
46. Dey D, Biswas P, Paul P, Mahmud S, Ema TI, Khan AA, Ahmed SZ, Hasan MM, Saikat ASM, Fatema B, Bibi S, Rahman MA, **Kim B.** Natural flavonoids effectively block the CD81 receptor of hepatocytes and inhibit HCV infection: a computational drug development approach. *Mol Divers*. 2022 Jul 12. doi: 10.1007/s11030-022-10491-9.
47. Hasan MR, Alsaiari AA, Fakhurji BZ, Molla MHR, Asseri AH, Sumon MAA, Park MN, Ahammad F, **Kim B.** Application of Mathematical Modeling and Computational Tools in the Modern Drug Design and Development Process. *Molecules*. 2022 Jun 29;27(13):4169. doi: 10.3390/molecules27134169.
48. da Silva VB, Almeida-Bezerra JW, Costa AR, Morais-Braga MFB, de Oliveira MG, Pinheiro AAV, Sampaio RSL, Castro JWG, Dos Santos MAF, Ulisses VRA, Pereira MEDSS, Souza DL, Alcântara

- BM, Generino MEM, Silva JTDC, Filho AM, Silva SBD, Moon M, **Kim B#**, Costa JGMD. The Genus *Miconia* Ruiz & Pav. (Melastomataceae): Ethnomedicinal Uses, Pharmacology, and Phytochemistry. *Molecules* . 2022 Jun 27;27(13):4132. doi: 10.3390/molecules27134132.
49. Matin P, Hanee U, Alam MS, Jeong JE, Matin MM, Rahman MR, Mahmud S, Alshahrani MM, **Kim B**. Novel Galactopyranoside Esters: Synthesis, Mechanism, In Vitro Antimicrobial Evaluation and Molecular Docking Studies. *Molecules* . 2022 Jun 27;27(13):4125. doi: 10.3390/molecules27134125.
50. Kim H, Lee HJ, Sim DY, Park JE, Ahn CH, Park SY, Jang E, **Kim B**, Kim SH. The Antitumor Effect of Cinnamaldehyde Derivative CB-PIC in Hepatocellular Carcinoma Cells via Inhibition of Pyruvate and STAT3 Signaling. *Int J Mol Sci* . 2022 Jun 9;23(12):6461. doi: 10.3390/ijms23126461.
51. Rahman MA, Ahmed KR, Rahman MDH, Parvez MAK, Lee IS, **Kim B**. Therapeutic Aspects and Molecular Targets of Autophagy to Control Pancreatic Cancer Management. *Biomedicines* . 2022 Jun 20;10(6):1459. doi: 10.3390/biomedicines10061459.
52. Steven R, Humaira Z, Natanael Y, Dwivany FM, Trinugroho JP, Dwijayanti A, Kristianti T, Tallei TE, Emran TB, Jeon H, Alhumaydhi FA, Radjasa OK, **Kim B**. Marine Microbial-Derived Resource Exploration: Uncovering the Hidden Potential of Marine Carotenoids. *Mar Drugs*. 2022 May 26;20(6):352. doi: 10.3390/md20060352.
53. Lee JH, **Kim B**, Ko SG, Kim W. Analgesic Effect of SH003 and *Trichosanthes kirilowii* Maximowicz in Paclitaxel-Induced Neuropathic Pain in Mice. *Curr Issues Mol Biol* . 2022 Jan 31;44(2):718-730. doi: 10.3390/cimb44020050.
54. Mahmud S, Biswas S, Afrose S, Mita MA, Hasan MR, Shimu MSS, Paul GK, Chung S, Saleh MA, Alshehri S, Ghoneim MM, Alruwaily M, **Kim B**. Use of Next-Generation Sequencing for

Identifying Mitochondrial Disorders. *Curr Issues Mol Biol* . 2022 Feb 27;44(3):1127-1148. doi: 10.3390/cimb44030074.

55. Dey D, Hasan MM, Biswas P, Papadakos SP, Rayan RA, Tasnim S, Bilal M, Islam MJ, Arshe FA, Arshad EM, Farzana M, Rahaman TI, Baral SK, Paul P, Bibi S, Rahman MA, **Kim B.** Investigating the Anticancer Potential of Salvicine as a Modulator of Topoisomerase II and ROS Signaling Cascade. *Front Oncol*. 2022 Jun 1;12:899009. doi: 10.3389/fonc.2022.899009.
56. Leite-Sampaio NF, Gondim CNFL, Martins RAA, Siyadatpanah A, Norouzi R, **Kim B#**, Sobral-Souza CE, Gondim GEC, Ribeiro-Filho J, Coutinho HDM. Potentiation of the Activity of Antibiotics against ATCC and MDR Bacterial Strains with (+)-  $\alpha$ -Pinene and (-)-Borneol. *Biomed Res Int*. 2022 May 25;2022:8217380. doi: 10.1155/2022/8217380. eCollection 2022.
57. Dey D, Hossain R, Biswas P, Paul P, Islam MA, Ema TI, Gain BK, Hasan MM, Bibi S, Islam MT, Rahman MA, **Kim B.** Amentoflavone derivatives significantly act towards the main protease (3CL PRO/M PRO) of SARS-CoV-2: in silico admet profiling, molecular docking, molecular dynamics simulation, network pharmacology. *Mol Divers*. 2022 May 31:1-15. doi: 10.1007/s11030-022-10459-9. Online ahead of print.
58. Asseri AH, Alam MJ, Alzahrani F, Khames A, Pathan MT, Abourehab MAS, Hosawi S, Ahmed R, Sultana SA, Alam NF, Alam NU, Alam R, Samad A, Pokhrel S, Kim JK, Ahammad F, **Kim B#**, Tan SC. Toward the Identification of Natural Antiviral Drug Candidates against Merkel Cell Polyomavirus: Computational Drug Design Approaches. *Pharmaceuticals (Basel)*. 2022 Apr 20;15(5):501. doi: 10.3390/ph15050501.
59. Rahman MA, Rahman MDH, Mamun-Or-Rashid ANM, Hwang H, Chung S, **Kim B#**, Rhim H. Autophagy Modulation in Aggresome Formation: Emerging Implications and Treatments of Alzheimer's Disease. *Biomedicines*. 2022 Apr 29;10(5):1027. doi:

10.3390/biomedicines10051027.

