

# The 15<sup>th</sup> R & R Forum

Research & Reconstruction Forum

일자 2026년 5월 14(목) - 15(금)

장소 전남대학교 광주캠퍼스 용지관



## 백우열

연세대학교 의과대학 성형외과



### ■ Educational and Academic Experience

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#### Medical Degree and Academic Degrees

- Mar. 2000 - Feb. 2007: Yonsei University, College of Medicine, Seoul, Korea (M.D.)
- Mar. 2018 - Aug. 2022: Plastic and Reconstructive Surgery, Yonsei University, College of Medicine, Seoul, Korea (Ph.D.)

#### Residency

Mar. 2011 - Feb. 2015: Residency, Plastic and Reconstructive Surgery, Severance Hospital Yonsei University Health System, Seoul, Korea

### ■ Appointments

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Mar. 2015 – Feb. 2016 Instructor (full-time lecturer)

Plastic and Reconstructive Surgery, Yonsei University, College of Medicine Seoul, Korea

Mar. 2016 – Feb. 2017 Clinical Assistant Professor Plastic and Reconstructive Surgery, Yonsei University, College of Medicine Seoul, Korea

Jun. 2017 – Mar. 2018 Research Fellow

Plastic and Reconstructive Surgery Johns Hopkins, college of medicine Baltimore, MD, USA

Mar. 2018 – present Assistant Professor Plastic and Reconstructive Surgery, Yonsei University, College of Medicine Seoul, Korea

Feb. 2017 – present CEO. PLCOsKin

### ■ Medical Board Certification

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Korean Medical License (#92556),

Korean Board of Plastic and Reconstructive Surgery (#2084), 2015

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## ■ Society Activity

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Secretary General, Korean Society of Plastic and Reconstructive Surgeons  
Member, Korean Society of Aesthetic Plastic Surgery  
Member, Korean Society of Plastic and Reconstructive Surgeons  
Member, Korean Cleft Palate-Craniofacial Association  
Director, Korean Cleft Palate-Craniofacial Association  
Member, European Association for Cranio-Maxillo Facial Surgery  
Member, American Society of Plastic Surgeons  
Member, Korean Tissue Engineering and Regenerative Medicine Society  
Member, Tissue Engineering and Regenerative Medicine International Society  
Member, Biomedical Engineering Society  
Member, Korean Society for Simulation Surgery  
Secretary, Korean Society for Simulation Surgery  
Member, Korean Society for Surgery of the Peripheral Nerve

## ■ Clinical Interest

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Pediatric Surgery, Cleft and lip palate  
Craniosynostosis correction  
Craniofacial Surgery, Aesthetic Surgery, Exophthalmos correction  
Migraine Surgery, Temporomandibular joint surgery  
Microsurgery, Head and neck reconstruction  
Scar Management, Wound Healing, Rhinoplasty  
Tissue Engineering, Polymer, and Collagen scaffold  
Breast tissue Regeneration  
Clinical trial for Sarcoma medication, Reconstruction  
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## ■ Published Papers

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[Near-normalized maxillomandibular relationship and upper airway in infants with Robin sequence treated with Stanford Orthodontic Airway Plate: Computed tomography study](#)

H Ahn, YJ Choi, W Baek, HY Kim, PE Chang, H Choo  
The Cleft Palate Craniofacial Journal 63 (4), 574-583

[Phase IB/II Trial with Correlative Analyses of Doxorubicin plus Durvalumab Combination in Patients with Advanced Soft Tissue Sarcoma](#)

KH Yun, NS Sim, SJ Shin, YH Lee, W Baek, YD Han, JW Park, SK Kim, ...

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Clinical Cancer Research

[A 3D Printed Poly \( \$\epsilon\$ -caprolactone\)-Collagen Hybrid Mesh \(TissueDerm\) for Breast Reconstruction after Mastectomy in a Pig Model](#)

KS Shim, HS Jo, SH Kim, D Kim, YK Park, DH Ryu, WJ Lee, TS Roh, ...  
Tissue Engineering and Regenerative Medicine 23 (1), 107-123

[Retrospective evaluation of different designs of distraction osteogenesis in brachycephalic craniosynostosis](#)

W Baek, YJ Kim, M Kim, YO Kim  
Journal of Cranio-Maxillofacial Surgery 53 (7), 983-988

[Comprehensive molecular analysis of phase IB/II trial of durvalumab plus doxorubicin combination in patients with advanced soft-tissue sarcoma.](#)

HS Kim, KH Yun, NS Sim, SJ Shin, YH Lee, W Baek, YD Han, SH Kim  
Journal of Clinical Oncology 43 (16\_suppl), 11555-11555

