

# Miran Kim, Ph.D.

Department of Internal Medicine  
Rush University Medical Center  
1735 W Harrison St. Cohn Rm 258B  
Chicago, IL 60612

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## **EDUCATION**

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1992-1998      Ph.D. in Biological Sciences  
Korea Advanced Institute of Science and Technology (KAIST)  
Taejon, Korea

1987-1989      M.Sc. in Pharmacy (Biochemistry)  
Seoul National University, College of Pharmacy, Seoul, Korea

1979-1983      B.Sc. in Manufacturing Pharmaceutical Sciences  
Pusan National University, College of Pharmacy, Pusan, Korea

## **ACADEMIC APPOINTMENTS**

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2019-present      Assistant Professor  
Department of Internal Medicine, Division of Digestive Diseases and Nutrition  
Rush University

2015-2016      Associate Professor of Medicine  
Warren Alpert Medical School of Brown University, Providence, RI

2003-2015      Assistant Professor of Medicine  
Warren Alpert Medical School of Brown University, Providence, RI

1999-2003      Senior Research Associate  
Institute of Molecular Physiology, University of Sheffield, Sheffield, UK

1998              Research Associate  
Seoul National University, College of Pharmacy, Seoul, Korea

1995-1997      Visiting scientist  
Salk Institute for Biological Studies, San Diego, CA

1989-1995      Research Associate  
Cancer Research Center, Seoul National University, Seoul, Korea

## **HOSPITAL and OTHER APPOINTMENTS**

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2018-Present      Scientist  
Dept of Internal Medicine Hepatology, Rush University Medical Center,  
Chicago, IL

2016-2017      Chief Scientist  
Awesome Inc. El Segundo, CA

2003-2016 Research Scientist, Principal Investigator  
Liver Research Center, Rhode Island Hospital, Providence, RI

2003-2004 Assistant Director  
COBRE Proteomics Core, Rhode Island Hospital, Providence, RI

## **HONORS AND AWARDS**

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2018 RTSC-SAA award  
Rush University Medical Center

2009-2011 Developmental Research Award  
Department of Medicine, Rhode Island Hospital, Providence, RI

2001-2003 Wellcome Trust Research Fellowship  
Institute of Molecular Physiology, University of Sheffield, Sheffield, UK

1999-2000 AstraZeneca Research Fellowship  
Institute of Molecular Physiology, University of Sheffield, Sheffield, UK

## **PUBLICATIONS LIST**

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### **ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS**

1. Tomimaru Y, Aihara A, Wands JR, Aloman A, and **Kim M**. A novel drug, CC-122, inhibits tumor growth in hepatocellular carcinoma through downregulation of an oncogenic TCF-4 isoform. *Transl Oncol* 2019, 12(10):1345-1356.
2. Iwagami Y, Zou Y, Zhang H, Cao K, Ji C, **Kim M**, and Huang CK. Alcohol-mediated miR-34a modulates hepatocyte growth and apoptosis. *J Cell Mol Med* 2018, 22(8):3987-3995.
3. Iwagami Y, Casulli S, Nagaoka K, **Kim M**, Carlson RI, Ogawa K, Lebowitz MS, Fuller S, Biswas B, Stewart S, Dong X, Ghanbari H, and Wands JR. Lambda phage-based vaccine induces antitumor immunity in hepatocellular carcinoma. *Heliyon* 2017, 3(9):e00407.
4. Iwagami Y, Huang CK, Olsen MJ, Thomas JM, Jang G, **Kim M**, Lin Q, Carlson RI, Wagner CE, Dong X, Wands JR. Aspartate  $\beta$ -hydroxylase modulates cellular senescence via glycogen synthase kinase 3 $\beta$  in hepatocellular carcinoma. *Hepatology* 2016, 63(4):1213-26.
5. Huang CK, Aihara A, Iwagami Y, Yu T, Carlson R, Koga M, **Kim M**, and Wands J. Expression of transforming growth factor beta1 promotes cholangiocarcinoma development and progression. *Cancer Lett* 2016, 380(1):153-62.
6. Chung W, **Kim M**, de la Monte S, Longato L, Carlson R, Slagle BL, Dong X, Wands JR. Activation of signal transduction pathways during hepatic oncogenesis. *Cancer Lett* 2016, 370(1):1-9.
7. Huang C-K, Yu T, de la Monte S, Wands JR, Derdak Z, and **Kim M**. Restoration of Wnt/b-catenin signaling attenuates alcoholic liver disease progression in a rat model. *J Hepatol* 2015, 63(1):191-198.
8. Xu CQ, de la Monte SM, Tong M, and **Kim M**. Chronic ethanol-induced impairment of Wnt/ $\beta$ -catenin signaling is attenuated by PPAR- $\delta$  agonist. *Alcol Clin &Exp Res* 2015, 39(6):969-979.
9. Tomimaru Y, Xu CQ, Nambotin SB, Wands JR, and **Kim M**. Loss of exon 4 in a human T-cell factor-4 isoform promotes hepatic tumorigenesis. *Liver Int* 2013, 33 (10):1536-1548.

