

NANO KOREA 2020

July 1~3, KINTEX, Korea

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EDUCATION

Seoul National University	Ph.D	Veterinary Pathology	2000
Seoul National University	MS	Veterinary Pathology	2002
Seoul National University	BS	Veterinary Medicine	2004

PROFESSIONAL ACTIVITIES

- Associate Editor, Toxicological Research (2014-Present)
- Assistant Professor (2012-2016), Associate Professor (2006-Present), Dong-A University, Busan, Korea
- Scientific Officer (2011-2012), Korea Food and Drug Administration, Seoul, Korea
- Post-doc fellow (2008-2011), MRC/University of Edinburgh, Edinburgh, UK
- Scientific Officer (2002-2008), Korea Food and Drug Administration, Seoul, Korea

MAIN SCIENTIFIC PUBLICATION

- Lee DK, Jeon S, Han Y, Kim SH, Lee S, Yu IJ, Song KS, Kang A, Yun WS, Kang SM, Huh YS, **Cho WS**. Threshold Rigidity Values for the Asbestos-like Pathogenicity of High-Aspect-Ratio Carbon Nanotubes in a Mouse Pleural Inflammation Model. *ACS Nano*. 2018 Nov 27;12(11):10867-10879.
- Han Y, Lee DK, Kim SH, Lee S, Jeon S, **Cho WS**. High inflammogenic potential of rare earth oxide nanoparticles: the New Hazardous Entity. *Nanotoxicology*. 2018 Sep;12(7):712-728.
- Jeong J, Lee S, Kim SH, Han Y, Lee DK, Yang JY, Jeong J, Roh C, Huh YS, **Cho WS**. Evaluation of the dose metric for acute lung inflammogenicity of fast-dissolving metal oxide nanoparticles. *Nanotoxicology*. 2016 Dec;10(10):1448-1457.
- Lee S, Hwang SH, Jeong J, Han Y, Kim SH, Lee DK, Lee HS, Chung ST, Jeong J, Roh C, Huh YS, **Cho WS**. Nickel oxide nanoparticles can recruit eosinophils in the lungs of rats by the direct release of intracellular eotaxin. *Part Fibre Toxicol*. 2016 Jun 9;13(1):30.
- Kim JE, Chankeshwara SV, Thielbeer F, Jeong J, Donaldson K, Bradley M, **Cho WS**. Surface charge determines the lung inflammogenicity: a study with polystyrene

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- Jeong J, Han Y, Poland CA, **Cho WS**. Response-metrics for acute lung inflammation pattern by cobalt-based nanoparticles. *Part Fibre Toxicol*. 2015; 13;12(1):13.
- **Cho WS**, Duffin R, Bradley M, Megson IL, MacNee W, Lee JK, Jeong J, Donaldson K. Predictive value of in vitro assays depends on the mechanism of toxicity of metal oxide nanoparticles. *Part Fibre Toxicol*. 2013 Oct 25;10(1):55.
- **Cho WS**, Duffin R, Bradley M, Megson IL, MacNee W, Howie SEM, Donaldson K. NiO and Co₃O₄ nanoparticles induce lung DTH-like responses and alveolar lipoproteinosis. *European Respiratory Journal*, 2012, 39(3): 546-57.
- **Cho WS**, Duffin R, Howie SEM, Scotton CJ, Wallace WAH, MacNee W, Bradley M, Megson IL, Donaldson K. Progressive severe lung injury by zinc oxide nanoparticles; the role of Zn²⁺ inside lysosomes. *Particle and Fibre Toxicology*, 2011 Sep 6;8(1): 27.
- **Cho WS**, Duffin R, Poland CA, Howie SEM, MacNee W, Bardley M, Megson IL, Donaldson K. Metal oxide nanoparticles induce unique inflammatory footprints in the lung; import implications for nanoparticle testing. *Environ. Health. Perspective*. 2010, Dec; 118(12): 1699-1706.

RESEARCH INTERESTS

- Hazard identification of manufactured nanomaterials
- Mechanism of Pulmonary inflammation pattern by
- Identification of physicochemical properties related to toxicity endpoints
- Dosimetry of nanoparticles for acute lung inflammogenicity
- Development of toxicity testing methods for nanoparticles