



2023 亞太感染高峰會 SPECIAL LECTURE

🏠 骨科醫學會-台北萬豪酒店

✉ 112 年 10 月 29 日

🌐 第三會議廳

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APMOSIS



Rationale for the Asia-Pacific Musculoskeletal Infection Society's Establishment

In a remarkable moment for the field of musculoskeletal medicine, the Asia Pacific Musculoskeletal Infection Society (APMSIS) will be officially founded on Oct. 29 2023. This historic event signifies a significant leap forward in addressing the challenges posed by musculoskeletal infections in the Asia Pacific region and promises to be a beacon of hope for patients and professionals alike.

A Vision Takes Shape

The idea for APMSIS emerged from the collective vision of passionate healthcare professionals who recognized the urgent need for a dedicated platform to tackle musculoskeletal infections. These infections, ranging from bone and joint infections to prosthetic joint infections, can cause severe pain, disability, and even life-threatening complications if not managed effectively. With the diverse healthcare systems and cultures across the Asia Pacific region, there was a pressing need for a unified effort to improve patient care and outcomes.

A United Front

The founding members of APMSIS come from diverse backgrounds, including orthopedic surgeons, infectious disease specialists, microbiologists, industry and other healthcare professionals. Their collective expertise forms the cornerstone of this society, ensuring a multidisciplinary approach to understanding and combating musculoskeletal infections.

The Society's Mission

The primary mission of APMSIS is to advance research, education, and awareness related to musculoskeletal infections. This mission will be achieved through:

1. Research and Innovation: APMSIS will support and facilitate research efforts that aim to improve the diagnosis, treatment, and prevention of musculoskeletal infections. Collaborations among experts from different countries will be a driving force for innovation in this field.

2. Education and Training: The society will host seminars, workshops, and educational programs to empower healthcare professionals with the knowledge and skills needed to manage musculoskeletal infections effectively. Continuous learning and professional development will be at the core of APMSIS activities.
3. Patient Advocacy: APMSIS recognizes the importance of patient education and support. Efforts will be made to raise awareness about musculoskeletal infections among the general public and provide resources for patients and their families.

A Beacon of Hope

The founding of APMSIS marks a new chapter in the fight against musculoskeletal infections in the Asia Pacific region. By fostering collaboration, sharing knowledge, and promoting excellence in research and clinical practice, APMSIS aims to improve the lives of countless individuals affected by these challenging conditions.

As we embark on this journey, we invite healthcare professionals, researchers, educators, and advocates from across the region to join us in our mission. Together, we can make a lasting impact on the field of musculoskeletal medicine and, most importantly, on the well-being of our patients.

Stay tuned for updates on APMSIS activities and opportunities to get involved in this exciting venture. The future of musculoskeletal medicine in the Asia Pacific region looks brighter than ever, thanks to the establishment of the Asia Pacific Musculoskeletal Infection Society.

The main initiator
Steve WN Ueng M.D.

骨科醫學會 - 台北萬豪酒店

112 年 10 月 29 日

第三會議廳

亞太感染高峰會 Special Lecture

時間：09:00~12:30

No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
	09:00~09:05	Welcome and Introduction of APMSIS	翁文能 Wen-Neng Ueng	Chang Gung Memorial Hospital, Linko, Taiwan
	09:05~09:10	Congratulations from the Chairman of MSIS	Laura Certain	President of MSIS, USA

SECTION 1

座長：Yu-Han Chang 張毓翰

No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
SL-01	09:10~09:20	1 vs 2-Stage Exchange for Periprosthetic Hip and Knee Infection	Jenny Jean Yves	University Hospital Strasbourg France

座長：Cheng-Hung Lee 李政鴻 Wen-Tien Wu 吳文田

No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
SL-02	09:20~09:30	Route Choice for Para-Spinal Infection and Spondylodiscitis	陳昆輝 Kun-Hui Chen	Taichung Veterans General Hospital, Taiwan

座長：Cheng-Fong Chen 陳正豐

No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
SL-03	09:30~09:40	Effect of Surgeon Volume on Complications Following Resection Arthroplasty for PJI	林宗立 Tsung-Li Lin	China Medical University Hospital, Taichung Taiwan

座長：Tsai-Sheng Fu 傅再生 Wen-Hsiang Chou 周溫祥

No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
SL-04	09:40~09:50	Early and Late Surgical Treatment for Spondylodiskitis	蔡宗廷 Tsung-Ting Tsai	Chang Gung Memorial Hospital, Linko, Taiwan

座長：Cheng-Fong Chen 陳正豐

No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
SL-05	09:50~10:00	Exploring the Latest Trends in Debridement, Antibiotics, and Implant Retention (DAIR) for Prosthetic Joint Infections: A Novel Approach to Optimizing Patient Outcomes	林郁智 Yu-Chih Lin	Chang Gung Memorial Hospital, Linko, Taiwan

座長：Shih-Tien Wang 王世典 Ting-Kuo Chang 張定國

No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
SL-06	10:00~10:10	The Surgical Approach in Spondylodiscitis the Current Update	林政立 Cheng-Li Lin	National Cheng Kung University Hospital, Taiwan
No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
	10:10-10:20	Discussion	All Faculty	

112 年 10 月 29 日

第三會議廳

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No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
	10:20~11:10	亞太肌肉骨骼感染學會成立大會暨第一屆第一次理監事會議		

SECTION 2

座長：Wang-Huei Sheng 盛望徽

No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
SL-07	11:10~11:20	Epidemiology of Bone and Joint Infection	盧敏吉 Min-Chi Lu	China Medical University Hospital, Taiwan
SL-08	11:20~11:30	Advance in Diagnosis for Bone and Joint Infection	劉伯瑜 Po-Yu Lui	Taichung Veterans General Hospital, Taiwan

座長：Chien-Hsien Huang 黃建賢

No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
SL-09	11:30~11:40	Management of Bone and Joint Infection: ID Perspectives	湯宏仁 Hung-Jen Tang	Chi Mei Medical Center, Taiwan
SL-10	11:40~11:50	Management of MDRO Related Bone and Joint Infection	林邑璵 Yi-Tsung Lin	Taipei Veterans General Hospital Taiwan

座長：Po-Liang Lai 賴伯亮 Shu-Hua Yang 楊曙華

No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
SL-11	11:50~12:00	Early Diagnosis of Surgical Site Infection After Spinal Instrumentation Surgery (Video)	Jun Takahashi	Shinshu University School of Medicine ,Japan

座長：Yu-Han Chang 張毓翰

No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
SL-12	12:00~12:10	Advancements in PJI Treatment	Antonia F. Chen	Brigham and Women’ s Hospital Boston, USA

No. 編號	Time 時間	Topic 題目	Authors 作者	Institute 所屬單位
	12:10~12:20	Discussion	All Faculty	
	12:20~12:30	Close Remark	翁文能 Wen-Neng Ueng	



Steve Wen-Neng Ueng, M.D.
翁文能 醫師

- Taipei Medical College, MD (1970~1997)
- Chang Gung Memorial Hospital, Surgical Resident (1979.05 – 1981.06)
- Chang Gung Memorial Hospital, Orthopedics Resident (1981.07 – 1983.06)
- Chang Gung Memorial Hospital, Orthopedics Chief Resident (1983.07 – 1984.06)
- B.G. Trauma Clinic in Frankfurt, Germany (Osteomyelitis), Fellowship (1987.03 – 04)
- Philipps-University of Marburg, Germany (Traumatology), Fellowship (1987.05)
- Emory University, Atlanta, GA, U.S.A. (Musculoskeletal sepsis), Fellowship (1990.07 – 12)
- Chang Gung Memorial Hospital, Orthopedics, Attending Staff (1984.07 – Now)
- Chang Gung Memorial Hospital, Chief of Department of Orthopedic Surgery (1994.07 – 10/1997)
- Chang Gung Memorial Hospital-Keelung, Vice-Superintendent (1997.08 – 1999.05)
- Chang Gung Memorial Hospital-Keelung, Superintendent (1999.05 – 2003.10)
- Chang Gung University, Professor of Orthopedic Surgery (1999.08 – Now)
- Chang Gung Memorial Hospital-Linkou, Executive Vice Superintendent (2003.02 – 2012.01)
- Chang Gung Memorial Hospital-Linkou, Superintendent (2012.03 – 2016.06)

Now

- Chang Gung Memorial Hospital-Linkou Emeritus Superintendent (2016.07 – Now)

- Chang Gung Memorial Hospital Board of Directors (2016.11 – Now)
- Chang Gung University Professor of Orthopedic Surgery (1999.08 – Now)
- Chang Gung University Board of Directors (1998.10 – Now)

Experience

- Taiwan Hospital Association President (2017.08 – 2023.09)
- Association of Hyperbaric and Undersea Medicine, ROC President (2012.06 – 2014.06)
- Chang Gung Memorial Hospital Superintendent (2012.02 – 2016.06)
- Chang Gung Steering Committee Vice-Chairman (2015.01 – 2016.06)
- Taiwan Medical Center Association President (2012.06 – 2016.06)
- Taiwan Orthopaedic Association President (2014.10 – 2016.11)

Laura Certain, M.D., Ph.D.

Last Updated: 09/12/2023
PERSONAL DATA
Citizenship: United States

EDUCATION

- Years Degree Institution (Area of Study)
- 2013 - 2017 Postdoctoral Research Fellow Wyss Institute for Biologically Inspired Engineering, Harvard University (Infectious Diseases) Boston, MA
 - 2012 - 2014 Fellow Massachusetts General Hospital / Brigham and Women's Hospital (Infectious Diseases) Boston, MA
 - 2009 - 2012 Resident Massachusetts General Hospital (Internal Medicine) Boston, MA
 - 2001 - 2009 M.D. University of Washington School of Medicine (Medicine) Seattle, WA
 - 2001 - 2007 Ph.D. University of Washington School of Medicine (Genome Sciences) Seattle, WA
 - 1996 - 2000 B.A. Princeton University (Chemistry) Princeton, NJ

BOARD CERTIFICATIONS

- 12/04/2014 – Present American Board of Internal Medicine (Sub: Infectious Disease), Certified
- 10/04/2012 – Present American Board of Internal Medicine, Certified

CURRENT LICENSES / CERTIFICATIONS

- 2021 – Present State License (WY) – Physician (MD)
- 2021 – Present State License (ID) – Physician (MD)
- 2021 – Present State License (MT) – Physician (MD)
- 2017 – Present State License (UT) – Physician (MD)

UNIVERSITY OF UTAH ACADEMIC HISTORY

- Internal Medicine (Infectious Diseases), 10/30/2017 – Present
- 07/01/2023 Associate Professor (Clinical)
- 10/30/2017 – 06/30/2023 Assistant Professor (Clinical)
- Orthopaedics, 09/01/2021 – Present
- 07/01/2023 Adjunct Associate Professor
- 09/01/2021 – 06/30/2023 Adjunct Assistant Professor

PROFESSIONAL EXPERIENCE

Full-Time Positions

- 2017 – Present Assistant Professor (Clinical), University of Utah, Salt Lake City, UT
- 2014 – 2017 Instructor, Harvard Medical School, Boston, MA
- 2014 – 2017 Assistant in Medicine, Division of Infectious Disease, Massachusetts General Hospital, Boston, MA

Laura Certain, M.D., Ph.D.

