Biographical Sketch 2024

Hong Zhou *MBBS, PhD,*	Professor, Senior Principal Research Fellow, ANZAC Research Institute, The University of Sydney Head, Molecular Bone Biology Laboratory, Bone Research Program, ANZAC Research Institute, Sydney

Education

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Ningxia Medical University, China	MBBS	1983	Medicine
The University of Melbourne, Australia	Ph.D.	1992	Medicine

Positions and Employment

1992-1996 NH&MRC Research Officer, Department of Medicine, The University of Melbourne, St. Vincent's Hospital, Australia
1996-2002 NH&MRC Senior Research Officer, Department of Medicine, The University of Melbourne, St. Vincent's Hospital, Australia
2004-2008 Senior Research Fellow, Bone Research Program, ANZAC Research Institute, University of Sydney, Australia
2009-2015 Associate Professor, Principal Research Fellow, ANZAC Research Institute, University of Sydney, Australia
2008-Present Head, Molecular Bone Biology Laboratory, Bone Research Program, ANZAC Research Institute, University of Sydney, Australia
2015-Present Professor, Senior Principal Research Fellow, ANZAC Research Institute, Concord Clinical School, University of Sydney, Australia

SCHOLARSHIPS AND SCIENTIFIC AWARDS

1987-91 The University of Melbourne Postgraduate Scholarship
1993 Young Investigator Award, 15th Annual Meeting of the American Society for Bone and Mineral Research (ASBMR), Tampa, Florida, U.S.A
1995 Australian-Chinese Achievers' Award (in the Medicine and Dentistry category)
2007 Best Basic Abstract Award, 17th Annual Meeting of Australian and New Zealand Bone and Mineral Society (ANZBMS), Queenstown, New Zealand
2009 Best Basic Abstract Award, 19th Annual Meeting of ANZBMS
2011 Most Out Standing Basic Abstract, 33th Annual Meeting of the American Society for Bone and Mineral Research (ASBMR), San Diego, CA, USA
2014 International Short Term Visiting Collaborative Research Fellowship, Minzu，University of China, Beijing, China
2016 University Fellow, Hong Kong Baptist University (2015-2016)
2023 Dr Kennedy Y.H. Wong Distinguished Visiting Professorship Scheme 2023, Hong Kong Baptist University (2023-2024)

C. Professional Memberships

1993-present: Member, American Society for Bone and Mineral Research (ASBMR)
2004-present: Member, Australian & New Zealand Bone & Mineral Society (ANZBMS)

2007-2016: Board of Directors, International Chinese Musculoskeletal Research Society (ICMRS)
2010-2015: Chair, Board of Directors, ICMRS
2010-2013: Chair, Fundraising Committee, ICMRS
2009-2013: Chair, Women's Committee, ICMRS
2010: Lifetime member, ICMRS
2017-pres.: Member, European Calcified Tissue Society (ECTS)

E. Major research achievements:

Hong Zhou is a Senior Principal Research Fellow at the University of Sydney and Head of the Molecular Bone Biology Laboratory at the ANZAC Research Institute, Sydney. She has considerable expertise in the cell and molecular biology of musculoskeletal tissues, glucocorticoid signalling, systemic fuel metabolism, and animal models of bone and joint pathology. Over the last 15 years, Hong Zhou has worked continuously in the areas of glucocorticoid physiology and pathophysiology, in particular of glucocorticoid action in bone and joints. Since 1996, Her research has been continuously funded through competitive grants from national and international funding agencies. (NHMRC funding: 2 program grants total, $6.5m, 10 project grants, and 2 idea grant, total $7.3m. In past 5 years, her research was supported by 6 NHMRC project or idea grants. Over the course of her career, she has published more then 130 scientific reports (57 scientific reports, 13 reviews and 8 book chapters in the past 10 years), many of which appeared in top-ranking journals such as such as Cell, Cell Report, J Clin Invest, J Exp Med, PNAS, Development, Bone Research Arthritis Rheum, Diabetes, Cancer Res, and JBMR with 7,712 citations. Her current h-index is 53.

