| AbsNo | First author | Title | Author's Affiliation | poster time | No. of poster |
|---------|---------------|---|---|-------------|---------------|
| 1235284 | Jinhui Ma | Local Administration of Bisphosphonate-soaked Hydroxyapatite for the Treatment of Osteonecrosis of the Femoral Head in Rabbit | China-Japan Friendship Hospital | 13:30-14:30 | A-1 |
| 1235348 | Donghai Li | Porous lithium-doped hydroxyapatite scaffold seeded with hypoxia-preconditioned bone-marrow mesenchymal stem cells for bone-tissue regeneration | West China Hospital of Sichuan University | | A-2 |
| 1235359 | Xiaowei Xie | Icariin: A promising osteoinductive compound for repairing bone defect and osteonecrosis. | West China Hospital of Sichuan University | 13:30-14:30 | A-3 |
| 1247184 | Yupeng Liu | Establishment of rabbit model of steroid induced osteonecrosis of the femoral head | Affiliated Zhongshan Hospital of Dalian 13:30-14:30 University | | A-4 |
| 1234056 | Byung-Ho Yoon | No Differences in the Efficacy among Various Core Decompression Modalities and Non- operative Treatment: A Network Meta-analysis | Inje University College of Medicine, Seoul Paik Hospital, Seoul, Korea | 13:30-14:30 | A-5 |
| 1218614 | Guoju Hong | Analysis of aberrantly expressed of freely circulating miRNAs for early diagnosis of patients with alcohol-induced osteonecrosis of the femoral head | University of Alberta 13:30-14:30 | | A-6 |
| 1224979 | Xiaojun Chen | Polydatin Promotes the Osteogenic Differentiation of Human Bone Mesenchymal Stem Cells by activating the BMP2-Wnt/β-catenin Signaling Pathway | Guangzhou University of Chinese Medicine 13:30-14:30 | | A-7 |
| 1224984 | Xiaojun Chen | Association of reduced sclerostin expression with collapse process in patients with osteonecrosis of the femoral head | Guangzhou University of Chinese Medicine 13:30-14:30 | | A-8 |
| 1231037 | Di Qin | Angiographic score system of DSA for early and middle stage of osteonecrosis of the femoral head (ARCO $0 \sim II$) | Third Hospital of Hebei Medical University | 13:30-14:30 | A-9 |

| 1232762 | Xiaoming He | The correlation between the serum resistin and the collapse process of femoral head necrosis | First Affiliated Hospital of Guangzhou University ofChinese Medicine | Guangzhou 13:30-14:30 | |
|---------|---------------|--|---|-----------------------|------|
| 1233398 | Tetsuro Tani | Are there any geographic differences of osteonecrosis of the femoral head in Japan? Analysis of data from nationwide epidemiologic survey in comparison to external national data | Osaka University | 13:30-14:30 | A-11 |
| 1232906 | Shuidi Gong | The global status of steroid-induced osteonecrosis and association of level of bone turnover marker with progression of steroid- induced osteonecrosis of femoral head | First Affiliated Hospital of Guangzhou University ofChinese Medicine | 13:30-14:30 | A-12 |
| 1234255 | Xing Qiu | A novel model of traumatic femoral head necrosis in rats developed by a microsurgical technique | Affiliated Zhongshan Hospital of Dalian University | 13:30-14:30 | A-13 |
| 1234317 | Yingshan Shen | Polydatin Improve Osteogenic Differentiation of Human Bone Mesenchymal Stem Cells by Increasing TAZ Expression via BMP-Wnt/β- catenin Signaling Pathway | First Clinical Medical College, Guangzhou University of Chinese Medicine, Guangzhou, P.R.China. | 13:30-14:30 | A-14 |
| 1235351 | Donghai Li | Enhanced bone defect repairing effects in glucocorticoid-induced osteonecrosis of the femoral head using a porous nano-lithium-hydroxyapatite/gelatin microsphere/erythropoietin composite scaffold. | West China Hospital of Sichuan University | 13:30-14:30 | A-15 |