[Retrospective evaluation of different designs of distraction osteogenesis in brachycephalic craniosynostosis](#)

W Baek, YJ Kim, M Kim, YO Kim  
Journal of Cranio-Maxillofacial Surgery

[3D bioprinting technology for modeling vascular diseases and its application](#)

JE Kim, GJ Jeong, YM Yoo, SH Bhang, JH Kim, YM Shin, KH Yoo, BC Lee, ...  
Biofabrication 17 (2), 022014

[Ethyl Pyruvate Decreases Collagen Synthesis and Upregulates MMP Activity in Keloid Fibroblasts and Keloid Spheroids](#)

W Baek, S Park, Y Lee, H Roh, CO Yun, TS Roh, WJ Lee  
International Journal of Molecular Sciences 25 (11), 5844

[Clinical Activity of TGF- \$\beta\$  Inhibitor Vactosertib in Combination with Imatinib in Desmoid Tumors: A Multicenter Phase Ib/II Study](#)

JH Ahn, J Lee, C Park, SH Beom, SH Kim, YH Lee, KH Yun, JE Kim, ...  
Clinical Cancer Research 30 (8), 1457-14653, 2024

[Reaching New Heights: A Comprehensive Study of Hand Transplantations in Korea after Institutionalization of Hand Transplantation Law](#)

YH Kim, YR Choi, DJ Joo, WY Baek, YC Suh, WT Oh, JY Cho, SC Lee, ...  
Yonsei Medical Journal 65 (2), 108, 2024

[Durvalumab plus pazopanib combination in patients with advanced soft tissue sarcomas: a phase II trial](#)

HJ Cho, KH Yun, SJ Shin, YH Lee, SH Kim, W Baek, YD Han, SK Kim, ...  
Nature communications 15 (1), 6856, 2024

[Engineering of Cell Derived-Nanovesicle as an Alternative to Exosome Therapy](#)

HJ Jang, KS Shim, J Lee, JH Park, SJ Kang, YM Shin, JB Lee, W Baek, ...  
Tissue Engineering and Regenerative Medicine 21 (1), 1-19, 2024

[A bipediced keystone perforator island flap: Pedicle division technique with enhanced advancement potential for chronic wound coverage](#)

JM Oh, SJ Jwa, JM Won, WY Baek, JW Hong, WJ Lee, YC Suh

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Journal of Plastic, Reconstructive & Aesthetic Surgery 86, 239-245, 2023

[Breast tissue reconstruction using polycaprolactone ball scaffolds in a partial mastectomy pig model](#)

KS Shim, DH Ryu, HS Jo, KB Kim, DH Kim, YK Park, M Heo, HE Cho, ...  
Tissue Engineering and Regenerative Medicine 20 (4), 607-6192, 2023

[One year experience of the hand allotransplantation first performed after Korea Organ Transplantation Act \(KOTA\) amendment](#)

N Lee, WY Baek, YR Choi, DJ Joo, WJ Lee, JW Hong  
Archives of Plastic Surgery 50 (04), 415-4212, 2023

[Prevention and Resolution of Silicone Implant-Related Problems in Secondary Rhinoplasty Using a Cross-Linked Human Acellular Dermal Matrix](#)

WS Kook, W Baek, HM Kook, YY Jang, DH Lew  
Plastic and Reconstructive Surgery 152 (1), 45-54

[Comprehensive Molecular Characterization of Soft Tissue Sarcoma for Prediction of Pazopanib-Based Treatment Response](#)

JY Hong, HJ Cho, KH Yun, YH Lee, SH Kim, W Baek, SK Kim, Y Lee, ...

Cancer Research and Treatment

[Breast Tissue Restoration after the Partial Mastectomy Using Polycaprolactone Scaffold](#)

SJ Jwa, JM Won, DH Kim, KB Kim, JB Lee, M Heo, KS Shim, HS Jo, ...

Polymers 14 (18), 3817

[Cranioplasty and temporal hollowing correction with a three-dimensional printed bioresorbable mesh and double vertical suture anchor muscle sling: a case report](#)

JH Choi, TS Roh, WJ Lee, W Baek

Archives of Craniofacial Surgery 23 (4), 178-182

[Dual cortical tunneling method for endoscopic forehead lift](#)

M Kim, N Lee, W Tark, WJ Lee, TS Roh, W Baek

Archives of Aesthetic Plastic Surgery 28 (3), 85-89



[Phase II clinical trial of Eribulin-gemcitabine combination therapy in previously treated patients with advanced liposarcoma or leiomyosarcoma](#)

CG Kim, NS Sim, JE Kim, KH Yun, YH Lee, SH Kim, W Baek, YD Han, ...