Key contribution to research: Hong Zhou has made a number of discoveries that changed our thinking in musculoskeletal research and led to new and exciting avenues of research:

- Discovered that osteoblastic glucocorticoid signalling plays a central role in Age-related, and high-fat diet induced changes in body composition and fuel metabolism (*Molecular Metabolism 2020, Bone Research 2021*).
- Discovered that glucocorticoid signalling in osteoblasts, osteocytes and chondrocytes promotes the progression of osteoarthritis in the murine DMM model (*Osteoarthr Cartilage 2019,2023*).
- Discovered that osteoblasts play a central role in glucocorticoid-induced bone loss and metabolic disorders (*Bone 2011, J Clin Invest 2012, Diabetes 2015, Endocrinology 2017, 2018, Obesity 2018*).
- Discovered that glucocorticoids control mature osteoblasts to direct mesenchymal lineage commitment through Wnt signalling (*JBC 2008, Development 2009, Calcif Tissue Int 2009, Steroids 2010*).
- Discovered endogenous glucocorticoid signalling in osteoblasts and chondrocytes modulates the activity of autoimmune arthritis in mice (*Arthritis & Rheum 2009, 2011, Arthritis Res Ther 2013, Am J Pathol 2016, FASEB J 2018*).
- Established that FSH has an anabolic effect on bone mass (through inhibin A), thus contributing to the highly controversial area of FSH effects on bone (*Cell 2006, JBMR 2010, PNAS 2010*).
- Discovered that both calcium and vitamin D deficiency promote cancer growth in bone (*Bone 2007, Cancer Research 2007, 2010, Bone 2010, Prostate 2010, JBMR 2014*)
- Research into the growth and metastasis of osteosarcoma, identifying proteins which are now understood to be important for regulating the behaviour of bone tumours (*Breast Cancer Res. & Treat 2000, British J. Cancer 2001, Clin Cancer Res 2001, Clacif Tissue Int, 2005*).
- Identified, cloned and characterised a novel gene family named Osteoclast Inhibitory Lectin (OCIL) and its related family members (*JBC 2000, 2001, 2004, 2008, JBMR 2004*).
- Established the sequential expression of osteoblast gene markers during bone formation and the role of TGF beta in vivo using animal fracture models (*JBMR 1994, Bone 1995*).

Research support (Past 10 years only)

NHMRC Project Grants

- **Idea Grant 1185915 Zhou,** Macfarlane, Meng. Skeletal Glucocorticoid rhythmicity and its critical role in bone loss and osteoarthritis during chronic disruption of circadian rhythm. POS: 2024 – 2027; $ 850,602
- **Idea Grant 1185915 Zhou,** Swarbrick, Kim. Skeletal glucocorticoid signalling is required for high-fat diet-induced bone loss and obesity. POS: 2020 – 2022; $ 639,166
- **Project Grant 1143980 Zhou,** Seibel, Cooper. The Role of Endogenous Glucocorticoid in the Pathogenesis of Osteoarthritis. POS: 2018 – 2020; $ 587,697
- **Project Grant 1101879** Cooper, **Zhou,** Seibel, Swarbrick, Lee, Stuart "Age-Related Changes in Body Composition and Fuel Metabolism: The Role of Glucocorticoid Signalling in Osteoblasts" POS: 2016 – 2019; $ 820,528
- **Project Grant 1087271 Zhou H,** Seibel MJ, Cooper M. "Are Chondrocytes the Target Cells of Glucocorticoid Therapy in Autoimmune Arthritis? POS: 2015 – 2017; $527,499
- **Project Grant 1086100** Seibel MJ, **Zhou H,** Brauner-Osborne, Swarbrick "How does osteocalcin reverse glucocorticoid-induced dysmetabolism? POS: 2015 – 2017; $ 615,228
- **Project Grant 632766** Duque, **Zhou,** Drissi, Li "Role of Lamin A/C in Osteoblastogenesis and Age-related Bone Loss" POS: 2010 – 2012; $ 458,550
- **Project Grant 632818 Zhou,** Seibel, Stewart, Buttgereit, Cooper "The Role of Endogenous Glucocorticoids in Autoimmune Arthritis" POS: 2010 – 2013; $ 662,600
- **Project Grant 632819** Seibel, **Zhou,** Gundberg, Dunstan "The Role of the Osteoblast in Mediating Glucocorticoid-Induced Metabolic Dysfunction" POS: 2010 – 2013; $ 788,900