| 1235352 | Donghai Li | Efficacy of bisphosphonates in the treatment of femoral head osteonecrosis: A PRISMA-compliant meta-analysis of animal studies and clinical trials. | West China Hospital of Sichuan University | | A-16 |
| 1235349 | Donghai Li | Erythropoietin Enhances Bone Repair Effects via the Hypoxia-Inducible Factor Signal Pathway in Glucocorticoid-Induced Osteonecrosis of the Femoral Head. | West China Hospital of Sichuan University 13:30-14:30 | | A-17 |
| 1235291 | Jinhui Ma | Hip Osteonecrosis Is Associated with Increased Plasma IL-33 Level. | China-Japan Friendship Hospital | 13:30-14:30 | A-18 |

| 1235274 | Jinhui Ma | Porous Tantalum Implant in Treating Osteonecrosis of the Femoral Head: Still a Viable Option? | China-Japan Friendship Hospital | | A-19 |
|---------|-------------------|---|--|--|------|
| 1240108 | Chi Zhou | The Role of Lateral Wall in Non-traumatic Osteonecrosis of the Femoral Head: A Six-year Follow-up Study of Sixty-eight Hips | First Affiliated Hospital of Guangzhou University ofChinese Medicine | | A-20 |
| 1235357 | Lixin Chen | Investigate the value of CEACAM1 in early diagnosis and disease monitoring of ONFH | of Guangzhou University ofChinese | 13:30-14:30 | A-21 |
| 1235815 | Weifeng Li | Significance of serum Dickkopf-1 protein in early diagnosis and disease monitoring of osteonecrosis of the femoral head | Guangzhou University ofChinese Medicine | | A-22 |
| 1235235 | Xiaoming He | The bone turnover markers of patient with ONFH of different pathogeny: A Retrospective Study of 341 cases | First Affiliated Hospital of Guangzhou University ofChinese Medicine | 13:30-14:30 | A-23 |
| 1235857 | Leilei Zhang | A comparison of two different surgical treatment techniques in one surgical methods in Osteonecrosis of the Femoral Head in young adults: A Retrospective Comparison study | Hospital of Henan Province, Orthopedics Hospital of Henan Province, Luoyang, China | 13:30-14:30 | A-24 |
| 1234644 | Ryosuke Yamaguchi | HIF-1 dependent interleukin-6 activation in articular chondrocytes initiating synovitis in femoral head ischemic osteonecrosis | Kyushu University | yushu University 13:30-14:30 | |
| 1229874 | Fan Yang | A experimental study of Host Versus Graft Reaction at different stages of allogeneic transplantation of large-area full-thickness osteochondral defects in rats | Affiliated Zhongshan Hospital of Dalian University | 13:30-14:30 | A-26 |
| 1234895 | Yohei Tomaru | Treatment outcomes of corticosteroid-induced osteonecrosis of the femoral head in system lupus erythematosus: matching-adjusted comparison between femoral head preserving surgery and natural history in two different centers | Department of Orthopaedic Surgery, Faculty of Medicine, University of Tsukuba | rthopaedic Surgery, aculty of Medicine, 13:30-14:30 | |
| 1234571 | Zhongxin Zhu | Potential diagnostic power of blood circular RNA expression in steroid-induced osteonecrosis of the femoral head | Institute of Orthopaedics and Traumatology of Zhejiang Province | 13:30-14:30 | B-2 |

| | | Characteristics of bone mineral density in different | | | |
|---------|----------------|--|--|-------------------------------|------|
| 1235764 | Cheng Zhang | parts of adult patients with non-traumatic femoral head necrosis | Guangzhou University ofChinese Medicine | nese Medicine | |
| 1235793 | Zhenyu Shi | Characteristics of bone turnover markers in patients with osteonecrosis of the femoral head | and Traumatology, the First Affiliated Hospital | 13:30-14:30 | B-4 |
| 1235241 | Xiaolong Zheng | Correlation study of bone turnover markers in patients with alcohol-induced osteonecrosis of femoral head | First Clinical Medical College, Guangzhou University of Chinese Medicine, Guangzhou | 13:30-14:30 | B-5 |
