Bin Li



Orthopedic Institute, and Medical 3D Printing Center, the First Affiliated Hospital, Suzhou Medical College, Soochow University, Suzhou, China

Professor Bin Li is the Executive Dean of Suzhou Medical College, Deputy Director of Orthopedic Institute, and Director of Medical 3D Printing Center of the First Affiliated Hospital of Soochow University. He received the

bachelor degree in Polymeric Materials Science and Chemical Engineering in 1996 and the PhD degree in Materials Science in 2001 from Tsinghua University. He then worked as a Research Associate at the Institute of Materials Research and Engineering, Singapore from 2001 to 2004. After that he pursued postdoctoral training at University of Pittsburgh School of Medicine in USA from 2005 to 2009. He joined Soochow University in 2009 as a Specially Appointed Professor and Director of the Biomaterials and Cell Mechanics Laboratory (BCML). He is the recipient of National Science Fund for Distinguished Young Scholars, Fellow of International Combined Orthopaedic Research Societies (ICORS), and Fellow of International Union of Societies for Biomaterials Science and Engineering (IUSBSE). He is also the recipient of a number of awards, including the First Prizes of the Science and Technology Development Award from Ministry of Education of China, the Science and Technology Development Award of Jiangsu Province, the Huaxia Medical Science and Technology Award, the Orthopaedics Research Award from Chinese Orthopaedic Association, Xu Guanggi Program from the French Embassy in China, and France Talent Innovation from the Consulate General of France in Shanghai. He is currently the Chair of Membership Committee of International Chinese Musculoskeletal Research Society (ICMRS), Chair-elect of the Tissue Engineering and Regenerative Medicine Chapter of Chinese Society of Biomedical Engineering, and Vice Chair of the Intelligent Biomimetic Biomaterials Chapter of Chinese Society of Biomaterials. He serves as the Associate Editor of Journal of Orthopaedic Translation, Frontiers in Bioengineering and Biotechnology, and Biomaterials Translational, the Editorial Board member of Bone Research and ACS Biomaterials Science & Engineering. He has delivered more than 240 invited talks and published over 200 articles and 12 book chapters. His research interests include orthopaedic biomaterials, stem cells and tissue engineering, cellular biomechanics and mechanobiology. His research is funded by a number of prestigious national grants, including the National Key R&D Program of China and Key Grant from the National Natural Science Foundation of China.



Bing Yue Renji Hospital, Shanghai Jiaotong University School of Medicine, Shanghai China.

Yue Bing, chief physician of the Department of Orthopedics, doctoral supervisor, distinguished professor of Shanghai Jiao Tong University, vice president of Renji Hospital affiliated to Shanghai Jiao Tong University School of Medicine, winner of the National Science Fund for Distinguished Young Scholars, and chief scientist of the National Key Research and Development Program. Clinically, he focuses on the surgical treatment of complex joint diseases. He serves as a member of the Sports Medicine Branch of the Chinese Medical Association, a member of the Arthroscopy Group of the Orthopedic Branch of the

Chinese Medical Association, a member of the Periprosthetic Infection Group of the Orthopedic Branch of the Chinese Medical Doctor Association, and a sports medicine major of the Orthopedic Branch of the Chinese Medical Doctor Association. Committee member, deputy director of the Sports Medicine Branch of Shanghai Medical Association, etc. He has successively won honors and talent programs such as "Shanghai Outstanding Academic Leader", "Shanghai Outstanding Young Medical Talents", and "Shanghai Youth Science and Technology Star Program".



Canbin Zheng The First Affiliated Hospital of Sun Yat-sen University

Zheng Canbin, PI, Surgeon, associate professor, Ph.D supervisor, and recipient of the Outstanding Youth Program of the National Natural Science Foundation of China, currently serves as the vice director of the Department of Microsurgery and Hand Surgery at the First Affiliated Hospital of Sun Yat-sen University. Currently, he holds positions as a member of the Committee of the Chinese Society of Microsurgery, a member of the third committee for Microsurgical Rehabilitation within the SICOT China Section, and a standing committee member of the Guangdong Medical Association for Microsurgery.