Part-Time Positions

- 2018 – Present Section Chief, Infectious Diseases, George E. Wahlen VA Medical Center, Salt Lake City, UT

Reviewer Experience

- Reviewer for Foot & Ankle Orthopaedics
- Reviewer for Journal of Bone and Joint Infection
- Reviewer for Journal of Knee Surgery
- Reviewer for Open Forum Infectious Diseases
- Reviewer for The Journal of Bone and Joint Surgery

SCHOLASTIC HONORS

- 2020 Elected to Fellow of the IDSA
- 2019 Selected to attend the AAMC Early Career Women Faculty Leadership Development Seminar (competitive process based on promise as a physician leader)
- 2016 Letter of Commendation for being one of the top-rated instructors, Harvard Extension School, Cambridge, MA
- 2010 Best Case Report, Department of Medicine Research Day, Massachusetts General Hospital, Boston, MA
- 2008 Elected to Alpha Omega Alpha
- 2006 Graduate School Medal, University of Washington, Seattle, WA
- 2004 – 2006 Achievement Rewards for College Scientists Fellowship Award, ARCS Foundation, Inc.
- 2004 – 2006 Poncin Scholarship
- 2000 Summa cum laude, B.A., Princeton University, Princeton, NJ
- 2000 Everett S. Wallis Prize in Organic Chemistry, Princeton University, Princeton, NJ
- 2000 Elected to Sigma Xi
- 2000 Elected to Phi Beta Kappa
- 1999 First-Year Physics Medal, University of St. Andrews, Scotland

- 1998 President's Award for Academic Achievement, Princeton University, Princeton, NJ

ADMINISTRATIVE EXPERIENCE

Administrative Duties

- 2018 – Present Infectious Disease Section Chief, VA Medical Center, Salt Lake City, Utah Professional Organization & Scientific Activities
- 2020 – Present Executive Board Member, MusculoSkeletal Infection Society
- 2019 – Present Co-Moderator, MusculoSkeletal Infection Society, Session moderator at the annual meetings of the Musculoskeletal Infection Society
- 2019 – 2021 Conference Abstract Reviewer, MusculoSkeletal Infection Society Grant Review Committee/Study Section
- 2022 – Present Scientific reviewer, Assessment of Prevention, Diagnosis, and Treatment Options (APDТО) Merit Review Panel, Patient-Centered Outcomes Research Institute (PCORI), Cycle 1 2022 Symposium/Meeting Chair/Coordinator
- 2023 As President of the Musculoskeletal Infection Society (MSIS) for 2022 – 2023, responsible for organizing the MSIS Annual Meeting, August 4-5, 2023, Salt Lake City, Utah.
- 2022 Organizer and moderator of a session on antibiotics and diagnostics at the Musculoskeletal Infection Society Annual Meeting, 2022.

UNIVERSITY COMMUNITY ACTIVITIES

University of Utah Health

- 2019 – Present Subcommittee Chair, Pharmacy and Therapeutics Committee, Chair of the subcommittee on the use of antimicrobial drugs.

Division Level

- 2021 – Present Member, Infectious Diseases, Infectious Disease Fellowship Clinical Competency Committee

SERVICE AT AFFILIATED INSTITUTIONS

- 2018 – Present Committee Member, Salt Lake Veterans Administration Medical Center, PAVE Committee (Preventing Amputations in Veterans Everywhere)

CURRENT MEMBERSHIPS IN PROFESSIONAL SOCIETIES

- American College of Physicians
- Infectious Diseases Society of America
- MusculoSkeletal Infection Society

FUNDING

Past Grants

- 01/01/22 – 06/30/23 Development of Diagnostic Quality Metrics for Prosthetic Joint Infection
 - Gordon and Betty Moore Foundation
 - Role: Technical Consultant
- 02/13/18 – 04/30/22 NIH/NIGMS Maximizing Investigator's Research Award: Diversifying the Scientific Workforce. R35 GM122557. ADC: \$220,000. Supports research aimed at increasing diversity of the scientific and medical workforce through a multisite cluster randomized control study of a bias reducing intervention in departments of medicine.
 - Principal Investigator(s): Molly Carnes
 - National Institutes of Health
 - Role: Consultant
- 07/01/13 – 09/30/17 Chronic Orthopedic Hardware Infections
 - Defense Threat Reduction Agency Grant
 - Principal Investigator(s): James J. Collins
 - The Paul G. Allen Frontiers Group/Wyss Institute for Biologically Inspired Engineering
 - Role: Postdoctoral Research Fellow
- 09/16/03 – 07/30/07 Genetic Profiling of Drug Resistance in Plasmodium falciparum
 - Principal Investigator(s): Carol Sibley

- National Institutes of Health
- Role: Graduate Student Researcher
- 07/01/03 - 09/15/03 Malaria Field Research
 - Principal Investigator(s): Chris Plowe
 - University Of Maryland
 - Role: Summer Student Researcher
- 06/15/02 – 08/31/02 Mechanism of DHFR Regulation in Plasmodium falciparum
 - Principal Investigator(s): Carol Sibley
 - National Institutes of Health
 - Role: Rotating Graduate Student Researcher
- 07/01/01 – 09/11/01 HIV Sub-typing
 - Principal Investigator(s): Julie Overbaugh
 - National Institutes of Health
 - Role: Rotating Graduate Student Researcher
- 07/01/00 – 06/30/01 Peripartum Smoking Trends; Television Viewing by Toddlers
 - Principal Investigator(s): Robert Kahn
 - Cincinnati Children's Hospital Medical Center
 - Role: Research Assistant
- 02/01/99 – 05/15/00 Enzymatic Activity of Proteins Designed from First Principles
 - Princeton University Chemistry Department
 - Principal Investigator(s): Michael Hecht
 - National Institutes of Health
 - Role: Undergraduate Researcher
- 06/15/98 – 08/01/98 Differences in Genetic Counseling Practices Between the 50 States
 - Principal Investigator(s): Philip Farrell
 - National Institutes of Health & Cystic Fibrosis Foundation
 - Role: Research Assistant

CLINICAL STUDIES

- 2021 – Present Direct Lysis of Staph Aureus Resistant Pathogen Trial of Exebacase (DISRUPT) ClinicalTrials.gov Identifier: NCT04160468 Sponsor: ContraFect Role: Site sub-investigator for a multi-site, industry-sponsored trial to evaluate the efficacy and safety of exebacase in addition

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to standard of care antibiotics (SoCA) compared with SoCA alone for the treatment of patients with Staphylococcus aureus bloodstream infections, including right-sided infective endocarditis.

- 2020 – 2021 Adaptive COVID-19 Treatment Trial 4 (ACTT-4) ClinicalTrials.gov Identifier:NCT04640168 Sponsor: National Institute of Allergy and Infectious Diseases (NIAID) Role: Site sub-investigator for a multi-site trial to evaluate the combination of baricitinib and remdesivir compared to dexamethasone and remdesivir for treatment of COVID-19.
- 2020 Adaptive COVID-19 Treatment Trial 3 (ACTT-3) ClinicalTrials.gov Identifier:NCT04492475 Sponsor: National Institute of Allergy and Infectious Diseases (NIAID) Role: Site sub-investigator for a multi-site trial to evaluate the combination of interferon beta-1a and remdesivir compared to remdesivir alone for treatment of COVID-19 2020 Phase 3 Randomized Studies to Evaluate the Safety and Antiviral Activity of Remdesivir (GS-5734™) in Participants with Severe or Moderate COVID-19, Gilead Sciences, Inc. Protocol numbers: GS-US-540-5773 and GS-US-540-5774 Role: Site sub-investigator for a multi-site, industry-sponsored trial.

RESEARCH EXPERIENCE

- 2013 – 2017 Post-doctoral research fellowship at the Wyss Institute for Biologically Inspired Engineering, Boston, MA
 - Lab PI: James Collins, PhD
 - Topic: Using engineered bacteria to study chronic orthopedic infections in a mouse model
- 2010 Massachusetts General Hospital, Boston, MA
 - Mentor: Jeff Greenwald, MD
 - Topic: Multi-level Instruction on Attending Rounds
- 2003 – 2007 Doctoral program at the University of

- Washington, Seattle
 - Thesis advisor: Carol Sibley, PhD
 - Topic: Genetics of drug resistance in Plasmodium falciparum
- 2003 Malaria Research and Training Center, Bamako, Mali
 - Coordinated by: University of Maryland, Center for Vaccine Development
 - Topic: Malaria field research
- 2002 University of Washington, Seattle
 - Mentor: Carol Sibley, PhD
 - Topic: Mechanism of DHFR regulation in Plasmodium falciparum
- 2001 Fred Hutchinson Cancer Research Center, Seattle, WA
 - Mentor: Julie Overbaugh, PhD
 - Topic: HIV sub-typing
- 2000 – 2001 Children's Hospital Medical Center, Cincinnati, OH
 - Mentor: Robert Kahn, MD, MPH
 - Topic: Peripartum smoking trends; television viewing by toddlers
- 1999 – 2000 Princeton University Chemistry Department, Princeton, NJ
 - Mentor: Michael Hecht, PhD
 - Topic: Enzymatic activity of proteins designed from first principles
- 1998 University of Wisconsin, Madison
 - Mentor: Philip Farrell, MD, PhD
 - Topic: Differences in genetic counseling practices between the 50 states

TEACHING RESPONSIBILITIES/ ASSIGNMENTS

Courses Directed

- 2015 – 2017 Course director for Medical Microbiology (BIOS E155), Harvard Extension School. Course met 3 hours per week for 15 weeks, spring semester.

Course Lectures

- 2023 SI, DENT 7135: Host and Defense, 49 students, University of Utah, School of Dentistry
- 2020 – Present DENT 7135: Host and Defense for Dental, University of Utah, Lectures on: bone and joint infections; endovascular infections; upper respiratory tract infections; lower respiratory tract infections.
- 2018 – Present MS 2021: Host and Defense, University of Utah, Lectures on upper and lower respiratory tract infections
- 2014 Preceptor, Introduction to Clinical Medicine, Harvard Medical School, Taught second-year medical students the history and physical, 2-3 hours per session, six sessions total
- 2006 Teaching Assistant, GS 261: Genomes and Society, University of Washington
- 2005 Teaching Assistant, GS 371: Introductory Genetics, University of Washington
- 2004 Teaching Assistant, HUBIO 514/524: Biochemistry, University of Washington
- 2003 Review Session Leader, HUBIO 541: Respiratory System, University of Washington
- 2000 Teaching Assistant, CHM 303/304: Organic Chemistry, Princeton University Mentoring/Advising Fellow
- 2021 Outpatient Clinic Attending, Jacob Kartes, University of Utah
- 2019 – 2020 Outpatient Clinic Attending, Jill Provaznik, University of Utah
- 2019 – 2020 Outpatient Clinic Attending, Allan Seibert, University of Utah
- 2018 – 2019 Outpatient Clinic Attending, Alithea Gabrellas, University of Utah Resident
- 2018 – Present Outpatient Clinic Attending, George E. Wahlen VA Medical Center Medical Student
- 2021 – Present MD/PhD Student Advising Program Mentor, Karishma Shah, University of Utah, Advisor responsibilities: Provide general mentorship/ support for your student(s).

Meet with each student ~1-4 times per year. Go

over the student's Individual Development Plan (IDP) with him/her. This will include a discussion of the student's goals, including accomplishments, obstacles, and/or strategies for making progress on each goal.

- 2019 – Present MD/PhD Student Advising Program Mentor, Kade Loveridge, University of Utah, Advisor responsibilities: Provide general mentorship/ support for your student(s). Meet with each student ~1-4 times per year. Go over the student's Individual Development Plan (IDP) with him/her. This will include a discussion of the student's goals, including accomplishments, obstacles, and/or strategies for making progress on each goal.

Internal Teaching Experience

- 202 – Present Lecture on Tick-borne Infections. Given to ID fellows and other members of the University of Utah ID division. Occurs every other year.
- 2020 – Present Lecture on Staphylococcus aureus Bacteremia. Given to ID fellows as part of their core didactics. Occurs every year.
- 2019 Lecture on Diabetic Foot Infections. Given to Podiatry residents at the George E. Wahlen VA Medical Center.
- 2019 – 2020 Weekly Infectious Disease Case Conference. Moderated the weekly conference and afterwards disseminated relevant literature to the Infectious Disease division at the University of Utah.
- 2018 – Present Lecture on Malaria. Given to ID fellows and other members of the University of Utah ID division. Occurs every other year.
- 2018 – Present Lecture on Eye Infections. Given to ID fellows and other members of the University of Utah ID division. Occurs every other year.
- 2018 – Present Lecture on CNS Infections. Given to ID fellows and other members of the University of Utah ID Division. Occurs every other year.

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Additional Teaching Contribution

- 2022 Guest discussant on an infectious disease pharmacy podcast. Certain L, Cortes-Penfield N, Justo J. "Nixing the Nidus: Managing Retained Sources in Prosthetic Joint Infections." Breakpoints podcast.
- 2022 Invited guest lecturer for the Postgraduate Course in Periprosthetic Infections at the Universidad Católica Argentina.
- 2022 Guest discussant on an infectious disease podcast. Certain L, Niehaus E, Dong S. "#50: Bad to the Bone". Febrile: A Cultured Podcast.