Cancer Council NSW, Seibel, Zheng, Croucher, Zhou, Guise, Dunstan "Novel function of the cystoplasmic VDR in tumour growth" POS: 2013 – 2015; $ 360,000

Editorial boards, Journal and Grant peer-review:

Hong Zhou is an editorial board member of several journals including Frontiers of Endocrinology, Bone Research, Journal of Orthopaedic Translation, Journal of Orthopaedic Surgery and Research. She also provides ad-hoc peer review for many journals including J Clin Invest, Arthritis & Rheum, J Bone Mineral Res, Bone Research, American J Pathology, Biomaterials, Endocrinology, Bone, Calcified Tissue Intl, Osteoporosis Intl, J Cellular Physiology and others.

Hong Zhou has served as NHMRC reviewer for the past 14 years and was a GRP member in 2008 and 2009. She also served as external reviewer for Versus Arthritis, Arthritis Care and Arthritis Research UK, Hong Kong Research Grants Council (RGC) and Health since 2014 and Hong Kong Medical Research Fund since 2016. Since 2022, she has been invited to serve as the Panel Member of the Biology and Medicine Panel (Joint Research Scheme) of Hong Kong RGC till 2026.

Professional memberships and activities: Hong Zhou was the Chair of the Board of International Chinese Musculoskeletal Research Society (ICMRS) (2011-2015) and a board member of the ICMRS from 2007-2015. She is member of Strategy Working Group of International Federation of Musculoskeletal Research Societies (IFRMS). She is an active member of number of societies including ASBMR, ANZBMS, IBMS and a lifetime member of ICMRS. She is also a member of the Concord Hospital Research Committee and of the ANZAC Institute's Advisory Board and Head of Animal Users Group in ANZAC Research Institute. She was a SPC member of the number of national and international meetings, e.g. ANZBMS (2014) Inaugural ICMRS-ASBMR International Chinese Musculoskeletal Research Conference, China (2013 and 2015). Hong Zhou served as Co-chair of the Scientific Program Committee (SPC), 6th International Conference on Osteoporosis and Bone Research (ICOBR) Xi'an, China, 2012, 7th ICOBR, Xiamen, China, 2014 and 10th ICOBR, Hangzhou, China 2010. She serviced as a Co-Chair of Program Committee, International Congress on Advanced Orthopaedic and Clinical Translational Research (OTR) in Shanghai, 2013-2015; a Co-Chair of Program Organising Committee, ANZBMS Annual Scientific Meeting 2022 and 2023.

Invitations: Hong Zhou has been invited as a speaker at numerous national and international conferences. Recent examples are: Keynote speaker at 7th CHHK international Symposium on Stem Cell Biology and Regenerative Medicine, Hong Kong, 2017. Plenary speaker, 7th ICOBR 2014 and 9th ICOBR 2018, Invited speaker at ANZBMS- IFMRS-JSBMR international conference, 2017; 12th, 13th and 14th International Congress of Chinese Orthopaedic Association, 2017, 2018 and 2019. 'Meet-The-Professor' session, ASBMR 2015 annual meeting, Seattle, USA. Hong served as session Chair at many domestic and international conferences, e.g. ANZBMS, International Musculoskeletal Research Conference (ICMRC) 2013, 2015, 2017, 2019 and 2024.

Research training and teaching since 2010: As primary or co-supervisor, Hong Zhou has supervised and supervising 10 PhD students, 3 international exchanging PhD students from China sponsored by CSC scholarship, 1 MPhil student, 1 Honours student, 16 doctoral students from Humboldt University Berlin, Germany (an ongoing collaborative research program), and 12 Summer Research Scholarship students. In addition, her research has attracted 14 International Visiting Fellows, who brought their own funding along.