Changsheng Liu Shanghai University, Shanghai, China Academician of Chinese Academy of Sciences

Prof. Liu has been engaged in the research of biomaterials for more than 30 years. He has developed a variety of active bone repair materials and novel techniques for preparation of growth factors and bioactive materials. Under his leadership, his group has developed the artificial bones made of self-setting calcium phosphate, which was issued the first registration certificate of this kind of products in China. Currently, the products have been widely applied for clinical uses. By using genetic engineering techniques, recombinant Human Bone Morphogenetic Protein-2 (rhBMP-2) has been expressed via culturing

of prokaryotic E. coli. Cells. Moreover, rhBMP-2 has been immobilized into CPC-based materials and achieved the high osteoinduction capacity. He has more than 220 refereed journal publications, and 60 patents and invention disclosures. Because of excellent innovations and significant contributions, Dr. Liu has been awarded lots of honors including Fellow of American Institute for Medical and Biological Engineering in 2018, Academician of Chinese Academy of Sciences (China) in 2017, Second-prize Winner of National Award for Natural Sciences in 2014, International Fellow of Biomaterials Science and Engineering in 2012, Second-prize Winner of National Award for Science and Technology Progress in 2003, etc.



Changjun Li Department of Endocrinology, Xiangya Hospital, Central South University

Changjun Li is a professor of the Department of Endocrinology, Xiangya Hospital, Central South University. He is the director of the Laboratory Animal Center of Xiangya Hospital and the deputy director of the Key Laboratory of Aging-related Bone and Joint Diseases Prevention and Treatment, Ministry of Education. He has long been committed to research on the pathogenesis of skeletal aging and diseases. As the first/corresponding author, he has published 15 papers in Cell Metab, Sci

Bull, JCI, Nat Commu, Bone Res, etc., including 11 papers with IF>10. He is a Youth Committee Member of the Editorial Board of the JOT.



Chuan-ju Liu Dept. of Orthopaedics , Yale University School of Medicine, New Haven, Connecticut, USA

Dr. Chuan-Ju Liu is Charles W. Ohse Professor at Yale University School of Medicine. His current research interests focus on osteoarthritis and rheumatoid arthritis, cartilage/bone regeneration, and autoimmune diseases. He has published approximately 200 peer-reviewed research articles and reviews, including corresponding author papers in Nature and Science. His research has also led to more than 20 US and International Patents. He is

the recipient of numerous awards, including the NIH Career Development Award, the Kappa Delta Award from the American Academy of Orthopaedic Surgeons & Orthopaedic Research Society and the Basic Research Award from the American College of Rheumatology.



David Ke Angitia Biopharmaceuticals, Guangzhou, China Woodland Hills, California, USA

 \checkmark 06.2018 to present: Founder, Chairman and CEO, Angitia Biopharmaceuticals.

✓ Adjunct or Honorary Professor: Hong Kong Baptist University, Chinese University of Hong Kong, Guangdong Medical University, University of Utah.

 \checkmark 164 peer-review articles with more than 13,000 citations; 29 patents related to drug discovery and development.

✓ Past employment history: Vice President and Bone Therapeutic Head, UCB Pharma, Slough, UK (2015-2018); Scientific Executive

Director, Amgen Inc., Thousand Oaks, US (2005-2015); Sr Research Scientist to Research Fellow, Pfizer Central Research, Groton, US (1992-2005).



Di Chen Shenzhen Institute of Advanced Technology (SIAT), Shenzhen, Guangdong, China

Di Chen is a Chair Professor of Shenzhen Institute of Advanced Technology (SIAT), China. He serves as a Chairman of the Department of Pharmacology. He is also a member Academic Committee of the university. Before he joined SIAT in 2020, he worked at Rush University, Chicago, serving as a Chairman of the Department of Biochemistry. He has published 308 scientific articles with total citations over 32,000 times and his h-index is 90 (Google scholar). He has been listed by Elsevier as a

highly cited scholar in China in 2021 and 2022. He has been awarded with 4 major NSFC funding in China after he joined SIAT in 2020. He has been served as an editorial board member or associate editor in 10 major scientific journals. As a major contributor, he has been awarded with 6 major scientific awards in China, including National Science and Technology award.



Dongquan Shi Chief Physician Drum Tower Hospital, School of Medicine, Nanjing University, Nanjing, Jiangsu, China.

Editor-in-Chief - Annals of Joint Associate Editor-in-Chief - Annals of Translational Medicine Associate Editor - BMC Surgery Associate Editor - Frontiers in Genetics Associate Editor - Frontiers in Cell and developmental Biology Editor - Journal of Orthopedic Translation

Prof. Shi graduated from Medical School, Nanjing University (MD, PhD). He received training at Drum Tower Hospital, Nanjing University,

University of Pittsburgh and RIKEN Center for Integrative Medical Science in Tokyo. Now he is an experienced chief surgeon of Sports Medicine and Adult Reconstruction Department. Prof. Shi serves on several societies and journals, as Editor-in-Chief of Annals of Joint, Associate Editorin-Chief of Annals of Translational Medicine, Editor of Journal of Orthopaedic Translation et al. Prof. Shi led the research team to study molecular classification of OA, and cartilage regeneration. He published 160 articles on decent journals, as Nature Genetics, Nature Medicine, Science Advances, Advanced Science et al.