10. Pez F, Lopez A, **Kim M**, Wands JR, Fromental CC, and Merle P. Wnt signaling and hepatocarcinogenesis: molecular targets for the development of innovative anticancer drugs. *J Hepatol* 2013, S0168-8278 (13) 445-5.
11. Tomimaru Y, Koga H, Yano H, de la Monte S, Wands JR, and **Kim M**. Up-regulation of TCF-4 isoform-responsive target genes in hepatocellular carcinoma. *Liver Int* 2013, 33 (7):1100-1112.
12. Tomimaru Y, Koga H, Shin TH, Xu CQ, Wands JR, and **Kim M**. The SxxSS motif of T-cell Factor-4 isoforms modulates Wnt/b-catenin signal activation in hepatocellular carcinoma cells. *Cancer Lett* 2013, 336 (2):359-369.
13. Nambotin SB, Tomimaru Y, Merle P, Wands JR, and **Kim M**. Functional consequences of WNT3/Frizzled7 mediated signaling in non-transformed hepatic cells. *Oncogenesis* 2012, 1:e31.
14. Koga H, Tsedensodnom O, Tomimaru Y, Walker EJ, Lee HC, Kim KM, Yano H, Wands JR, and **Kim M**. Loss of the SxxSS motif in a human T-cell factor-4 isoform confers hypoxia resistance to liver cancer: an oncogenic switch in Wnt signaling. *PLoS ONE* 2012, 7:e39981.
15. Nambotin SB, Wands JR, and **Kim M**. Promising treatment approaches and targets for hepatocellular carcinoma: Points of therapeutic intervention along the Wnt signaling pathway. *Anticancer Agents Med Chem* 2011, 11(6):549-559.
16. Tsedensodnom O, Koga H, Rosenberg SA, Nambotin SB, Carrol JJ, Wands JR, and **Kim M**. Identification of T-cell factor-4 isoforms that contribute to the malignant phenotype of hepatocellular carcinoma cells. *Exp Cell Res* 2011, 317:920-931.
17. Walker EJ, Rosenberg SA, Wands JR, and **Kim M**. The Role of Raf Kinase Inhibitor Protein in Hepatocellular Carcinoma. *Immunopathol Dis & Ther* 2011, 2(2):195-204.
18. Nambotin SB, Lefrancois L, Sainsily X, Berthillon P, **Kim M**, Wands JR, Chevallier M, Jalinot P, Scoazec J-Y, Trepo C, Zoulim F, and Merle P. Pharmacological inhibition of frizzled-7 displays anti-tumor properties in hepatocellular carcinoma. *J Hepatol* 2011, 54(2):288-299.
19. Toyama T, Lee HC, Koga H, Wands JR, **Kim M**. Noncanonical Wnt11 inhibits hepatocellular carcinoma cell proliferation and migration. *Mol Cancer Res* 2010, 8(2):254-265.
20. Bengochea A, de Souza MM, Lefrancois L, LeRoux E, Beseme S, Chemin I, **Kim M**, Wands JR, Trepo C, Hainaut P, Scoazec J-Y, Vitvitski L, Merle P. Common dysregulation of Wnt/Frizzled receptor elements in human hepatocellular carcinoma. *Br J Cancer* 2008, 99:143-150.
21. **Kim M**, Lee HC, Tsedensodnom O, Hartley R, Lim Y-S, Yu E, Merle P, Wands JR. Functional interaction between Wnt3 and Frizzled-7 leads to activation of Wnt3/b-catenin pathway in hepatocellular carcinoma cells. *J Hepatology* 2008, 48(5):780-791.
22. Lee HC, Tian B, Sedivy J, Wands JR, and **Kim M**. Loss of Raf kinase inhibitor protein promotes cell proliferation and migration of human hepatoma cells. *Gastroenterology* 2006, 131:1208-1217.
23. Lee HC, **Kim M**, and Wands JR. Wnt/frizzled signaling in hepatocellular carcinoma. *Frontiers in Bioscience* 2006, 11:1901-1915.
24. Merle P, **Kim M**, Herrmann M, Gupte A, Lefrancois L, Califano S, Trepo C, Tanaka S, Vitvitski L, de la Monte S, and Wands JR. Oncogenic role of the Frizzled-7/b-catenin pathway in hepatocellular carcinoma. *J Hepatology* 2005, 43:854-862.
25. Merle P, de la Monte S, **Kim M**, Herrmann M, Tanaka S, von den Bussche A, Kew MC, Trepo C, and Wands JR. Functional consequences of Frizzled-7 receptor over-expression in human hepatocellular carcinoma. *Gastroenterology* 2004, 127:1110-1122.