Publications (past 10 years):

Original contributions

1. Hardy RS, Hulso C, Liu Y, Gasparini SJ, Fong-Yee C, Tu J, Stoner S, Stewart PM, Raza K, Cooper MS, Seibel MJ, **Zhou H**. Charaterisation of fibroblast-like synoviocytes from a muring model of joint inflammation. ***Arthritis Res Ther*** 15: R24, 2013
2. Li A, Hardy R, Stoner S, Tuckermann J, Seibel M, **Zhou H**. Deletion of mesenchymal glucocorticoid receptor attenuates embryonic lung development and abdominal wall closure. ***PLoS One*** 8: e63578, 2013
3. Spies CM, Wiebe E, Tu J, Li A, Gaber T, Huscher D, Seibel MJ, **Zhou H,** Buttgereit F. Acute muring antigen-induced arthritis is not affected by disruption of osteoblastic glucocorticoid signallling. ***BMC Musculoskelet Disord*** 15:31 2014
4. Zhao B, Choi JP, Jaehne M, Gao YR Desai R, Tuckermann J, Zhou H, Handelsman DJ, Simanainen, U. Glucocorticoid receptor in prostate epithelia is not required for corticosteroid-induced epithelial hyperproliferation in the mouse prostate. ***Prostate*** 74:1068-1078, 2014
5. Zheng Y, Chow SO, Boerner, K, Basel D, Mikuscheva A, Kim S, Fong-Yee C, Trivedi T, Buttgereit F, Sutherland RL. **Zhou H,** Seibel MJ. Direct Cross-Talk between Cancer and Osteoblast Lineage Cells Fuels Metastatic Growth in Bone via Auto-Amplification of IL-6 and RANKL Signaling Pathways. ***J Bone Miner Res*** 29: 1938-49, 2014
6. Tu J, Henneicke H, Zhang Y, Stoner S, Cheng TL, Schindeler A, Chen D, Tuckermann J, Cooper MS, Seibel MJ, **Zhou H**. Disruption of Glucocorticoid Signalling in Chondrocytes Delays Metaphyseal Fracture Healing but does not Affect Normal Cartilage and Bone Development. ***Bone*** 69: 12-22, 2014
7. Gao YR, Walters KA, Desai R, **Zhou H,** Handelsman DJ, Simanainen U. Androgen receptor inactivation resulted acceleration in pubertal mammary gland growth, up-regulation of ERalpha expression and Wnt/ß-catenin signalling in female mice. ***Endocrinology*** 155: 4951-4963, 2014
8. Zheng Y, Basel D, Chow SO, Fong-Yee C, Kim S, Buttgereit F, Dunstan CR, **Zhou H**, Seibel MJ. Targeting IL-6 and RNAKL signalling inhibits prostate cancer growth in bone. ***Clin Exp Metastasis*** 8: 921-933, 2014
9. Kong X, Yu J, Bi J, Qi H, Di W, Wu L, Wang L, Zha J, Lv S, Zhang F, Li Y, Hu F, Liu F, **Zhou H,** Liu J, Ding G. Glucocorticoids transcriptionally regulate miR-27b expression promoting body fat accumulation via suppressing the browning of white adipose tissue. ***Diabetes*** 64:393-404, 2015
10. Wang T, Li J, Jin Z, Wu F, Li Y, Wang X, **Zhou H,** Zhou Q. Dynamic Frequency of Blood CD4+CD25+ Regulatory T Cells in Rats with Collagen-induced Arthritis. ***Korean J Physiol Pharmacol.*** 19:83-88, 2015