Eben Alsberg

Departments of Biomedical Engineering, Orthopaedic Surgery, Pharmacology and Regenerative Medicine, and Mechanical and Industrial Engineering at the University of Illinois, Chicago, USA

Eben Alsberg holds the Richard and Loan Hill Chair Professorship in the Departments of Biomedical Engineering,

Orthopaedic Surgery, Pharmacology and Regenerative Medicine, and Mechanical and Industrial Engineering at the University of Illinois at Chicago. His laboratory focuses on engineering functional biologic replacements to repair damaged or diseased tissues in the body. He has coauthored >155 peer reviewed papers and book chapters, and his work has been recognized with the TERMIS Senior Scientist Award, the Biovalley Young Investigator Award from the TESI, the Ellison Medical Foundation New Scholar in Aging Award, the Crain's Cleveland Business Forty Under 40 Award, the Technion Lady Davis Fellowship, a Visiting Professorship at Kyung Hee University, and election as fellow of NAI, AIMBE and BMES. His research has been funded by the NIH, DOD, NSF, the Ellison Medical Foundation. Alsberg has ~35 patents issued or pending in the field of tissue engineering. He has given >160 invited lectures around the world and is active in many professional societies.



Fan Yang Shenzhen Institutes of Advanced Technology Chinese Academy of Sciences

Yang Fan is a professor in Shenzhen institutes of advanced technology, Chinese Academy of Sciences. He received his Bachelor and Master degree from Peking University. Then he obtained his PhD degree from faculty of Medicine, University of Hong Kong. Now he is a professor in Shenzhen institutes of advanced technology, Chinese Academy of Sciences. Dr Yang's research interests mainly focused on how different neural circuits and neuron subtypes exert influences on bone metabolism in disease models. He has identified a GABAergic neural circuit in the

ventromedial hypothalamus (VMH) mediating chronic stress-induced bone loss; recently he also found that subfornical organ (SFO) could bidirectionally regulate parathyroid hormone and bone remodeling, which support the crucial role of central neural circuits in maintaining the homeostasis of bone metabolism. Currently, he is using cutting-edge technology including optogenetics, chemogenetics and neural tracing to dissect the underlying mechanism of crosstalk between the brain and the bone. Dr Yang's recent research work has been published in Neuron; Journal of Clinical Investigation; Molecular Psychiatry; Nature Communications et al. Prof Yang is now presiding Major Program of National Natural Science Foundation Funding and National Key R&D Program of China.

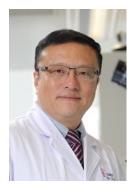


Fudi Wang University of South China (USC), Zhejiang University School of Medicine, China

Prof. Dr. Fudi Wang is currently serving as a Vice President of University of South China (USC), Dean of Hengyang Medical School at USC, and Qiushi Chair Professor at Zhejiang University School of Medicine in Hangzhou, China. Dr. Wang holds several high-profile national honors, including National High-level Personnel of Special Support Program, National Distinguished Young Scientist from National Nature Science

Foundation of China (NSFC), Elsevier Highly Cited Chinese Researcher. Dr. Wang's research interests are mainly focused on elucidating molecular mechanisms of iron (including zinc, and manganese) metabolism and ferroptosis. To date, he has published more than 200 articles (Citation 18 000, Cover papers 24, H- index 67) in peer-reviewed prestigious journals.

Gang Li



Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong, Hongkong, China

Professor, Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong. Research interests: biology and clinical applications of distraction histogenesis and stem cells. He has published more than 300 papers in journals such as Biomaterials, Nature Communications, Advanced Science, Bioactive Materials, etc., 15 monographs, and edited 2 books. His papers have been cited more than 21,000 times, H index 76. He is the Executive deputy editor-in-chief of

Journal of Orthopedic Translation, editorial board member of Bone and Joint Research, Bone, Journal of Orthopedic Research, etc. He is a visiting professor at Monash Australia; University of Science Malaysia, Nanjing Medical University, etc. His work received serval awards including 1st Class Award in Science Advances, Ministry of Science and Technology, PR China (2021); 2nd Class Award in Medical Science and Technology, China Medical Association (2017); 1st Class Research Award in Science and Technology, Ministry of Education, China (2014). He is elected as Fellow of International Combined Orthopaedic Research Societies (FIORS) in 2016 and Fellow of American Orthopaedic Research Society (FORS) in 2021. From 2020 to present, he has been on the list of the world's top 2% scientists (ranked among the 1% of the world's top scientists in 2022 and 2023). In 2023, he is ranked 9th of the top 100 scholars in the field of orthopedic surgery in PR China.



