• **Name:** Dongchon Kang

• **Current Position:** Professor,
Kyushu University Graduate School of Medical Sciences
Department of Clinical Chemistry and Laboratory Medicine

• **Country:** Japan

• **Educational Background:**

1976-1982 Kyushu University School of Medicine (M.D.)
1984-1988 Kyushu University Graduate School of Medicine for Biochemistry (Ph.D.).

• **Professional Experiences:**

1982-1984 Resident, Kyushu University Hospital (Pediatrics)
1988-1989 Resident, Kyushu University Hospital, Department of Clinical Chemistry and Laboratory Medicine
1989-1992 Assistant Professor, Fukuoka University School of Medicine, Department of Clinical Chemistry and Laboratory Medicine
1992-1993 Visiting Researcher, Max-Planck Institute for Physiology (Germany)
1993-1996 Assistant Professor, Kyushu University School of Medicine, Department of Biochemistry
1997-2006 Associate Professor, Kyushu University Graduate School of Medical Sciences, Department of Clinical Chemistry and Laboratory Medicine,
2006-present Professor and Director, Kyushu University Graduate School of Medical Sciences, Department of Clinical Chemistry and Laboratory Medicine

• **Professional Organizations:**

Board member of Japan Society of Clinical Chemistry (2011-2014, 2017-present)
Board member of Japanese Society of Laboratory Medicine (2011-2014)
Board member of Japanese Association of Clinical Laboratory Physicians (2009-2012)
Board member of Japanese Society of Mitochondrial Research and Medicine (2008-present)
Board member of Asian Society of Mitochondrial Research and Medicine (2012-present)
President of Japanese Society of Clinical Laboratory Automation (2015~present)

• **Main Scientific Publications:**

1. Tajiri, H. et al. (2017) Targeting Ras-Driven Cancer Cell Survival and Invasion through Selective Inhibition of DOCK1. **Cell Rep**, 19, 969-980.
2. Sasaki, K. et al. (2017) p32 is Required for Appropriate Interleukin-6 Production Upon LPS Stimulation and Protects Mice from Endotoxin Shock. **EBioMedicine**, 20, 161-172.
3. Matsushima, Y. et al. (2017) Drosophila protease ClpXP specifically degrades DmLRPPRC1 controlling mitochondrial mRNA and translation. **Sci Rep**, 7, 8315.
4. Hirota, Y. et al. (2015) Mitophagy is primarily due to alternative autophagy and requires the MAPK1 and MAPK14 signaling pathways. **Autophagy**, 11, 332-343.
5. Arakawa, T. et al. (2015) Crystal structure of the anion exchanger domain of human erythrocyte band 3. **Science**, 350, 680-684.

6. Baba, T et al. (2014) Glycolytic genes are targets of the nuclear receptor Ad4BP/SF-1. **Nat Commun**, 5, 3634.
7. Kanki, T. et al. (2013) Casein kinase 2 is essential for mitophagy. **EMBO Rep**, 14, 788-794.
8. Yagi, M. et al. (2012) p32/gC1qR is indispensable for fetal development and mitochondrial translation: importance of its RNA-binding ability. **Nucleic Acids Res**, 40, 9717-9737.
9. Kurihara, Y. et al. (2012) Mitophagy plays an essential role in reducing mitochondrial production of reactive oxygen species and mutation of mitochondrial DNA by maintaining mitochondrial quantity and quality in yeast. **J Biol Chem**, 287, 3265-3272.
10. Uchiumi, T. et al. (2010) ERAL1 is associated with mitochondrial ribosome and elimination of ERAL1 leads to mitochondrial dysfunction and growth retardation. **Nucleic Acids Res**, 38, 5554-5568.
11. Hayashi, Y. et al. (2008) Reverse of age-dependent memory impairment and mitochondrial DNA damage in microglia by an overexpression of human mitochondrial transcription factor A in mice. **J Neurosci**, 28, 8624-8634.
12. Ikeuchi, M. et al. (2005) Overexpression of mitochondrial transcription factor a ameliorates mitochondrial deficiencies and cardiac failure after myocardial infarction. **Circulation**, 112, 683-690.
13. Kanki, T. et al. (2004) Architectural role of TFAM in maintenance of human mitochondrial DNA. **Mol Cell Biol**, 24, 9823-9834.
14. Suematsu, N et al. (2003) Oxidative stress mediates tumor necrosis factor-alpha-induced mitochondrial DNA damage and dysfunction in cardiac myocytes. **Circulation**, 107, 1418-1423.
15. Takamatsu, C. et al. (2002) Regulation of mitochondrial D-loops by transcription factor A and single-stranded DNA-binding protein. **EMBO Rep**, 3, 451-456.
16. Tsutsui, H. et al. (2001) 8-oxo-dGTPase, which prevents oxidative stress-induced DNA damage, increases in the mitochondria from failing hearts. **Circulation**, 104, 2883-2885.
17. Ide, T et al. (2001) Mitochondrial DNA damage and dysfunction associated with oxidative stress in failing hearts following myocardial infarction. **Circ Res**, 88, 529-535.
18. Ide, T et al. (1999) Mitochondrial electron transport complex I is the potential source of oxygen free radicals in the failing myocardium. **Circ Res**, 85, 357-363.
19. Muta, T. et al. (1997) p32 protein, a splicing factor 2-associated protein, is localized in mitochondrial matrix and is functionally important in maintaining oxidative phosphorylation. **J Biol Chem**, 272, 24363-24370.
20. Miyako, K. et al. (1997) The content of intracellular mitochondrial DNA is decreased by 1-methyl- 4-phenylpyridinium ion (mpp+). **J Biol Chem**, 272, 9605-9608.
21. Kang, D. et al. (1997) In vivo determination of replication origins of human mitochondrial DNA by ligation-mediated polymerase chain reaction. **J Biol Chem**, 272, 15275-15279.
22. Kang, D. et al. (1995) Intracellular localization of 8-oxo-dGTPase in human cells, with special reference to the role of the enzyme in mitochondria. **J Biol Chem**, 270, 14659-14665.
23. Kang, D., K et al. (1992) A structural study of the membrane domain of band 3 by tryptic digestion. **J Biol Chem**, 267, 19211-19217.

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