



• Field Biochemistry  
• Name Choi, Soo Young  
• Title Professor

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## Education background

- 1986 University of Tennessee, Knoxville, U.S.A (Ph.D-Biochemistry)
- 1982 Yonsei University (Master of Science - Biochemistry)
- 1980 Yonsei University (Bachelor of Science - Biochemistry)

■ Homepage : <http://web.hallym.ac.kr/~sychoi/>

## Major careers

- 2015 - Present ; Chief Review Board of KRF (Korea Research Foundation)
- 2015 - Present ; Member of Council for National Bioscience and Bioengineering Strategy
- 2015 - Present Member of Basic Planning Committee for National Bioscience and Bioengineering
- 2014 President of the Korean Society for Biochemistry and Molecular Biology
- 2013 - Present Chairman of Gangwon Convention & Visitors Bureau
- 2007-2010, 2012 - 2014 Vice President of Hallym University
- 2010 President of the Korean Society for Brain and Neural Science
- 2006 - Present Member of The Korean Academy of Science and Technology
- 2006 - 2010 Chief Editor of the BMB Reports
- 2003 - 2007 Provost for Academic and Research Affairs of Hallym University
- 2002 - 2013 Board of the Chuncheon Bioindustry Foundation
- 2002 - 2003 Director of Industry-Academia Cooperation, Hallym University
- 1998 - 1999 Dean of planning, Hallym University
- 1994 - 1996 Vice Dean of Academic Affairs, Hallym University
- 1987 - 1988 Post-doctoral Fellow, University of California, Berkeley, U.S.A

## Studies & Books

논문 (2012-2017년도)

- Hindsipropane B alleviates HIV-1 Tat-induced inflammatory responses by suppressing HDAC6-NADPH oxidase-ROS axis in astrocytes  
*Biochemical Pharmacology* 51, 394-399 (2018)
- Melatonin improves cognitive deficits via restoration of cholinergic degeneration in a mouse model of scopolamine-induced amnesia  
*ACS Chemical Neuroscience* 9, 2016-2024 (2018)
- PEP-1-PEA15 suppresses inflammatory responses by regulation of MAPK in macrophages and animal models  
*Immunobiology* 223, 709-717 (2018)
- Effects of scopolamine and melatonin cotreatment on cognition, neuronal damage, and neurogenesis in the mouse dentate gyrus  
*Neurochemical Research* 43, 600-608 (2018)
- Phosphatidylethanolamine-binding protein 1 protects CA1 neurons against ischemic damage via ERK-CREB signaling in Mongolian gerbils  
*Neurochemistry International* 118, 265-274 (2018)
- Protective effects of Tat-DJ-1 protein against streptozotocin (STZ)-induced diabetes in a mice model  
*BMB Reports* 51, 362-367 (2018)
- PEP-1-glutaredoxin 1 protects hippocampal neuronal cells against oxidative stress via regulation of MAPK and apoptotic signal pathways  
*Molecular Medicine Reports* 18, 2216-2228 (2018)
- Neuronal loss and gliosis in the rat striatum subjected to 15 and 30 minutes of middle cerebral artery occlusion  
*Metabolic Brain Disease* 33, 775-784 (2018)
- Age-dependent decreases in insulin-like growth factor-I and its receptor expressions in the gerbil olfactory bulb  
*Molecular Medicine Reports* 17, 8161-8166 (2018)
- Long-term treadmill exercise improves memory impairment through restoration of decreased synaptic adhesion molecule 1/2/3 induced by transient cerebral ischemia in the aged gerbil hippocampus  
*Experimental Gerontology* 103, 124-131 (2018)
- The distribution of calbindinD-28k and parvalbumin immunoreactive neurons in the somatosensory area of the pigeon pallium.  
*Anatomia, Histologia, Embryologia* 47(1), 64-70 (2018)
- Peroxyredoxin-2: A Novel regulator of iron homeostasis in ineffective erythropoiesis  
*Antioxidants and Redox Signaling* 28(1), 1-14 (2018)
- Effects of chronic scopolamine treatment on cognitive impairment and neurofilament expression in the mouse hippocampus  
*Molecular Medicine Reports* 17, 1625-1632 (2018)
- Effects of long-term scopolamine treatment on cognitive deficits and calcium binding proteins immunoreactivities in the mouse hippocampus  
*Molecular Medicine Reports* 17, 293-299 (2018)
- Anti-inflammatory and anti-oxidative effects of 3-(naphthalen-2-yl(propoxy)methyl)azetidine hydrochloride on  $\beta$ -amyloid-induced microglial activation  
*BMB Reports* 50, 634-639 (2017)
- Neuroprotection and reduced gliosis by pre- and post-treatments of hydroquinone in a gerbil model of transient cerebral ischemia  
*Chemico-Biological Interactions* 278, 230-238 (2017)
- Data demonstrating the role of peroxiredoxin 2 as important anti-oxidant system in lung homeostasis  
*Data in Brief* 15, 376-381 (2017)
- The location of projection neurons to the biceps brachii muscle in the telencephalon of the pigeon  
*Anatomia, Histologia, Embryologia* 46(6), 528-532
- Peroxiredoxin-2 plays a pivotal role as multimodal cytoprotector in the early phase of pulmonary hypertension  
*Free Radical Biology & Medicine* 112, 376-386 (2017)
- Roles of HIF-1 $\alpha$ , VEGF and NF- $\kappa$ B in ischemic preconditioning-mediated neuroprotection of hippocampal CA1 pyramidal neurons against a subsequent transient cerebral ischemia  
*Molecular Neurobiology* 54(9), 6984-5998 (2017)
- Immunoreactivities of calbindin-D28k, calretinin and parvalbumin in the somatosensory cortex of rodents during normal aging  
*Molecular Medicine Reports* 16(5), 7191-7198 (2016)
- Tat-protein disulfide-isomerase A3: A possible candidate for preventing ischemic damage in the spinal cord  
*Cell Death & Disease* 8, e3075 ; doi:10.1038/cddis.2017.473 (2017)
- Effects of PEP-1-FK506BP on cyst formation in polycystic kidney disease  
*BMB reports* 50, 460-465 (2017)
- Atomoxetine protects against NMDA receptor-mediated hippocampal neuronal death following transient global cerebral ischemia  
*Current Neurovascular Research* 14, 158-168 (2017)