Guanghua Lei Xiangya Hospital, Central South University, Changsha, Hunan, China

Prof. Guanghua Lei is a senior professor and chief physician of Orthopaedic surgery, the president of Xiangya Hospital, the director of the National Clinical Research Center for Geriatric Disorders, the director of Key Laboratory of Aging-related Bone and Joint Diseases Prevention and Treatment, Ministry of Education. He has long been committed to both the clinical and basic research of the pathogenesis, treatment, and prognosis of common musculoskeletal disorders such as osteoarthritis. In recent years, he has obtained one project from the National Key Research and Development Program of China, one Key

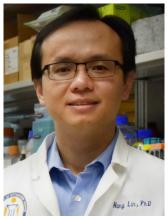
Program and one Regional Innovation and Development Joint Program from the National Natural Science Foundation of China, in addition to several other national-level projects. To date, 179 manuscripts have been published in peer-reviewed journals with him as the corresponding author, including JAMA, BMJ, Ann Intern Med, Eur Heart J, Ann Rheum Dis, Br J Sports Med, Nat Commun, ACS Nano, Arthritis Rheumatol and Bone Res, etc.



Guozhi Xiao Southern University of Science and Technology Medical School, Shenzhen, Guangdong, China

Professor and Associate Dean for Research and Postgraduate Affairs, Southern University of Science and Technology Medical School. Dr. Guozhi Xiao is currently Professor and Associate Dean for Research and Postgraduate Affairs, Southern University of Science and Technology Medical School. He is also the Director of both Guangdong Provincial Key Laboratory of Cell Microenvironment and Disease Research and Shenzhen Key Laboratory of Cell Microenvironment. He is a Foreign

Member of Ukrainian Academy of Engineering Sciences and current President of the International Chinese Musculoskeletal Research Society. He obtained his PhD degree in biochemistry and molecular biology from Peking University in 1994. He finished his post-doc training and worked as a research scientist at the University of Michigan Ann Arbor (1994-2005). He then assumed an independent faculty position as a tenure-track assistant professor at the University of Pittsburgh School of Medicine and was promoted to the level of associate professor with tenure (2005-2011). In 2012, he joined Rush University Medical Center in Chicago and assumed a prominent academic position as the Endowed Chair Professor of Biochemistry and served as the director of research of the department of biochemistry. He later joined the Southern University of Science and Technology as a tenured full professor and later became the chair of the biological department. Dr. Xiao has made several contributions to our understanding the molecular control of skeletal development and homeostasis. His work is reported in more than 175 SCI-indexed publications with a h-index of 66 and about 17,500 total citations, many in high profile journals, such as the Nat Aging, Cell Metab, Dev Cell, JCI, Blood, ARD, Nat Commun, CCD, STTT, Cell Rep, JCB, JASN, Autophagy, APSB, Bone Res, Elife, Diabetes, Theranostics, JBMR and JBC. He reviews scientific grants for funding agencies from USA, UK, Italy and China. He is an associate editor of JOT and sits on the editorial boards of JBC and JBMR. Dr. Xiao's research interests focus in the following areas: 1) to determine how skeletal cells are formed and regulated under physiological and pathological conditions; 2) to determine molecular mechanisms underlying skeletal diseases, including osteoporosis, osteoarthritis and intervertebral disc degeneration; 3) to define the mechanisms mediating interactions between bone and none-bone organs; and 4) to study the roles of focal adhesion proteins in skeletal development and homeostasis. By working on these projects, Xiao laboratory has maintained a focus on important medical issues involving skeletonosteoarthritis, osteoporosis and intervertebral disc degeneration. Information obtained from these studies will enhance our understanding of these pathological processes.



Hang Lin

the Department of Orthopaedic Surgery & Bioengineering at the University of Pittsburgh, Pittsburgh, Pennsylvania, USA

