

**Curriculum Vitae / Sun-Jung Yoon, M.D., Ph.D.**

**Sun-Jung Yoon, M.D., Ph.D.**

Assistant Professor, Hip & Pelvis Service, Department of Orthopedic Surgery.

Assistant Professor, Department of Orthopedic Surgery.

**AFFILIATIONS**

Assistant Professor, Hip & Pelvis Service, Department of Orthopedic Surgery, Jeonbuk National University Hospital, Jeonju, South Korea

Assistant Professor, Department of Orthopedic Surgery, Medical School, Jeonbuk National University, Jeonju, South Korea

**EDUCATION**

Mar. 1997 - Feb. 1999

Premedical school, College of Liberal Arts & Science, Jeonbuk National University Jeonju, South Korea

Mar. 1999 - Feb. 2003

M.D., College of Medicine, Jeonbuk National University, Jeonju, South Korea

Aug. 2004 - Aug 2006

M.S. Tissue Engineering and Biomaterials, Department of Advanced Organic Mater. Eng., Jeonbuk National University, Jeonju, South Korea

Mar. 2007 - Feb. 2010

Ph.D., Tissue Engineering and Biomaterials, Department of Polymer-Nano Science Technology, Jeonbuk National University, Jeonju, South Korea (Ph.D. Thesis: "Regeneration of Musculoskeletal Bio organ using Tissue Engineering", Advisor: Prof. Gilson Khang, Ph.D.)

## Curriculum Vitae / Sun-Jung Yoon, M.D., Ph.D.

Mar. 2012 - Apr. 2012, Mar. 2013 - Apr. 2013

International Fellowship, Fukuoka University, Japan (Periacetabular Osteotomy and Total Hip Arthroplasty Prof. M. Naito)

Mar. 2010 - Feb. 2014

Ph D., Orthopedic Surgery, Department of orthopedic surgery, Jeonbuk National University (Thesis: "Effect of Comp-Ang1 on ischemic induced necrosis of the femoral head in a rat model")

### PROFESSIONAL EXPERIENCE

**Assistant Professor**, Apr. 2018 - Present

Department of Orthopedic Surgery, School of Medicine, Jeonbuk National University

**Clinical Assistant Professor**, Mar. 2014 - Mar. 2018

Hip & Pelvis Service, Department of Orthopedic Surgery, Jeonbuk National University Hospital, Jeonju, South Korea

**Clinical Fellow**, Feb.2012 - Feb. 2014

Hip & Pelvis Service, Department of Orthopedic Surgery, Jeonbuk National University Hospital, Jeonju, South Korea

**Residency**, Mar. 2008 - Feb. 2012

Department of Orthopedic Surgery, Jeonbuk National University Hospital, Jeonju, South Korea

**Researcher**, Oct. 2007 - Present

Clinical Orthopedic Research Lab., Department of Orthopedic Surgery, Jeonbuk National University Hospital, Jeonju, South Korea

**Researcher**, May. 2007 – Sep. 2007

Tissue Engineering and Biomaterials Science Lab., Jeonbuk National University, Jeonju, South Korea

**Military Service**, Mar. 2004 - Apr. 2007

Public Health Center, Jeonbuk, South Korea

**Internship**, Mar. 2003 - Feb. 2004

## Curriculum Vitae / Sun-Jung Yoon, M.D., Ph.D.

Jeonbuk National University Hospital, Jeonju, Jeonbuk

### CERTIFICATION

1. Korea Board of Medical Doctor; 78696
2. Korea Board of Orthopedic Surgery
3. Korea Board of Trauma Surgery

### AWARDS

May 2010 YuHan Young Investigator Award -Orthopedic Surgery (Korean Medical Association)

Dec. 2010 Jeonbuk National University Resident Research Award

Dec. 2011 Jeonbuk National University Resident Research Award

Jan. 2015 Poster winner, Orthopedic Today

### RESEARCH INTERESTS

Hip Preservation Surgery (Hip Arthroscopy/PAO/Surgical Hip Dislocation)

Adult Hip Reconstruction (Primary and Revision Total Hip Arthroplasty)

Hip and Pelvis Fracture (Acetabular and pelvic fracture surgery)

Tissue Engineering and Biomaterial

Deep learning for computer vision

### BOOK

Essential Orthopedic Surgery; Board of certification preparation and review (Korea) (2013)