- Neuroprotective effect of 3-(naphthalen-2-yl(propoxy)methyl)azetidine hydrochloride on brain ischaemia/reperfusion injury  
Journal of Neuroimmune Pharmacology 12, 447-461 (2017)
- Chronic administration of SUMO-1 has negative effects on novel object recognition memory as well as cell proliferation and neuroblast differentiation in the mouse dentate gyrus  
Molecular Medicine Reports 16, 3427-3432 (2017)
- N-Adamantyl-4-methylthiazol-2-amine attenuates glutamate-induced oxidative stress and inflammation in brain  
Neurotoxicol Research 32, 107-120 (2017)
- G protein, phosphorylated-GATA4 and VEGF expression in the hearts of transgenic mice overexpressing  $\beta 1$ - and  $\beta 2$ -adrenergic receptors.  
Molecular Medicine Reports 15, 4049-4054 (2017)
- Tat-biliverdin reductase A protects INS-1 cells from human islet amyloid polypeptide-induced cytotoxicity by alleviating oxidative stress and ER stress  
Cell Biology International 41, 514-524 (2017)
- Effects of long-term post-ischemic treadmill exercise on gliosis in the aged gerbil hippocampus induced by transient cerebral ischemia  
Molecular Medicine Reports 15, 3623-3630 (2017)
- SUMO-1 delays neuronal damage in the spinal cord following ischemia/reperfusion  
Molecular Medicine Reports 15, 4312-4318 (2017)
- Crosstalk between HDAC6 and Nox2-based NADPH oxidase mediates HIV-1 Tat-induced pro-inflammatory responses in astrocytes  
Redox Biology 12, 978-986 (2017)
- Tat-DJ-1 enhances cell survival by inhibition of oxidative stress, NF- $\kappa$ B and MAPK activation in HepG2 cells  
Biotechnology Letters 39, 511-521 (2017)
- Celastrol suppresses expression of adhesion molecules and chemokines by inhibiting JNK-STAT1/NF- $\kappa$ B activation in poly(I:C)-stimulated astrocytes  
BMB reports 50, 25-30 (2017)
- Tat-HSP22 inhibits oxidative stress-induced hippocampal neuronal cell death by regulation of the mitochondrial pathway  
Molecular Brain 10, 1-13 (2017)
- Neuroprotective effects of N-adamantyl-4-methylthiazol-2-amine against amyloid  $\beta$ -induced oxidative stress in mouse hippocampus  
Brain Research Bulletin 128, 22-28 (2017)