60. Heimfarth L, Rezende MM, Pereira EWM, Passos FRS, Monteiro BS, Santos TKB, Lima NT, Souza ICL, de Albuquerque Junior RLC, de Souza Siqueira Lima P, de Souza Araújo AA, Quintans Júnior LJ, **Kim B#**, Coutinho HDM, de Souza Siqueira Quintans. Pharmacological effects of a complex  $\alpha$ -bisabolol/ $\beta$ -cyclodextrin in a mice arthritis model with involvement of IL-1 $\beta$ , IL-6 and MAPK. J. Biomed Pharmacother. 2022 Jul;151:113142. doi: 10.1016/j.biopha.2022.113142. Epub 2022 May 25.
61. Santos ES, Abrantes Coelho GL, Saraiva Fontes Loula YK, Saraiva Landim BL, Fernandes Lima CN, Tavares de Sousa Machado S, Pereira Lopes MJ, Soares Gomes AD, Martins da Costa JG, Alencar de Menezes IR, Coutinho HDM, **Kim B**, Bezerra Felipe CF, de Araújo Neves S, Kerntopf MR. Hypoglycemic, Hypolipidemic, and Anti-Inflammatory Effects of Beta-Pinene in Diabetic Rats. Evid Based Complement Alternat Med. 2022 May 17;2022:8173307. doi: 10.1155/2022/8173307. eCollection 2022.
62. Biswas S, Mahmud S, Mita MA, Afrose S, Hasan MR, Paul GK, Shimu MSS, Uddin MS, Zaman S, Park MN, Siyadatpanah A, Obaidullah AJ, Saleh MA, Simal-Gandara J, **Kim B**. The Emergence of SARS-CoV-2 Variants With a Lower Antibody Response: A Genomic and Clinical Perspective. Front Med (Lausanne). 2022 May 6;9:825245. doi: 10.3389/fmed.2022.825245. eCollection 2022.
63. achado S, Érika Santana, Brito V, Maciel L, Quintans Júnior LJ, da Silva Junior W, de Farias Neto J, Melo Coutinho HD, **Kim B#**, de Santana Filho VJ#. Knee Osteoarthritis: Kinesiophobia and Isometric Strength of Quadriceps in Women. Pain Res Manag . 2022 May 5;2022:1466478. doi: 10.1155/2022/1466478. eCollection 2022.
64. Mathpal S, Sharma P, Joshi T, Pande V, Mahmud S, Jeong MK, Obaidullah AJ, Chandra S, **Kim B**. Identification of Zinc-Binding Inhibitors of Matrix Metalloproteinase-9 to Prevent Cancer

- Through Deep Learning and Molecular Dynamics Simulation Approach Front Mol Biosci. 2022 Mar 31;9:857430. doi: 10.3389/fmolb.2022.857430. eCollection 2022.
65. de Lima LF, Andrade-Pinheiro JC, Freitas MA, da Silva AI, Fonseca VJA, da Silva TG, da Silva JCP, de Lima RH, Sales DL, Neves RP, de Brito ES, Ribeiro PRV, Canuto KM, Coutinho HDM, Siyadatpanah A, **Kim B**#, Morais-Braga MFB#. Anti- Candida Properties of Gossypium hirsutum L.: Enhancement of Fungal Growth, Biofilm Production and Antifungal Resistance. Pharmaceutics . 2022 Mar 24;14(4):698. doi: 10.3390/pharmaceutics14040698.
66. Kim JH, Im E, Lee J, Lee HJ, Sim DY, Park JE, Ahn CH, Kwon HH, Shim BS, **Kim B**, Kim SH. Apoptotic and DNA Damage Effect of 1,2,3,4,6-Penta-O-galloyl-beta-D-glucose in Cisplatin-Resistant Non-Small Lung Cancer Cells via Phosphorylation of H 2 AX, CHK2 and p53. Cells. 2022 Apr 14;11(8):1343. doi: 10.3390/cells11081343.
67. de Faro Silva R, Barreto AS, Trindade GDGG, Lima CM, Araújo AAS, Menezes IRA, Candido EAF, Santana ÉTN, Silva-Júnior WM, Quintans JSS, Coutinho HDM, **Kim B**, Quintans-Júnior LJ. Enhancement of the functionality of women with knee osteoarthritis by a gel formulation with Caryocar coriaceum Wittm ("Pequi") nanoencapsulated pulp fixed oil. Biomed Pharmacother . 2022 Apr 9;150:112938. doi: 10.1016/j.biopha.2022.112938.
68. Abas AH, Marfuah S, Idroes R, Kusumawaty D, Fatimawali, Park MN, Siyadatpanah A, Alhumaydhi FA, Mahmud S, Tallei TE, Emran TB, **Kim B**. Can the SARS-CoV-2 Omicron Variant Confer Natural Immunity against COVID-19? Molecules. 2022 Mar 29;27(7):2221. doi: 10.3390/molecules27072221.
69. Malek F, Harit T, Cherfi M, **Kim B**. Insights on the Synthesis of N-Heterocycles Containing Macrocycles and Their Complexion and Biological Properties. Molecules. 2022 Mar 25;27(7):2123. doi: 10.3390/molecules27072123.
70. Islam MR, Awal MA, Khames A, Abourehab MAS, Samad A, Hassan WMI, Alam R, Osman OI,

Nur SM, Molla MHR, Abdulrahman AO, Rajia S, Ahammad F, Hasan MN, Qadri I, **Kim B.** Computational Identification of Druggable Bioactive Compounds from *Catharanthus roseus* and *Avicennia marina* against Colorectal Cancer by Targeting Thymidylate Synthase. *Molecules*. 2022 Mar 24;27(7):2089. doi: 10.3390/molecules27072089.