Dr. Hang Lin is an Associate Professor in the Department of Orthopaedic Surgery & Bioengineering at the University of Pittsburgh. He received his BS in Biochemistry from Nanjing University and his Ph.D. in Cell Biology from the Institute of Genetics and Developmental Biology of the Chinese Academy of Sciences. He has published over 90 peer-reviewed articles (H-Index: 43). Dr. Lin's research goal is to apply the latest biological knowledge and state-of-art technology in orthopaedic research and translate the research findings into effective treatments for joint diseases. There are three integrated projects

ongoing in his lab (<u>https://www.linlab.pitt.edu/</u>): investigating the association between aging and osteoarthritis; establishing an in vitro microphysiological model for OA pathogenesis study and drug development; testing regenerative therapy for treating cartilage injury. Dr. Lin is the Grants & Program Director of the Orland Bethel Family Musculoskeletal Research Center (BMRC). He serves as the co-chair of the Orthopaedic Research Society (ORS) Biomaterials Topic and is a member of the Osteoarthritis Research Society International (OARSI) Communication Committee. He is also an associate editor in Frontiers in Cell and Developmental Biology and an editorial board member of Osteoarthritis and Cartilage Open. He has received funding from the NIH, DoD, PA-CURE, and foundations to support his research.

Primary Affiliation: Department of Orthopaedic Surgery, University of Pittsburgh Email: <u>hal46@pitt.edu</u>



Haobo Pan

the Institute of Biomedicine and Biotechnology, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, Shenzhen, Guangdong, China

Professor, Deputy Director of the Institute of Biomedicine and Biotechnology, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, member of the International Advanced Materials Society, chief scientist of the key research projects of the "14th Five Year Plan" of the Ministry of Science and Technology, director of the Human Tissue and Organ Retrogression Research Center, director of the Guangdong International Joint Research Center

for Biomedical Materials, director of the Guangdong Marine Biomaterials Engineering Technology Center, director of the Shenzhen Key Laboratory for Marine Biomedical Materials, honorary professor of the University of Hong Kong, has been listed as the world's top 2% scientists for three consecutive years. Also serving as a director of the China Association for the Promotion of Healthcare, executive member of the Orthopedics Branch, and chairman of the Department of Orthopedic Biomaterials; Director of the Chinese Society for Biological Materials, Marquis Chairman of the Marine Biomaterials Committee, and Vice Chairman of the Bioceramic Branch.

Employer: Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences

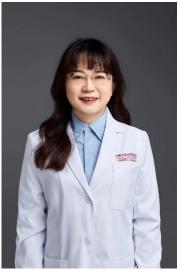


Hong Zhou The University of Sydney, Sydney, Australia The Molecular Bone Biology Laboratory at the ANZAC Research Institute, Sydney, Australia

Prof. 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 20 years, Hong Zhou has worked continuously in the areas of glucocorticoid physiology and pathophysiology, in particular glucocorticoid action in bone and joints. Since 2005, her research has been continuously funded through competitive grants from national funding agencies. (NHMRC funding:

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 100 scientific reports (54 scientific reports, 13 reviews and 8 book chapters in the past 10 years), many of which appeared in top-ranking journals such as J Clin Invest, J Exp Med, PNAS, Development, Arthritis Rheum, JBMR, Diabetes, Cancer Res, JBC, Bone Research and Bone with 7,355 citations. Her current h-index is 51.

Title: Glucocorticoids and circadian rhythms in skeletal health



Hongbin Lu

Department of Sports Medicine, Xiangya Hospital, Central South University, Changsha, Hunan, China the Key Laboratory of Organ Injury, Aging, and Regenerative Medicine of Hunan Province, Changsha, Hunan, China

Professor Hongbin Lu currently serves as the Director of the Key Laboratory of Organ Injury, Aging, and Regenerative Medicine of Hunan Province. She is a lifetime member of the International Chinese Musculoskeletal Research Society (ICMRS) and has long been dedicated to basic and clinical research in the field of "Sports injury and repair". She has accumulated a solid foundation in exploring the mechanisms of tendon-bone interface injury healing and optimizing clinical rehabilitation strategies. She has achieved a series of original research outcomes, receiving numerous domestic and international academic awards. She has host multiple national and provincial

research projects and published over 100 SCI papers. Title: Insights and foresights in rotator cuff healing: mechanical stim

Title: Insights and foresights in rotator cuff healing: mechanical stimulations and neural regulations.



Hongwei Ouyang

School of medicine at Zhejiang University, Hangzhou, Zhejiang, China.

Hongwei Ouyang, PhD, Qiu-shi distinguished professor at Zhejiang University, the honorary professor of the University of Edinburgh. Additionally, he is recognized as a fellow of the American Institute of Medical and Biological Engineers (AIMBE) and the International Combined Orthopaedic Research Societies (ICORS). And he was awarded the NSFC Fund for Creative Research Group and NSFC Fund

for Outstanding Young Scholars.

Prof. Ouyang devotes himself to multidisciplinary research and education for musculoskeletal system restoration and regeneration, leading the team to make outstanding progress in the field of regenerative medicine. In the last 10 years, he has initiated and demonstrated the first clinical application of tissue-engineered cartilage transplantation technology and has accelerated the translational research of innovative silk medical implants in China.