## PUBLICATION LIST

- 1)  $\beta$ -Cyclodextrin/Triclosan Complex-Grafted Methacrylated Glycol Chitosan Hydrogel by Photocrosslinking via Visible Light Irradiation for a Tissue Bio-Adhesive. *Int J Mol Sci*;22(2):700, 2021
- 2) Anterior dislocation of THA after Iliopsoas tenotomy in spinopelvic imbalance: a rare case report. *BMC Musculoskelet Disord* 21, 723 (2020)
- 3) Automatic multi-class intertrochanteric femur fracture detection from CT images based on AO/OTA classification using faster R-CNN-BO method. *J Appl Biomed* 18:97-105, 2020.
- 4) Estimation and Comparison of Cortical Thickness Index and Canal-to-Calcar Ratio Using Manual Method and Deep Learning Method. *J. Electr. Eng. Technol.* 15, 1399–1404 (2020).
- 5) Application of Gellan Gum-Based Scaffold for Regenerative Medicine. *Adv Exp Med Biol.* 2020;1249:15-37.
- 6) Bone Regeneration Using Duck's Feet-Derived Collagen Scaffold as an Alternative Collagen Source. *Adv Exp Med Biol.* 2020;1250:3-13.
- 7) Natural Sources and Applications of Demineralized Bone Matrix in the Field of Bone and Cartilage Tissue Engineering. *Adv Exp Med Biol.* 2020;1249:3-14.
- 8) Sirtuin 6 in preosteoclasts suppresses age-and estrogen deficiency-related bone loss by stabilizing estrogen receptor  $\alpha$ . *Cell Death Differ.* 2019 Nov;26(11):2358-2370.
- 9) Doxorubicin Hydrochloride /Cisplatin-Loaded Hydrogel/Nanosized (2-Hydroxypropyl)-Beta-Cyclodextrin Local Drug-Delivery System for Osteosarcoma Treatment. *In Vivo. Nanomaterials* 2019(Basel). 2019 Nov 21;9(12).
- 10) Comparison of the outcomes after primary total hip arthroplasty using a short stem between the modified

## Curriculum Vitae / Sun-Jung Yoon, M.D., Ph.D.

anterolateral approach and direct anterior approach with a standard operation table. J Korean Orthop Assoc. 2019 Jun; 54(3) 244-253.

- 11) Hip Arthroscopy of a Painful Hip with Borderline Dysplasia. Hip Pelvis. 2019 Jun;31(2) 102-109. English
- 12) Visible Light-Cured Glycol Chitosan Hydrogel Containing a Beta-Cyclodextrin-Curcumin Inclusion Complex Improves Wound Healing In Vivo. Molecules. 2017 Sep 10;22(9).
- 13) Alterations in Range of Motion and Clinical Outcomes After Femoroplasty in Asians. J Am Acad Orthop Surg. 2018 Apr 15;26(8):e181-e190.
- 14) Endoscopic resection of acetabular screw tip to decompress sciatic nerve following total hip arthroplasty. BMC Musculoskelet Disord. 2018 Jun 4;19(1):184.
- 15) Incidence and severity of femoral head avascularity after femoral neck or intertrochanteric fractures on preoperative bone single photon emission computed tomography/computed tomography: preliminary study. Nucl Med Commun. 2019 Mar;40(3):199-205.
- 16) The Cocktail Effect of BMP-2 and TGF- $\beta$ 1 Loaded in Visible Light-Cured Glycol Chitosan Hydrogels for the Enhancement of Bone Formation in a Rat Tibial Defect Model. Mar Drugs. 2018 Sep 25;16(10).
- 17) A local drug delivery system based on visible light-cured glycol chitosan and doxorubicin-hydrochloride for thyroid cancer treatment in vitro and in vivo. Drug Deliv. 2018 Nov;25(1):1664-1671.
- 18) Endoscopic Sciatic Nerve Decompression following fracture or reconstructive surgery of the acetabulum; comparison of endoscopic treatments in deep gluteal syndrome without major trauma, Clin J Sport Med. 2019 May;29(3):203-208.
- 19) Preparation and Evaluation of Dexamethasone (DEX)/Growth and Differentiation Factor-5 (GDF-5) Surface-Modified Titanium Using  $\beta$ -Cyclodextrin-Conjugated Heparin (CD-Hep) for Enhanced Osteogenic