26. Adinolfi E, **Kim M**, Spelta V, Di Virgilio F, and Surprenant A. Tyrosine phosphorylation of Hsp90 within the P2X<sub>7</sub> receptor complex negatively regulates P2X<sub>7</sub> receptors. *J Biol Chem* 2003, 278:37344-37351.
27. Jiang L-H, **Kim M**, Young MT, Bo X, Surprenant A, and North RA. Subunit arrangement in P2X receptors. *J Neurosci* 2003, 26:8903-8910.
28. Bo X, **Kim M**, Nori SL, Shoepfer R, Burnstock G, and North RA. Tissue distribution of P2X<sub>4</sub> receptors studied with an ectodomain antibody. *Cell Tissue Res* 2003, 313:159-165.
29. Bo X, Jiang L-H, Wilson HL, **Kim M**, Burnstock G, Surprenant A, and North RA. Pharmacological and biophysical properties of the human P2X<sub>5</sub> receptor. *Mol Pharmacol* 2003, 63(6):1407-1416.
30. **Kim M**, Jiang L-H, Wilson HL, North RA, and Surprenant A. Proteomic and functional evidence for a P2X<sub>7</sub> receptor signalling complex. *EMBO Journal* 2001, 20(22):6347-6358.
31. **Kim M**, Spelta V, Sim J, North RA, and Surprenant A. Differential assembly of rat purinergic P2X<sub>7</sub> receptor in immune cells of the brain and periphery. *J Biol Chem* 2001, 276:23262-23267.
32. Lee HB, Park SS, **Kim M**, Oh D, Kim CS, and Park S. High-dose busulfan, cyclophosphamide administration or total body irradiation stimulates collagen synthesis in rat liver within 24 hours. *Kor J Hemostas Thromb* 1998, 5(2):161-169.
33. **Kim M**, Yoo OJ, and Choe S. Molecular assembly of the extracellular domain of P2X<sub>2</sub>, an ATP gated ion channel. *Biochem Biophys Res Comm* 1997, 240:618-622.
34. Jeong H, **Kim M**, Lee J, Park S and Yoo OJ. A 5-nucleotide insertion in the antithrombin gene causing a quantitative antithrombin deficiency. *Thromb Haemost* 1997, 77(1): 212-213.
35. Park S, **Kim M**, and Lee JH. Expression of plasminogen activator and plasminogen activator inhibitor genes in leukemic cells. *Kor J Hemostas Thromb* 1996, 3(2):137-144.
36. Park S, **Kim M**, Ryu GH, Lee HB, and Lee M. Characterization of biochemical properties and proteolytic activities of lumbrokinase extracted from *Lumbricus Rubellus*. *Kor J Hemostas Thromb* 1996, 3(2):105-113.
37. Han CW, Lee JS, Park WS, Cho YS, Lee HB, Byun JH, **Kim M**, Oh D and Park S. Changes in plasminogen activator inhibitor-1 activities in pressure ulcer patients. *Kor J Hamatol* 1996, 31:73-79.
38. Bae HY, **Kim M**, Kee HS, Park S, KW Choe and. Expression of tissue factor and type I plasminogen activator inhibitor in cultured endothelial cells on *Rickettsia tsutsugamushi* infection. *Infection* 1996, 27:333-340.
39. Ryu GH, Han DK, Park S, **Kim M**, Kim YH, and Min B. Surface characteristics and properties of lumbrokinase immobilized polyurethane. *J Biomed Mater Res* 1995, 29:403-409.
40. Park WS, Cho YS, Han CW, Lee GR, Byun JH, **Kim M**, Lee HB, Oh D, and Park S. Measurement of tissue-type plasminogen activator (t-PA) activity in human acidified plasma. *Kor J Hemostas Thromb* 1994, 1:193-198.
41. Han JH, Park WS, Cho Y, Han YS, Han CW, **Kim M**, Kye KC, Lee HB, Byun JH, Park S and Lee M. Thrombolytic effect of lumbrokinase in thrombolytic model of ICR rat. *Kor J Hemostas Thromb* 1994, 1:149-154.
42. Baick SH, Hwang SG, Oh D, Kim CJ, **Kim M**, Lee JT and Park S. Urokinase type plasminogen activator (uPA) in stomach cancer. *Kor J Hemostas Thromb* 1994, 1:45-55.
43. Ryu GH, Park S, **Kim M**, Kim YH, and Min B. Antithrombogenicity of lumbrokinase-immobilized polyurethane. *J Biomed Mater Res* 1994, 28:1069-1077.