- Intravenously infused F3.Olig2 improve memory deficits via restoring demyelination in the aged hippocampus following experimental ischemic stroke  
Cell Transplantation 25, 2129-2144 (2016)
- Protective effects of Tat-NQO1 against oxidative stress-induced HT-22 cell damage and ischemic injury in an animal model  
BMB reports 49, 617-622 (2016)
- Cu,Zn-Superoxide Dismutase Increases the Therapeutic Potential of Adipose-derived Mesenchymal Stem Cells by Maintaining Antioxidant Enzyme Levels  
Neurochemical Research 41, 3300-3307 (2016)
- Tat-DJ-1 inhibits oxidative stress-mediated RINm5F cell death through suppression of NF- $\kappa$ B and MAPK activation  
Medicinal Chemistry Research 25, 2589-2598 (2016)
- PEP-1-SIRT2-induced matrix metalloproteinase-1 and -13 modulates type II collagen expression via ERK signaling in rabbit articular chondrocytes  
Experimental Cell Research 348, 201-208 (2016)
- Cytokine-induced apoptosis inhibitor-1 causes dedifferentiation of rabbit articular chondrocytes via the ERK-1/2 and p38 kinase pathways  
The International Journal of Biochemistry & Cell Biology 80, 10-18 (2016)
- Long-term exercise improves memory deficits via restoration and microvessel damage, and enhancement of neurogenesis in the aged gerbil hippocampus after ischemic stroke  
Neurorehabilitation & Neural Repair 30, 894-905 (2016)
- Effect of ischemic preconditioning on antioxidant status in the gerbil hippocampal CA1 region after transient forebrain ischemia  
Neural Regeneration Research 11, 1081-1089 (2016)
- PEP-1-GSTpi protein enhanced hippocampal neuronal cell survival after oxidative damage  
BMB Reports 49, 382-387 (2016)
- Aroniá melanocarpa concentrate ameliorates pro-inflammatory responses in HaCaT keratinocytes and 12-O-tetradecanoylphorbol-13-acetate-induced ear edema in mice  
Journal of Medicinal Food 19, 654-662 (2016)
- Tat-PRAS40 prevent hippocampal HT-22 cell death and oxidative stress induced animal brain ischemic insults  
Free Radical Biology & Medicine 97, 250-262 (2016)
- Tat-NOL3 protects against oxidative stress-induced hippocampal neuronal cell death by regulation of apoptotic pathways  
International Journal of Molecular Medicine 38(1), 225-235
- Tat-ATOX1 inhibits streptozotocin (STZ)-induced pancreatic RINm5F cell death and attenuates diabetes in a mice model  
International Journal of Molecular Medicine 38(1), 217-224 (2016)
- Comparison of catalase immunoreactivity in the hippocampus between young, adult and aged mice and rats  
Molecular Medicine Reports 14(1), 851-856 (2016)
- Transduced Tat-DJ-1 protein inhibits cytokines-induced pancreatic RINm5F cell death  
BMB Reports 49(5), 297-302 (2016)
- Overexpression of HDAC6 induces pro-inflammatory responses by regulating ROS-MAPK-NF- $\kappa$ B/AP-1 signalling pathways in macrophages  
Free Radical Biology & Medicine 97, 14-23 (2016)
- N-Adamantyl-4-methylthiazol-2-amine suppresses amyloid  $\beta$ -induced neuronal oxidative damage in cortical neurons  
Free Radical Research 50(6), 678-690 (2016)
- Heme Oxygenase-1 protects neurons from ischemic damage by upregulating expression of Cu,Zn-superoxide dismutase, catalase, and brain-derived neurotrophic factor in the rabbit spinal cord  
Neurochemical Research 41, 869-879 (2016)
- A transducible nuclear/nucleolar protein, mLLP, regulates neuronal morphogenesis and synaptic transmission  
Scientific Reports 6(Article number:22892), 1-11 (2016)
- Blockade of monocyte-endothelial trafficking by transduced tat-superoxide dismutase protein  
International Journal of Molecular Medicine 37, 387-397 (2016)
- 2,3-dimethoxy-2'-hydroxychalcone ameliorates TNF- $\alpha$ -induced ICAM-1 expression and subsequent monocyte adhesiveness via NF- $\kappa$ B inhibition and HO-1 induction in HaCaT cells\*  
BMB Reports 49(1), 57-62 (2016)
- 2-Cyclopropylimino-3-methyl-1,3-thiazoline hydrochloride alters lipopolysaccharide-induced proinflammatory cytokines and neuronal morphology in mouse fetal brain.  
Neuropharmacology 102, 32-41 (2016)
- The interplay between peroxyredoxin-2 and Nrf2 is important in limiting oxidative mediated dysfunction in  $\beta$ -thalassemic erythropoiesis  
Antioxidants and Redox Signaling 23(16) 1284-1297 (2015)