Clinical Cancer Research

[Upper facial surgery: simultaneous hairline-lowering surgery during endoscopic forehead lifting](#)

JH Min, J Park, W Baek

Archives of Aesthetic Plastic Surgery 27 (3), 88-92

[Anti-Aging Effects of Nanovesicles Derived from Human Tonsil-Derived Mesenchymal Stem Cells](#)

D Kim, Y Lee, K Park, D Park, WJ Lee, TS Roh, H Cho, W Baek

Applied Sciences 11 (13), 5780

[Durvalumab and pazopanib in patients with advanced soft tissue sarcoma: A single-center, single-arm, phase 2 trial.](#)

HS Kim, HJ Cho, KH Yun, YH Lee, SH Kim, W Baek, MK Jeon

Journal of Clinical Oncology 39 (15\_suppl), 11551-11551

[Dilation-Responsive Microshape Programing Prevents Vascular Graft Stenosis](#)

SW Yi, YM Shin, JB Lee, JY Park, DH Kim, W Baek, JK Yoon, DG Kim, ...

Small 17 (18), 2007297

[A Prospective Randomized Study: The Usefulness and Efficacy of Negative Pressure Wound Therapy with Lipidocolloid Polyester Mesh Compared to Traditional Negative Pressure Wound ...](#)

W Baek, N Lee, EJ Han, TS Roh, WJ Lee

Pharmaceutics 12 (9), 813

[Sex-related and racial variations in orbital floor anatomy](#)

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SJ Moon, WJ Lee, TS Roh, W Baek

Archives of Craniofacial Surgery 21 (4), 219

## [Dickkopf 2-Expressing Adenovirus Increases the Survival of Random-Pattern Flaps and Promotes Vasculogenesis in a Rat Model](#)

SW Choi, YR Jeon, W Baek, CO Yun, TS Roh, WJ Lee

Annals of Plastic Surgery 84 (5), 588-594

## [Hydrogel cross-linking-programmed release of nitric oxide regulates source-dependent angiogenic behaviors of human mesenchymal stem cell](#)

ML Kang, HS Kim, J You, YS Choi, BJ Kwon, CH Park, W Baek, MS Kim, ...

Science advances 6 (9), eaay5413

## [Microchannel network hydrogel induced ischemic blood perfusion connection](#)

JB Lee, DH Kim, JK Yoon, DB Park, HS Kim, YM Shin, W Baek, ML Kang, ...

Nature communications 11 (1), 1-14

## [Three-dimensionally printed breast reconstruction devices facilitate nanostructure surface-guided healthy lipogenesis](#)

W Baek, MS Kim, DB Park, OY Joo, WJ Lee, TS Roh, HJ Sung

ACS Biomaterials Science & Engineering 5 (10), 4962-4969

## [Radially patterned polycaprolactone nanofibers as an active wound dressing agent](#)

D Shin, MS Kim, CE Yang, WJ Lee, TS Roh, W Baek

Archives of Plastic Surgery 46 (05), 399-404

## [Microsurgical reconstruction of posttraumatic large soft tissue defects on face](#)

Wooyeol Baek, Seung Yong Song, Tai Suk Roh, Won Jai Lee

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Journal of the Korean Medical Association 61 (12), 724-731

[The effect of light-emitting diode \(590/830 nm\)- based low-level laser therapy on posttraumatic edema of facial bone fracture patients](#)

WY Baek, IH Byun, IS Yun, JY Kim, TS Roh, DH Lew, YS Kim

Journal of Cranio-Maxillofacial Surgery 45 (11), 1875-1877

[Variance of the pectoralis major in relation to the inframammary fold and the pectoralis minor and its application to breast surgery](#)

WY Baek, IH Byun, Y Seok Kim, BK Jung, IS Yun, TS Roh

Clinical Anatomy 30 (3), 357-361

[Patient satisfaction with implant-based breast reconstruction associated with implant volume and mastectomy specimen weight ratio](#)

WY Baek, IH Byun, YS Kim, DH Lew, J Jeong, TS Roh

Journal of breast cancer 20 (1), 98-103

[Reduction malarplasty by bidirectional wedge osteotomy or two percutaneous osteotomies according to zygoma protrusion type](#)

W Baek, T Woo, YS Kim, IS Yun, J Kim, SW Choi, TS Roh, DH Lew

Journal of Cranio-Maxillofacial Surgery 44 (10), 1662-1669

[A retrospective analysis of ruptured breast implants](#)

WY Baek, DH Lew, DW Lee

Archives of plastic surgery 41 (06), 734-739