| 1235441 | Jian Liu | Clinical observation on the treatment of femoral head necrosis by surgical dislocation of hip joint combined with dead bone cureting and bone grafting | First Renmin Hospital of Lianyungang | 13:30-14:30 | B-6 |
| 1235356 | Donghai Li | Percutaneously drilling through femoral head and neck fenestration combining with compacted autograft for early femoral head necrosis: A retrospective study. | West China Hospital of Sichuan University | 13:30-14:30 | B-7 |
| 1234899 | Bin Du | Is The Vascular Anastomosis Necessary?A Long- term Results of The Avascular Fibular Grafting in ONFH with 6 to 8- year Follow-up | Jiangsu Province Hospital of Chinese Medicine | 13:30-14:30 | B-8 |
| 1234906 | Bin Du | The experimental study in the treatment of steroid-induced femoral head necrosis in rabbits by Yougui-Decoction | Jiangsu Province Hospital of Chinese Medicine | 13:30-14:30 | B-9 |
| 1235350 | Zhun Wei | Efficiency of Cell Therapy to GC-Induced ONFH: BMSCs with Dkk-1 Interference Is Not Superior to Unmodified BMSCs. | West China Hospital of Sichuan University | 13:30-14:30 | B-10 |
| 1235376 | Zhikun Zhuang | | Quanzhou Orthopedic Hospital | 13:30-14:30 | B-11 |
| 1235750 | Ping Zeng | Potential Serum Biomarkers Discovery of Steroid- induced Femoral Head Osteonecrosis: dynamic proteomic change research among Chinese Female | First affiliated hospital of Guangxi University of Chinese Medicine | uangxi University 13:30-14:30 | |
| 1234322 | Zhijie Ma | Experimental and Clinical Study of the high bioactive Porous Tantalum Metal Screw for The Treatment of Femoral Neck Fracture | Affiliated Zhongshan Hospital of Dalian University, Dalian, Liaoning, 116001, | | B-13 |

| 1234324 | Yingshan Shen | The subchondral low signal band is highly correlated with a subchondral fracture in the fat inhibitory phase of MRI of femoral head necrosis | First Clinical Medical College, Guangzhou University of Chinese Medicine, Guangzhou, | | B-14 |
|---------|----------------|---|---|-------------|------|
| 1232829 | Hengfeng Yuan | Clinical outcomes of osteonecrosis of the femoral head after autologous bone marrow stem cell implantation: a meta-analysis of seven case- control studies | Zhongshan Hospital of Fudan University | 13:30-14:30 | B-15 |
| 1232830 | Hengfeng Yuan | Analysis of altered microRNA expression profile in the reparative interface of the femoral head with osteonecrosis | Zhongshan Hospital of Fudan University | 13:30-14:30 | B-16 |
| 1232462 | Xiaowei Wei | Mesenchymal stem cells-loaded porous tantalum integrated with biomimetic 3D collagen-based scaffold to repair large osteochondral defects in goats | Affiliated Zhongshan Hospital of Dalian University | 13:30-14:30 | B-17 |
| 1231572 | Jiabang Liu | The efficacy of core decompression and bone graft combined with autologous bone marrow mesenchymal stem cells injection in the treatment of osteonecrosis of femoral head | Peking University ShouGang Hostpital | 13:30-14:30 | B-18 |
| 1233995 | Jung-Hoon Choi | Highly Cross Linked Polyethylene in Total Hip Arthroplasty in Patients Younger than 50 Years with Osteonecrosis of the Femoral Head; A Minimum of 10 Years of Follow Up | Keimyung University Dongsan Hospital | 13:30-14:30 | B-19 |
| 1232904 | Shuidi Gong | | First Affiliated Hospital of Guangzhou University ofChinese Medicine | | B-20 |
| 1234193 | Daping Cui | Safflower (Carthamus tinctorius L.) polysaccharide attenuates cellular apoptosis in steroid-induced avascular necrosis of femoral head by targeting caspase-3-dependent signaling pathway | Affiliated Zhongshan Hospital of Dalian 13:30-14:30 University | | B-21 |