- PEP-1-SIRT2 causes dedifferentiation and COX-2 expression via the MAPK pathways in rabbit articular chondrocytes  
Experimental Cell Research 339, 351-359 (2015)
- PEP-1-FK506BP inhibits alkali burn-induced corneal inflammation on the rat model of corneal alkali injury  
BMB Reports 48, 618-623 (2015)
- The azetidine derivative, KHG26792 protects against ATP-induced activation of NFAT and MAPK pathways through P2X7 receptor in microglia.  
Neurotoxicology 51, 198-206 (2015)
- Failure in neuroprotection of remote limb ischemic postconditioning in the hippocampus of a gerbil model of transient cerebral ischemia  
Journal of the Neurological Sciences 358, 377-384 (2015)
- Monocarboxylate transporter 4 plays a significant role in the neuroprotective mechanism of ischemic preconditioning in transient cerebral ischemia  
Neural Regeneration Research 10, 1604-1611 (2015)
- Effects of low doses of Tat-PIM2 protein against hippocampal neuronal cell survival  
Journal of Neurological Science 358, 226-235 (2015)
- HDAC6 mediates HIV-1 Tat-induced pro-inflammatory responses by regulating MAPK-NF-kappaB/AP-1 pathways in astrocytes  
Glia 63(11), 1953-1965 (2015)
- Transcriptional regulation of Niemann-Pick C1 like 1 (NPC1L1) gene by liver receptor homolog-1 (LRH-1)  
BMB Reports 48, 513-518 (2015)
- Butein, a tetrahydroxychalcone, suppresses pro-inflammatory responses in HaCaT keratinocytes  
BMB Reports 48, 495-500 (2015)
- Effective delivery of endogenous antioxidants ameliorates diabetic nephropathy PLoS One 10(6), e0130815 (2015)
- PEP-1-FK506BP12 inhibits matrix metalloproteinase expression in human articular chondrocytes and in a mouse carrageenan-induced arthritis model  
BMB Reports 48, 407-412 (2015)
- Protective effects of PEP-1-Catalase on stress-induced cellular toxicity and MPTP-induced Parkinson's disease  
BMB Reports 48, 395-400 (2015)
- Transduced PEP-1-PON1 proteins regulate microglial activation and dopaminergic neuronal death in a Parkinson's disease model  
Biomaterials 64, 45-56 (2015)
- Tat-CBR1 inhibits inflammatory responses through the suppressions of NF-kB and MAPKs activation in macrophages and mice  
Toxicology and Applied Pharmacology 286, 124-134 (2015)
- Tat-antioxidant 1 protects against stress-induced hippocampal HT-22 cells death and attenuate ischemic insult in animal model  
Journal of Cellular and Molecular Medicine 19, 1333-1345 (2015)
- Comparison of immunoreactivities of calbindin-D28k, calretinin and paralbumin in the striatum between young and aged mice, rats and gerbils  
Neurochemical Research 40, 864-872 (2015)
- Transduction of PEP-1-heme oxygenase-1 into insulin-producing INS-1 cells protects them against cytokine-induced cell death  
Biochemical Biophysical Research Communication 461, 549-554 (2015)
- Antioxidative effects of ethyl 2-(3-(benzo[d]thiazol-2-yl)ureido)acetate against amyloid  $\beta$ -induced oxidative cell death via NF- $\kappa$ B, GSK-3 $\beta$ , and  $\beta$ -catenin signaling pathways in cultured cortical neurons.  
Free Radical Research 49, 411-421 (2015)
- Ischemic preconditioning protects neurons and maintains immunoreactivity of kynurenic acid in the gerbil hippocampal CA1 region following transient cerebral ischemia  
International Journal of Molecular Medicine 35, 1537-1544 (2015)
- Celastrol ameliorates cytokine toxicity and pro-inflammatory immune responses via suppression of NF- $\kappa$ B activation in the RINm5F beta cells  
BMB Reports 48, 172-177 (2015)
- The effects of PEP-1-FK506BP on dry eye disease in a rat model  
BMB Reports 48, 151-156 (2015)
- Changes in the expression of DNA-binding/differentiation protein inhibitors in neurons and glial cells of the gerbil hippocampus following transient global cerebral ischemia  
Molecular Medicine Reports 11, 2477-2485 (2015)
- Tat-Biliverdin reductase A inhibits inflammatory response by regulation of MAPK and NF-kB pathways in Raw 264.7 cells and edema mouse model  
Molecular Immunology 63, 355-366 (2015)
- Sodium butyrate, a histone deacetylase Inhibitor, ameliorates SIRT2-induced memory impairment, reduction of cell proliferation, and neuroblast differentiation in the dentate gyrus  
Neurological Research 37, 69-76 (2015)