44. Kim JS, Kang JK, Chang HC, Lee M, Kim GS, Lee DK, Kim ST, **Kim M** and Park S. The thrombolytic effect of lumbrokinase is not as potent as urokinase in a rabbit cerebral embolism model. *J Kor Med Sci* 1993, 8:117-120.
45. Park S, **Kim M**, Kye K, and Kim NK. Demonstration of type 1 plasminogen activator inhibitor and its receptor on human platelet membrane. *Kor J Hematol* 1992, 27:47-53.

### **EDITORIAL**

1. Wands JR and **Kim M**. WNT/b-catenin signaling and hepatocellular carcinoma. *Hepatology* 60 (2):452-454, 2014.

### **BOOKS AND BOOK CHAPTERS**

1. De La Monte SM, Huse S, and Kim M. Alcoholic Beverage and Insulin Resistance–Mediated Degenerative Diseases of Liver and Brain: Cellular and Molecular Effects. In: *Molecular Nutrition and Diabetes*, Mauricio D, Eds. (London, Academic Press) Chap 19. 237-251, 2016
2. **Kim M** and Wands JR. Points of Therapeutic Intervention along the Wnt Signaling Pathway in Hepatocellular Carcinoma. In: *Advances in Cancer Drug Targets*, Att-ur-Rahman (Ed) (Bentham Science Publishers), Vol 3, Chap 3. 78-117, 2016.
3. **Kim M**, Buendia MA, and Wands JR. Hepatocellular Carcinoma Molecular Biology. In: *Encyclopedia of Cancer*, M Schwab, Ed. (Berlin Heidelberg, Springer-Verlag), 2015.
4. Wands JR, and **Kim M**. Signaling pathways in viral related pre-neoplastic liver disease and hepatocellular carcinoma. In: *Molecular Genetics of Liver Neoplasia*. Wang, Grisham and Thorgeirsson, Eds. (New York, Springer Scientific), Chap 6. 103-127, 2011.
5. **Kim M** and Wands JR. Insulin pathway. In *Signaling Pathways in Liver Diseases*, J-F Dufour, P-A Clavien, 2<sup>nd</sup> ed. (Heidelberg, Springer-Verlag GmbH & Co.), Chap 15.229-241, 2010.
6. **Kim M** and Wands JR. Insulin pathway. In *Signaling Pathways in Liver Diseases*, J-F Dufour, P-A Clavien, Eds. (Heidelberg, Springer-Verlag GmbH & Co.), Chap 9.105-113, 2005.