| 1234194 | Daping Cui | | Affiliated Zhongshan Hospital of Dalian 13:30-14:30 University | | B-22 |

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|---------|----------------|--|---|-------------|------|
| 1234537 | Youwen Liu | Long-term Curative Effect of Sartorius Muscle- pedicle Bone Graft for Non-traumatic ONFH in the Early Stage | Henan Province Orthopedic Hospital | 13:30-14:30 | B-23 |
| 1235353 | Yue Luo | In vivo evaluation of porous lithium-doped hydroxyapatite scaffolds for the treatment of bone defect | West China Hospital of Sichuan University | 13:30-14:30 | B-24 |
| 1235619 | Hao Peng | Gene expression profiling of osteoblasts subjected to dexamethasone-induced apoptosis with/without GSK3beta-shRNA. | Renmin Hospital of Wuhan University | 13:30-14:30 | B-25 |
| 1227984 | Fan Yang | Arthroplasty of Treatment of Crowe Type III-IV Developmental Dysplasia of Hip with Dislocation | Affiliated Zhongshan Hospital of Dalian University | 13:30-14:30 | B-26 |
| 1235882 | Hao Peng | Role of ROS/PARP-1/AIF signaling pathway in apoptosis of steroid induced osteonecrosis of femoral head in mice | Renmin Hospital of Wuhan University | 15:00-16:00 | C-1 |
| 1244113 | Zhiyang Xu | Associated factors for the occurrence and development of spontaneous osteonecrosis of the knee | First Affiliated Hospital of Fujian Medical University | 15:00-16:00 | C-2 |
| 1235304 | Fan Yang | Clinical characteristics of steroid-induced femur head necrosis: timing of diagnosis | Guangzhou University of Chinese Medicine | 15:00-16:00 | C-3 |
| 1242262 | Cheng Zhang | Bone Mineral Density Deviations in Patients With Non-traumatic Femoral Head Necrosis | of Guangzhou University of Chinese | 15:00-16:00 | C-4 |
| 1237001 | Young-Kyun Lee | Concomitant septic arthritis of the hip in patients with osteonecrosis of the femoral head | Seoul National University Bundang Hospital | 15:00-16:00 | C-5 |
| 1235199 | Taixian LI | Identification of the Potential Biomarkers for the Early Diagnosis and the Differential Diagnosis on Traditional Chinese Medicine Syndromes of Steroid-induced Osteonecrosis of the Femoral Head | Institute of Chinese Materia Medica, China Academy of Chinese Medical Sciences | | C-6 |
| 1234648 | Yujiang Mao | Hinged distraction of the hip after decompression and bone grafting through a femoral neck window in the treatment of femoral head necrosis in young patients: a preliminary observation | Beijing Jishuitan 15:00-16:00 Hospital | | C-7 |

| 1235261 | Min-cong He | Ultrastructural Alterations of Osteocyte Morphology and the Nanomechanical Properties of Trabecular Bone in Different Areas of Necrotic Femoral Heads | Guangzhou University of Chinese Medicine | 15:00-16:00 | C-8 |
|---------|----------------|---|--|-------------|------|
| 1235739 | Peng Yang | Is hip joint medial space a predictor of collapse? A retrospective study on relationship between hip joint medial space and the collapse in non- traumatic osteonecrosis of the femoral head | First affiliated hospital of Guangzhou University of Chinese Medicine | 15:00-16:00 | C-9 |
| 1235325 | Huang Cheng | Treatment of early stage osteonecrosis of the femoral head by core decompression combined with bone graft and prp. | China-Japan Friendship Hospital | 15:00-16:00 | C-10 |
| 1234904 | Fengxiang Pang | Correlation between advanced glycation end products and collapse mechanism of non- traumatic osteonecrosis of femoral head. | The First Affiliated Hospital of Guangzhou University of Chinese Medicine | 15:00-16:00 | C-11 |
| 1235883 | Hao Peng | Predictors of femoral head avascular necrosis after internal fixation of femoral neck fractures | Renmin Hospital of Wuhan University | 15:00-16:00 | C-12 |