- Downregulation of MAPK/NF- $\kappa$ B signaling underlies anti-inflammatory response induced by transduced PEP-1-Prx2 proteins in LPS-induced Raw 264.7 and TPA-induced mouse ear edema model  
International Immunopharmacology 23, 426-433 (2014)
- PEP-1-HO-1 prevents MPTP-induced degeneration of dopaminergic neurons in Parkinson's disease mouse model  
BMB Reports 47, 569-574 (2014)
- Toxicity assessment of a novel silk fibroin and poly-methyl-methacrylate composite material  
Molecular and Cellular Toxicology 10, 277-283 (2014)
- Oenanthe javanica extract increases immunoreactivities of antioxidant enzymes in the rat kidney  
Chinese Medical Journal 127, 3758-3763 (2014)
- Celastrol ameliorates HIV-1 Tat-induced inflammatory responses via NF- $\kappa$ B and AP-1 inhibition and HO-1 induction in astrocytes  
Toxicology and Applied Pharmacology 280, 42-52 (2014)
- 2-Cyclopropylimino-3-methyl-1,3-thiazoline hydrochloride protects against beta-amyloid-induced activation of the apoptotic cascade in cultured cortical neurons.  
Cellular and Molecular Neurobiology 34, 963-972
- The expression and secretion of vimentin in the progression of non-alcoholic steatohepatitis  
BMB Reports 47, 457-462
- Effect of transient cerebral ischemia on the expression of receptor for advanced glycation end products (RAGE)  
Neurochemical Research 39, 1553-1563 (2014)
- 2-Cyclopropylimino-3-methyl-1,3-thiazoline hydrochloride inhibits microglial activation by suppression of nuclear factor- $\kappa$ B and mitogen-activated protein kinase signaling.  
Journal of Neuroimmune Pharmacology 9, 461-467 (2014)
- Blockage of Interleukin-8 receptor signaling inhibits cyst development in vitro, via suppression of cell proliferation in autosomal polycystic kidney disease  
Nephrology 19, 471-478 (2014)
- Salicortin suppresses lipopolysaccharide-stimulated inflammatory responses via blockade of NF- $\kappa$ B activation in RAW 264.7 macrophages  
BMB Reports 47, 318-323 (2014)