### **PATENTS**

1. Use of biomarkers in methods for the treatment of hepatocellular carcinoma. **Kim M**, Wands JR, Beseme S. US 8901110 B2, 2014.
2. Biomarkers for the treatment of hepatocellular carcinoma. **Kim M**, Wands JR, Beseme S. US 20130183674 A1, WO 2013106686 A1, 2013.
3. Wnt proteins and detection and treatment of cancer. Wands JR and **Kim M**. US 8158761, 2012.
4. Novel fibrinolytic enzymes and purification method thereof. Park S, Yun H, **Kim M**, Lee HB. KR0215647B1, 1999.
5. Novel fibrinolytic enzymes and process for the purification thereof. Park S, Yun H, **Kim M**, Lee HB. KR0151825B1, 1998.

### **CONFERENCE ABSTRACTS**

1. Zhu Z, Branch AD, Doyle E, Vogle A, Fass L, Lee Y, Carter J, Eng F, Lam W, **Kim M**, and Aloman C. The persistent inflammation after HCV elimination is associated with B cells activation in the liver. AASLD (Boston, USA), Nov. 2019
2. Koga H, **Kim M**, Imamura Y, Ikezono Y, Wada F, Iwamoto H, Nakamura T, Sakaue T, Masuda A, Tanaka T, Yano H, Wands JR, and Torimura T. The Wnt effector T-CELL FACTOR-4 isoform activates Notch signaling via upregulating CLAUDIN-2 in human liver cancer cells. AASLD (Boston, USA), Nov. 2016
3. Huang C-K, Aihara A, Iwagami Y, Yu T, Carlson RI, Koga H, **Kim M**, and Wands JR. Expression of transforming growth factor  $\beta$ 1 promotes cholangiocarcinoma development and progression. AASLD (San Francisco, USA), Nov. 2015
4. Iwagami Y, Huang C-K, Olsen M, **Kim M**, Carlson RI, and Wands JR. Aspartate  $\beta$ -hydroxylase modulates cellular senescence via glycogen synthase kinase  $3\beta$  pathway in hepatocellular carcinoma. AASLD (San Francisco, USA), Nov. 2015
5. Huang CK, Yu T, Derdak Z, de la Monte SM, Wands JR, and **Kim M**. Pharmacological restoration of Wnt/b-catenin signaling attenuates alcoholic liver disease progression in a rat model. AASLD (Boston, USA), Nov. 2014
6. Xu CQ, de la Monte SM, Wands JR, and **Kim M**. Chronic ethanol-induced impairment in Wnt/ $\beta$ -catenin signaling is attenuated by PPAR $\delta$  agonist. *Hepatology* 58(4):827A, 2013.
7. Koga H, **Kim M**, Nakamura A, Yano H, Ueno T, Nakamura T, Ueno T, Torimura T, Wands JR, and Sata M. T-cell factor-4 isoforms directly regulate Bcl-xL expression in human hepatocellular carcinoma (HCC) cells. *Hepatology* 58(4):1088A, 2013.
8. Chung W, de la Monte S, **Kim M**, and Wands JR. Activation of interacting signal transduction pathways in an HBV-related double transgenic murine model of HCC. *Hepatology* 58(4):1059A, 2013.
9. Koga H, **Kim M**, Shin T-H, Tomimaru Y, Yano H, Ueno T, Torimura T, Wands JR, and Sata M. Drug resistance as a function of human T-cell factor-4 isoform expression in hepatocellular carcinoma cells. *Hepatology* 56(4):622A, 2012.
10. Nambotin SB, Tsedensodnom O, Gandhi AK, Wands JR, and **Kim M**. Effect of lenalidomide on TCF-4J isoform expression in poorly differentiated HCC cell lines. *Hepatology* 56(4):626A, 2012.
11. Xu CQ, Tomimaru Y, Nambotin SB, Wands JR, and **Kim M**. Regulatory role of exon4 of TCF-4C and D isoforms in the development of hepatocellular carcinoma. *Hepatology* 56(4):793A, 2012.
12. Nambotin SB, Tomimaru Y, Merle P, Wands JR, and **Kim M**. Functional consequences of Wnt3/Fzd7 mediated signaling in non-transformed hepatocyte derived cell lines. *Hepatology* 56(4):789A, 2012.
13. Tomimaru Y, Koga H, Wands JR, and **Kim M**. Identification of TCF-4 isoform regulated in hepatocellular carcinoma. *Hepatology* 56(4):467A, 2012.
14. Tomimaru Y, Wands JR, and **Kim M**. Regulation of the Wnt/ $\beta$ -catenin pathway in hepatocellular carcinoma cells by TCF-4 isoforms. *Hepatology* 56(4):788A, 2012.
15. Chung W, Longato L, **Kim M**, de la Monte S, and Wands JR. Upregulation of aspartate b-hydroxylase (ASPH) is a key event in the pathogenesis of hepatocellular carcinoma. *Hepatology* 54(4):1287A, 2011.
16. Tsedensodnom O, Koga H, Wands JR, and **Kim M**. Expression profile of fourteen splice-variants of T-cell factor-4 transcription factor of Wnt signaling in human HBV- and HCV-related HCC tissues. *Hepatology* 54(4):1359A, 2011.

