

CURRICULUM VITAE

Kyong-Tai Kim

Education

- 1989 Ph.D. Program in Molecular and Cellular Biology,
 University of Massachusetts,
 Amherst, Massachusetts, U. S. A.
- 1982 M.S. Department of Biological Engineering,
 Korea Advanced Institute of Science and Technology,
 Seoul, Korea
- 1980 B.S. Department of Agricultural Chemistry,
 Seoul National University, Seoul, Korea

Professional Experience

- 1982-1985 Research Investigator, Genetic Engineering Research Center
Korea Advanced Institute of Science and Technology,
Seoul, Korea
- 1989-1991 Postdoctoral Fellow, Laboratory of Molecular Neurobiology
Cornell University Medical College, New York, U. S. A.
- 1991-1995 Assistant Professor, Department of Life Sciences,
Pohang University of Science and Technology,
Pohang, Korea
- 1995-2001 Associate Professor, Department of Life Sciences,
Pohang University of Science and Technology,
Pohang, Korea
- 2001-present Professor, Department of Life Sciences,
Pohang University of Science and Technology,
Pohang, Korea
- 1997-1998 Visiting Scientist, Department of Physiology and Biophysics,
University of Washington, Seattle, U. S. A.
- 2006-2007 Visiting Professor, School of Chemical and Biomedical Engineering,
Nanyang Technological University, Singapore
- 2003-2005 Director, Brain Research Center, POSTECH
- 2007-2008 Chairman, Department of Life Sciences, POSTECH
- 2010-2012 Director, Advanced Bioconvergence Center, Pohang Technopark
- 2012-2013 Director of Research Division, Korea Brain Research Institute
- 2012-2014 National Medical Research Council (NMRC) International Expert Panel,
Singapore
- 2007-present Fellow, Korean Academy of Science and Technology
- 2006-2014 Handling Editor, J. Neurochem.

2013-present	Editorial Board Member, Scientific Reports
2013-2020	Director, BK21 Plus Integrative Biosciences and Technology, POSTECH
2013-2021	Chairman, Division of Integrative Bioscience and Biotechnology, POSTECH

Publications

(A) International Journals

1. De R, Kumar M, and **Kim KT** (2022) Structure-based varieties of polymeric nanocarriers and influences of their physicochemical properties on drug delivery profiles. *Advanced Science* 2105373.
2. Kim SW, Hong IK, Kim M, Song YS, and **Kim KT** (2021) hnRNP Q and hnRNP A1 regulate the translation of cofilin in response to transient oxygen/glucose deprivation in hippocampal neurons. *Cells* **10**(12), 3567. doi: 10.3390/cells10123567.
3. Kwon PK, Kim SW, De R, Jung SW, and **Kim KT** (2021) Isoprocurementol supports keratinocyte growth and survival through EGFR activation. *Int. J. Mol. Sci.* **22**, 12579
4. Ryu HG, Jung YS, Lee N, Seo JY, Kim SW, Lee KH, Kim DY, and **Kim KT** (2021) HNRNP A1 promotes lung cancer cell proliferation by modulating VRK1 translation. *Int. J. Mol. Sci.* **22**, 5506
5. Kwon PK, Kim HM, Kang B, Kim SW, Hwang SM, Im SH, Roh TY, and **Kim KT** (2021) HnRNP K supports the maintenance of ROR γ circadian rhythm through ERK signaling. *FASEB J.* **35**, e21507. doi: 10.1096/fj.202002076R
6. Jung Y, Seo JY, Ryu HG, Kim DY, Lee KH, and **Kim KT** (2020) BDNF-induced local translation of GluA1 is regulated by hnRNP A2/B1. *Science Advances* **6**(47), eabd2163. doi: 10.1126/sciadv.abd2163.
7. Kim W, Shin JC, Lee KH, and **Kim KT** (2020) PTBP1 positively regulates the translation of circadian clock gene, Period1. *Int. J. Mol. Sci.* **21**(18), E6921; doi: 10.3390/ijms21186921.
8. Han SH and **Kim KT** (2020) RNF144a induces ERK-dependent cell death under oxidative stress via downregulation of Vaccinia Related Kinase 3. *J. Cell Sci.* **133**(21),