| 1234397 | Hui Xie | Total hip artroplasty after failure of conservative treatment of osteonecrosis of the femoral head | Affiliated Zhongshan Hospital of Dalian University | 15:00-16:00 | C-13 |
| 1232831 | Hengfeng Yuan | Involvement of MicroRNA-210 Demethylation in Steroidassociated Osteonecrosis of the Femoral Head | Zhongshan Hospital of Fudan University | 15:00-16:00 | C-14 |
| 1228298 | Shaopeng Li | An exploratory study of articular cartilage and subchondral bone reconstruction with Bone marrow Mesenchymal Stem Cells combined with porous tantalum/Bio-Gide collagen membrane in Osteonecrosis of the Femoral Head | Affiliated Zhongshan Hospital of Dalian 15:00-16:00 University | | C-15 |
| 1223941 | Zhikun Zhuang | Risk factors of femoral head necrosis after internal fixation in the young and middle-aged femoral neck fracture and the application of MRI | Quanzhou Orthopedic Hospital 15:00-16:00 | | C-16 |

| 1232833 | Hengfeng Yuan | Protective Effects of Total Saponins of Panax Notoginseng on Steroid-Induced Avascular Necrosis of the Femoral Head In Vivo and In Vitro | Zhongshan Hospital of Fudan University 15:00-16:00 | | C-17 |
|---------|------------------|---|---|-------------|------|
| 1232834 | Hengfeng Yuan | Study of Osteocyte Behavior by High-Resolution Intravital Imaging Following Photo-Induced Ischemia | Zhongshan Hospital of Fudan University | 15:00-16:00 | C-18 |
| 1232835 | Hengfeng Yuan | The treatment of femoral neck fracture using VEGF-loaded nanographene coated internal fixation screws | Zhongshan Hospital of Fudan University | 15:00-16:00 | C-19 |
| 1234298 | Liangliang Cheng | Clinical report of 3D printed customized porous tantalum metal hip reconstruction in the treatment of adult DDH | Affiliated Zhongshan Hospital of Dalian University | 15:00-16:00 | C-20 |
| 1234212 | Yuhao Liu | Compounds Extracted from Dragon's Blood Resin Inhibit RANKL-Induced Osteoclast Formation and Function and Suppress Osteoclast-mediated Bone Loss in Mice | The First Affiliated Hospital, Guangzhou University of Chinese Medicine | 15:00-16:00 | C-21 |
| 1235045 | Chenjie Xia | Activation of β-catenin in Col2-expressing chondrocytes leads to an osteoarthritis-like defects in hip joint | Institute of Orthopadics and Traumatology, the First Affiliated Hospital of Zhejiang Chinese Medical University | 15:00-16:00 | C-22 |
| 1247231 | Ines Reichert | Proximal scaphoid fracture and the role of vascularity | King's College Hospital | 15:00-16:00 | C-23 |
| 1237002 | Young-Kyun Lee | Cementless Hip Arthroplasty in Patients with Subchondral Insufficiency Fracture of Femoral Head | Seoul National University Bundang Hospital | 15:00-16:00 | C-24 |
| 1235856 | Leilei Zhang | High-energy extracorporeal shock wave therapy for nontraumatic osteonecrosis of the femoral head | Hospital of Henan Province, Orthopedics 15:00-16:00 Hospital of Henan | | C-25 |
| 1234767 | Xiuzhi Zhang | Molecular Regulation Mechanisms of TGF-beta 1 Promoting Bone Repair | Affiliated Zhongshan Hospital of Dalian University | 15:00-16:00 | C-26 |

| 1235613 | Hao Peng | Sesamin Protects the Femoral Head From Osteonecrosis by Inhibiting ROS-Induced Osteoblast Apoptosis in Rat Model. | Renmin Hospital of Wuhan University | 15:00-16:00 | D-1 |
|---------|---------------|--|--|-------------|------|
| 1234060 | TAE-YOUNG KIM | | Konkuk University Medical Center | 15:00-16:00 | D-2 |
| 1233649 | Zhi-Hong Luo | Based on Bibliometric and visualized study, the global research trends in stem cells for osteonecrosis | University of Chinese Medicine, Guangzhou, 510405, China. | 15:00-16:00 | D-3 |