71. **Kim B**, Lee IS, Ko SJ. The efficacy and safety of *Laminaria japonica* for metabolic syndrome: A protocol for systematic review. *Medicine (Baltimore)*. 2022 Feb 18;101(7):e28892. doi: 10.1097/MD.00000000000028892.
72. Almeida-Bezerra JW, Rodrigues FC, Lima Bezerra JJ, Vieira Pinheiro AA, Almeida de Menezes S, Tavares AB, Costa AR, Augusta de Sousa Fernandes P, Bezerra da Silva V, Martins da Costa JG, Pereira da Cruz R, Bezerra Morais-Braga MF, Melo Coutinho HD, Teixeira de Albergaria E, Meiado MV, Siyatpanah A, **Kim B#**, Morais de Oliveira AF#. Traditional Uses, Phytochemistry, and Bioactivities of *Mesosphaerum suaveolens* (L.) Kuntze. *Evid Based Complement Alternat Med* . 2022 Mar 10;2022:3829180. doi: 10.1155/2022/3829180. eCollection 2022.
73. Dalli M, El Guerraf A, Azizi SE, Benataya K, Azghar A, Mi-Kyung J, Maleb A, **Kim B#**, Gseyra N#. Loaded n-Hydroxyapatite/SSG 3D Scaffolds as a Drug Delivery System of *Nigella sativa* Fractions for the Management of Local Antibacterial Infections. *Nanomaterials (Basel)* . 2022 Mar 3;12(5):856. doi: 10.3390/nano12050856.
74. Md Sohel, Partha Biswas, Md. Al Amin, Md. Arju Hossain, Habiba Sultana, Dipta Dey, Suraiya Aktar, Arifa Setu, Md. Sharif Khan, Priyanka Paul, Md. Nurul Islam, Md. Ataur Rahman, **Bonglee Kim#** and Abdullah Al Mamun#. Genistein, a Potential Phytochemical against Breast Cancer Treatment- Insight into the Molecular Mechanisms. *Processes* 2022, 10(2), 415; <https://doi.org/10.3390/pr10020415>.
75. Pedro Silvino Pereira, Adrielle Rodrigues Costa, Thalyta Julyanne Silva de Oliveira, Carlos Vinícius Barros Oliveira, Maria do Carmo Alves de Lima, Jamerson Ferreira de Oliveira, **Bonglee Kim#**, Henrique D. M. Coutinho, Antonia Eliene Duarte, Jean Paul Kamdem and Teresinha Gonçalves da



- Silva#. Neurolocomotor Behavior and Oxidative Stress Markers of Thiazole and Thiazolidinedione Derivatives against *Nauphoeta cinerea*. *Antioxidants* 2022, 11(2), 420; <https://doi.org/10.3390/antiox11020420>.
76. Oussama Bekkouch, Mohammed Dalli, Mohamed Harnafi, Ilham Touiss, Imane Mokhtari, Soufiane El Assri, Hicham Harnafi, Mohammed Choukri, Seok-Jae Ko, **Bonglee Kim** and Souliman Amrani#. Ginger (*Zingiber officinale* Roscoe), Lemon (*Citrus limon* L.) Juices as Preventive Agents from Chronic Liver Damage Induced by CCl<sub>4</sub>: A Biochemical and Histological Study. *Antioxidants* 2022, 11(2), 390; <https://doi.org/10.3390/antiox11020390>.
77. Salima Akter, Md. Aatur Rahman, Mohammad Nazmul Hasan, Hajara Akhter, Priya Noor, Rokibul Islam, Yoonhwa Shin, MD. Hasanur Rahman, Md. Shamim Gazi, Md Nazmul Huda, Nguyen Minh Nam, Jinwook Chung, Sunhee Han, **Bonglee Kim**, Insug Kang, Joohun Ha, Wonchae Choe, Tae Gyu Choi and Sung Soo Kim. Recent Advances in Ovarian Cancer: Therapeutic Strategies, Potential Biomarkers, and Technological Improvements. *Cells* 2022, 11(4), 650; <https://doi.org/10.3390/cells11040650>.
78. Moon Nyeo Park, Eun-Sik Um, Md Aatur Rahman, Jeong Woo Kim, Se Sun Park , Yongmin Cho, Hangyul Song, So-Ri Son, Dae Sik Jang, Woojin Kim, Bum-Sang Shim, Kwan-Il Kim, Eungyeong Jang, **Bonglee Kim**, Youngchul Kim#. *Leonurus japonicus* Houttuyn induces reactive oxygen species-mediated apoptosis via regulation of miR-19a-3p/PTEN/PI3K/AKT in U937 and THP-1 cells. *Journal of Ethnopharmacology*, Accepted 23 February 2022, 115129 <https://doi.org/10.1016/j.jep.2022.115129>
79. Shimu MSS, Mahmud S, Tallei TE, Sami SA, Adam AA, Acharjee UK, Paul GK, Emran TB, Zaman S, Uddin MS, Saleh MA, Alshehri S, Ghoneim MM, Alruwali M, Obaidullah AJ, Jui NR, Kim J, **Kim B.** Phytochemical Compound Screening to Identify Novel Small Molecules against Dengue Virus: A Docking and Dynamics Study. *Molecules*. 2022 Jan 20;27(3):653. doi: 10.3390/molecules27030653.
80. Moon Nyeo Park, Hee Won Jeon, Md. Aatur Rahman, Se Sun Park, Se Yun Jeong, Ki Hyun Kim, Sung-Hoon Kim, Woojin Kim and **Bonglee Kim**. *Daemonorops draco* Blume induces apoptosis against acute myeloid leukemia cells via regulation of miR-216b/c-Jun signal pathway. *Frontiers in*