17. Koga H, Walker EJ, Tsedensodnom O, Wands JR, and **Kim M**. Preferential ubiquitination of hypoxia-inducible factors depends on the SxxSS motif in human T-cell factor-4 isoforms derived from hepatocellular carcinoma. *Cancer Research* 71(8):1933, 2011.
18. Tsedensodnom O, Koga H, Wands JR, and **Kim M**. Characterization and function of unique T-cell factor-4 isoforms that alter the phenotype of hepatocellular carcinoma. *Cancer Research* 70:2959, 2011.
19. Koga H, Walker EJ, Tsedensodnom O, Wands JR, and **Kim M**. A T-cell factor-4 motif regulates the phenotype of hepatocellular carcinoma cells. *Cancer Research* 70:4067, 2011.
20. Koga H, Walker EJ, Tsedensodnom O, Nakashima O, Yano H, Wands JR, and **Kim M**. A T-cell factor-4 isoform promotes an aggressive hepatocellular carcinoma (HCC) phenotype involving hypoxia-inducible factor-2 $\alpha$ . *Hepatology* 52(4):592A, 2010.
21. Koga H, Walker EJ, Tsedensodnom O, Wands JR, and **Kim M**. Tumor-initiating Potential of T-cell Factor-4 Variants derived from Human Hepatocellular Carcinoma. *ILCA Abstracts* 30, 2010.
22. Beseme S, Sainsily X, Lefrancois L, **Kim M**, Wands JR, Fujii N, Jalinol P, Trepo C, Vitvitski L, Zouli F, Merle P. Small protein-mediated inhibition of frizzled-7 displays antitumor properties in hepatocellular carcinoma. *Hepatology* 50(4):907A, 2009.
23. Tsedensodnom O, Koga H, Rosenberg SA, Carrol JJ, Wands JR, and **Kim M**. Identification of T-cell factor-4 isoforms that contribute to the malignant phenotype of hepatocellular carcinoma cells. *Hepatology* 50(4):628A, 2009.
24. Toyama T, Lee HC, Wands JR, and **Kim M**. Loss of Noncanonical Wnt11 Signaling Promotes Hepatocellular Carcinoma Cell Proliferation and Migration. *ILCA Abstracts* 28, 2008.
25. Toyama T, Lee HC, Wands JR, and **Kim M**. Noncanonical Wnt11 signaling inhibits hepatocellular carcinoma cell proliferation and migration. *Hepatology* 48(4):965A, 2008.
26. Tsedensodnom O, Wands JR, and **Kim M**. Identification of unique TCF-4 isoforms that exhibit repressive functional characteristics in hepatocellular carcinoma. *RI Research Alliance Abstracts*. Providence, RI, 2008.
27. Toyama T, Lee HC, Wands JR, and **Kim M**. Wnt11 inhibits the canonical Wnt pathway through the PKC-mediated  $\beta$ -catenin phosphorylation in human hepatoma cells. *Hepatology* 46(4):775A, 2007.
28. **Kim M**, Lee HC, Tsedensodnom O, and Wands JR. Activation of the b-catenin pathway in human hepatocellular carcinoma is mediated by a Wnt3 and Frizzled-7 receptor interaction. *Wnt signaling in development and disease Abstracts*. Berlin, Germany, 2007.
29. Tsedensodnom O, Lee HC, Hartley R, Wands JR, and **Kim M**. Activation of the Wnt3/b-catenin pathway is mediated by Frizzled-7 receptor in human hepatoma cells. *The traditional Wnt meeting Abstracts*. La Jolla, CA, USA, 2007.
30. Toyama T, Lee HC, Wands JR, and **Kim M**. Wnt11 inhibits the canonical Wnt pathway through the activation of non-canonical signaling in human hepatocellular carcinoma cells. *Hepatology* 44(4):593A, 2006.
31. Tsedensodnom O, Wands JR, and **Kim M**. Identification and characterization of transcription factor TCF-4 isoforms in human hepatocellular carcinoma. *Hepatology* 44(4):593A, 2006.
32. Lee HC, Tsedensodnom O, Wands JR, and **Kim M**. Wnt3 is a ligand for Frizzled-7 receptor and increases cell migration in human hepatoma cells. *Biannual IDeA Meeting Abstracts*. Washington DC, USA, 2006.