**Curriculum Vitae / Sun-Jung Yoon, M.D., Ph.D.**

Activity In Vitro and In Vivo. *Int J Mol Sci.* 2017 Aug 3;18(8)

- 20) Effects of Titanium Mesh Surfaces-Coated with Hydroxyapatite/ $\beta$ -Tricalcium Phosphate Nanotubes on Acetabular Bone Defects in Rabbits. *Int J Mol Sci.* 2017 Jul 7;18(7)
- 21) Is there a clinical benefit of additional tension band wiring in plate fixation of the symphysis?, *BMC Musculoskelet Disord.* 2017 Jan 25;18(1):40.
- 22) Effects of Titanium Mesh Surfaces-Coated with Hydroxyapatite/ $\beta$ -Tricalcium Phosphate Nanotubes on Acetabular Bone Defects in Rabbits. *Int J Mol Sci.* 2017 Jul 7;18(7)
- 23) Is there a clinical benefit of additional tension band wiring in plate fixation of the symphysis?, *BMC Musculoskelet Disord.* 2017 Jan 25;18(1):40.
- 24) Supramolecular hydrogel based on MPEG-grafted Hyaluronic acid and alpha-CD containing HP-beta-CD/Simvastatin Enhance Osteogenesis in vivo, *J Nanosci Nanotechnol*, 2017;17:217-223.
- 25) Clinical Outcome of a Precontoured Symphysis Pubis Plate with Tension Band Wiring for Traumatic Symphysis Pubis Rupture in Pelvic Fractures, *J. trauma and injury*, 2016;29(1):22-27.
- 26) Clinical results of endoscopic sciatic nerve decompression for deep gluteal syndrome: mean 2-year follow-up. *BMC Musculoskelet Disord.* 2016 May 20;17(1):218.
- 27) Dual Effect of Curcumin/BMP-2 Loaded in HA/PLL Hydrogels on Osteogenesis In Vitro and In Vivo, *J Nanosci Nanotechnol*, 2017;17: 143-152.
- 28) COMP-angiopoietin1 potentiates the effects of bone morphogenetic protein-2 on ischemic necrosis of the femoral head in rats. *PLoS One.* 2014 Oct 17;9(10):e110593.
- 29) In Vitro Osteogenic Differentiation Enhanced by Zirconia Coated with Nano-Layered Growth and Differentiation Factor-5, *J Nanosci Nanotechnol.* 2016 Jan;16(1):280-6.

**Curriculum Vitae / Sun-Jung Yoon, M.D., Ph.D.**

- 30) Outcomes of polyethylene liner cementation into a fixed metal acetabular shell with minimum follow-up of 7 years. *Hip Int.* 2015 Feb;25(1):61-6.
- 31) Hip arthroscopy for femoroacetabular impingement: the changing nature and severity of associated complications over time. *Arthroscopy.* 2014 Aug;30(8):957-63.
- 32) Arthroscopic Reduction and Internal Fixation of Femoral Head Fractures. *J. Orthop Trauma.* 2014 Jul;28(7).
- 33) Hip Arthroscopic Management for Femoral Head Fractures and Posterior Acetabular Wall Fractures (Pipkin Type IV). *Arthrosc Tech.* 2013 Jun 22;2(3):e221-5.
- 34) The management of the displaced medial wall in complex acetabular fractures using plates and additional cerclage. *Hip Int.* 2013 May-Jun;23(3):323-9.
- 35) Three- and four-level anterior cervical discectomy and fusion with a PEEK cage and plate construct. *Eur Spine J.* 2012 Dec;21(12):2492-7.
- 36) Enhancement of tibial regeneration in a rat model by adipose-derived stromal cells in a PLGA scaffold. *Bone.* 2012 Sep;51(3):313-23.
- 37) Cervical spinal brucellosis with epidural abscess causing neurologic deficit with negative serologic tests. *World Neurosurg.* 2012 Sep-Oct;78(3-4):375.e15-9.
- 38) Acceleration of spinal fusion using COMP-angiopoietin 1 with allografting in a rat model. *Bone.* 2011 Sep; 49(3): 447-54.
- 39) Over-expression of PTEN Involved in Troglitazone-induced Apoptosis in Human Osteosarcoma Cells, *J Korean Bone & Joint Tumor Soc,* 2011; 17: 23-29.