11. Zheng LZ, Cao HJ, Chen SH, Tang T, Fu WM, Huang L, Chow DH, Wang YX, Griffith JF, He W, **Zhou H**, Zhao W, Zhang G, Wang XL, Qin L. Blockage of Src by specific sirna as a novel therapeutic strategy to prevent destructive repair in steroid-associated osteonecrosis in rabbits. ***J Bone Miner Res*** 30:2044-2057, 2015
12. Bermeo S, Vidal C, **Zhou H**, Duque G. Lamin A/C acts as an essential factor in mesenchymal stem cell differentiation through the regulation of the dynamics of the Wnt/β-catenin pathway. ***J Cell Biochem*** 116: 2344-2353, 2015
13. Tu J, Zhang Y, Kim S, Wiebe E, Spies CM, Buttgereit F, Cooper MS, Seibel MJ, **Zhou H**. Transgenic Disruption of Glucocorticoid Signaling in Osteoblasts Attenuates Joint Inflammation in Collagen Antibody-Induced Arthritis. ***Am J Pathol*** 186: 1293-1301, 2016
14. Gasparini SJ, Weber MC, Henneicke H, Kim S, **Zhou H**, Seibel MJ. Continuous corticosterone delivery via the drinking water or pellet implantation: A comparative study in mice. ***Steroids*** 116: 76-82, 2016
15. Trivedi T, Zheng Y, Fournier PGJ, Murthy S, John S, Schillo S, Dunstan CR, Mohammad KS, **Zhou H**, Seibel MJ, Guise TA. The vitamin D receptor is involved in the regulation of human breast cancer cell growth via a ligand-independent function in cytoplasm. ***Oncotarget*** 8:26687-26701, 2017.
16. Henneicke H, Li J, Kim S, Gasparini SJ, Seibel MJ, **Zhou H**. Chronic Mild Stress Causes Bone Loss via an Osteoblast-Specific Glucocorticoid-Dependent Mechanism. ***Endocrinology*** 158: 1939-1950, 2017
17. Zheng Y, Trivedi T, Lin RCY, Fong-Yee C, Notle R, Manibo J, Chen Y, Hossain M, Horas K, Dunstan CR, **Zhou H**, Seibel MJ. Loss of the vitamin D receptor in human breast and prostate cancers strongly induces cell apotosis through down-regulation of Wnt/β-catenin signalling. ***Bone Research*** 5: 170123, 2017 doi:10.1038/boneres.2017.23
18. Tu J, Stoner S, Fromm P, Wang T, Chen D, Tuckermann J, Cooper MS, Seibel MJ, **Zhou H**. Endogenous Glucocorticoid Signaling in Chondrocytes Attenuates Joint Inflammation and damage. ***FASEB J*** 32: 478-487, 2018
19. Yang D, Anderson P, Barratt K, Trilian R, **Zhou H,** Morris H, Atkins GJ. Both ligand and VDR expression levels critically determine the effect of 1α,25-dihydroxyvitamin-D3 on osteoblast differentiation. ***J Steroid Biochem Mol Biol*** 177:83-90, 2018
20. Lv Y, Yu J, Sheng Y, Huang M, Kong X, Di W, Liu J, **Zhou H,** Liang H, Ding G. Glucocorticoids suppressing the browning of adipose tissue via miR-19b in male mice. ***Endocrinology*** 159: 310-322, 2018
21. Yu J, Lv Y, Di W, Liu J, Kong X, Di W, Sheng Y, Huang M, Lv S, Qi H, Gao M, Liang H, Kim S, Fu Z, **Zhou H,** Ding G. MiR-27b-3p Regulation in Browning of Human Visceral Adipose Related to Central Obesity. ***Obesity*** 26:387-396, 2018
22. Sattler J, Tu J, Stoner S, Buttgereit F, Seibel MJ, **Zhou H**, Cooper MS. Role of 11β-HSD type 1 in Abnormal HPA axis activity during immune-mediated arthritis. ***Endocr Connect*** 7:385-394, 2018
23. Kim S, Foong D, Cooper MS, Seibel MJ, **Zhou H**. Comparison of blood sampling methods for plasma corticosterone measurements in mice associated with minimal stress-related artefacts. ***Steroids*** 135:69-72, 2018
24. Chen Y, Wang D, Peng H, Chen X, Han X, Yu J, Wang W, Liang L, Liu Z, Zheng Y, Hu J, Yang L, Li J, **Zhou H,** Cui X, Li F. Epigenetically upregulated oncoprotein PLCE1 drives esophageal carcinoma angiogenesis and proliferation via activating the NF-κB signaling pathway and VEGF-C/ Bcl-2 expression. ***Mol Cancer*** 18:1-19, 2019
25. Gasparini SJ, Swarbrick MM, Kim S, Thai LJ, Henneicke H, Cavanagh LL, Tu J, Weber MC, **Zhou H**, Seibel MJ. Androgens sensitise mice to glucocorticoid-induced insulin resistance and fat accumulation. ***Diabetologia*** doi.org/10.1007/s00125-019-4887-0, 2019
26. Jørgensen CV, **Zhou H**, Seibel MJ, Bräuner-Osborne H. Label-free dynamic mass redistribution analysis of endogenous adrenergic receptor signaling in primary preadipocytes and differentiated adipocytes. ***J Pharmacol Toxicol Methods*** 97: 59-66, 2019