Oncology. Accepted. DOI: 10.3389/fonc.2022.808174

81. Moon Nyeo Park, Hyunmin Park, Md. Ataur Rahman, Jeong Woo, Se Sun Park, Yongmin Cho, Jinwon Choi, So-Ri Son, Dae Sik Jang, Bum-Sang Shim, Sung- Hoon Kim, Seong-Gyu Ko, Chunhoo Cheon and **Bonglee Kim**. BK002 induces miR-192-5p mediated Apoptosis in castration-resistant prostate cancer cells via modulation of PI3K/CHOP. *Frontiers in Oncology*. Accepted. DOI: 10.3389/fonc.2022.791365
82. Daeun Min, **Bonglee Kim**, Seong-Gyu Ko and Woojin Kim. Effect and Mechanism of Herbal Medicines on Cisplatin-Induced Anorexia. *Pharmaceuticals* 2022, 15(2), 208; <https://doi.org/10.3390/ph15020208>.
83. Ji Hwan Lee, **Bonglee Kim**, Seong-Gyu Ko and Woojin Kim. Analgesic Effect of SH003 and *Trichosanthes kirilowii* Maximowicz in Paclitaxel-Induced Neuropathic Pain in Mice. *Curr. Issues Mol. Biol.* 2022, 44(2), 718-730; <https://doi.org/10.3390/cimb44020050> - 31 Jan 2022
84. Md Ataur Rahman, Moon Nyeo Park, ..., Md Abdul Hannan and **Bonglee Kim**. p53 Modulation of Autophagy Signaling in Cancer Therapies: Perspectives Mechanism and Therapeutic Targets. *Front. Cell Dev. Biol.*, 26 January 2022 <https://doi.org/10.3389/fcell.2022.761080>.
85. Md. Ataur Rahman, MD. Hasanur Rahman, **Bonglee Kim**. Potential Therapeutic Action of Autophagy in Gastric Cancer Managements: Novel Treatment Strategies and Pharmacological Interventions. *Front. Pharmacol.*, 28 January 2022. <https://doi.org/10.3389/fphar.2021.813703>.
86. Mst. Sharmin Sultana Shimu,... **Kim B**. Phytochemical Compound Screening to Identify Novel Small Molecules against Dengue Virus: A Docking and Dynamics Study. *Molecules* 2022, 27(3), 653; <https://doi.org/10.3390/molecules27030653>.
87. Md. Al Saber, ... **Kim B**. A Comprehensive Review of Recent Advancements in Cancer Immunotherapy and Generation of CAR T Cell by CRISPR-Cas9. *Processes* 2022, 10(1), 16; <https://doi.org/10.3390/pr10010016>
88. Md Ataur Rahman, Moon Nyeo Park, MD Hasanur Rahman, Md Mamunur Rashid, Rokibul Islam, Md Jamal Uddin, Md Abdul Hannan and **Kim B**. p53 Modulation of Autophagy Signaling in Cancer Therapies: Perspectives Mechanism and Therapeutic Targets. *Front. Cell Dev. Biol.*, 26 January 2022

| <https://doi.org/10.3389/fcell.2022.761080>

89. Silveira ZS, Macêdo NS, Bezerra SR, Siyadatpanah A, Coutinho HDM, Seifi Z, **Kim B**, da Cunha FAB, Balbino VQ. Phytochemistry and Biological Activities of *Amburana cearensis* (Allemão) ACSm. *Molecules*. 2022 Jan 14;27(2):505. doi: 10.3390/molecules27020505.
90. Dalli M, Bekkouch O, Azizi SE, Azghar A, Gseyra N, **Kim B**. *Nigella sativa* L. Phytochemistry and Pharmacological Activities: A Review (2019-2021). *Biomolecules*. 2021 Dec 23;12(1):20. doi: 10.3390/biom12010020.
91. Rodrigues FFG, Boligon AA, Menezes IRA, Galvão-Rodrigues FF, Salazar GJT, Nonato CFA, Braga NTTM, Correia FMA, Caldas GFR, Coutinho HDM, Siyadatpanah A, **Kim B**, Costa JGM, Barros ARC. HPLC/DAD, Antibacterial and Antioxidant Activities of *Plectranthus* Species (Lamiaceae) Combined with the Chemometric Calculations. *Molecules*. 2021 Dec 17;26(24):7665. doi: 10.3390/molecules26247665.
92. Ahmed KA, Hasib TA, ... **Kim B**. Potential Role of CCN Proteins in Breast Cancer: Therapeutic Advances and Perspectives. *Curr. Oncol.* 2021, 28(6), 4972-4985; <https://doi.org/10.3390/curroncol28060417>
93. Lim S, Jeong I, Cho J, Shin C, Kim KI, Shim BS, Ko SG, **Kim B**. The Natural Products Targeting on Allergic Rhinitis: From Traditional Medicine to Modern Drug Discovery. *Antioxidants (Basel)*. 2021 Sep 26;10(10):1524. doi: 10.3390/antiox10101524.
94. Kim JH, Jung JH, Lee HJ, Sim DY, Im E, Park J, Park WY, Ahn CH, Shim BS, **Kim B**, Kim SH. UBE2M Drives Hepatocellular Cancer Progression as a p53 Negative Regulator by Binding to MDM2 and Ribosomal Protein L11. *Cancers (Basel)*. 2021 Sep 29;13(19):4901. doi: 10.3390/cancers13194901.
95. Biswas P, Dey D, Rahman A, Islam MA, Susmi TF, Kaium MA, Hasan MN, Rahman MDH, Mahmud S, Saleh MA, Paul P, Rahman MR, Al Saber M, Song H, Rahman MA, **Kim B**. Analysis of SYK Gene as a Prognostic Biomarker and Suggested Potential Bioactive Phytochemicals as an Alternative Therapeutic Option for Colorectal Cancer: An In-Silico Pharmacoinformatics Investigation. *J Pers Med*. 2021 Sep 6;11(9):888. doi: 10.3390/jpm11090888.

