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# Juyoung Lee

Division of Neonatology, Department of Pediatrics  
Korea University Anam Hospital, Republic of Korea (South Korea)

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## Personal Details

Working Hospital	Korea University Anam Hospital
Address	73 Goryeodae-ro Seongbuk-gu, Seoul, 02841, Republic of Korea
Contact Number	Office: +82-2-920-5647



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## Education

Mar 1998-Feb 2005	Seoul National University, College of Medicine, Undergraduate
Mar 2011-Feb 2013	Seoul National University Graduate School, Master
Mar 2013-Aug 2015	Seoul National University Graduate School, PhD

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## Licensure and Board Certification

2005	Korean Medical Doctor License
2010	Korean Board of Pediatrics
2011	International Board-Certified Lactation Consultant
2012	Korean Sub-Board of Neonatology

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## Awarded Prize

Feb 2005	Summa Cum Laude Graduate Award, College of Medicine, Seoul National University
Jan 2009	Best Resident Award of Department of Pediatrics, Seoul National University Hospital
May 2012	Young Investigator Award at 8 <sup>th</sup> Congress of Asian Society for Pediatric Research
May 2013	Best Poster Award at the 9 <sup>th</sup> Congress of Asian Society for Pediatric Research
May 2014	Best Poster Award at the 63 <sup>rd</sup> Congress of Korean Society of Pediatrics
Oct 2015	Academic Award at the 22 <sup>nd</sup> Congress of Korean Society of Neonatology
Dec 2016	Academic Award at the 29 <sup>th</sup> Congress of Korean Society of Perinatology
Oct 2023	Academic Award at the 30 <sup>th</sup> Congress of Korean Society of Neonatology

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## Work Experience

Mar 2005-Feb 2006	Internship, Seoul National University Hospital, Seoul, Korea
Mar 2006-Feb 2010	Residency, Department of Pediatrics, Seoul National University Hospital, Seoul, Korea
Mar 2010-Feb 2011	Fellowship of Neonatology, Seoul National University Hospital, Seoul, Korea
Mar 2011-Feb 2014	Clinical assistant professor, Seoul National University Hospital, Seoul, Korea
Mar 2014-Jun 2015	Neonatologist, Seoul National University Bundang Hospital, Seong-nam, Korea
Mar 2016-Feb 2020	Assistant professor, Inha University Hospital/Inha University College of Medicine, Incheon, Korea
Feb 2020-Feb 2021	Visiting scholar, Turku University/Turku University Hospital, Turku, Finland
Mar 2020-Feb 2024	Associate professor, Inha University Hospital/Inha University College of Medicine, Incheon, Korea
Sep 2022-Feb 2024	Chair of QI & Customer service team, Inha University Hospital, Incheon, Korea
Mar 2024-	Clinical associate professor, Korea University Anam Hospital, Seoul, Korea

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## Clinical Experience in Neonatology

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Mar 2005- Feb 2010	5 years as a trainee at the university hospital
Mar 2011-	13 years as a clinical staff of NICU at the university hospital
Mar 2016-	8 years as a professor of NICU at the university hospital

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## Activities

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### Memberships

Member of Korean Society of Pediatrics  
Member of Korean Society of Neonatology  
Member of Korean Society of Perinatology  
Member of Korean Society of Breastfeeding Medicine  
Member of World Alliance for Breastfeeding Action

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### Invited International Lectures

1. 1<sup>st</sup> Healthcare Forum of idsMED, Kuala Lumpur, Malaysia (11 Mar 2013)
  2. 6<sup>th</sup> Annual Healthcare Forum of idsME, Singapore (12 Mar 2013)
  3. 17<sup>th</sup> Neonatal Respiratory Care and Monitoring Forum, Nagano, Japan (20 Feb 2015)
  4. 2019 Workshop on NAVA ventilation in the NICU, Turku, Finland (5-6 Sep 2019)
  5. 21<sup>st</sup> Congress of the Federation of Asia & Oceania Perinatal Societies, Regional advanced neonatal airway and ventilation workshop, Malaysia (24-25 Sep 2022)
  6. 5<sup>th</sup> NAVA workshop in Japan, Tokyo, Japan (11-12 Feb 2023)
  7. 18<sup>th</sup> Congress of Asian Society of Pediatric Research, Online, Japan (11 Nov 2023)
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### Presentation at International Conferences