Hui Xie Xiangya Hospital, Central South University, Changsha, Hunan, China

National Outstanding Youth, National Outstanding Youth, and Overseas Outstanding Youth. Director of the Hunan Provincial Key Laboratory of Amy Medicine and Director of the Movement System Research Center of Xiangya Hospital, he mainly conducts research on metabolic bone diseases. To date, he has published a total of 130 SCI papers, which have been cited nearly 7,300 times; he has published 68 original papers as the corresponding or first author in "Nat Med", "Nat Commun", "Sci Adv", etc.; His H index is 42. He applied for more than 30 invention patents.



Huiling Cao

Department of Biochemistry, School of Medicine Southern University of Science and Technology, Shenzhen, Guangdong, China.

Dr. Cao obtained her PhD degree in 2010. After that, she continued her post-doctoral training at the University of Pittsburgh. In 2014, Dr. Cao joined the Southern University of Science and Technology (SUSTech). Dr. Cao's research work focuses on skeletal development and homeostasis maintenance. Dr. Cao's research work has been published in the leading journals, such as J Clin Invest, Nature Aging, Nat Commun, APSB, etc.



Huiqi Xie,

Laboratory of Stem Cell and Tissue Engineering of State Key Laboratory of Biotherapy and Deputy Director of Orthopedic Research Institute, West China Hospital, Sichuan University, Chengdu, Sichuan, China.

Huiqi Xie, Professor and PhD student supervisor, Director of Laboratory of Stem Cell and Tissue Engineering of State Key Laboratory of Biotherapy and Deputy Director of Orthopedic Research Institute, West China Hospital, Sichuan University. She is a distinguished professor of Yangtze River Scholar

of the Ministry of Education, winner of First Innovation Award for Translational Medicine. She has published more than 100 peer-reviewed articles and holds over 30 patents as the first inventor. Five ECM materials products transformed from her laboratory have been certified by the NMPA as class III medical device, which have benefited over 5 million patients.



Prof. James H-C. Wang Department of Orthopaedic Surgery at the University of Pittsburgh School of Medicine, Pittsburgh, USA

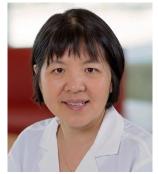
Dr. James Wang holds the Albert B. Ferguson, Jr. Chair Professorship and serves as the Vice Chair of Research for the Department of Orthopaedic Surgery at the University of Pittsburgh School of Medicine. Additionally, he directs the MechanoBiology Laboratory within the same department. Dr.

Wang is also a Professor of Bioengineering in both the Department of Bioengineering and the Department of Physical Medicine and Rehabilitation.

His research primarily centers on cell and tissue mechanobiology, with a specific focus on understanding the cellular and molecular mechanisms underlying tendinopathy induced by mechanical overloading. Furthermore, he explores tissue engineering techniques to augment the biological, biochemical, and biomechanical properties of healing tendons, enthesis, and ligaments. Dr. Wang's work also delves into investigating repurposed drugs' potential to manage chronic tendon pain effectively and promote the repair and regeneration of injured tendons.

Dr. Wang has authored 143 peer-reviewed papers, with a Google Scholar h-index of 62 and total citations of 14,800. He has also written 30 book chapters and 260 abstracts. Dr. Wang has served on study sections for the NIH and NSF and has acted as an academic editor, editorial board member, and reviewer for numerous scientific journals. He previously served as the President of the Society of Physical Regulation in Biology and Medicine (SPRBM) and the Past President of the International Chinese Musculoskeletal Research Society (ICMRS). Dr. Wang has been elected as a Fellow of both the American Institute for Medical and Biological Engineering (AIMBE) and the International Orthopaedic Research (FIOR).

Jean Jiang the University of Texas Health Science Center at San Antonio, San Antonio, Texas, USA.



Dr. Jean Jiang is a Professor and the Zachry Distinguished University Chair at the University of Texas Health Science Center at San Antonio (UTHSCSA). She is the Vice Chair of the Department of Biochemistry and Structural Biology and Co-Director of the Joint Biomedical Engineering Program at the University of Texas at San Antonio (UTSA) and UTHSCSA. Currently, she serves as the Chair of the Board of Directors of ICMRS. Additionally, she is the Founder and Co-founder of two biotech companies. Dr. Jiang had her Ph.D. from the State University of New York at Stony Brook and her postdoctoral training at Harvard Medical School. She has published over 180 papers and holds more

than 15 patents. She is the recipient of the Master Research Award for Distinguished Researcher, and Presidential Distinguished Senior Research Award. Dr. Jiang is a Fellow of the American Association for the Advancement of Science (AAAS) and the National Academy of Inventors (NAI). Title: Connexin channels in bone mechanotransduction, hemostasis, and cancer bone metastasis



Prof. Jiake Xu Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen, Guangdong, China.