96. Kang SY, Hwang D, Shin S, Park J, Kim M, Rahman MDH, Rahman MA, Ko SG, **Kim B.** Potential of Bioactive Food Components against Gastric Cancer: Insights into Molecular Mechanism and Therapeutic Targets. *Cancers (Basel)*. 2021 Sep 7;13(18):4502. doi: 10.3390/cancers13184502.
97. Paul P, Biswas P, Dey D,... **Kim B.** Exhaustive Plant Profile of “*Dimocarpus longan* Lour” with Significant Phytomedicinal Properties: A Literature Based-Review. *Processes* 2021, 9(10), 1803; <https://doi.org/10.3390/pr9101803>
98. Rahman MS Zilani MN, Islam MA, Hasan MM, Islam MM, Yasmin F, Biswas P, Hirashima A, Rahman MA, Hasan MN, **Kim B.** In Vivo Neuropharmacological Potential of *Gomphandra tetrandra* (Wall.) Sleumer and In-Silico Study against  $\beta$ -Amyloid Precursor Protein. *Processes* 2021, 9(8), 1449; <https://doi.org/10.3390/pr9081449>.
99. Kim S, Kim N, Jeong JY, Lee S, Kim W, Ko SG, **Kim B.** Anti-Cancer Effect of Panax Ginseng and Its Metabolites: From Traditional Medicine to Modern Drug Discovery. *Processes*. 2021, 9(8), 1344; <https://doi.org/10.3390/pr9081344>
100. Rahman MA, Hannan MA, Uddin MJ, Rahman MS, Rashid MM, **Kim B.** Exposure to Environmental Arsenic and Emerging Risk of Alzheimer’s Disease: Perspective Mechanisms, Management Strategy, and Future Directions. *Toxics* 2021, 9(8), 188; <https://doi.org/10.3390/toxics9080188>
101. Hannan MA, Rahman MA, Sohag AAM, Uddin MJ, Dash R, Sikder MH, Rahman MS, Timalisina B, Munni YA, Sarker PP, Alam M, Mohibullah M, Haque MN, Jahan I, Hossain MT, Afrin T, Rahman MM, Tahjib-Ul-Arif M, Mitra S, Oktaviani DF, Khan MK, Choi HJ, Moon IS, **Kim B.** Black Cumin (*Nigella sativa* L.): A Comprehensive Review on Phytochemistry, Health Benefits, Molecular Pharmacology, and Safety. *Nutrients*. 2021 May 24;13(6):1784. doi: 10.3390/nu13061784.
102. **Kim B.** Park JE, Im E, Cho Y, Lee J, Lee HJ, Sim DY, Park WY, Shim BS, Kim SH. Recent Advances in Nanotechnology with Nano-Phytochemicals: Molecular Mechanisms and Clinical Implications in Cancer Progression. *Int J Mol Sci*. 2021 Mar 30;22(7):3571. doi: 10.3390/ijms22073571.
103. Park J, Jeong D, Song M, **Kim B.** Recent Advances in Anti-Metastatic Approaches of Herbal

Medicines in 5 Major Cancers: From Traditional Medicine to Modern Drug Discovery. *Antioxidants* (Basel). 2021 Mar 27;10(4):527. doi: 10.3390/antiox10040527.

104. Park SH, Kim M, Lee S, Jung W, **Kim B.** Therapeutic Potential of Natural Products in Treatment of Cervical Cancer: A Review. *Nutrients*. 2021 Jan 5;13(1):154. doi: 10.3390/nu13010154.
105. Lee J, Noh S, Lim S, **Kim B.** Plant Extracts for Type 2 Diabetes: From Traditional Medicine to Modern Drug Discovery. *Antioxidants* (Basel). 2021 Jan 9;10(1):81. doi: 10.3390/antiox10010081.
106. Park YJ, Lee KH, Jeon MS, Lee YH, Ko YJ, Pang C, **Kim B.** Chung KH, Kim KH. Hepatoprotective Potency of Chrysophanol 8- O-Glucoside from *Rheum palmatum* L. against Hepatic Fibrosis via Regulation of the STAT3 Signaling Pathway. *Int J Mol Sci*. 2020 Nov 27;21(23):9044. doi: 10.3390/ijms21239044.
107. Noh S, Go A, Kim DB, Park M, Jeon HW, **Kim B.** Role of Antioxidant Natural Products in Management of Infertility: A Review of Their Medicinal Potential. *Antioxidants* (Basel). 2020 Oct 7;9(10):957. doi: 10.3390/antiox9100957.
108. Cho Y, Park M, Noh S, Kang S, **Kim B.** Review of Natural Compounds for the Management and Prevention of Lymphoma. *Processes* 2020, Sep 8(9), 1164; <https://doi.org/10.3390/pr8091164>
109. Jung I, Kim H, Moon S, Lee H, **Kim B.** Overview of *Salvia miltiorrhiza* as a Potential Therapeutic Agent for Various Diseases: An Update on Efficacy and Mechanisms of Action. *Antioxidants* (Basel). 2020 Sep 13;9(9):857. doi: 10.3390/antiox9090857.
110. Lee J, Jeong MI, Kim HR, Park H, Moon WK, **Kim B.** Plant Extracts as Possible Agents for Sequela of Cancer Therapies and Cachexia. *Antioxidants* (Basel). 2020 Sep 7;9(9):836. doi: 10.3390/antiox9090836.
111. Jung JH, Hwang J, Kim JH, Sim DY, Im E, Park JE, Park WY, Shim BS, **Kim B.** Kim SH. Phytochemical candidates repurposing for cancer therapy and their molecular mechanisms. *Semin Cancer Biol*. 2019 Dec 26.