- Anti-inflammatory mechanisms of N-adamantyl-4-methylthiazol-2-amine in lipopolysaccharide-stimulated BV-2 microglial cells  
International Immunopharmacology 22, 73-83 (2014)
- The stimulatory effect of fatty acids on glucose uptake involves both Akt and AMPK activation in C2C12 skeletal muscle cells  
Korean Journal of Physiology and Pharmacology 18, 255-261 (2014)
- Multiple Roles of the SO<sub>4</sub><sup>2-</sup>/Cl<sup>-</sup>/OH<sup>-</sup> exchanger Slc26a2 in Chondrocyte functions  
Journal of Biological Chemistry 289, 1993-2001 (2014)
- Neuroprotective effect of PEP-1- peroxiredoxin2 on CA1 regions in the hippocampus against ischemic insult  
Biochimica Biophysica Acta (General Subject) 1840, 2321-2330 (2014)
- Effects of N-adamantyl-4-methylthiazol-2-amine on hyperglycemia, hyperlipidemia and oxidative stress in streptozotocin-induced diabetic rats.  
European Journal of Pharmacology 736, 26-34 (2014)
- PEP-1-PEA-15 protects against toxin-induced neuronal damage in a mouse model of Parkinson's disease  
Biochimica Biophysica Acta (General Subject) 1840, 1686-1700 (2014)
- Targeting of receptor for advanced glycation end products suppresses cyst growth in polycystic kidney disease  
Journal of Biological Chemistry 289, 9254-9262 (2014)
- Tat-fused recombinant human SAG prevents dopaminergic neurodegeneration in a MPTP-induced Parkinson's disease model  
Molecules and Cells 37, 226-233 (2014)
- Neuroprotective effects of PEP-1-carbonyl reductase 1 (CBR1) against oxidative stress-induced ischemic neuronal cell damage  
Free Radical Biology & Medicine 69, 181-196 (2014)
- PEP-1-PON1 protein regulates inflammatory response in Raw 264.7 macrophages and ameliorates TPA-induced animal model  
PLoS One 9(1), e86034 (2014)
- Tat-DJ-1 Protects Neurons from Ischemic Damage in the Ventral Horn of Rabbit Spinal Cord via Increasing Antioxidant Levels  
Neurochemical Research 39, 187-193 (2014)
- Tat-glyoxalase protein inhibits against ischemic neuronal cell damage and ameliorates ischemic injury  
Free Radical Biology & Medicine 67, 195-210 (2014)
- Protective effects of skin permeable EGF and FGF1 against ultraviolet-induced skin damage and human skin wrinkles  
Journal of Cosmetic Dermatology 12(4), 287-295 (2013)