| 1235791 | Yu Zhang | Using Gait Analysis to Assess Function of Hip of Patients with Femur Head Necrosis Cured by Conservative Treatment | Guangdong Province Renmin Hospital | 15:00-16:00 | D-4 |
| 1232668 | Zhi-Hong Luo | The effect of platelet rich plasma on blood coagulation indexes after preserving femoral head surgery | First Clinical Medical College,Guangzhou University of Chinese Medicine.Guangzhou.5 | 15:00-16:00 | D-5 |
| 1227987 | Fan Yang | | Affiliated Zhongshan Hospital of Dalian University | 15:00-16:00 | D-6 |
| 1235451 | Yong-Chan Ha | Which osteotomy for osteonecrosis of the femoral head and which patient for the osteotomy? | Chung-Ang University Hospital | 15:00-16:00 | D-7 |
| 1234914 | Yu-Der Ru | the Salvage of Femoral Cervicotrochanteric | Kaohsiung Chang Gung Memorial Hospital | 15:00-16:00 | D-8 |
| 1227986 | Fan Yang | | Affiliated Zhongshan Hospital of Dalian University | 15:00-16:00 | D-9 |
| 1234868 | Tianwei Xia | | Jiangsu Province Hospital of Chinese Medicine | 15:00-16:00 | D-10 |

| 1236341 | Yongsheng Xu | joint in older children with artificial acetabular top | Renmin Hospital of Inner Mongolia 15:00-16:0 Autonomous region | | D-11 |
|---------|---------------|---|---|-------------|------|
| 1234309 | Yingshan Shen | osteonecrosis patients based on the method of activating blood circulation and dredging | College, Guangzhou University of Chinese | 15:00-16:00 | D-12 |
| 1234960 | Chao Zhang | | Jiangsu province hospital of Traditional Chinese Medicine | 15:00-16:00 | D-13 |
| 1245619 | Gangyu Zhang | Study on anti-osteoporosis molecular mechanism of the herb pair Danshen and Honghua based on network pharmacology | Guangzhou University ofChinese Medicine | 15:00-16:00 | D-14 |
| 1245593 | Zhiming Wu | Exercise therapy for patients with CI femoral head necrosis: rationale and design | The First Affiliated Hospital of Guangzhou University ofChinese Medicine | 15:00-16:00 | D-15 |
| 1245627 | Gangyu Zhang | Exploration into Molecular mechanism of Drynariae Rhizoma for treatment of Osteoporosis based on network pharmacology | Guangzhou University ofChinese Medicine | 15:00-16:00 | D-16 |
| 1235482 | Peng Zhang | Subchondral bone osteoclasts are associated with bone marrow lesions in patients with knee osteoarthritis pain | Zhejiang Chinese Medical University | 15:00-16:00 | D-17 |
| 1234280 | Jian Wang | Efficacy of Tranexamic Acid in the Management of Bleeding After Medial Opening Wedge High Tibial Osteotomy | Nanfang Hospital | 15:00-16:00 | D-18 |
| 1234398 | Hui Xie | A novel tantalum coating on porous SiC scaffold using chemical vapor deposition and preliminary biological evaluation | Affiliated Zhongshan Hospital of Dalian 15:00-16:00 University | | D-19 |
| 1224104 | Tianwei Xia | Total Hip Arthroplasty Treated Anterior Dislocation of Hip Sustaining for Thirty-two Years with Venous Reflux Disorder: a Case Report | | | D-20 |
| 1234578 | Chengming Zhu | Comparative study of bone tran-sport and LCP combined with bone graft for treatment of effect bone nonunion in tibai | Renmin Hospital of Liuzhou | 15:00-16:00 | D-21 |

| 1234576 | Chao Zhang | 5 | jiangsu province hospital of traditional chinese medicine | 15:00-16:00 | D-22 |
|---------|---------------|---|---|-------------|------|
| 1234350 | Sen Chen | Itreatment for osteonecrosis of the temoral head in | Renmin Hospital of Wuhan University | 15:00-16:00 | D-23 |
| 1241103 | Zhaopeng Tang | reconstruction in treatment of multiple ligament | Gansu Province Hospital of Chinese Medicine | 15:00-16:00 | D-24 |
| 1234770 | Xiuzhi Zhang | | Affiliated Zhongshan Hospital of Dalian University | 15:00-16:00 | D-25 |