<https://player.captivate.fm/episode/25eda8f8-11be-4abb-a9f3-2acc8a01dfbc>

- 2021 Guest discussant on an internal medicine podcast. Certain L, Jenkins S, Rupp A. "Antibiotic Duration for Prosthetic Joint Infections, Colorectal Cancer Screening Guidelines, Hospital Observation after ACS Ruled Out in ED, Morning Discharges, Personalized Steroid Regimen for COPD Exacerbation." Last Week In Medicine.



MODERATOR

Yuhan Chang M.D, Ph.D.
張毓翰 醫師

Current Position

- Director of Clinical Trial Center, Chang Gung Memorial Hospital, Linkou, Taiwan
- Chairman of Bio-Bank, Chang Gung Memorial Hospital, Linkou, Taiwan
- Vice Chairman of Institute Review Broad, Chang Gung Medical Foundation
- Professor of Division of Joint Reconstruction, Department of Orthopaedic Surgery, Chang Gung Memorial Hospital, Linkou, Taiwan

Research Field

- Bone and joint Infection
- Stem Cell-Based Therapy
- Hip/Knee Arthroplasty

Specialties

- Hip/Knee Arthroplasty
- Revision Hip/Knee Arthroplasty
- Stem Cell-Based Therapy

Training Background

- M.D., Medical School of Chung-Shan Medical University, Taichung, Taiwan (1986~1993)
- Ph.D., Graduate Institute of Clinical Medical Sciences, Chang Gung University, Taoyuan, Taiwan (2002~2008)
- Resident of Department of Surgery, Chang Gung Memorial Hospital, Linkou, Taiwan (1995 ~ 1997)
- Resident of Department of Orthopaedic Surgery , Chang Gung Memorial Hospital, Linkou, Taiwan

(1997 ~ 1999)

- Chief Resident of Department of Orthopaedic Surgery , Chang Gung Memorial Hospital, Linkou, Taiwan (1997 ~ 1999)
- Visiting Staff of Department of Orthopaedic Surgery, St. Paul's Hospital, Taoyuan, Taiwan (2000 ~ 2002)
- Visiting Staff of Department of Orthopaedic Surgery, Chang Gung Memorial Hospital, Linkou, Taiwan (2000 ~ till now)
- Research Associate, Skeletal Research Center, Case Western Reserved University, Cleveland, Ohio, USA (2004 ~ 2006)
- Clinical Fellow, Department of Orthopaedic Surgery, University Hospitals of Cleveland, Ohio, USA (2004 ~ 2006)

Professor Jean-Yves JENNY

CURRICULUM VITAE

Jean-Yves JENNY

Born November 17, 1958

Married, three daughters

Office address: University Hospital, Pôle Locomax,
Avenue Molière, F-67200 Strasbourg (France)

Private address: 13 rue Saint-Gall, F-67380
Lingolsheim (France)

Office phone number: +33368765289

Handy: +33671801422

e-mail: jean-yves.jenny@chru-strasbourg.fr

- Current position (since February 1, 2019): Senior consultant

University Hospital Strasbourg

Department "Locomax" – Chief of staff: Professor F.BONNOMET

- September 1, 2014 to September 30, 2018: Associated Professor of the University of Strasbourg

- August 1, 2007 to January 31, 2019: Senior consultant

University Hospital Strasbourg

Center for Orthopedic and Hand Surgery of Strasbourg (CCOM) – Chief of Staff: Professor J.F.KEMPF

- June 1, 1996 to July 31, 2007: Senior consultant – Chief of the Department of Knee Surgery and Sport medicine – Senior Consultant at the Department for Septic Orthopedic Surgery

Center for Traumatology and Orthopedic Surgery of Strasbourg – Chief of Staff: Pr I.KEMPF followed by Pr. P.KEHR

- Board certified in orthopedic and trauma surgery since December 11, 1997.

- January 1, 1994 to May 31, 1996: Senior consultant – Department of Knee Surgery and Sport medicine and Department for Septic Orthopedic Surgery

Center for Traumatology and Orthopedic Surgery of Strasbourg – Chief of Staff: Pr I.KEMPF followed by Pr. P.KEHR

- January 1, 1989 to December 31, 1993: Fellowship (Assistant Hospitalo-Universitaire) at University Hospital Strasbourg and at Strasbourg School of Medicine
 - Department of Orthopedic and Trauma Surgery - Pr I.KEMPF
 - Department of Normal Anatomy - Pr J.G.KORITKE

- August 2, 1988 to August 1, 1989: Gold Medal of the University Hospital Strasbourg

Completed fellowships:

- Orthopedic and Trauma Surgery - Pr I.KEMPF 3 months
- Orthopedic Surgery - Pr G.LANG 3 months
- Orthopedic and Trauma Surgery - Pr J.L.LERAT (Lyon) 6 months

- October 1, 1982 to August 1, 1988: Residency at University Hospital Strasbourg: Contest 1981
- Abdominal Surgery - Pr L.F.HOLLENDER 12 months
- Cardiac and Vascular Surgery - Pr R.KIENY 6 months
- Orthopedic and Trauma Surgery - Pr I.KEMPF 24 months
- Orthopedic and Trauma Surgery - Pr E.SCHVINGT 6 months

- Medical School: Strasbourg

Registration with the Departmental Council of the Order of Physicians of the Lower Rhine under the N° 67/05785

Graduation 1988

- Second Round 1978 - 1983
- First Round 1976 - 1978

- Varia

- Past member of the Knee Committee, International Society for Arthroscopy, Knee Surgery and Orthopedic Sports Medicine (ISAKOS)
- Past member of the Board, International Society for Technology in Arthroplasty (ISTA)
- Past member of the Board, French Society for Hip and Knee Surgery (SFHG)
- Current member of the Board (Treasurer), International Society for Computer Assisted Orthopedic Surgery (CAOS-International)



MODERATOR

Cheng-Hung Lee, M.D.

李政鴻 醫師

Deputy superintendent , Taichung Veterans

General Hospital

Taiwan (2021.4-)

President ,Taiwan spine society (2022.3-)

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Address: 1650 Taiwan Boulevard Sect. 4, Taichung,
Taiwan 40705

E-mail : leechenghung0115@gmail.com

298f@vghtc.gov.tw

Education :

1.M.D , Yang-Ming medical university 1983-1990

2.PHD , Institute of Biomedical Engineering ,
Cheng-Kung

University , Tainan, Taiwan , 2004-2011

Residency :

1990.7.1 -1992.6.30 Wan-Chaw veteran hospital

1992.7.1 -1997.8.31 Department of Orthopedics,
Taichung Veteran

General Hospital

Attending Doctor: 1997.9.1—2009.3.31 Department
of Orthopedics,

Taichung Veteran General Hospital

Chief of spinal section , 2009.4- 2017.7

Chairman, Orthopedic department ,2017.8- 2021.4

Advanced Education:

• Chiba university ,Japan ,laparoscopic anterior
spinal surgery, 2001• Mater Hospital Brisbane, Australia, endoscopic
correction of scoliosis, 2003.6• St Anna hospital , Herne, Germany, percutaneous
endoscopic decompression of lumbar spine,
2009.9**Experience and qualification**

- President of Taiwan spine society
- President of Taiwan society of minimal invasive spine surgery
- Executive Director of Taiwan Orthopedic Association
- Member at large at Taiwan, AO spine (2019.1-2022.1)

Excellent practice

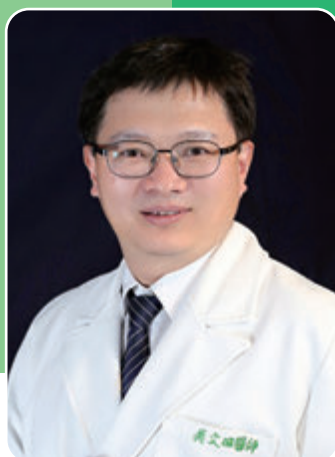
- Percutaneous endoscopic disectomy and decompression of spinal stenosis of lumbar spine
- Minimal invasive anterior spinal fusion (ALIF, OLIF)
- Spine deformity correction (kyphosis, scoliosis)
- Minimal invasive posterior fusion (PLIF, TLIF)
- Vertebroplasty and kyphoplasty for osteoporotic compression fracture
- Hip- spine relation ship

Study project:

- Analysis of adjacent segment biomechanical behavior after spinal fusion TCVGH-1075106C 2015
- Comparison of biomechanical behavior between pedicle screw and cortical bone trajectory screw in finite element method TCVGH1065103B 2016
- Biomechanical comparison of anterior and posterior cantilever method in treating spondylolithesis TCVGH-1055103B 2017
- Finite element method for comparison different interbody fusion and different posterior fixation

device TCVGH-1075106C 2018

- Biomechanical analysis of different pedicle screws combination in lumbar spine TCVGH-1085105C 2019
- Biomechanical effects of percutaneous endoscopic lumbar disectomy for intervertebral disc excision and resection of facet joints TCVGH-1095105C 2020
- Biomechanical analysis of different lumbar fusion and interbody cages TCVGH-1105101C 2021
- Biomechanical research and analysis of facetectomy with PLIF operation and CBT screw system TCVGH-1115101C 2022



MODERATOR

Wen-Tien Wu, M.D.

吳文田 醫師

Place of Birth: Hualien, Taiwan

Education

- 2007~2010, Ph. D. Institute of Medical Sciences, Tzu Chi University, Hualien, Taiwan
- 2006~2007, MD. Institute of Microbiology, Immunology and Molecular Medicine, Tzu Chi University, Hualien, Taiwan
- 1985~1992, BS. School of Medicine, China Medical University, Taichung, Taiwan

Experience:

- 2012/07~Present: Chief, Department of Orthopedics, Hualien Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Hualien, Taiwan
- 2015/08~Present: Associate Professor, School of Medicine & Institute of Medical Sciences, Tzu Chi University, Hualien, Taiwan
- 2004/06~2005/06, Visitorship program, Twin Cities Spine Center, Minneapolis, MN, U.S.A.
- 1997/12~present, Attending surgeon, Department of Orthopedics, Hualien Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Hualien, Taiwan
- 1992~1997, Resident doctor: Department of Orthopedics, Hualien Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, Hualien, Taiwan

Membership in Academic

Taiwan Orthopaedic Association

Surgical Association, Taiwan
Taiwan Spine Society
Taiwan Society of Minimally Invasive Spine Surgery

Research and Methodological fields

Basic medical research
Osteoporosis
Spinal degeneration
Minimally invasive Spinal surgery

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Chung-Yang Rd , Hualien 97002 ,Taiwan.

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E-mail: wentien2003@yahoo.com.tw
Telephone: Cell 886-970-332921
Office 886-3-8561825 ext.12161
Fax 886-3-8577161
Home 886-3-8579582



Kun-Hui Chen, M.D.

陳昆輝 醫師

Office

1650 Taiwan boulevard Sect. 4, Taichung, Taiwan,
407219
TEL: 886-4-23592525 ext 5101
E-Mail:khc@vghtc.gov.tw, orthochen@gmail.com

Current Position: since

- 2021/11 Director of Orthopedic Department, Taichung Veterans General Hospital (VGHTC), Taiwan
- 2021/11 Executive Manager of Clinical Informatics Committee, VGHTC
- 2022/8 Deputy Executive Manager of Operating Room Management Committee, VGHTC
- 2016/05 Supervisor, Taiwan Spine Society
- 2002/8 Attending Staff of Spinal Surgery Section, Orthopedic Department, VGHTC
- 2014/12 Chief of Bone Disease Section, Orthopedic Department, VGHTC
- 2021/3 Assistant Professor, Jen-The Junior College of Medicine, Nursing and Management
- 2021/8 Assistant Professor, College of Medicine, National Chung-Hsing University, Taichung, Taiwan

Education

- Oct. 2007 - Jun,2016 Ph D of Biomedical Engineering, Institute of Biomedical Engineering, National Yang-Ming University, Taipei, Taiwan
- Nov.,1990 - Jun., 1992 Internship, VGHTC, Taiwan
- Oct., 1985 - Oct., 1990 Medical Student , National Yang-Ming Medical College

Training and work experience

- 2018/10 – 2020/10 Supervisor, Taiwan Orthopaedic Association
- 2001/6 – 2002/8 Fellowship of Orthopedic Department, VGHTC
- 1997/6 – 2001/6 Resident of Orthopedic Department, VGHTC
- 1996/6 – 1997/6 Resident of Surgery Department, VGHTC
- 1994/6 – 1996/6 Resident of Surgery Department, Pu-Li Veterans Hospital

Major Research Interests

- Spine surgery including ALIF, OLIF, TLIF, Minimal invasive spine surgery
- Surgery of metastatic spinal lesion, TES (total en bloc spondylectomy)
- Surgery of Spinal deformity, PSO, SPO, pVCR
- Hip and knee replacement surgery, bilateral TKR, Robotic-assisted arthroplasty
- Medical informatics, computer science and programming language
- Biomechanical engineering

Biography

Kun-Hui Chen is currently the director of the Orthopedic Department at Taichung Veterans General Hospital. He is also an assistant professor at the National Chung Hsing University in Taichung, Taiwan. Dr. Chen obtained his MD from the National Yang-Ming Medical College, and



Kun-Hui Chen, M.D.