27. Jørgensen CV, Gasparini SJ, Tu J, **Zhou H**, Seibel MJ, Bräuner-Osborne H. Metabolic and skeletal homeostasis are maintained in vull locus GPRC6A knockout mice. ***Sci Rep*** 9: 5995, 2019
28. Horas K, Zheng Y, Fong-Yee C, Macfarlane E, Manibo J, Chen Y, Qiao J, Gao M, Haydar N, McDonald MM, Croucher PI, **Zhou H**, Seibel MJ. Loss of the vitamin D receptor in human breast cancer cells transition and skeletal colonisation. ***J Bone Miner Res*** 34: 1721-1732, 2019
29. Tu J, Zhang P, Zhe J, Henneicke H, Li J, Kim S, Swarbrick MM, Wu Y, Little CB, Seibel MJ, **Zhou H**. Disruption of glucocorticoid signaling in osteoblasts attenuates age-related surgically induced osteoarthritis. ***Osteoarthritis Cartilage*** 27: 1518-1525, 2019
51. Chen Y, Xin H, Peng H, Shi Q, Li M, Yu J, Tian Y, Han X, Chen X, Zheng Y, Hu J, Huang X, Liu Z, Huang X, **Zhou H,** Cui X, Li F. Hypomethylation-linked activation of PLCE1 impedes autophagy and promotes tumorigenesis through MDM2-mediated ubiquitination and destabilization of p53. ***Cancer Res*** 80:2175-2189, 2020
52. Henneicke H, Kim S, Swarbrick MM, Li J, Gasparini SJ, Thai J, Foong D, Cavanagh LL, Fong-Yee C, Karsten E, Lin RCY, Cooper MS, **Zhou H,** Seibel MJ. Skeletal glucocorticoid signalling determines leptin resistance and obesity in aging mice. ***Molecular Metabolism*** 42: 101098, 2020
53. Kim S, Henneicke H, Cavanagh LL, Macfarlan E, Thai J, Foong D, Gasparini SJ, Fong-Yee C, Swarbrick MM, Seibel MJ, **Zhou H**. Osteoblastic glucocorticoid signalling exacerbates high-fat diet-induced bone loss and obesity. ***Bone Research*** 9:40 2021
54. Yuan J, Gao YS, Tai ACP, **Zhou H,** Papadimitriu J, Zhang CQ, Zheng MH, Gao JJ. PINK1-mediated mitophagy contributes to glucocorticoid-induced cathepsin K production in osteocytes. ***J Orthop Translat*** 38:229-240, 2022
55. Macfarlan E, Cavanagh LL, Fong-Yee C, Tuckermann J, Chen D, Little CB, Seibel MJ, **Zhou H**. Deletion of the chondrocyte glucocorticoid receptor attenuates cartilage degradation through suppression of early synovial activation in murine posttraumatic osteoarthritis. ***Osteoarthritis Cartilage*** 31:1189-1201, 2023
56. Maleitzke T, Wiebe E, Huscher D Spies CM, Tu J, Gaber T, Zheng Y, Buttgereit F, Seibel MJ, **Zhou H**. Transgenic Disruption of Endogenous Glucocorticoid Signaling in Osteoblasts does not Alter Long-Term K/BxN transfer-induced. ***Arthritis Res Ther*** 25:140, 2023
57. Fu W, Chen M, Wang K, Chen Y, Cui Y, Xie Y, Lei ZN, Hu W, Sun G, Huang G, He C, Fretz J, Hettinghouse A, Liu R, Cai X, Zhang M, Chen Y, Jiang N, He M, Wiznia DH, Xu H, Chen ZS, Chen L, Tang K, **Zhou H** and Liu CJ. Tau is a receptor with low affinity for glucocorticoids and is required for glucocorticoid-induced bone loss. ***Cell Research*** 2024 accepted on 11-7-2024