1. 2011 Pediatric Academic Societies Meeting, Denver, CO, USA (30 April–3 May 2011)
  2. 2011 Hot Topics in Neonatology, Washington, DC, USA (4–6 Dec 2011)
  3. 2012 Pediatric Academic Societies Meeting, Boston, MA, USA (28 April–1 May 2012)
  4. 8<sup>th</sup> Congress of Asian Societies of Pediatric Research, Seoul, Korea (17–19 May 2012)
  5. 9<sup>th</sup> Congress of Asian Societies of Pediatric Research, Sarawak, Malaysia (9–12 May 2013)
  6. 54<sup>th</sup> Meeting of European Society of Pediatric Research, Porto, Portugal (10–14 Oct 2013)
  7. 7<sup>th</sup> Recent Advances in Neonatal Medicine, Wurzburg, Germany (5–7 Oct 2014)
  8. 2015 American Thoracic Society, Denver, CO, USA (15–20 May 2015)
  9. 2015 Workshop on NAVA ventilation in the NICU, Turku, Finland (3–4 Sep 2015)
  10. 6<sup>th</sup> Congress of the European Academy of Paediatric Societies, Geneva, Switzerland (21–25 Oct 2016)
  11. 2016 Hot Topics in Neonatology, Washington, DC, USA (4–7 Dec 2016)
  12. 1<sup>st</sup> Taiwan-Korea-Japan Joint Congress on Neonatology, Taipei, Taiwan (11–12 Mar 2017)
  13. 13<sup>th</sup> Congress of Asian Societies of Pediatric Research, Hong Kong (6–8 Oct 2017)
  14. 14<sup>th</sup> European Conference on Pediatric and Neonatal Mechanical Ventilation, Montreux, Switzerland (25–28 April 2018)
  15. 2019 Pediatric Academic Societies Meeting, Baltimore, MD, USA (24 April – 1 May 2019)
  16. 8<sup>th</sup> SCENE (Separation and closeness experiences in the neonatal environment) symposium, Tallin, Estonia (19 May 2021)
  17. 4<sup>th</sup> Congress of joint European Neonatal Societies, Italia (15 Sep 2021)
  18. 2022 Turku-Uppsala Seili meeting, Finland (16–17 June 2022)
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	19. 16 <sup>th</sup> European Conference on Pediatric and Neonatal Mechanical Ventilation (10–13 May 2023)
	20. 22 <sup>nd</sup> Congress of the Federation of Asia & Oceania Perinatal Societies, Tokyo, Japan (7–9 Oct 2023)
	21. 5 <sup>th</sup> Korea-Japan-Taiwan Joint Congress on Neonatology, Seoul, Korea (28 Oct 2023)
<b>IRB activity</b>	Member of the IRB of Seoul National University Bundang Hospital (2015)
	Member of the IRB of Inha University Hospital (2016-2022)

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### **Involvement of Clinical Trials**

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<b>Mar 2011-Jan 2012</b>	Population Pharmacokinetics and Metabolomics of Theophylline in Preterm Infants ( <a href="http://clinicaltrials.gov_NCT01509248">http://clinicaltrials.gov_NCT01509248</a> )
<b>Dec 2011-Apr 2012</b>	Evaluation of Safety and Efficacy of Remifentanyl in Pediatric Population ( <a href="http://clinicaltrials.gov_NCT01477892">http://clinicaltrials.gov_NCT01477892</a> )
<b>Jan 2012-Feb 2013</b>	Randomized Crossover Study of Neurally Adjusted Ventilatory Assist (NAVA) in Preterm Infants ( <a href="http://clinicaltrials.gov_NCT01389882">http://clinicaltrials.gov_NCT01389882</a> )
<b>Jan 2012-Dec 2013</b>	Oropharyngeal Administration of Colostrum to Extremely Low Gestational Age Newborns ( <a href="http://clinicaltrials.gov_NCT01536093">http://clinicaltrials.gov_NCT01536093</a> )
<b>Aug 2012-Feb 2013</b>	Remifentanyl in Ventilated Preterm Infants ( <a href="http://clinicaltrials.gov_NCT01713127">http://clinicaltrials.gov_NCT01713127</a> )
<b>Sep 2012-Oct 2014</b>	Pharmacokinetic Study of Fluconazole in Preterm Infants ( <a href="http://clinicaltrials.gov_NCT01683760">http://clinicaltrials.gov_NCT01683760</a> )
<b>Jan 2013-Jun 2013</b>	Lansoprazole in Preterm Infants With Reflux ( <a href="http://clinicaltrials.gov_NCT01778101">http://clinicaltrials.gov_NCT01778101</a> )
<b>Feb 2013-Apr 2014</b>	Pharmacokinetic Study of Clarithromycin in Very Low Birth Weight Infants ( <a href="http://clinicaltrials.gov_NCT01851954">http://clinicaltrials.gov_NCT01851954</a> )
<b>Sep 2013-Jul 2014</b>	Lansoprazole in Preterm Infants with Gastroesophageal Reflux: Pilot study ( <a href="http://clinicaltrials.gov_NCT01946971">http://clinicaltrials.gov_NCT01946971</a> )
<b>Nov 2013-Apr 2014</b>	Physiologic Comparison Between NIV-NAVA and PS in Preterm Infants ( <a href="http://clinicaltrials.gov_NCT01877720">http://clinicaltrials.gov_NCT01877720</a> )
<b>Oct 2014-Jun 2015</b>	PK Study of Sildenafil in Neonates ( <a href="http://clinicaltrials.gov_NCT02244528">http://clinicaltrials.gov_NCT02244528</a> )
<b>Jun 2016-Feb 2017</b>	Urine Biomarkers for Renal Function Monitoring in Preterm Infants ( <a href="http://clinicaltrials.gov_NCT02813109">http://clinicaltrials.gov_NCT02813109</a> )
<b>May 2016-Feb 2017</b>	Respiratory Pattern during Neurally Adjusted Ventilatory Assist (NAVA) in Preterm Infants ( <a href="http://clinicaltrials.gov_NCT02770976">http://clinicaltrials.gov_NCT02770976</a> )
<b>May 2017-Feb 2018</b>	Observational study on monitoring of systemic or organ blood circulation and perfusion for preterm infants ( <a href="http://clinicaltrials.gov_NCT02771556">http://clinicaltrials.gov_NCT02771556</a> )
<b>Mar 2020-Dec 2020</b>	How NAVA works in preterm infants with irregular respiratory efforts ( <a href="http://clinicaltrials.gov_NCT04659083">http://clinicaltrials.gov_NCT04659083</a> )