SECTION 1

trained at the Taichung Veterans General Hospital. In 201=07, he obtained a PhD degree from the Institute of Biomedical Engineering, National Yang-Ming University. Dr. Chen have focused on spinal surgery including spinal tumor operation, total enbloc spinal tumor resection, deformity correction operation including SPO/PSO and VCR/pVCR, minimally invasive operation about the spine. He also focused on knee and hip arthroplasty and had performed more than 500 simultaneous bilateral knee arthroplasty.

Dr. Chen also had comprehensive knowledge about programming language, computer informatics and data management. He is currently the Executive Manager of Clinical Informatics Committee at VGHTC. He also received his training of pervasive computing and edge computing by Prof. Chang at National Yang-Ming University, Lab of Pervasive Computing.

SECTION 1



MODERATOR

Cheng-Fong Chen, M.D.

陳正豐 醫師

Surgeon, Division of Joint Reconstruction,
Department of Orthopaedics and Traumatology,
Taipei Veterans General Hospital
Associate Professor, Department of Surgery,
School of Medicine, National Yang Ming Chiao
Tung University

Department of Orthopaedics and Traumatology,
Taipei Veterans General Hospital
18F, No 201, Sec 2, Shi-Pai Road, Taipei, Taiwan
Office: +886-2-28757557 ext 118
E-mail: cf_chen@vghtpe.gov.tw

Education

- 1990/9-1997/6 School of Medicine, National Yang-Ming University, Taipei, Taiwan

Certification and Licensure

- 1997- Medical license, Taiwan,
- 2004- Board certification, Taiwan Orthopaedic Association

Post-Graduate Training

- 1996/06-1997/06 Internship, Taipei Veterans General Hospital
- 1997/09-1999/09 Residency, Department of Surgery, Yuan-Shan Veterans Hospital, I-Lan, Taiwan.
- 1999/09-2004/09 Residency, Department of Orthopaedics and Traumatology, Taipei Veterans General Hospital, Taipei, Taiwan
- 2004/09-2005/09 Fellow, Department of

Orthopaedics and Traumatology, Taipei Veterans General Hospital, Taipei, Taiwan

- 2012/12~2013/12 Research fellow, Department of Orthopaedic Surgery, University of California at Irvine Medical Center, Orange, CA92868, USA
- 2014/12~2014/12 Clinical Fellow, NYU Hospital for Joint Disease, NY, USA

Professional Experiences

- 2012/10 Executive Director, Joint Reconstruction Society, ROC
- 2015/05 Chief, Division of Joint Reconstruction, Department of Orthopaedics and Traumatology, Taipei Veterans General Hospital
- 2017/07 Executive Director, Taiwan Insall Club
- 2018/10 Secretary General, Taiwan Orthopaedic Association
- 2020/10 Executive Director, Taiwan Orthopaedic Association
- 2020/10 Chairman, Joint Reconstruction Society, ROC
- 2020/10 Chairman, Taiwan Arthroplasty Education Society, TAES
- 2021/09 Chief, Surgical Management Committee of Taipei Veterans General Hospital
- 2022/02 Associate Professor, Department of Surgery, School of Medicine, National Yang Ming Chiao Tung University

SECTION 1



Tsung-Li Lin, MD, PhD
林宗立 醫師

Education

- MD School of Medicine, Fu Jen Catholic University
- PhD Graduate Institute of Biomedical Sciences, China Medical University

Academic appointments

- Assistant professor, Department of Sports Medicine, College of Health Care, China Medical University, Taichung, Taiwan

Service

- Attending physician, Department of Orthopedic Surgery, China Medical University Hospital, Taichung

姓名：林宗立

學歷：輔仁大學醫學士

中國醫藥大學生物醫學研究所博士

部定教職：中國醫藥大學運動醫學系助理教授

服務：中國醫藥大學附設醫院骨科部主治醫師

SECTION 1

MODERATOR

Tsai-Sheng Fu, M.D.
傅再生 醫師

Current position**- Chairman.**

Department of Orthopaedic Surgery, Chang Gung Memorial Hospital, Linkou.

- Professor.

Chang Gung University & National Tsing Hua University, College of Medicine.

- Secretary General.

Taiwan Orthopaedic Association (TOA).

- President.

Taiwan Bone Muscle Joint Total Care Association (TBMJ).

- Honorary President.

Taiwan Society of Minimally Invasive Spine Surgery (TSMISS).

- Executive Director.

Taiwan Spine Society (TSS).

Research interests

- Minimal Invasive & Endoscopic Spine Surgery
- Stem cell & Tissue engineering for creating bone graft substitutes
- Osteoporosis and related fracture therapy and related research
- Hyperbaric oxygen therapy and related research

MODERATOR

Wen-Hsiang Chou, M.D.

周溫祥 醫師

Office Address

Department of Orthopedics ; Chen-Hsin General Hospital

45# Chen-Hsin St. / Pai Tow , Taipei 112 , Taiwan

TEL: 886228264400 Ext 3750

Fax : 886228264565

E-mail: ch6215@chgh.org.tw

Education

- Medical School: National Defense Medical Center , Taipei , Taiwan
- Bachelor of Medicine (MD) 1987

Clinical Experience

- 04/09—Chief of Spine and General Orthopedic Division
Department of Orthopedics Chen-Hsin General Hospital
- 05/98--03/09 Attending Orthopedic Surgeon
Department of Orthopedics Chen-Hsin General Hospital
- 09/97—05/98 Research fellow of Spine Surgery , Health and Science Center , State University of New York at Syracuse , New York ,U.S.A
- 07/94—08/97 Attending Orthopedic Surgeon
Kaohsiung Army General Hospital
- 08/87—07/92 Resident and Chief Resident in Orthopedics
Tri-Service General Hospital
- 07/86—06/87 Intern , Taipei Veterans General Hospital
- 07/85—06/86 Intern , Tri-Service General

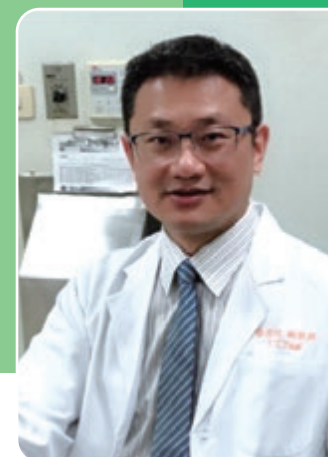
Hospital

Academic Appointment

- 03/10-Present Director of Taiwan Spine Society
- 09/09-Present Director of Taiwan Society of Minimal Invasive Spinal Surgery
- 08/00-Present Inspector of Health Insurance Institute, Taiwan

Membership

- Orthopedic Association R.O.C
- Surgical Association R.O.C.
- North America Spine Society (NASS)
- Taiwan Society of Spinal Surgery
- Taiwan Society of Minimal Invasive Spinal Surgery



Tsai Tsung-Ting, MD PhD

蔡宗廷 醫師

Institute

- Chang Gung University, Taoyuan, Taiwan
- Chang Gung Memorial Hospital,
- Taipei-Linkou Medical Center, Taiwan

Professional Title

- Professor of Chang Gung Memorial Hospital
 - Professor of Chang Gung University
 - Chief of Department of Orthopaedic Surgery, Spine Section
 - Director of Bone and Joint Research Center, Chang Gung Memorial Hospital
 - Director of Taiwan Spine Society
- Office Address: No.5, Fuxing St., Guishan Dist., Taoyuan City 333, Taiwan
Office Tel. No.: 03-3281200 Ext. 3612
E Mail Address: tsai1129@gmail.com

Research Interest

Spinal Surgery, Spine Infection, Disc Regeneration, Orthopedic Biomechanics

Employment Record

- 2004/07/01~2005/10/30, Research Fellowship, Department of Orthopaedic Surgery, Thomas Jefferson University Hospital, Philadelphia, Pennsylvania, USA
- 2003/07/01~now Attending Physician, Spine Section, Department of Orthopaedic Surgery, Chang Gung Memorial Hospital

Education

- 2007/09~2014/01, Graduate Institute of Clinical Medicine Sciences, College of Medicine, Chang Gung University, Taoyuan, Ph.D.
- 1989/07~1996/06, China Medical University, Taichung, M.D.

Awards and Honors

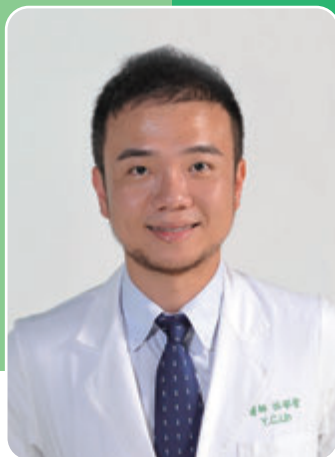
2023, 2022,2021,2020,2019 年林口長庚醫院 SCI 優秀論文榜，中華民國骨科醫學會優秀論文獎，2014 年骨科醫學會優秀論文比賽基礎類別第二名，2015 年骨質疏鬆症學會學術研討會論文競賽第二名，2016 年 Outstanding Paper Award for the Annual Meeting of Taiwan Spine Society，2019 年台灣創新技術博覽會發明競賽金牌獎，2020 年科技部大專學生研究計畫研究創作獎 (指導教授)，2020 年 JMBE Annual Excellent Paper Award，2020 年榮獲第十七屆國家新創獎學研新創組，2021 年 Best Poster Prize for Biomaterials International，2022 年國際智慧醫療高峰會 - 智慧醫療論文海報展「優秀作品獎」&「潛力作品獎」

- Patents: 中華民國及美國多項專利共約十項

Textbook Publication

- (1) Tsai TT, Anderson G. Chapter 3: Dysphagia/ Esophageal Injuries. In: Complications of Spine Surgery: Treatment and Prevention. (ISBN: 2147483647). Lippincott Williams & Wilkins. Oct, 2005
 - (2) The Latest Advances in Minimally Invasive Spine Surgery, Chapter 25, 2023
- Editorial Board Member: Editorial board of Biomedical Journal
- Peer Review Paper: more than 140 papers

SECTION 1



Yu-Chih Lin, M.D.
林郁智 醫師

Education

2003-2010, Taipei Medical University School of Medicine, Taipei, Taiwan

Post-Graduate Education

國立陽明交通大學，生醫科學與工程博士學程

Academic Appointment (Include Teaching Experience) : (As Above)

Employment Record

2017-2023, Attending physician, Division of Joint Reconstruction, Chang Gung Memorial Hospital, Taoyuan branch

Professional Activities

2020/12 :
國家新創獎：學研新創獎：
電腦深度學習建立脊椎骨盆 X 光自動辨識模組及手術決策輔助系統

2022/01 :
中華民國專利：I753412 號：
產生用於自動定位出定位點的模型的方法、骨骼狀態分析方法及電子系統

Editorial Boards of Journals :

2020/10~2022/10: The editor of Formosan Journal of Musculoskeletal Disorders

Research Interest

Adult joint reconstruction, periprosthetic joint infection, joint conserving procedures, Artificial intelligence in orthopaedics

Research Project

The outcome of autoimmune patients underwent THR and TKR in Taiwan: clinical results based on a Nationwide Health Insurance Research Database (NHIRD), NMRP, 2021/08/~2023/08

To establish a nanocarrier for insulin growth factor-1 (IGF-1) with improving delivery and efficacy in penetrating cartilage: Application for osteoarthritis treatment, CMRP, 2022/09~2024/09

SECTION 1

**MODERATOR**

Shih-Tien Wang, M.D.
王世典 醫師

Dr. Shih-Tien Wang currently holds the position of Superintendent at the Kinmen Hospital, which is under the Ministry of Health and Welfare. Additionally, he serves as an attending surgeon in the Division of Spine Surgery at the Department of Orthopedics and Traumatology, Taipei Veterans General Hospital, and as a Professor in the Department of Orthopedic Surgery at the School of Medicine, National Yang Ming Chiao Tung University, Taipei, Taiwan. Dr. Wang also served as the president of the Taiwan Spine Society from 2016 to 2018 and was the Co-Chairman of the 2018 Annual Meeting of the Asia Pacific Spine Society.