Prof. Jiake Xu is currently a distinguished professor at Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China. He was a postdoctoral fellow at Stanford University School of Medicine from 1994-1998. He served as Winthrop Professor and Head of the Division of Regenerative Biology at the University of Western Australia, and President of the Australian and New Zealand Orthopedic Research Society (ANZORS). Professor Xu has a long-standing research interest in the field of bone and

joint diseases and regenerative medicine, including osteoclast (OC) biology, molecular coupling regulation of OC and osteoblasts, and angiogenesis and tissue regeneration mechanisms. In 2021, his research on "osteoclasts" ranked No. 2 globally in Expertscape. He has published 300 SCI papers with over 20,000 citations and an H-index of 72. He was named the world's top 2% scientists. In 2024, he was named the top researcher in the field of physiology by "The Australian".



Dr. Jian Luo Yangzhi Rehabilitation Hospital, Tongji University School of Medicine, Shanghai, China

Dr. Jian Luo is a professor at Tongji University School of Medicine, Vice President of Yangzhi Rehabilitation Hospital (Shanghai Sunshine Rehabilitation Center) affiliated to Tongji University School of Medicine, Executive deputy director of Shanghai Disabled Persons' Federation Key Laboratory of Intelligent Rehabilitation Assistive Devices and Technologies,

and director of Yangzhi Rehabilitation Hosptial affiliated to Tongji University School of Medicine-ICMRS Collaborating Center for Orthopaedic Translational Research. Prof. Luo is Distinguished Young Scholar and Excellent Young Scholar of National Natural Science Foundation of China, Young Scholar of the Chang Jiang Scholars Program by Ministry of Education of China. Prof. Luo's laboratory focuses on understanding the molecular pathology of aging related skeletal diseases, as well as drug discovery and stem cell therapy. Prof. Luo have published more than 80 peer-reviewed scientific articles and obtained 14 patents, 4 of which have been transferred to pharmaceutical companies. He obtained 9 fundings of National Natural Science Foundation of China and 2 fundings of National Key Research and Development Program of China.



Jian Yang Westlake University, Hangzhou, China

Dr. Jian Yang is a Chair Professor of Biomaterials and Regenerative Engineering, the chair of Biomedical Engineering Program, and an Associate Vice President at Westlake University. Prior to Westlake, he was a Chair Professor at Pennsylvania State University. Dr. Yang is known for his pioneering contribution on citrate chemistry and biology for the development and applications of citrate-based biomaterials. He is the recipient of BMES 2023 Wallace H. Coulter Award for Healthcare Innovation.Dr. Yang is an elected Fellow of AIMBE, NAI, BMES, AAAS, and IAMBE. Dr. Yang is the Co-Editor-in-Chief of "Bioactive Materials", and an

Associate Editor of "Science Advances".



Jie Shen

The Department of Orthopaedic Surgery at Washington University in St Louis, St. Louis, Missouri, USA.

Dr. Jie Shen is an Associate Professor in the Department of Orthopaedic Surgery at Washington University in St Louis. As a cartilage biologist with specialization in osteoarthritis (OA) and fracture repair, his research interests span various aspects of bone and cartilage, focusing on the injury, repair, and regeneration of musculoskeletal tissues with the goal to understand the progenitor cell population, signals, and the impact of inflammation and aging on

tissue health and regeneration at the cellular and molecular level. Utilizing cutting-edge methodologies such as genetic animal models, unbiased sequencing, and cell/tissue engineering, Dr. Shen leverages his multidisciplinary expertise in inflammation, metabolism, and epigenetics to advance the understanding of the pathological mechanisms and to develop preventive strategies, management approaches, and personalized biologic therapies for musculoskeletal disorders like OA and fracture nonunion.



Dr. Jiliang Li Indiana University, USA

Li Jiliang, MD, is a professor in the Department of Biology at Indiana University and the associate dean for scientific research and graduate studies in the School of Science. He graduated from Peking University School of Medicine, received his PhD from Kagawa University in Japan, and was a postdoctoral fellow at Indiana University School of Medicine. He focuses on bone metabolism, bone biomechanics, bone tissue engineering and osteoporosis drug development.