112. Noh S, Choi E, Hwang CH, Jung JH, Kim SH, **Kim B**. Dietary Compounds for Targeting Prostate Cancer. *Nutrients*. 2019 Oct 8;11(10).
113. Kang B, Park H, **Kim B**. Anticancer Activity and Underlying Mechanism of Phytochemicals against Multiple Myeloma. *Int J Mol Sci*. 2019 May 9;20(9).
114. Min TR, Park HJ, Park MN, **Kim B**, Park SH. The Root Bark of *Morus alba* L. Suppressed the Migration of Human Non-Small-Cell Lung Cancer Cells through Inhibition of Epithelial-Mesenchymal Transition Mediated by STAT3 and Src. *Int J Mol Sci*. 2019 May 7;20(9).
115. Hwang D, Kim M, Park H, Jeong MI, Jung W, **Kim B**. Natural Products and Acute Myeloid Leukemia: A Review Highlighting Mechanisms of Action. *Nutrients*. 2019 May 3;11(5).
116. Jung JH, Lee H, Kim JH, Sim DY, Ahn H, **Kim B**, Chang S, Kim SH. p53-Dependent Apoptotic Effect of Puromycin via Binding of Ribosomal Protein L5 and L11 to MDM2 and its Combination Effect with RITA or Doxorubicin. *Cancers (Basel)*. 2019 Apr 24;11(4).
117. Sung S, Kwon D, Um E, **Kim B**. Could Polyphenols Help in the Control of Rheumatoid Arthritis? *Molecules*. 2019 Apr 22;24(8).
118. Lim HJ, Park MN, Kim C, Kang B, Song HS, Lee H, Kim SH, Shim BS, **Kim B**. MiR-657/ATF2 Signaling Pathway Has a Critical Role in *Spatholobus suberectus* Dunn Extract-Induced Apoptosis in U266 and U937 Cells. *Cancers (Basel)*. 2019 Jan 28;11(2).
119. Kim C, **Kim B**. Anti-Cancer Natural Products and Their Bioactive Compounds Inducing ER Stress-Mediated Apoptosis: A Review. *Nutrients*. 2018 Aug 4;10(8).
120. Kim DH, Shin EA, **Kim B**, Shim BS, Kim SH. Reactive oxygen species-mediated phosphorylation of p38 signaling is critically involved in apoptotic effect of Tanshinone I in colon cancer cells. *Phytother Res*. 2018 Jun 7. doi: 10.1002/ptr.6126. [Epub ahead of print]
121. Ahn DS, Lee HJ, Hwang J, Han H, **Kim B**, Shim B, Kim SH. Lambertianic Acid Sensitizes Non-Small Cell Lung Cancers to TRAIL-Induced Apoptosis via Inhibition of

- XIAP/NF- $\kappa$ B and Activation of Caspases and Death Receptor 4. *Int J Mol Sci.* 2018 May 16;19(5).
122. Kim C, Song HS, Park H, **Kim B**. Activation of ER Stress-Dependent miR-216b Has a Critical Role in *Salviamiltiorrhiza* Ethanol-Extract-Induced Apoptosis in U266 and U937 Cells. *Int J Mol Sci.* 2018 Apr 19;19(4).
123. Cha JA, Song HS, Kang B, Park MN, Park KS, Kim SH, Shim BS, **Kim B**. miR-211 Plays a Critical Role in *Cnidium officinale* Makino Extract-Induced, ROS/ER Stress-Mediated Apoptosis in U937 and U266 Cells. *Int J Mol Sci.* 2018 Mar 15;19(3).
124. Lee JE, Song HS, Park MN, Kim SH, Shim BS, **Kim B**. Ethanol Extract of *Oldenlandia diffusa* Herba Attenuates Scopolamine-Induced Cognitive Impairments in Mice via Activation of BDNF, P-CREB and Inhibition of Acetylcholinesterase. *Int J Mol Sci.* 2018 Jan 25;19(2).
125. Park MN, Song HS, Kim M, Lee MJ, Cho W, Lee HJ, Hwang CH, Kim S, Hwang Y, Kang B, **Kim B**. Review of Natural Product-Derived Compounds as Potent Antiglioblastoma Drugs. *Biomed Res Int.* 2017;2017:8139848.
126. Kwon HY, Kim JH, **Kim B**, Srivastava SK, Kim SH. Regulation of SIRT1/AMPK axis is critically involved in gallic acid-induced senescence and impaired autophagy leading to cell death in hepatocellular carcinoma cells. *Arch Toxicol.* 2018 Jan;92(1):241-257.
127. Lee JC, Shin EA, **Kim B**, Kim BI, Chitsazian-Yazdi M, Iranshahi M, Kim SH. Auraptene Induces Apoptosis via Myeloid Cell Leukemia 1-Mediated Activation of Caspases in PC3 and DU145 Prostate Cancer Cells. *Phytother Res.* 2017 Jun;31(6):891-898.
128. Hong SH, Lee H, Lee HJ, **Kim B**, Nam MH, Shim BS, Kim SH. Ethanol Extract of *Pinus koraiensis* Leaf Ameliorates Alcoholic Fatty Liver via the Activation of LKB1-AMPK Signaling In Vitro and In Vivo. *Phytother Res.* 2017 May;31(5):783-791.
129. Kim H, Shin EA, Kim CG, Lee DY, **Kim B**, Baek NI, Kim SH. Obovatol Induces Apoptosis in Non-small Cell Lung Cancer Cells via C/EBP Homologous Protein Activation. *Phytother Res.* 2016 Nov;30(11):1841-1847.