- Fenobam promoted the neuroprotective effect of PEP-1-FK506BP following oxidative stress through increasing its transduction efficiency  
BMB Reports 46, 561-566 (2013)
  - DJ-1 facilitates the interaction between STAT1 and its phosphatase, SHP-1, in brain microglia and astrocytes: a novel anti-inflammatory function of DJ-1  
Neurobiology of Diseases 60, 1-10 (2013)
  - Repeated Administration of PEP-1-Cu,Zn-Superoxide Dismutase and PEP-1-Peroxiredoxin-2 to Senescent Mice Induced by D-galactose Improves the Hippocampal Functions  
Neurochemical Research 38, 2046-2055 (2013)
  - PKC $\delta$  as a regulator for TGF- $\beta$  stimulated connective tissue growth factor production in human hepatocarcinoma (HepG2) cells  
Biochemical Journal 456, 109-118 (2013)
  - Suppression of iNOS and COX-2 expression by flavokawain A via blockade of NF-(kappa)B and AP-1 activation in RAW 264.7 macrophages  
Food and Chemical Toxicology 58, 479-486 (2013)
  - Curcumin ameliorates TNF- $\alpha$ -induced ICAM-1 expression and subsequent THP-1 adhesiveness via the induction of heme oxygenase-1 in the HaCaT cells.  
BMB Reports. 46, 410-415 (2013)
  - Anti-oxidative and anti-inflammatory effects of 2-cyclopropylimino-3-methyl-1,3-thiazoline hydrochloride on glutamate-induced neurotoxicity in rat brain.  
NeuroToxicology 38, 106-114 (2013)
  - Neuroprotective effects of the antioxidant action of 2-cyclopropylimino-3-methyl-1,3-thiazoline hydrochloride against ischemic neuronal damage in the brain.  
BMB Reports 46, 370-375 (2013)
  - PEP-1-SIRT2 inhibits inflammatory response and oxidative stress-induced cell death via expression of antioxidant enzymes in murine macrophages.  
Free Radical Biology & Medicine 63, 432-445 (2013)
  - Cooperative transcriptional activation of ATP-binding cassette sterol transporters ABCG5 and ABCG8 genes by nuclear receptors including Liver-X-Receptor  
BMB Report 46, 322-327 (2013)
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- Anti-Inflammatory effects of extracts from *Caesalpinia sappan* L. on skin inflammation  
Journal of Korean Society Food Science and Nutrition 42, 384-388 (2013)
  - Transduced PEP-1-FK506BP ameliorates corneal injury in Botulium toxin A-induced dry eye mouse model  
BMB Reports 46, 124-129 (2013)
  - PKC $\delta$  as a regulator for TGF $\beta$ 1-induced  $\alpha$ -SMA production in a murine nonalcoholic steatohepatitis model  
PLoS One 8(2): e55979 (2012)
  - Protective effects of oleic acid against palmitic acid-induced apoptosis in pancreatic AR42J cells and its mechanism  
Korean Journal of Physiology and Pharmacology 17, 43-50 (2013)
  - Oxidative modification of neurofilament-L and neuronal cell death induced by the catechol neurotoxin, tetrahydropapaveroline  
Toxicology Letter 217, 59-66 (2013)
  - Silk proteins stimulate osteoblast differentiation by suppressing the Notch signaling pathway in mesenchymal stem cells  
Nutrition Research 33, 162-170 (2013)
  - Transduced Tat-Glyoxalase protein attenuates streptozotocin-induced diabetes in a mouse model  
Biochemical Biophysical Research Communication 430, 294-300 (2013)
  - PEP-1-ribosomal protein S3 protects dopaminergic neurons in MPTP-induced Parkinson's disease mouse model.  
Free Radical Biology & Medicine 55, 36-45 (2013)
  - Roles of cysteine residues in the inhibition of human glutamate dehydrogenase by palmitoyl-CoA  
BMB Reports 45, 707-712 (2012)
  - Neuroprotective Effects of PEP-1-Cu,Zn-SOD against Ischemic Neuronal Damage in the Rabbit Spinal Cord.  
Neurochemical Research 37, 307-313 (2012)
  - Effects of Cu,Zn-Superoxide Dismutase on Cell Proliferation and Neuroblast Differentiation in the Mouse Dentate Gyrus  
Neurochemical Research 37, 261-267 (2012)
  - Casuarinin suppresses TARC/CCL17 and MDC/CCL22 production via blockade of NF-(kappa)B and STAT1 activation in HaCaT cells  
Biochemical Biophysical Research Communication 417, 1254-1259 (2012)
  - Tat-Frataxin protects dopaminergic neuronal cells against MPTP-induced toxicity in a mouse model of Parkinson's disease  
Biochimie 94, 2448-2456 (2012)