33. **Kim M**, Lee HC, Tian B, Sedivy JM, and Wands JR. Loss of Raf kinase inhibitor protein promotes cell proliferation and migration of human hepatoma cells. Biannual IDeA Meeting Abstracts. Washington DC, USA, 2006.
34. Lee HC, Tsedensodnom O, Wands JR, and **Kim M**. Wnt3 is a ligand for Frizzled-7 receptor and increases cell migration in human hepatoma cells. COBRE/INBRE symposium, Stem Cell & Cancer Therapeutics Abstracts. Providence, RI, 2006.
35. Tian B, Lee HC, Sedivy J, Wands JR, and **Kim M**. Raf kinase inhibitor protein plays a central role in cell proliferation and migration in human hepatocellular carcinoma. Hepatology 42:255A, 2005.
36. Merle P, de la Monte S, Herrmann M, Tanaka S, **Kim M**, Trepo C, and Wands JR. Functional consequences of frizzled-7 receptor over-expression in human hepatocellular carcinoma. Hepatology 38:564A, 2003.
37. Bo X, **Kim M**, Nori SL, Spelta V, Schoepfer V, Burnstock G, Surprenant A, and North RA. Co-immunoprecipitation of P2X receptor subunits from rat tissues. Ann Neuroscience Meeting Abstracts. Orlando, FL, 2002.
38. Adinolfi E, **Kim M**, Di Virgilio F, North RA and Surprenant A. The P2X<sub>7</sub>-Hsp90 relationship: a matter of tyrosine phosphorylation? Ecto-ATPase Meeting Abstracts. Woodhole, MA, 2002.
39. **Kim M**, Jiang L-H, Wilson HL, North RA and Surprenant A. A P2X<sub>7</sub> receptor complex. Ecto-ATPase Meeting Abstracts. Woodhole, MA, 2002.
40. **Kim M**, Jiang L-H, Wilson HL, North RA, and Surprenant A. Proteomics and functional evidence for a P2X<sub>7</sub> receptor signalling complex. Ann Biophysics Meeting Abstracts. San Francisco, CA, 2002.

### **INVITED PRESENTATIONS**

1. Wnt signaling in cancer. Univ. of Illinois at Chicago, Chicago, IL, 2014.
2. T-cell factor-4 isoforms in hepatocellular carcinoma. Mount Sinai School of Medicine, New York, NY, 2012.
3. The Role of Raf Kinase Inhibitor Protein in Hepatocellular Carcinoma. International Workshop on Prognostic and Therapeutic Applications of RKIP in Cancer. UCLA, Los Angeles, CA, 2009.
4. Wnt signaling in hepatocellular carcinoma. Seoul National University Hospital, Seoul, Korea, 2008.
5. Alterations of signaling pathways in hepatocarcinogenesis. International Symposium on Digestive Disease, Asan Medical Center, Seoul, Korea, 2008.
6. Wnt signaling in hepatocellular carcinoma. University of Ulsan, Korea, 2007.
7. Proteomic approach to membrane proteins. University of Sheffield, Department of Biomedical Science, UK, 2002.
8. P2X<sub>7</sub> receptor in a brain: detection by Western blot. Hassop Meeting for P2X receptors, Hassop, UK, 2002.
9. A P2X<sub>7</sub> signaling complex. College of Medicine, Pochon Cha University, Korea, 2001.