130. Kim B, Woo MJ, Park CS, Lee SH, Kim JS, **Kim B**, An S, Kim SH. Hovenia Dulcis Extract Reduces Lipid Accumulation in Oleic Acid-Induced Steatosis of Hep G2 Cells via Activation of AMPK and PPAR $\alpha$ /CPT-1 Pathway and in Acute Hyperlipidemia Mouse Model. *Phytother Res.* 2017 Jan;31(1):132-139.
131. Lee SY, Lee J, Lee H, **Kim B**, Lew J, Baek N, Kim SH. MicroRNA134 Mediated Upregulation of JNK and Downregulation of NF $\kappa$ B Signalings Are Critically Involved in Dieckol Induced Antihepatic Fibrosis. *J Agric Food Chem.* 2016 Jul 13;64(27):5508-14.
132. Jung JH, Kim MJ, Lee H, Lee J, Kim J, Lee HJ, Shin EA, Kim YH, **Kim B**, Shim BS, Kim SH. Farnesiferol c induces apoptosis via regulation of L11 and c-Myc with combinational potential with anticancer drugs in non-small-cell lung cancers. *Sci Rep.* 2016 May 27;6:26844.
133. Joo H, Lee HJ, Shin EA, Kim H, Seo KH, Baek NI, **Kim B**, Kim SH. c-Jun N-terminal Kinase-Dependent Endoplasmic Reticulum Stress Pathway is Critically Involved in Arjunic Acid Induced Apoptosis in Non-Small Cell Lung Cancer Cells. *Phytother Res.* 2016 Apr;30(4):596-603.
134. Kim J, Yun M, Kim EO, Jung DB, Won G, Kim B, Jung JH, Kim SH. Decursin enhances TRAIL-induced apoptosis through oxidative stress mediated- endoplasmic reticulum stress signalling in non-small cell lung cancers. *Br J Pharmacol.* 2016 Mar;173(6):1033-44.
135. Nam MS, Jung DB, Seo KH, Kim BI, Kim JH, Kim JH, **Kim B**, Baek NI, Kim SH. Apoptotic Effect of Sanggenol L via Caspase Activation and Inhibition of NF- $\kappa$ B Signaling in Ovarian Cancer Cells. *Phytother Res.* 2016 Jan;30(1):90-6.
136. Kwon OS, Jeong MS, **Kim B**, Kim SH. Antiangiogenic Effect of Ethanol Extract of *Vigna angularis* via Inhibition of Phosphorylation of VEGFR2, Erk, and Akt. *Evid Based Complement Alternat Med.* 2015;2015:371368.
137. Park E, Kwon HY, Jung JH, Jung DB, Jeong A, Cheon J, **Kim B**, Kim SH. Inhibition of Myeloid Cell Leukemia 1 and Activation of Caspases Are Critically Involved in Gallotannin-induced Apoptosis in Prostate Cancer Cells. *Phytother Res.* 2015 Aug;29(8):1225-36.



138. Jung JH, Yun M, Choo EJ, Kim SH, Jeong MS, Jung DB, Lee H, Kim EO, Kato N, **Kim B**, Srivastava SK, Kaihatsu K, Kim SH. A derivative of epigallocatechin-3-gallate induces apoptosis via SHP-1-mediated suppression of BCR-ABL and STAT3 signalling in chronic myelogenous leukaemia. *Br J Pharmacol*. 2015 Jul;172(14):3565-78.
139. Oh BS, Shin EA, Jung JH, Jung DB, **Kim B**, Shim BS, Yazdi MC, Iranshahi M, Kim SH. Apoptotic Effect of Galbanic Acid via Activation of Caspases and Inhibition of Mcl-1 in H460 Non-Small Lung Carcinoma Cells. *Phytother Res*. 2015 Jun;29(6):844-9.
140. Jung DB, Yun M, Kim EO, Kim J, **Kim B**, Jung JH, Wang E, Mukhopadhyay D, Hammond E, Dredge K, Shridhar V, Kim SH. The heparan sulfate mimetic PG545 interferes with Wnt/ $\beta$ -catenin signaling and significantly suppresses pancreatic tumorigenesis alone and in combination with gemcitabine. *Oncotarget*. 2015 Mar 10;6(7):4992-5004.
141. Han J, Sohn EJ, **Kim B**, Kim S, Won G, Yoon S, Lee J, Kim MJ, Lee H, Chung K, Kim SH. Upregulation of death receptor 5 and activation of caspase 8/3 play a critical role in ergosterol peroxide induced apoptosis in DU 145 prostate cancer cells. *Cancer Cell Int*. 2014 Nov 30;14(1):117.
142. **Kim B**, Srivastava SK, Kim SH. Caspase-9 as a therapeutic target for treating cancer. *Expert Opin Ther Targets*. 2015 Jan;19(1):113-27
143. Shin EA, Sohn EJ, Won G, Choi JU, Jeong M, **Kim B**, Kim MJ, Kim SH. [Upregulation of microRNA135a-3p and death receptor 5 plays a critical role in Tanshinone I sensitized prostate cancer cells to TRAIL induced apoptosis.](#) *Oncotarget*. 2014 Jul 30;5(14):5624-36.
144. **Kim B**, Sohn EJ, Jung JH, Shin EA, You OH, Im J, Kim SH. [Inhibition of ZNF746 suppresses invasion and epithelial to mesenchymal transition in H460 non-small cell lung cancer cells.](#) *Oncol Rep* 31(1):73-8, 2014
145. Cho SY, Cho S, Park E, **Kim B**, Sohn EJ, Oh B, Lee EO, Lee HJ, Kim SH. [Coumestrol suppresses hypoxia inducible factor 1 \$\alpha\$  by inhibiting ROS mediated sphingosine kinase 1 in hypoxic PC-3 prostate cancer cells.](#) *Bioorg Med Chem Lett* 1;24(11):2560-4, 2014