Reviews

58. Zheng Y, **Zhou H,** Dunstan CR, Sutherland R, Seibel MJ The role of the bone microenvironment in skeletal metastasis. ***Journal of Bone Oncology*** 2: 47-57, 2013
59. Seibel MJ, Cooper MS, **Zhou H** Glucocorticoid-induced osteoporosis: mechanisms, management and future perspectives. ***The Lancet Diabetes & Endocrinology*** 1: 59-70, 2013
60. **Zhou H**, Cooper MS, Seibel MJ Endogenous glucocorticoids and bone. ***Bone Research***, 2:107-119, 2013
61. Jing-bao Li, Xiao Lin, **Zhou H** Glucocorticoid and bone. ***Chin J Osteoporosis & Bone Miner Res***, 6:283-292, 2013
62. Henneicke H, Gasparini SJ, Brennan-Speranza TC, **Zhou H**, Seibel MJ. Glucocorticoids and bone: local effects and systemic implications. ***Trends Endocrinol Metab***. 25: 197-211, 2014
63. Cooper MS, Seibel MJ, **Zhou H** Glucocorticoids, bone and energy metabolism. ***Bone*** 82: 64-68, 2015
64. Horas K, Zheng Y, **Zhou H,** Seibel MJ. Animal models for breast cancer metastasis to bone: opportunities and limitations. ***Cancer Invest*** 33: 459-468, 2015

65. **Zhou H,** Seibel MJ. Osteoblasts and globa energy metabolism-beyond osteocacin. ***Nat Rev Rheumatol***. doi:10.1038/nrrheum.2017.35 (2017)
66. Hardy R, **Zhou H,** Seibel MJ and Cooper MS. Glucocorticoids and bone: consequences of endogenous and exogenous excess and replacement therapy ***Endocrine Reviews*** 39: 519-548, 2018
67. Su N, Yang J, Xie Y, Du X, Chen H, **Zhou H,** Chen L. Bone function, dysfunction and its role in diseases including critical illness. ***Int J Biol Sci*** 15: 776-787, 2019
68. Macfarlan E, Seibel MJ, **Zhou H**. Arthritis and the role of endogenous glucocorticoids. ***Bone Research*** 8:33 2020
69. Swarbrick M, **Zhou H,** Seibel MJ. Local and systemic effects of glucocorticoids on metabolism: new lessons from animal models. ***Eur J Endocrinol*** 185: R113-R129, 2021
70. **Zhou H,** Seibel MJ. Glucocorticoids action in osteoblasts and systemic energy metabolism. ***Curr Opin Endocr Metab Res*** 28: 100432, 2023
71. Macfarlan E, **Zhou H**, Seibel MJ. The clucocorticoid receptor in skeletal health and disease: insights from targeted knockout mice. J Endocrinol 261: e230399, 2024
72. Macfarlan E, **Zhou H**, Seibel MJ. Endogenous glucocorticoids during skeletal ageing. ***Exploration of Endocrine and Metabolic Diseases*** Accepted on 4-7-2024

Book Chapters

73. Tu J and **Zhou H**. Genetically modified animal models in bone and joints research. In ***Murine models for Bone and joint disease***. Chen D & Jing HT (Eds), **Zhou H** (Co-ed). China Press of Traditional Chinese Medicine, ISBN: 978-7-5132-4413-8, 2017
74. **Zhou H,** Cooper MS and Seibel MJ. *Chapter 39*: Basic and clinical aspects of glucocorticoid action in bone. In ***Principles of Bone Biology*** 4th Edition. Bilezikian J, Martin TJ, Clemens T and Rosen C (eds). Elsevier pp 915-933, 2019
75. Kim S, Macfarlan E, Seibel MJ, **Zhou H**. Bone Metabolism. In ***Encyclopedia of Molecular Pharmacology***, Offermanns S and Rosenthal W (eds.) Springer, Berlin, DOI: 10.1007/978-3-030-21573-6_31-1, 2020
76. Kim S, Macfarlan E, Seibel MJ, **Zhou H**. Joint development and genetic joint Diseases. In ***Encyclopedia of Bone Biology***, Mone Zaidi (ed.) Elsevier, ISBN 978-0-12-814082-6, p. 718-725, 2020

PATENTS:

Zhou H, Gillespie MT, Hu Y, Kartsogiannis V and Ng KW. "Inhibitor of osteoclast precursor formation." Australian Patent (*No. 780470*) 2005. International Publication Number WO 01/05964 A1

Wang X, Ling Q, Wang N, **Zhou H** and Cao H. "Application of Icaritin as a drug on prevention of Alzheimer's Disease" China Patent (*ZL 201310362101.9*) 2015.