He obtained his medical degree from the National Defense Medical Center and completed his rotating internship training at Triservice General Hospital in Taipei, Taiwan. Dr. Wang's specialty training includes two years of residency in the Department of Surgery and three years in the Department of Orthopedics and Traumatology. He also held the position of chief resident in the Department of Orthopedics and Traumatology. Furthermore, he pursued fellowships in the Division of Sports Medicine and the Division of Spine Surgery at Taipei Veterans General Hospital, Taipei, Taiwan.

In 1999, Dr. Wang embarked on a one-year post-doctoral research fellowship under the guidance of Dr. Vijay K. Goel at the Iowa Spine Research Center, Department of Orthopedics, University of Iowa Hospitals and Clinics, and Department of

Biomedical Engineering, College of Engineering, University of Iowa, Iowa City, IA, USA.

During his career, he served as an attending surgeon (with the rank of major) in the military at the Department of Surgery, 820 Army Hospital, Kinmen. Dr. Wang is an active member of various medical associations, including the Taiwan Surgical Association, Taiwan Orthopaedic Association, Taiwan Spine Society, Taiwan Society of Minimally Invasive Spine Surgery, and North American Spine Society. He has held significant positions in professional organizations, such as secretary of the Journal of Spine Surgery (ROC), supervisor and director of the Taiwan Spine Society, and secretary of the Journal of Orthopedic Surgery, the official journal of the Taiwan Orthopaedic Association. In addition, he served as the secretary general for the Taiwan Spine Society and the Pacific and Asian Society of Minimally Invasive Spine Surgery (PASMISS) in 2014. Currently, Dr. Wang is an esteemed member of the editorial board for the Asian Spine Journal and the Journal of Spine Surgery. He is also a reviewer for several SCI journals.

MODERATOR

Ting-Kuo Chang, MD, PhD

張定國 醫師

Education

- MD, National Taiwan University, Taipei, Taiwan
- PhD, College of Biomedical Science and Engineering, National Yang Ming Chiao Tung University, Taipei, Taiwan

Professional Experiences

- 2021/07-present Chief, Department of Orthopedics Mackay Memorial Hospital, Taipei, Taiwan
- 2020-present Associate Professor, Mackay Medical College, Taipei, Taiwan
- 2019-present Chief, Spine section, Department of Orthopedics, Mackay Memorial Hospital, Taipei, Taiwan
- 2011/11 Medical service in Kiribati (Taiwan ISCD)

Professional Affiliations

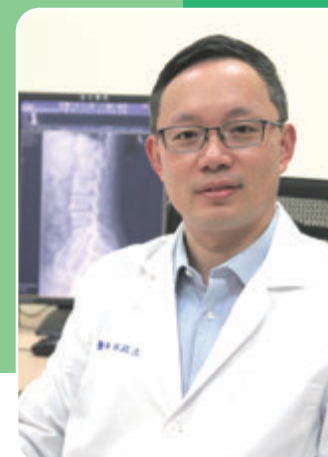
- Supervisor, Taiwan Orthopedic Association
- Executive Director, Taiwan Spine Society
- Director, Taiwan Society of Minimally Invasive Spine Surgery
- Candidate Member, Scoliosis Research Society

Contact Information

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Email: tomy4367@gmail.com



Cheng-Li Lin, MD, PhD

林政立 醫師

Spine division, Department of Orthopedic Surgery
National Cheng Kung University Hospital
No.138, Sheng-Li Road, Tainan City, Taiwan 70428
E-mail: jengli94@gmail.com

Education / Training

M.D. College of Medicine, National Cheng Kung University, Tainan Taiwan

Ph.D. Institute of Biomedical Engineering, National Cheng Kung University, Tainan, Taiwan

Postdoctoral Spine division, Department of Orthopedic Surgery,

Fellowship Rush University Medical Center, Chicago, IL, USA

Appointments**Attending physician**

Spine section, Department of Orthopedic Surgery,

- National Cheng Kung University Hospital

Associate professor

- Department of Orthopedic Surgery, College of Medicine, National Cheng Kung University, Tainan, Taiwan

Director of Spine division

Department of Orthopedic Surgery

- National Cheng Kung University Hospital, Tainan, Taiwan

Secretary General

Taiwan Society of Endoscopic Spine Surgery 2023

Secretary General

Pacific and Asian Society of Minimally Invasive

Spine Surgery 2023

Board Member

- Taiwan Spine Society
- Taiwan Society of Endoscopic Spine Surgery
- Pacific and Asian Society of Minimally Invasive Spine Surgery

SECTION 2



WANG-HUEI, SHENG

盛望徽 醫師

Born: June 28, 1967

Current office address: Division of Infectious Diseases, Department of Internal Medicine, National Taiwan University Hospital, No. 7, Chung-Shan South Road, Taipei City, Taiwan 10016

Office phone: +886-2-23123456 Ext 262104

E-mail: whsheng@ntu.edu.tw

Current Position

- Chair, School of Medicine, College of Medicine, National Taiwan University
- Director, Department of Medical Education, National Taiwan University Hospital
- Professor, Division of Infectious Diseases, Department of Internal Medicine, National Taiwan University Hospital

Education

- Medical doctor degree: Taipei Medical University (1985-1992)
- PhD degree: Institute of Clinical Research, College of Medicine, National Taiwan University (2000-2006)
- Master degree: College of Management, National Taiwan University (2014-2016)

Research interests

- infection control
- antimicrobial resistant mechanism
- emerging infectious diseases
- HIV/viral hepatitis co-infections
- medical education

Academic research awards

- 1999 Best Resident Academic Award, Infectious Disease Society in Taiwan,
- 2000 Best Attending Physician Academic Award, TaoYuan General Hospital, Ministry of Health, Taiwan
- 2004 Best Attending Physician Award, National Taiwan University Hospital, Taiwan
- 2006 Academic Excellence Award, National Taiwan University Hospital, Taiwan
- 2007 Albany Foundation Epidemic Prevention Paper Award, Taiwan
- 2007 Outstanding Doctoral Class Academic Award, National Taiwan University School of Medicine, Taiwan
- 2012 Excellent Attending Physician Paper Award, Infectious Disease Society in Taiwan

Biography

Dr Wang-Huei Sheng is a full-time Professor in the Department of Internal Medicine of National Taiwan University Hospital. He is also previous Director of the Center for Infection Control, and Director of Division of Infectious Diseases at National Taiwan University Hospital, Taipei City, Taiwan.

Dr Sheng gained his medical degree at Taipei Medical University in 1992, after which he did his residency at National Taiwan University Hospital. He spent 3 years as Attending Physician at Provincial Taoyuan Hospital, followed by 2 years with the AIDS Research Center of the Department

of Health, Taiwan. In 2007 he gained his Doctoral degree from National Taiwan University. Dr Sheng is a currently a member of the Society of Emergency Medicine, the Society of Internal Medicine, the Society of Immunology, Microbiology and Infectious Diseases, the Society of AIDS Research, and the Society of Hospital Infection Control in Taiwan. Research interests include infection control of multiple drug resistant bacteria and HIV/viral hepatitis co-infections. He is deputy general secretary of Taiwan Society of Internal Medicine (TSIM) and promote the competency-based medical education (CBME) program in post-graduate residency training. Dr Sheng's publications include more than 150 SCI manuscripts during 1998-2022.

SECTION 2

SECTION 2



LU, MIN-CHI, M.D.

盧敏吉 醫師

Personal Information

- Name LU, MIN-CHI(盧敏吉)
- Address No.91, Hsueh-Shih Road, Taichung, Taiwan 40402
- Telephone +886-4-22053366 ext 2167
- Fax +886-4-2205-3764
- E-Mail luminchi@gmail.com

Current Appointment

- 2016 – present Professor and Chairman of Microbiology and Immunology, and Professor of Medicine, School of Medicine, China Medical University, Taichung, Taiwan.
- 2016 – present Attending Physician, Infectious Diseases Division, Department of Internal Medicine, China Medical University Hospital, Taichung, Taiwan

Education

- 1996 – 1997 Postdoctoral Research Associate, Department of Microbiology and Cell and Molecular Biology Program, Michigan State University, MI, U.S.
- 1991 – 1996 Ph.D., Department of Physiology, Michigan State University, MI, U.S.
- 1982 – 1989 M.D., China Medical University School of Medicine, Taichung, Taiwan

Post-graduate Training

- 1999 – 2001 Fellow, Division of Infectious Diseases, Department of Internal Medicine, China

- Medical University Hospital, Taichung, Taiwan
- 1997 – 1999 Resident of Internal Medicine, China Medical University Hospital, Taichung, Taiwan
- 1989 – 1990 Resident of Internal Medicine, China Medical University Hospital, Taichung, Taiwan

Academic and Hospital Appointments

- 2010 – 2016 Professor of Medicine, and Microbiology and Immunology, Chung Shan Medical University School of Medicine, Taichung, Taiwan.
- 2008 – 2016 Chief, Division of Infectious Diseases, Department of Internal Medicine; Director, Infection Control Team, Chung Shan Medical University Hospital, Taichung, Taiwan
- 2003 – 2016 Attending Physician, Division of Infectious Diseases, Department of Internal Medicine, Chung Shan Medical University Hospital, Taichung, Taiwan
- 2004 – 2008 Superintendent, Chung Shan Medical University Chung-Kang Hospital, Taichung, Taiwan
- 2003 – 2009 Associate Professor of Medicine, and Microbiology and Immunology, Chung Shan Medical University School of Medicine, Taichung, Taiwan.
- 2001 – 2003 Attending Physician, Division of Infectious Diseases, Department of Internal Medicine, China Medical University Hospital at Beigang, Taiwan
- 1997 – 2003 Associate Professor of Physiology, and Institute of Medical Science, China Medical University School of Medicine, Taichung, Taiwan.

SECTION 2

- 1993 – 1996 Teaching Assistant, Medical Physiology Class and Laboratory, College of Human Medicine, Michigan State University
- 1992 – 1996 Research Assistant, Pulmonary Laboratory, Department of Physiology, Michigan State University, MI, U.S.
- 1991 – 1992 Research Assistant, Trauma and Shock Laboratory, Department of Surgery, College of Human Medicine, Michigan State University, MI, U.S.

Medical Board Certificate, Membership, and Administrative Qualifications

- 2015 – 2021 Supervisor, Executive Council of the Infection Diseases Society of Taiwan
- 2012 – present Trustee, Executive Council of the Infection Control Society of Taiwan
- 2003 – present Member, The Chinese Society of Microbiology
- 2002 – present Specialist Certificate of Infectious Diseases, Taiwan
- 1999 – present Specialist Certificate of Internal Medicine, Taiwan
- 1997 – present Member, Chinese Physiological Society



Po-Yu Liu, MD, Ph.D

劉伯瑜 醫師

Title and Affiliation**Primary Appointment:**

- Chief, Division of Infectious Diseases, Department of Internal Medicine, Taichung Veterans General Hospital, Taichung, Taiwan.
- Associate Professor, Rong Hsing Research Center for Translation Medicine, National Chung Hsing University, Taichung, Taiwan.

Office Address

1650 Taiwan Boulevard Sect. 4, Taichung City, Taiwan.
886-4-23592525-3083
Email: pylu@vghtc.gov.tw

EDUCATION

- 2009 – 2013 National Chung Hsing University, Taichung, Taiwan. Ph.D.
- 1992 – 1999 Chung Shan Medical University, Taichung, Taiwan. M.D.