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### **Updated education from Korean Association of IRB**

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Oct 2015	initial education (8 hr) for IRB committee member
Nov 2016	maintenance education (6 hr) for investigator
Sep 2017	maintenance education (6 hr) for investigator & IRB committee member
July 2018	maintenance education (4 hr) for investigator & IRB committee member
Jun 2019	maintenance education (4 hr) for investigator & IRB committee member
April 2021	maintenance education (4 hr) for investigator & IRB committee member
Nov 2022	maintenance education (4 hr) for investigator
Nov 2023	maintenance education (4 hr) for investigator

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## Involvement of Research Project

<b>Apr 2010-Mar 2012</b>	“Development of new methods in prediction and diagnosis of respiratory distress of newborns - detection of disease-specific markers by metabolomics”- Supported by a grant from the Research & Development Project of Korea Health Industry Development Institute, Ministry of Health & Welfare (A080588-1021-1260200)
<b>Apr 2010-Mar 2012</b>	“Development of technology in clinical trials for new pharmaceuticals applying population pharmacokinetics and metabolomics in neonate and preterm infant” - Supported by a grant from the Korea National Enterprise for Clinical Trials (A070001-1021-1320100)
<b>May 2012-Dec 2014</b>	“Investigation on the safety and the efficacy of off-label use of unapproved drug I” - Supported by a grant from the Korea Food & Drug Administration (12172KFDA231)
<b>Feb 2014-Jun 2015</b>	“Investigation on the safety and the efficacy of off-label use of unapproved drug II”- Supported by a grant from the Ministry of Food & Drug Safety (14172MFDS178)
<b>Jun 2016-May 2019</b>	“Cross-talk identification of bronchopulmonary dysplasia regulators and pulmonary angiogenesis” – Supported by a grand from the National Research Foundation of Korea (54075-1)