146. Gupta P, **Kim B**, Kim SH, Srivastava SK. [Molecular targets of isothiocyanates in cancer: Recent advances](#). Mol Nutr Food Res Feb 10. doi: 10.1002/mnfr.201300684. [Epub ahead of print], 2014
147. Song J, Ko HS, Sohn EJ, **Kim B**, Kim JH, Kim HJ, Kim C, Kim JE, Kim SH. [Inhibition of protein kinase C  \$\alpha/\beta\$ II and activation of c-Jun NH2-terminal kinase mediate glycyrrhetic acid induced apoptosis in non-small cell lung cancer NCI-H460 cells](#). Bioorg Med Chem Lett 15;24(4):1188-91, 2014
148. Park JH, Kwon HY, Sohn EJ, Kim KA, **Kim B**, Jeong SJ, Song JH, Koo JS, Kim SH. [Inhibition of Wnt/ \$\beta\$ -catenin signaling mediates ursolic acid-induced apoptosis in PC-3 prostate cancer cells](#). Pharmacol Rep 65(5):1366-74 Pharmacol Rep. 2013;65(5):1366-74, 2013
149. Ha B, Ko H, **Kim B**, Sohn EJ, Jung JH, Kim JS, Yoon JJ, Won G, Kim JH, Jung DB, Yun M, Shim B, Kim SH. [Regulation of crosstalk between epithelial to mesenchymal transition molecules and MMP-9 mediates the antimetastatic activity of anethole in DU145 prostate cancer cells](#). J Nat Prod 24;77(1):63-9, 2014
150. Cho SY, Lee HJ, Cho SM, **Kim B**, Jung YK, Kim SH. Particled Mica, STB-HO has chemopreventive potential via G1 arrest, and inhibition of proliferation and vascular endothelial growth factor receptor 2 in HCT colorectal cancer cells. BMC Complement Altern Med 13 (1): 189, 2013
151. Yun SM, Jung JH, Jeong SJ, Sohn EJ, **Kim B**, Kim SH. Tanshinone IIA Induces Autophagic Cell Death via Activation of AMPK and ERK and Inhibition of mTOR and p70 S6K in KBM-5 Leukemia Cells. Phytother Res, 2013
152. Jung JH, Sohn EJ, Shin EA, Lee D, **Kim B**, Jung DB, Kim JH, Yun M, Lee HJ, Park YK, Kim SH. Melatonin Suppresses the Expression of 45S Preribosomal RNA and Upstream Binding Factor and Enhances the Antitumor Activity of Puromycin in MDA-MB-231 Breast Cancer Cells. Evid Based Complement Alternat Med 879746, 2013
153. Sook SH, Lee HJ, Kim JH, Sohn E, Jung JH, **Kim B**, Jeong SJ, Kim SH. Reactive

Oxygen Species-Mediated Activation of AMP-Activated Protein Kinase and c-Jun N-terminal Kinase Plays a Critical Role in Beta-Sitosterol-Induced Apoptosis in Multiple Myeloma U266 cells. *Phytother Res*, 2013

154. Cho SY, Lee HJ, Jung DB, Kim H, Sohn EJ, **Kim B**, Jung JH, Kwon BM, Kim SH. Activation of AMP-Activated Protein Kinase alpha and Extracellular Signal-Regulated Kinase Mediates CB-PIC-Induced Apoptosis in Hypoxic SW620 Colorectal Cancer Cells. *Evid Based Complement Alternat Med* 974313, 2013
155. You OH, Kim SH, **Kim B**, Sohn EJ, Lee HJ, Shim BS, Yun M, Kwon BM. Ginkgetin induces apoptosis via activation of caspase and inhibition of survival genes in PC-3 prostate cancer cells. *Bioorg Med Chem Lett* 23 (9): 2692-5, 2013
156. **Kim B**, Kim SH, Jeong SJ, Sohn EJ, Jung JH, Lee MH. Brazilin induces apoptosis and G2/M arrest via inactivation of histone deacetylase in multiple myeloma U266 cells. *J Agric Food Chem* 60 (39): 9882-9, 2012
157. Lee HJ, Jung DB, Sohn EJ, Kim HH, Park MN, Lew JH, Lee SG, **Kim B**, Kim SH. Inhibition of Hypoxia Inducible Factor Alpha and Astrocyte-Elevated Gene-1 Mediates Cryptotanshinone Exerted Antitumor Activity in Hypoxic PC-3 Cells. *Evid Based Complement Alternat Med* 2012: 390957, 2012
158. Song YH, Jeong SJ, Kwon HY, **Kim B**, Kim SH, Yoo DY. Ursolic acid from *Oldenlandia diffusa* induces apoptosis via activation of caspases and phosphorylation of glycogen synthase kinase 3 beta in SK-OV-3 ovarian cancer cells. *Biol Pharm Bull* 35 (7): 1022-8, 2012
159. Kim JH, Jeong SJ, **Kim B**, Yun SM, Choi do Y, Kim SH. Melatonin synergistically enhances cisplatin-induced apoptosis via the dephosphorylation of ERK/p90 ribosomal S6 kinase/heat shock protein 27 in SK-OV-3 cells. *J Pineal Res* 52 (2): 244-52, 2011
160. Jeong SJ, Koh W, **Kim B**, Kim SH. Are there new therapeutic options for treating lung cancer based on herbal medicines and their metabolites? *J Ethnopharmacol* 138 (3): 652-61, 2011

161. Ha MK, Song YH, Jeong SJ, Lee HJ, Jung JH, **Kim B**, Song HS, Huh JE, Kim SH.  
Emodin inhibits proinflammatory responses and inactivates histone deacetylase 1 in hypoxic  
rheumatoid synoviocytes. *Biol Pharm Bull* 34 (9): 1432-7, 2011