Visiting Scholar

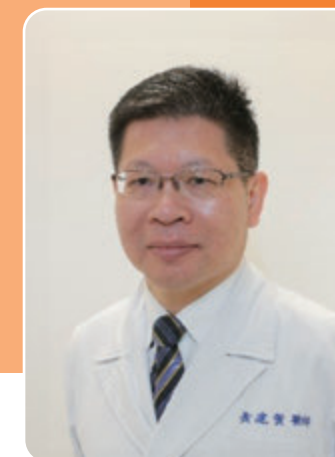
- 2014 – 2015 Lawrence Berkeley National Laboratory, Berkeley, CA, USA

BOARD CERTIFICATIONS

- 2008 Board Certified in Infectious Diseases, Taiwan
- 2006 Board Certified in Emergency Medicine, Taiwan
- 2004 Board Certified in Internal Medicine, Taiwan
- 1999 Diplomat, National Board of Medical Examiners, Taiwan

PROFESSIONAL MEMBERSHIPS

- Infectious Diseases Society of America
- European Society of Clinical Microbiology and Infectious Diseases
- The Microbiology Society
- Taiwan Society of Internal Medicine
- Taiwan Medical Association
- Infectious Diseases Society of Taiwan
- Taiwan Society of Emergency Medicine



Chien-Hsien Huang, M.D.

黃建賢 醫師

Date of Birth: April 15, 1967

Birth Place: Taiwan

Shin Kong Wu Ho-Su Memorial Hospital
95 Wen Chang Road, Shih Lin District, Taipei 111, Taiwan
E-mail address: m002191@ms.skh.org.tw
Telephone: 886-2-28332211-2095
Fax: 886-2-28389476

Education

- 1986 – 1993 M.D. College of Medicine, Kaohsiung Medical University

Postgraduate training

- 1992 – 1993 Rotating Intern, Kaohsiung Medical University
- 1995 – 1998 Resident in Department of Internal Medicine, Shin Kong Wu Ho-Su Memorial Hospital
- 1998 – 2000 Chief Resident in Section of Infectious Diseases, Department of Internal Medicine, Taipei Veterans General Hospital

Research Fellowship

- 2000 – 2001 Section of Infectious Diseases, Department of Internal Medicine, Shin Kong Wu Ho-Su Memorial Hospital

Attending Physician

- 2001 – present Section of Infectious Diseases, Department of Internal Medicine, Shin Kong Wu

Ho-Su Memorial Hospital

Medical Credentials

- 1993 Medical Licensure
- 1998 Specialty, Internal Medicine
- 2000 Specialty, Infectious Diseases

Academic Appointments

2005 Lecturer of Medicine(94 年 9 月講字第 083719 號)

Membership

- Taiwan Society of Internal Medicine
- Society of Immunology, Microbiology, and Infectious Diseases, Taiwan
- Taiwan Society of Hospital Infection control
- Taiwan Society of Tuberculosis
- Taiwan AIDS Society



Hung-Jen Tang, M.D.

湯宏仁 醫師

Date and Place of Birth: 24 Nov1969
 Education: Chung Shan Medical University, 1987~1994
 College:MD, Department of Medicine, Chung Shan Medical College
 Email address: 8409d1@gmail.com
 Address correspondence: Department of Internal Medicine, Chi Mei Medical Center
 No.901, Chung-Hwa Rd. Yung-Kang Dist. Tainan City, Taiwan, R.O.C
 Telephone No. : 886-6-2812811ext.52606
 Fax No.: 886-6-2833351

Experience

Professor

2018 Aug~ present

Associate professor

2015 Aug~2018 July

Head of Medicine Department

Chi Mei Medical Center, 2022 Oct~present

Head of Infectious disease

Section of Infectious diseases, Department of Internal Medicine,
 Chi Mei Medical Center, 2011Sep~present
 Director of infectious disease control center, 2016 Jan -present

Attending Physician

Section of Infectious diseases, Department of Internal Medicine,
 Chi Mei Medical Center, 1999~2011Aug

Head of Infectious disease

Section of Infectious diseases, Department of Internal Medicine,

Chi Mei Medical Center, Liouying, Taiwan, 2004-2009

Research fellow

Section of Infectious Diseases, Veteran-General Hospital-Kaohsiung (KH-VGH), 1998-1999

Chief Resident

Section of Infectious Diseases, Chi Mei Hospital,1997-1998

Section of Infectious Diseases, Veteran-General Hospital-Kaohsiung (KH-VGH) ,1998-1999

Resident

Department of Internal Medicine, Chi Mei Hospital, 1994-1997

Lecturer

Part-time, Infection Control Society of the Republic of China
 Department of Health and Nutrition, Chia Nan University of Pharmacy and Science, Tainan, Taiwan

Professional Societies

- The Society of Internal Medicine, R.O.C.
- The Infectious Diseases Society of the Republic of China
- The Infection Control Society of the Republic of China

Award

- The Infectious Disease Society of Taiwan
- Article award of 2007
 (Hung-Jen Tang, Yung-Ching Liu.
 Opportunistic infections in adults with acquired

immunodeficiency syndrome: a comparison of clinical and autopsy finding. J Microbiol Immunol Infect.2006;39(4):310-315)

• The Infectious Disease Society of Taiwan

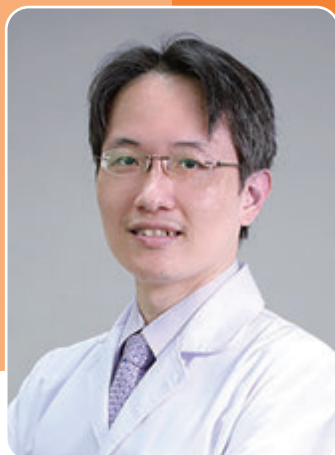
Article award of 2011

(In Vitro and In Vivo Intracellular Killing Effects of Tigecycline against Clinical Nontyphoid Salmonella Isolates Using Ceftriaxone as a Comparator. Antimicrob Agents Chemother 2011;55:2755-2759)

• The Infectious Disease Society of Taiwan

Article award of 2018

(In vitro and in vivo antibacterial activity of tigecycline against Vibrio vulnificus. J Microbiol Immunol Infect. 2018 Feb;51(1):76-81)



Yi-Tsung Lin, M.D.

林邑聰 醫師

Address: Division of Infectious Disease, Department of Medicine, Taipei Veterans General Hospital, No. 201, Sec. 2, Shih-Pai Road, 11217 Taipei, Taiwan

Academic Training

- 2004 M.D. National Yang-Ming University, Taipei, Taiwan
- 2014 Ph.D. Institute of Clinical Medicine, National Yang-Ming University, Taipei, Taiwan

Board Certification

- 2007 Taiwan Board of Internal Medicine,
- 2009 Subspecialty of Infectious Diseases

Academic Appointments

- 2014 Assistant Professor of Internal Medicine, National Yang-Ming University, Taipei, Taiwan
- 2016 Assistant Professor of Institute of Emergency and Critical Care Medicine, National Yang-Ming University, Taipei, Taiwan
- 2018 Associate Professor of Institute of Emergency and Critical Care Medicine, National Yang-Ming University, Taipei, Taiwan
- 2021 Professor of Institute of Emergency and Critical Care Medicine, National Yang Ming Chiao Tung University, Taipei, Taiwan

Hospital Appointment:

- 2004-2012 Resident doctor, Department of Medicine, Taipei Veterans General Hospital
- 2012-present Attending Physician, Division of Infectious Disease, Department of Medicine, Taipei Veterans General Hospital
- 2022-present Chief, Division of Infectious Disease, Department of Medicine, Taipei Veterans General Hospital



Po-Liang Lai, MD, PhD

賴伯亮 醫師

Dr. Po-Liang Lai received the Doctor of Medicine degree from Dept. of Medicine, National Taiwan University in 1993 and Doctor of Philosophy degree from Dept. of Chemical Engineering, National Tsing-Hua University, Taiwan in 2014. He is currently the Director of Center for Academia and Industry Collaboration and the Vice Director of Department of Orthopedic Surgery, Chang Gung Memorial Hospital Linkou Branch, and the Professor of Medical College, Chang Gung University. His practice is now confined to spine surgery, with emphasis on complex problems including congenital and acquired deformity as well as minimally invasive spine surgery. He has around 500 spine surgeries each year.

His research includes biomaterial for osseous tissue and disc engineering and biomechanics of spinal internal fixators. He has authored over 230 publications and 15 patents.

His academic h-index is 41 and the i10 index is 125. He has also received numerous awards, including 12th and 16th National Innovation Award Taiwan.



Shu-Hua Yang, M.D., Ph.D.

楊曙華 醫師

- Professor, Orthopedic Surgery, School of Medicine, College of Medicine, National Taiwan University
- Past President, Taiwan Spine Society
- Board Director, Taiwan Orthopaedic Association

ORCID ID: 0000-0002-9879-0164

Office Address:

Department of Orthopedics, National Taiwan University Hospital
11th floor, No. 7, Chungshan South Road, Taipei, TAIWAN

Education

- 1986 – 1993 M.D., School of Medicine, National Taiwan University
- 2001 – 2005 Ph.D., Biomedical Engineering, National Taiwan University

Postgraduate Training and Visits

- 1993 – 1998 Orthopedic Residency, National Taiwan University Hospital
- 1998.6 Observer-Fellow, Spinal Surgery, Orthopaedics, Hospital for Special Surgery, New York, NY, USA (Prof. Oheneba Boachie-Adjei)
- 1998 – 1999 Fellow, Spinal Surgery, Orthopedics, National Taiwan University Hospital
- 2002.2 Visiting Scholar, Spinal Surgery, Orthopedics, Tohoku University, Sendai, Japan (Prof. Shoichi Kokubun)
- 2002 – 2003 Research Fellow, Spinal Surgery, Orthopaedics (Prof. John P. Kostuik) and Biomedical Engineering (Prof. Kam W. Leong),

- Johns Hopkins University, Baltimore, MD, USA
- 2011 – 2012 Visiting Scholar, Spinal Surgery, Orthopaedics, Rush University Medical Center, Chicago, IL, USA (Prof. Howard S. An)

Appointments in Professional Societies

- Taiwan Orthopaedic Research Society: Borad Director
- Asia Pacific Spine Society: Board Member (2016-2022), Chairman of Constitution, Bylaws and PP&M Sub-Committee (2021-2023)
- Scoliosis Research Society: Active Member
- Editorial/Review Board
- Asian Spine Journal
- Journal of Orthopaedic Surgery
- Journal of Orthopaedic Research – Spine
- Formosan Journal of Musculoskeletal Disorders
- Reviewer for The Spine Journal, Journal of Orthopaedic Research, JBJS Open Access, Acta Biomaterialia, Scientific Reports, PLOS ONE, Journal of Formosan Medical Association,
- Biomedicines, Orthopaedic Research Society, Acta Orthopaedica et Traumatologica Turcica, Artificial Organs, Arthritis Research and Therapy, Medicina, Pain Practice, Stem Cells International, IEEE Transactions on Industrial Informatics,...



Jun Takahashi, Ph.D.