Dr. Junjie Gao

Shanghai Sixth People's Hospital Affiliated to Shanghai Jiao Tong University School of Medicine, Shanghai, China

Junjie Gao is an associate researcher of Shanghai Jiao Tong University School of Medicine, a master supervisor of Shanghai Jiao Tong University School of Medicine, and an associate researcher of Shanghai Institute of Microsurgery on Extremities, the Sixth People's Hospital Affiliated to Shanghai Jiao Tong University School of Medicine. As the first/corresponding author, he has published 23 scientific articles including Science Advances (2019,2024), Nature Communications (2024), Cell Reports (2023), eLife (2022), Signal Transduction and Targeted Therapy

(2021, 2023) and other major scientific journals. He has been awarded with NSFC funding and served as an editorial board member or associate editor in 3 major scientific journals.

Kelvin Yeung



Department of Orthopaedics and Traumatology, School of Clinical Medicine, LKS Faculty of Medicine, The University of Hong Kong, Hong Kong, China

Tenured Full Professor, Chief of Research Division, and Chair of Departmental Research and Postgraduate Advisors, Department of Orthopaedics and Traumatology, School of Clinical Medicine, LKS Faculty of Medicine, The University of Hong Kong, Queen Mary Hospital, Pokfulam Road, Hong Kong SAR, China Associate Dean of Student Affairs, The University of Hong Kong

Director of Research Laboratory of Orthopaedic Centre & Deputy Director of Shenzhen Key Laboratory for Innovative Technology in Orthopaedic Trauma, The University of Hong Kong Shenzhen Hospital, Shenzhen, PR of China

Kelvin Yeung is a renowned orthopedic biomaterial researcher, focusing on antibacterial coatings, 3D bio-printing, and musculoskeletal tissue engineering. He holds a bachelor's degree in materials science and advanced degrees in orthopedic science from HKUMed. With an impressive h-index of 78 (Scopus) and 87 (Google Scholar) and over 21,000 and 25,000 citations, respectively, Kelvin ranks among the *Top 1% Scholars* worldwide in biomaterials and the *World's Top 2% Scientists* in Biomedical Engineering since 2014. In 2023, he was honored as a *Highly Cited Researcher*, ranking #1926 globally and #486 in China (Research.com). Kelvin has published 300+ SCI journal papers, 290+ conference papers, and filed 41 patents. He has also consulted for medical device and biomaterial corporations. As a principal or co-principal investigator, Kelvin has received over HK\$92 million in funding and 20 awards. He has delivered 80+ plenary lectures, keynotes, and invited talks and serves as Associate Editor of the Bioactive Materials Journal, ranked 1st in its field.



Tamara Alliston University of California San Francisco Department of Orthopaedic Surgery.

Tamara Alliston, PhD, is a Professor in the UCSF Department of Orthopaedic Surgery where she directs the UCSF Musculoskeletal Center. With a focus on TGF β signaling, her laboratory investigates the interaction between physical and biochemical signals in the control of skeletal cell differentiation and the role of these pathways in skeletal development and disease. Supported by the NIH, NSF, and DOD, her

group employs approaches from molecular and cell biology, materials science, and engineering to identify mechanisms of skeletal disease in order to advance the development of new therapeutic strategies.

She is Director of the NIH-P30-supported UCSF Core Center for Musculoskeletal Biology and Medicine and is an Editorial Board member for the Journal of Bone and Mineral Research and Bone. She recently served as a standing member of the NIH Skeletal Biology Structure and Regeneration (SBSR) study section and as the Translational Co-Chair for the 2020 American Society for Bone and Mineral Research (ASBMR) Annual Meeting. Through her service on the Orthopaedic Research Society (ORS) Board of Directors as the inaugural Professional Development Council Chair, she led programming for new investigators, industry-based researchers, women, and individuals underrepresented in science. She has mentored over 25 graduate and post-graduate scholars, many of whom now hold faculty and leadership roles in academia and industry. She has successfully organized a number of research Conferences, such as the AAOS/ORS Workshop on Joint Crosstalk and the 2022 Gordon Research Conference on Musculoskeletal Biology and Bioengineering. She serves as an elected Councilor for the ASBMR.

Dr. Alliston's honors include election as a Fellow of the American Institute for Medical and Biological Engineering (AIMBE), the Hulda Irene Duggan Arthritis Investigator Award, the ASBMR Harold M. Frost Young Investigator Award, the AIMM-ASBMR John Haddad Young Investigator Award, the ORS Women's Leadership Award, the ORS Outstanding Acheivement in Mentoring Award, and the ASBMR Adele Boskey Esteemed Award, which recognizes outstanding and major scientific contributions, leadership, and mentorship in mechanisms of mineralization, bone quality, and mechanobiology.