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9. Kim SW and **Kim KT** (2020) Expression of Genes involved in Axon Guidance: How much have we learned? *Int. J. Mol. Sci.* **21**(10), 3566; doi: [10.3390/ijms21103566](https://doi.org/10.3390/ijms21103566)
10. Park S, Artan M, Han SH, Park HH, Jung Y, Hwang AB, Shin WS, **Kim KT***, and Lee SV* (2020) VRK-1 extends lifespan by activation of AMPK via phosphorylation. *Science Advances* **6**(27), eaaw7824. doi: 10.1126/sciadv.aaw7824. (***co-corresponding authors**)
11. Kwon PK, Lee KH, Kim JH, Tae S, Kim HM, Ham S, Choi JH, Jeong YH, Kim SW, Yi H, Ku HO, Roh TY, Lim C, and **Kim KT** (2020) hnRNP K supports high-amplitude D site-binding protein (Dbp) mRNA oscillation to sustain circadian rhythms. *Mol. Cell. Biol.* **40**(6), e00537-19. doi: 10.1128/MCB.00537-19.
12. Kwon PK, Kim HM, Kim SW, Kang B, Yi H, Ku HO, Roh TY, and **Kim KT** (2019) The poly(C) motif in the proximal promoter region of D-box binding protein (Dbp) drives its high-amplitude oscillation. *Mol. Cell. Biol.* **39**(16), e00101-19. doi: 10.1128/MCB.00101-19.
13. Lee J, Lee S, Ryu YJ, Lee D, Kim S, Seo JY, Oh E, Paek SH, Kim SU, Ha CM, Choi SY, and **Kim KT** (2019) Vaccinia-related kinase 2 plays a critical role in microglia-mediated synapse elimination during neurodevelopment. *Glia* **67**(9), 1667-1679.
14. Jung YS, Ryu HG, Kim SW, Lee KH, Gu S, Yi H, Ku HO, Jang SK, and **Kim KT** (2019) The RNA-binding protein hnRNP Q represses translation of the clock gene *Bmal1* in murine cells. *J. Biol. Chem.* **294**(19), 7682-7691.
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16. Ryu HG, Seo JY, Jung Y, Kim SW, Kim E, Jang SK, and **Kim KT** (2019) Upf1 regulates neurite outgrowth and branching by transcriptional and post-transcriptional modulation of *Arc*. *J. Cell Sci.* **132**(2), jcs224055. (**Featured Article**)
17. Choi JH, Kim SH, Jeong YH, Kim SW, Min KT, and **Kim KT** (2019) hnRNP Q regulates internal ribosome entry site-mediated *fmr1* translation in neurons. *Mol. Cell. Biol.* **39**(4), e00371-18. (**Featured Article**)
18. Ryu HG, Kim S, Lee S, Lee E, Kim HJ, Kim DY, and **Kim KT** (2019) HNRNP Q

- suppresses polyglutamine huntingtin aggregation by post-transcriptional regulation of vaccinia-related kinase 2. *J. Neurochem.* **149**(3), 413-426.
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 20. Choi JH, Wang W, Kim SH, **Kim KT***, and Min KT* (2018) IRES-mediated translation of cofilin regulates axonal growth cone development. *EMBO J.* **37**(5), e95266. (***co-corresponding authors**)
 21. Jeong YH, Choi JH, Lee D, Kim S, and **Kim KT** (2018) vaccinia-related kinase 2 modulates role of dysbindin by regulating protein stability. *J. Neurochem.* **147**(5), 609-625.
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 25. Lee D, Lee WS, Lim S, Kim YK, Jung HY, Das S, Lee J, Luo W, **Kim KT***, and Chung SK* (2017) A guanidine-appended *scyllo*-inositol derivative AAD-66 enhances brain delivery and ameliorates Alzheimer's phenotypes. *Sci. Rep.* **7**(1), 14125 (***co-corresponding authors**)
 26. Kim W, Na KY, Lee KH, Lee HW, Lee JK, and **Kim KT** (2017) Selective uptake of epidermal growth factor-conjugated gold nanoparticle (EFG-GNP) facilitates non-thermal plasma (NTP)-mediated cell death. *Sci. Rep.* **7**(1), 10971.
 27. Lee N, Kim DK, Han SH, Ryu HG, Park SJ, **Kim KT***, and Choi KY* (2017)

- Comparative interactomes of VRK1 and VRK3 with their distinct roles in the cell cycle of liver cancer. *Mol. Cells* **40**(9), 621-631. (*co-corresponding authors)
28. Jung HY, Lee D, Ryu H, Choi BH, Go Y, Lee N, Yoon JH, Park SM, Lee D, Kim SH, Son HG, Lee SJ, Lee IK, Choi KY, Ryu SH, Jeong SW, and **Kim KT** (2017) Myricetin improves endurance capacity and mitochondrial function by activating SIRT1 and PGC-1 α . *Sci. Rep.* **7**(1), 6237.
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 40. Choi SY, Lee K, Park Y, Lee SH, Jo SH, Chung SK, and **Kim KT** (2016) Non-dioxin-like polychlorinated biphenyls inhibit G-protein coupled receptor-mediated Ca²⁺ signaling by blocking store-operated Ca²⁺ entry. *PLoS One* **11**(3), e0150921.
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 42. Hong SM, Park CW, Kim SW, Nam YJ, Yu JH, Shin JH, Yun CH, Im SH, **Kim KT**, Sung YC, and Choi KY (2016) NAMPT suppresses glucose deprivation-induced oxidative stress by increasing NADPH levels in breast cancer. *Oncogene.* **35**(27), 3544-3554.
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- suppressing vaccinia-related kinase 1-mediated damage repair in lung cancer cells. *Sci. Rep.* **5**, 14570.
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 55. Kim YS, Kim SH, Shin J, Harikishore A, Lim JK, Jung Y, Lyu HN, Baek NI, Choi KY, Yoon HS, and **Kim KT** (2014) Luteolin suppresses cancer cell proliferation by targeting

- vaccinia-related kinase 1. *PLoS One* **9**(10), e109655.
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 58. Choi TY, Kwon JE, Durrance ES, Jo SH, Choi SY, and **Kim KT** (2014) Melatonin inhibits voltage-sensitive Ca²⁺ channel-mediated neurotransmitter release. *Brain Res.* **1557**, 34-42.
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(*co-corresponding authors) ([Cover image](#))

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