- Differential expression of cell surface markers in response to 2,4-dinitrofluorobenzene in RAW 264.7 and primary immune cells  
BMB Reports 45, 538-543 (2012)
- PEP-1-p18 prevents neuronal cell death via the inhibition of oxidative stress and Bax expression  
BMB Reports 45, 532-537 (2012)
- Inhibition of glutamate dehydrogenase and insulin secretion by KHG26377 does not involve ADP-ribosylation by SIRT4 or deacetylation by SIRT3.  
BMB Reports 45, 458-463 (2012)
- 17 $\beta$ -Estradiol Inhibits Apoptotic Cell Death of Oligodendrocytes by Inhibiting RhoA-JNK3 Activation after Spinal Cord Injury  
Endocrinology 153, 3815-3827 (2012)
- PEP-1-heat shock protein 27 protects from neuronal damage in cells and in a Parkinson's disease mouse model  
FEBS Journal 279, 1929-1942 (2012)
- PEP-1-metallothionein-III protein ameliorates the oxidative stress-induced neuronal cell death and brain ischemic insults  
Biochimica Biophysica Acta (General Subject) 1820, 1647-1655 (2012)
- Suppression of 12-O-tetradecanoylphorbol-13-acetate (TPA)-induced skin inflammation in mice by transduced Tat-Annexin protein  
BMB Reports 45, 354-359 (2012)
- Yeast ribosomal protein S3 possesses a  $\beta$ -lyase activity on damaged DNA. FEBS Letters 586, 356-361, (2012)
- Effects of sensitive to apoptosis gene protein on cell proliferation, neuroblast differentiation, and oxidative stress in the mouse dentate gyrus.  
Neurochemical Research 37, 495-502 (2012)
- Changes of ribosomal protein S3 immunoreactivity and its new expression in microglia in the mice hippocampus after lipopolysaccharide treatment.  
Cellular and Molecular Neurobiology 32, 577-586 (2012)
- Changes in ribosomal protein S3 immunoreactivity and its protein levels in the gerbil hippocampus following subacute and chronic restraint stress.  
Neurochemical Research 37, 1428-1435 (2012)
- Transduced Tat-DJ-1 Protein Protects against Oxidative Stress-Induced SH-SY5Y Cell Death and Parkinson Disease in a Mouse Model  
Molecules and Cells 33, 471-478 (2012)
- Extracellular HIV-1 Tat induces human beta-defensin-2 production via NF-kappaB/AP-1 dependent pathways in human B cells  
Molecules and Cells 33, 335-341 (2012)
- Enhancement of Anti-Inflammatory Activity of PEP-1-FK506 Binding Protein by Silk Fibroin Peptide  
Journal of Microbiology and Biotechnology 22, 494-500 (2012)
- Tumor necrosis factor- $\alpha$ -mediated threonine 435 phosphorylation of p65 nuclear factor- $\kappa$ B subunit in endothelial cells induces vasogenic edema and neutrophil infiltration in the rat piriform cortex following status epilepticus  
Journal of Neuroinflammation 9, 6-18 (2012)
- Anti-inflammatory effects of transduced Tat-Annexin protein on ovalbumin-induced airway inflammation in a mouse model of asthma  
Biochemical Biophysical Research Communication 417, 1024-1029 (2012)

## I Others

### Scientific Awards

- 1996, 2004 Excellence Science and Technology Awardee from Korean Association of Science and Technology
- 2001 Excellence Science and Technology Awardee from President of Republic of Korea
- 2005 Excellence Science and Technology Awardee from Moon-hwa Broadcasting Company
- 2011 Kangwon Cultural Awardee in the field of Academic Performances and Scientific achievement from President of Kangwon Province
- 2011 Donggok Awardee in the field of Academic Performances and Scientific achievement
- 2013 Excellent Patent Awardee from Administration for Small- and Medium industry of Republic of Korea
- 2015 Moo Sa Awardee from Korean Society of Biochemistry and Molecular Biology

#### Research fields

- Biochemistry (Protein Biochemistry, Neurochemistry)
  
- Protein Transduction Technology and Protein Therapy
  - Development of Protein transduction Technology for Clinical Therapy of Human Diseases
  - Development of protein therapy by transduction of therapeutic protein for various human diseases (Aging, Cancer, Neronal disease, Genetic diseases, Diabetes, Stroke etc...)

#### Societies

1. The Korean Society for Biochemistry and Molecular Biology
2. The Korean Society for Molecular Biology and Cell Biology
3. The Korean Society for Brain and Neural Science
4. The Korean Society for Genetics