PERSONAL INFORMATION

- Name: Jun Takahashi
- Date of Birth: 06/04/1965
- Business address: Department of Orthopaedic Surgery, Shinshu University School of Medicine, Asahi 3-1-1, Matsumoto, Nagano 390-8621, Japan
- Phone: +81-263-37-2659
- Fax: +81-263-35-8844
- E-mail: jtaka@shinshu-u.ac.jp

EDUCATIONAL HISTORY

- 1985 Diploma, Matsumoto Fukashi High School (Nagano)
- 1992 M.D., Shiga University Medical School
- 2001 Ph.D. (Medical Science), Shinshu University School of Medicine

PROFESSIONAL BACKGROUND (EMPLOYMENT HISTORY)

- May 1992 Passed the National Medical Board Examination
- May 1992 – March 1993 Resident, Shinshu University School of Medicine
- April 1993 – March 1994 Resident, Department of Orthopaedic Surgery, Iida Municipal Hospital
- April 1994 – March 1995 Resident, Department of Orthopaedic Surgery, Hokushin General Hospital
- April 1995 – June 1996 Resident, Department of Orthopaedic Surgery, Kofu Municipal Hospital
- July 1996 – June 1997 Resident, Department of Orthopaedic Surgery, Okaya Municipal Hospital

- July 1997 – June 1998 Resident, Department of Orthopaedic Surgery, Yodakubo Hospital
- July 1998 – March 2002 Medical Staff, Division of Spinal Surgery, Department of Orthopaedic Surgery, Shinshu University School of Medicine
- April 2002 – Dec 2006 Assistant Professor, Department of Orthopaedic Surgery, Shinshu University School of Medicine
- April 2005 – Present Chief, Division of Spinal Surgery, Department of Orthopaedic Surgery, Shinshu University School of Medicine
- January 2007 – June 2008 Senior Assistant Professor (Lecturer), Department of Orthopaedic Surgery, Shinshu University School of Medicine
- July 2008 - Dec 2008 International Spinal Deformity Fellow, Pediatric Orthopedic & Scoliosis Center, Rady Children's Hospital, San Diego (Dr. Peter O. Newton)
- January 2009 – Dec 2016 Senior Assistant Professor (Lecturer), Department of Orthopaedic Surgery, Shinshu University School of Medicine
- January 2017 – Dec 2019 Associate Professor, Department of Orthopaedic Surgery, Shinshu University School of Medicine
- January 2020 – present Professor, Department of Orthopaedic Surgery, Shinshu University School of Medicine
- April 2023 – present Assistant to the Hospital Director for Ethics and Internationalization, Shinshu University Hospital

Antonia F. Chen, MD/MBA

61 Brooks Ave, Unit 1, Newton, MA 02460
antoniachen1@gmail.com (443) 956-3139

EDUCATION

ROTHMAN INSTITUTE Philadelphia, PA; 2013-2014 Pittsburgh, PA; 2008-201

Fellowship. Mentors: Dr. Richard H. Rothman, Dr. Javad Parvizi, Dr. James J. Purtill, Dr. Gregory K. Deirmengian,

Dr. William J. Hozack, Dr. Matthew S. Austin.

UNIVERSITY OF PITTSBURGH – ORTHOPAEDIC SURGERY DEPARTMENT Pittsburgh, PA; 2008-2013

Residency. Mentors: Dr. Freddie H. Fu, Dr. Brian A. Klatt, Dr. Adolph J. Yates, Jr., Dr. Lawrence S. Crossett.

UMDNJ - ROBERT WOOD JOHNSON MEDICAL SCHOOL Piscataway, NJ; 2002-2008

Medical Doctorate with Distinction in Research. Mentor: Dr. Alfred J. Tria, Jr.

RUTGERS BUSINESS SCHOOL New Brunswick, NJ; 2003-2005

Master of Business Administration.

YALE UNIVERSITY New Haven, CT; 1998-2002

Bachelor of Science in Molecular, Cellular and Developmental Biology.

EMPLOYMENT

HARVARD MEDICAL SCHOOL Boston, MA; 2019-PRESENT

Associate Professor

BRIGHAM AND WOMEN'S HOSPITAL Boston,

MA; 2018-PRESENT

Chief of Arthroplasty and Joint Reconstruction

Director of Research, Arthroplasty Service

THOMAS JEFFERSON UNIVERSITY / SIDNEY KIMMEL MEDICAL COLLEGE Philadelphia, PA; 2014-2017

Associate Professor

ROTHMAN INSTITUTE Philadelphia, PA; 2014-2017 Pittsburgh, PA; 2008-201

Associate Director of Research

MEDICAL LICENSURES

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF STATE 2018-PRESENT

License number – 273490

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF STATE 2008-2018

License number – MD 447835

COMMONWEALTH OF NEW JERSEY DEPARTMENT OF STATE 2013-2018

License number – MD 25MA09305900

ADMINISTRATIVE POSITIONS

• 2023 – PRESENT Chief of Arthroplasty and Joint Reconstruction, Brigham and Women's Hospital

• 2022 – PRESENT American Association of Orthopaedic Surgeons (AAOS) Registry Oversight Committee

• 2022 – PRESENT The Knee Society, Membership Committee

• 2022 – 2023 American Association of Hip and

Knee Surgeons (AAHKS) 3rd Vice President

• 2022 – 2023 Academic Orthopedic Consortium Connect – National Co-Chair, Clinical Advisory Team

• 2022 – 2023 Ruth Jackson Orthopaedic Society (RJOS) Nominating Committee

• 2022 – 2023 American Orthopaedic Association (AOA) Nominating Committee

• 2021 – 2024 American Orthopaedic Association (AOA) ABC Fellowship Subcommittee

• 2021 – PRESENT Executive Compensation Committee, Brigham and Women's Hospital

• 2021 – PRESENT American Association of Orthopaedic Surgeons (AAOS) Leadership Institute (Level 3)

Chen, Antonia F. Page 2 of 89

• 2021 The Carl L. Nelson, M.D. Award for the Advancement of Women in Orthopaedics Selection

Committee

• 2020 – PRESENT Current Concepts Foundation – Member of the Board of Trustees

• 2020 – PRESENT Journal of Orthopaedic Research (JOR) – Editorial Review Board

• 2020 – 2022 American Association of Orthopaedic Surgeons (AAOS) Resident Curriculum – Section Editor –

Complications After Total Hip Arthroplasty

• 2020-PRESENT Brigham and Women's Faulkner Hospital Medical Staff Executive Committee (MSEC) – At-Large

member

• 2020 – PRESENT American Association of Orthopaedic Surgeons (AAOS) American Joint Replacement Registry

(AJRR) Steering Committee

• 2020 – 2021 American Association of Hip and Knee Surgeons (AAHKS) Program Chair

• 2020 – PRESENT Journal of Bone and Joint Surgery (JBJS) Deputy Editor

• 2019 – 2021 American Association of Hip and

Knee Surgeons (AAHKS) Board of Directors – Member-at-Large

• 2019 – 2020 Board of Associate Editors for Journal of Bone and Joint Surgery (JBJS) Case Connector

• 2019 – 2020 American Association of Orthopaedic Surgeons (AAOS) Leadership Fellow Program (LFP)

• 2019 – PRESENT Adjunct Faculty Member at the Patient-Reported Outcomes, Value & Experience (PROVE) Center

• 2019 – PRESENT First-In-Women Precision Medicine Expert Consultant

• 2019 – PRESENT Arthroplasty Today – Associate Editor

• 2019 – 2022 Arthroplasty – Editorial Board

• 2019 – 2021 American Orthopaedic Association (AOA) Fellowship Education Coalition – Contract Negotiations

Workgroup

• 2019 – 2020 19th European Society of Sports Traumatology, Knee Surgery and Arthroscopy (ESSKA) Congress

Scientific Committee member

• 2018 – 2020 American Association of Hip and Knee Surgeons (AAHKS) Women in Arthroplasty Committee –

Vice-Chair

• 2018 – PRESENT American Association of Orthopaedic Surgeons (AAOS) Appropriate Use Criteria (AUC) leader

• 2018 – PRESENT American Association of Hip and Knee Surgeons (AAHKS) International Committee

• 2018 – 2019 American Association of Orthopaedic Surgeons (AAOS) Board of Specialty Societies (BOS) Conflict of Interest Taskforce member

• 2018 – 2019 Musculoskeletal Infection Society (MSIS) Executive Board Member – 1st Past President

• 2017 – PRESENT Journal of Arthroplasty (JOA) –

SECTION 2

Antonia F. Chen, MD/MBA

Editorial Board

- 2017 – 2023 Clinical Orthopaedics and Related Research (CORR) Journal – Associate Editor and Editorial Board
- 2017 – PRESENT American Joint Replacement Registry (AJRR) Research Projects Subcommittee member
- 2017 – 2019 Board of Specialty Societies Member Representative
- 2017 – PRESENT International Congress for Joint Reconstruction – Digital Media Committee member
- 2017 – 2019 American Association of Orthopaedic Surgeons (AAOS) Orthopaedic Special Interest Group (OSIG) Taskforce member
- 2017 – 2019 American Association of Orthopaedic Surgeons (AAOS) Board of Councils (BOC)/Board of Specialty Societies (BOS) Professionalism Committee liaison
- 2017 – 2018 Musculoskeletal Infection Society (MSIS) Executive Board Member – President
- 2016-PRESENT Journal of Bone & Joint Infection (JBJI) – Associate Editor, Editorial Board
- 2016 – 2020 Annals of Joint (AOJ) Journal – Associate Editor, Editorial Board
- 2016 – 2018 American Association of Hip and Knee Surgeons (AAHKS) Finance Committee
- 2016 – 2017 International Congress for Joint Reconstruction (ICJR) Continuing Medical Education (CME) question writer
- 2016 – 2017 Musculoskeletal Infection Society (MSIS) Executive Board Member – Vice President
- 2016 – 2017 American College of Rheumatology Perioperative Management Guideline committee
- 2016 – 2017 Director of Medical Education Curriculum, Musculoskeletal Studies – Sidney Kimmel Medical College
- 2015 – 2020 Healthcare Transformation Journal – Associate Editor (Healthcare Delivery) and Editorial Board
- 2015 – PRESENT European Knee Association

(EKA) Board Member – Research Committee

- 2015 – PRESENT Knee Surgery, Sports Traumatology, Arthroscopy (KSSTA) Journal – Editorial Board Chen, Antonia F. Page 3 of 89
- 2015 – PRESENT American Academy of Orthopaedic Surgery (AAOS) Committee on Evidence-Based Quality and Value (EBQV) Committee member
- 2015 – 2020 Bone & Joint 360 Journal – Editorial Board
- 2015 – 2017 Orthopaedic Surgical Site Infection Chair, Thomas Jefferson University Hospital, Philadelphia, PA, USA
- 2015-2017 American Joint Replacement Registry (AJRR) clinical and faculty leader, Thomas Jefferson University Hospital, Philadelphia, PA, USA
- 2015 – 2017 International Congress for Joint Reconstruction (ICJR) Grand Rounds Editor
- 2015 – 2017 Resident Promotion Committee member at the Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, PA, USA
- 2015 – 2016 Musculoskeletal Infection Society (MSIS) Executive Board Member – Member at Large
- 2012 – 2013 American Academy of Orthopaedic Surgeons (AAOS) Orthopaedic Residents Opinion Group
- 2012 – 2013 Chief Resident
- 2011 – 2012 Resident member, American Academy of Orthopaedic Surgeons (AAOS) New Technology resource panel
- 2010 – 2013 Resident and Fellow Liaison, Membership Committee, American Association of Hip and Knee Surgeons (AAHKS)
- 2010 – 2013 Graduate Medical Education (GME) Accreditation, Review & Quality Committee (ARQC) resident liaison at the University of Pittsburgh School of Medicine

HONORS AND AWARDS

BRIGHAM AND WOMEN'S HOSPITAL

- 2023 Outstanding Mentor Award – Mass General Brigham
- 2023 Top Doctor Award – Boston Magazine
- 2023 Springer Nature 2022 Research Highlights for "Obesity, preoperative weight loss, and telemedicine before total joint arthroplasty: a review"
- 2022 American Association of Hip and Knee Surgeons (AAHKS) Poster Award – Primary Hip. "Cemented Femoral Fixation Reduces Risk of Periprosthetic Femur Fracture in Total Hip Arthroplasty"
- 2022 Top Doctor Award – Boston Magazine
- 2022 Honoree – Helio Honors
- 2022 Ruth Jackson Orthopaedic Society She-For-She Award – Nominee
- 2021 Harvard Medical School (HMS) Scholarly Engagement Excellence in Student Mentoring Award
- 2021 American Association of Hip and Knee Surgeons (AAHKS) Poster Award – Non-arthroplasty and Miscellaneous. "Total Hip and Knee Arthroplasty Patient Telemedicine Experience During COVID-19"
- 2021 Exceptional Women in Medicine Award – Castle Connolly
- 2021 Top Doctor Award – Boston Magazine
- 2021 Resident Research Award – "Comparing Articulating Spacers for Periprosthetic Joint Infection After Primary THA: All-Cement vs. Real Component Articulating Spacers"
- 2021 American Academy of Orthopaedic Surgeons (AAOS) Best Poster Award in Practice Management– "Perceptions of Belonging and Social Fit in Adult Reconstruction: A Survey of Orthopaedic Surgery Residents"
- 2021 Orthopaedic Research Society (ORS) Harris Award. "Detecting Total Hip Replacement

Prosthesis Design On Plain Radiographs Using Deep Convolutional Neural Network"