### **GRANTS SUPPORT**

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1. Swim Across America (PI: Miran Kim), 2018-2019  
Rush University Medical Center, RTSC: Impact of locoregional therapy of HCC on TCF-4 isoforms and tumor biology



Role: PI (\$50,000)

### **COMPLETED RESEARCH SUPPORT**

1. Swim Across America (PI: Miran Kim), 2018-2019  
Rush University Medical Center, RTSC: Impact of locoregional therapy of HCC on TCF-4 isoforms and tumor biology
2. Sponsored Research Agreement (PI: Wands, JR), 2013 - 2015  
CELGENE CORP: Development Of Biomarkers For Hepatocellular Carcinoma Responsiveness To Drugs  
Role: Investigator (\$150,000/year)
3. 1R21AA0205878 (PI: Kim, M), 2012-2014  
NIH/NIAAA :Role of Wnt signaling in chronic alcoholic liver disease  
Role: PI (\$250,000)
4. Sponsored Research Agreement (PI: Wands, JR), 2012 - 2013  
CELGENE CORP.: Development Of Biomarkers For Hepatocellular Carcinoma Responsiveness To Drugs  
Role: Co-Investigator (\$160,000)
5. Developmental Research Award (PI, Kim M), 2009 -2011  
Rhode Island Hospital: The role of T-Cell Factor-4 (TCF-4) splicing variants in hepatocellular carcinoma  
Role: PI (\$70,000)
6. 1R21 CA133601 (PI: Sedivy JM), 2009 - 2011  
NIH/NCI: Raf Kinase Inhibitor Protein (RKIP): A new hepatocellular carcinoma tumor suppressor  
Role: Co-investigator (\$35,316)
7. 5P20RR015578 (PI: Kim, M), 2005 - 2010  
NCRR: Center for Cancer Signaling Networks (Wnt signaling in hepatocellular carcinoma)  
Role: PI, Sub-Project (\$817,935)

### **PROFESSIONAL SOCIETY**

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#### **EDITORIAL BOARD**

2013-Present          Cancer Letters

#### **EDITORIAL CONSULTANT**

1. Cancer Research
2. Molecular Cancer Research
3. Oncogene
4. PLoS ONE
5. Liver International
6. Cancer Letters
7. Journal of Cellular Biochemistry
8. Molecular Medicine
9. International Journal of Cancer

- 10. Medical Oncology
- 11. European Journal of Cancer
- 12. Cancer Cell International

### **MEMBERSHIP IN PROFESSIONAL SOCIETY**

- 2008-Present           Active member, American Association for Cancer Research, Philadelphia, PA
- 2008-Present           Regular member, International Liver Cancer Association, Brussels, Belgium
- 2005-Present           Regular member, New England Biomedical Society, Boston, MA
- 2001-Present           Regular member, Biophysical Society, Bethesda, MD

### **MENTORSHIP**

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#### **RUSH UNIVERSITY TRAINEES**

- 2018-2019           Zhibin Zhu, MD (research fellow)
- 2019-present           Bashaer Alnujaydi (MS student)

#### **BROWN UNIVERSITY TRAINEES**

##### **Post-Doctoral Fellows**

- 2013-2016           Chiung-Kuei Huang, PhD
- 2012-2013           Arihiro Aihara, MD, PhD
- 2010-2013           Yoshito Tomimaru, MD, PhD
- 2010-2012           Sarah Beseme, PhD
- 2010-2011           Tao Yan, MD, PhD
- 2008-2010           Hironori Koga, MD
- 2006-2008           Takashi Toyama, MD
- 2004-2006           Han Chu Lee, MD, PhD
- 2004-2005           Bo Tian, MD, PhD

##### **Graduate Students**

- 2005-2010           Tsedensodnom, Orkhontuya

##### **Undergraduate Independent Research**

- 2010-2012           Xu, Chelsea
- 2010-2011           Vu, John
- 2008-2010           Walker, Evan J.
- 2008-2009           Rana, Ahmed
- 2007-2009           Shin, Tai Ho
- 2007-2008           Rhee, Jenny
- 2006-2008           Rosenberg, Stephen A.
- 2005-2007           Hartley, Rochelle R.