## Publications

#	Title	Date	Journal	Author	SCI(E)
35	Neonatal family-centered care: evidence and practical models	2024. 04 (accepted)	Clin Exp Pediatr	First & Corresponding author	Y
34	Oral administration of bone marrow-derived mesenchymal stem cells attenuates intestinal injury in necrotizing enterocolitis	2024. 02	Clin Exp Pediatr	Corresponding author	Y
33	A thickened formula reduces feeding-associated oxygen desaturation and bradycardia in preterm infants	2023.01	Clin Exp Pediatr	Corresponding author	Y
32	Erythropoietin reduces death and neurodevelopmental impairment in neonatal hypoxic-ischemic encephalopathy	2022.11	Neonatal Med	Corresponding author	N
31	Convolutional neural network-based respiration analysis of electrical activities of the diaphragm	2022.10	Sci Rep	Corresponding author	Y
30	NIV-NAVA versus NCPAP immediately after birth in premature infants: a randomized controlled trial	2022.08	Respir Physiol Neurobiol	First author	Y
29	Parent-infant skin-to-skin contact reduces the electrical activity of the diaphragm and stabilizes respiratory function in preterm infants	2022.04	Pediatr Res	First author	Y
28	Brain injuries in term infants with respiratory distress immediately after birth	2022.03	Perinatology	Corresponding author	N
27	Maternal antibiotic exposure during pregnancy is a risk factor for community-acquired urinary tract infection caused by extended-spectrum beta-lactamase-producing bacteria in infants	2022.01	Pediatr Nephrol	First author	Y
26	A neonate with autosomal dominant pseudohypoaldosteronism type 1 due to a novel microdeletion of the NR3C2 gene at 4q31.23	2021.11	Children	Corresponding author	Y

25	Backup ventilation during neutrally adjusted ventilatory adjusted ventilatory assist in preterm infants	2021.10	Pediatr Pulmonol	First author	Y
24	Cerebral oxygenation during apnea in preterm infants: effects of accompanying peripheral oxygen desaturation	2021.02	Neonatal Med	Corresponding author	N
23	Urine biomarkers for monitoring acute kidney injury in premature infants	2020.09	Kidney Res Clin Pract	First author	Y
22	S-endoglin expression is induced in hyperoxia and contributes to altered pulmonary angiogenesis in bronchopulmonary dysplasia development	2020.02	Sci Rep	Corresponding author	Y
21	Clinical impact of admission hypothermia in very low birth weight infants: results from Korean Neonatal Network	2019.10	Korean J Pediatr	Corresponding author	N
20	Neural feedback is insufficient in preterm infants during neutrally adjusted ventilator assist	2019.05	Pediatr Pulmonol	Corresponding author	Y
19	Population pharmacokinetic study of prophylactic fluconazole in preterm infants for prevention of invasive candidiasis	2019.05	Antimicrobial Agents Chem	First author	Y
18	Clinical characteristics of infantile colic	2019.02	Neonatal Med	Corresponding author	N
17	Hospital visits from respiratory diseases of early and late preterm infants	2018.08	Neonatal Med	Corresponding author	N
16	Impact of prolonged mechanical ventilation in very low birth weight infants: Results from a national cohort study	2017.12	J Pediatr	Corresponding author	Y
15	A newborn with severe hydrocephalus and myelomeningocele associated with maternal antiepileptic medication	2017.07	J Gen Pract	Corresponding author	N
14	Neurally adjusted ventilatory assist for infants under prolonged ventilation	2017.01	Pediatr Int	First author	Y
13	Alteration of TGF- $\beta$ -ALK-Smad signaling in hyperoxia-induced bronchopulmonary dysplasia model of newborn rats	2016.09	Exp Lung Res	First author	Y
12	Efficacy and safety of fluconazole prophylaxis in extremely low birth weight infants: multicenter pre-post cohort study	2016.05	BMC Pediatrics	First author	Y
11	Maternal and placental risk factors for developing necrotizing enterocolitis in very preterm infants	2016.05	Pediatr Neonatol	First author	Y
10	Non-invasive neutrally adjusted ventilator assist in preterm infants: a randomized phase II crossover trial	2015.07	Arch Dis Child Fetal Neonatal Ed	First author	Y
9	Oropharyngeal colostrums administration in extremely premature infants: an RCT	2015.02	Pediatrics	First author	Y
8	Enterostomy closure timing for minimizing postoperative complications in premature infants	2014.10	Pediatr Neonatol	First author	Y
7	Current status of neonatal clinical trials in Korea	2014.02	Neonatal Med	First author	N

6	A case of non-immune hydrops fetalis due to umbilical venous malformation and Noonan syndrome	2013.12	Korean J Perinatol	Corresponding author	N
5	Optimal Timing of the First Screening Examination for Retinopathy of Prematurity	2013.11	Neonatal Med	Corresponding author	N
4	The efficacy of noninvasive hemoglobin measurement by Pulse CO-Oximetry in neonates	2013.01	Pediatr Cit Care Med	First author	Y
3	Randomized crossover study of neurally adjusted ventilatory assist in preterm infants	2012.11	J Pediatr	First author	Y
2	Risk factors for periventricular-intraventricular hemorrhage (PV-IVH) in premature Infants	2010.01	J Korean Med Sci	First author	Y
1	A case of simultaneously identified glycogen storage disease and mucopolysaccharidosis	2008.11	Korean J Pediatr	First author	N