- 2021 Golden Award of the 1st Academic Paper Contest for Better Arthroplasty. Arthroplasty Society in Asia (ASIA) and Arthroplasty. "Intraoperative and Postoperative Modifiable Risk Factors for Orthopaedic Surgical Site Infection Risk Reduction"
- 2020 American Association of Hip and Knee Surgeons (AAHKS) Poster Award – Infection. "A Randomized Clinical Trial of Static and Articulating Spacers for Treatment of the Infected Total Hip Arthroplasty"
- 2020 American Association of Hip and Knee Surgeons (AAHKS) Poster Award – Primary Hip. "Multicenter Trial of Inpatient vs. Outpatient Pain and Satisfaction After Total Hip Arthroplasty" Chen, Antonia F. Page 4 of 89
- 2019 John N. Insall Knee Traveling Fellowship
- 2019 Current Concepts in Joint Replacement (CCJR)/Orthopaedic Research Education Foundation (OREF) Award. "Randomized trial of static and articulating spacers for the infected TKA."
- 2019 Hip Society Meeting – The Otto Aufranc Award. "Cluster-Randomized Trial of Opiate-Sparing Analgesia after Discharge from Elective Hip Surgery."
- 2019 American Orthopaedic Association (AOA) American-British-Canadian (ABC) Traveling Fellowship traveling to the United Kingdom, New Zealand and Australia.
- 2019 4th Place – 4th Annual Technology & Innovation in Orthopedics Symposium (Holy Cross Orthopedic Research Institute)– Abstract competition. "Optimal Timing of Glucose Measurements After Total Joint Arthroplasty."
- 2019 Partners in Excellence Teamwork Award for the Treatment of Meniscal Problems in Osteoarthritis (TeMPO) study
- 2019 Nesson Award for Collaboration. "The PHS

SECTION 2

SECTION 2

Antonia F. Chen, MD/MBA

- Orthopedics and Neurosurgery Collaborative"
- 2019 Journal of Bone and Joint Surgery (JBJS) Elite Reviewer Status
- 2019 Top Peer Reviewer – Global Peer Review Awards by Publons
- 2018 Best of Meeting Award at the American Society of Regional Anesthesia (ASRA) and Pain Medicine Meeting. "A cluster-randomized crossover trial of multimodal narcotic-sparing and conventional pain regimens after discharge from hip replacement: are opiates even necessary?"
- 2018 Semi-Finalist in the Brigham Care Redesign Incubator Startup Program (BCRISP)

ROTHMAN INSTITUTE

- 2018 Current Concepts in Joint Replacement (CCJR)/Orthopaedic Research Education Foundation (OREF) Award. "A cluster-randomized crossover trial of multimodal narcotic-sparing and conventional pain regimens after discharge from hip replacement: are opiates even necessary?"
- 2018 KSSTA-Jón Karlsson Young Researcher Award in Clinical Science. "EKA Survey: Diagnosis of Prosthetic Knee Joint Infection."
- 2018 Journal of Bone and Joint Surgery (JBJS) Elite Reviewer Status
- 2018 Knee Society Meeting – John N. Insall, MD Award. "Unsupervised Home Exercise Equivalent to Traditional Outpatient Therapy After Primary TKA: A Randomized Controlled Trial"
- 2017 American Association of Hip and Knee Surgeons Poster Award – Primary Knee. "Unsupervised Home Exercise Provides Equivalent Outcomes to Traditional Outpatient Physiotherapy after Primary Total Knee Arthroplasty: A Randomized Controlled Trial."
- 2017 Jon Mader Award – Musculoskeletal Infection Society Award for best clinical research paper. "Marker to Guide Reimplantation after Two-stage Exchange Arthroplasty for Periprosthetic

- Joint Infection: A Meta-analysis."
- 2017 Current Concepts in Joint Replacement (CCJR)/Orthopaedic Research Education Foundation (OREF) Award. "Post-Operative Blood Glucose Levels Predict Periprosthetic Joint Infection after Primary Total Joint Arthroplasty."
- 2017 Journal of Bone and Joint Surgery (JBJS) Elite Reviewer Status
- 2016 Top reviewer for Clinical Orthopaedics and Related Research (CORR) Journal
- 2016 American Association of Hip and Knee Surgeons Poster Award – Complications not Including Infection. "A Comparison of Two Dosing Regimens of ASA following Total Hip and Knee Arthroplasty."
- 2016 American Association of Hip and Knee Surgeons Poster Award – Infection. "Case Order Has an Effect on Periprosthetic Joint Infection Risk."
- 2016 Journal of Bone and Joint Surgery (JBJS) Elite Reviewer Status
- 2016 Guest editor of "Local Antimicrobial Treatment in Orthopaedic Surgery" in Journal of Bone & Joint Infection. 2016. Volume 1
- 2016 Knee Surgery, Sports Traumatology, Arthroscopy (KSSTA) Reviewer of the Year
- 2016 Philadelphia Business Journal – Top 40 under 40 years old in Philadelphia, Pennsylvania
- 2016 Sigma Xi AOA symposium poster award. "Decreased Flexion Contracture after Total Knee Arthroplasty: A Randomized Controlled Trial."
- 2016 Hip Society Meeting – The Otto Aufranc Award. "A Multi-Center, Prospective, Randomized Study of Outpatient versus Inpatient Total Hip Arthroplasty."
- 2016 George Cierny, III Memorial Award. Institutional Excellence in Research at the Rothman Institute. Chen, Antonia F. Page 5 of 89 Musculoskeletal Infection Society meeting, August 5-6, 2016.
- 2015 Mark Coventry Award – The Knee Society

- Specialty Day Award. "Oral Antibiotics Reduce Reinfection Following 2-Stage Exchange: A Multi-Center, Randomized Controlled Trial."
- 2015 American Association of Hip and Knee Surgeons Poster Award. "Routine Work-up of Patients with Postoperative Pyrexia following Total Joint Arthroplasty is Not Necessary."
- 2015 Guest editor of "Treatment Options for Orthopaedic Infections" in Operative Techniques in Orthopaedics. 2016 Issue #1.
- 2015 Guest editor of "Adult reconstruction: clinical and basic research" in the Annals of Translational Medicine.
- 2015 Colombian National Orthopaedic meeting (60° Congreso Nacional SCCOT), Winner of Best Abstract, "Should Preoperative Antibiotics be Tailored According to Patient's Comorbidities?" May 20-23, 2015. Cartagena, Colombia
- 2015 U.S. Bone and Joint Initiative, Young Investigators Initiative (YII) program
- 2015 Eastern Orthopaedic Association (EOA)/ Eastern Orthopaedic Educational Foundation (EOEF) Resident/Fellow award. "Organism Persistence in Failed Prosthetic Retention for Periprosthetic Joint Infection." June 17-20, 2015. Wailea-Maui, HI, USA

UPMC ORTHOPAEDICS

- 2013 Top reviewer in 2013 for Clinical Orthopaedics and Related Research (CORR) Journal
- 2013 Runner-up Fellow/Resident Award. Pennsylvania Orthopaedic Society. October 10-11, 2013. State College, PA, USA
- 2013 Resident Research Day Award. Visiting Professor: Dr. John J. Callaghan. Pittsburgh, PA, USA PA
- 2013 Selected to participate in a panel discussion on Career Development at the ORS/ORF/AAOS New Investigator Workshop. May 17-18, 2013.

SECTION 2

- Baltimore, MD, USA
- 2013 Featured in Emerging Leaders on the Move. Emerging Leaders Messenger. February 15, 2013.
- 2012 Jeannette Wilkins Award – Musculoskeletal Infection Society Award for best basic science research paper; San Antonio, TX, USA
- 2012 AOA Resident Leadership Forum 125th Annual Meeting of the American Orthopaedic Association; Washington, DC, USA
- 2012 Jacquelin Perry, MD, Resident Research Award from Ruth Jackson Orthopaedic Society; San Francisco, CA, USA
- 2011 Gold Foundation Humanism and Excellence in Teaching Award; Pittsburgh, PA, USA
- 2011 1st place in the OREF/ORS Midwest Heartland Resident Research Symposium; St. Louis, MO, USA
- 2010 Clinical Scientist Development Program (CSDP) – AAOS and AAHKS sponsored; Rosemont, IL, USA
- 2010 Most Supportive Physician, Children's Hospital of Pittsburgh; Pittsburgh, PA, USA

ROBERT WOOD JOHNSON MEDICAL SCHOOL

- 2008 Excellence in Research Award, Robert Wood Johnson Medical School; Piscataway, NJ, USA
- 2008 Alpha Omega Alpha (AOA) membership, Robert Wood Johnson Medical School; Piscataway, NJ, USA
- 2007 The Oslerian Award for Translational Research, National Student Research Forum; Galveston, TX, USA

RUTGERS BUSINESS SCHOOL

- 2005 Beta Gamma Sigma Honor Society, Rutgers Business School; New Brunswick, NJ, USA
- 2003 2nd place Innovative Design Contest – Team

Antonia F. Chen, MD/MBA

leader, Rutgers Business School; New Brunswick, NJ, USA

REVIEWS

- 2021 – PRESENT Manuscript reviewer for The Lancet – eBioMedicine
- 2020 – PRESENT Manuscript reviewer for Arthroplasty Today
- 2020 – PRESENT Manuscript reviewer for Journal of Comparative Neurology
- 2020 – PRESENT Manuscript reviewer for Brain and Behavior
- 2019 – PRESENT Manuscript reviewer for The Lancet Rheumatology
- 2019 – PRESENT Manuscript reviewer for The Lancet
- 2019 – PRESENT Manuscript reviewer for Connective Tissue Research Chen, Antonia F. Page 6 of 89
- 2019 – PRESENT Manuscript reviewer for Arthroplasty
- 2019 – PRESENT Manuscript reviewer for ANZ Journal of Surgery
- 2018 – PRESENT UpToDate Peer Reviewer
- 2018 – PRESENT Manuscript reviewer for JAMA Surgery
- 2018 – PRESENT Manuscript reviewer for Biological Chemistry
- 2018 – PRESENT Manuscript reviewer for Journal of Bone and Joint Surgery (JBJS) Open Access
- 2018 – PRESENT Manuscript reviewer for Antimicrobial Agents and Chemotherapy (AAC)
- 2018 – PRESENT Manuscript reviewer for Bone & Joint Research
- 2017 – PRESENT Abstract reviewer for the Orthopaedic Research Society (ORS) Annual Meeting
- 2017 – PRESENT Manuscript reviewer for The Lancet Infectious Diseases
- 2017 – PRESENT Manuscript reviewer for British Journal of Sports Medicine (BJSM)

- 2017 – PRESENT Manuscript reviewer for BMC Musculoskeletal Disorders
- 2017 – PRESENT Manuscript reviewer for BMC Infectious Diseases
- 2017 – PRESENT Manuscript reviewer for BMC Rheumatology
- 2016 – PRESENT Manuscript reviewer for Journal of Bone and Joint Surgery (JBJS)
- 2016 – PRESENT Manuscript reviewer for Journal of Bone and Joint Surgery (JBJS) Case Connector
- 2016 – PRESENT Manuscript reviewer for Journal of Bone and Joint Surgery (JBJS) Essential Surgical Techniques
- 2016 – PRESENT Manuscript reviewer for Genetic Testing and Molecular Biomarkers
- 2016 – PRESENT Manuscript reviewer for The Knee
- 2016 – PRESENT Manuscript reviewer for Journal of Knee Surgery
- 2016 – PRESENT Manuscript reviewer for the Journal of the American Academy of Orthopaedic Surgeons (JAAOS)
- 2015 – PRESENT Manuscript reviewer for PLOS One
- 2015 – PRESENT Manuscript reviewer for The Bone & Joint Journal (BJJ)
- 2015 – PRESENT Grant reviewer for Arthritis Research UK
- 2015 – PRESENT Grant reviewer for Physicians Services Incorporated (PSI) Foundation
- 2015 – PRESENT Abstract reviewer for the European Society of Sports Traumatology, Knee Surgery & Arthroscopy (ESSKA) Annual Meeting
- 2014 – PRESENT Manuscript reviewer for Journal of Arthroplasty (JOA)
- 2014 – PRESENT Abstract reviewer for the American Association of Hip and Knee Surgeons (AAHKS) Annual Meeting
- 2013 – PRESENT Manuscript reviewer for Knee Surgery, Sports Traumatology, Arthroscopy (KSSTA)

- 2012 – PRESENT Prospective Clinical Research Grant Reviewer for Orthopaedic Research and Education Foundation (OREF)
- 2012 – PRESENT Manuscript reviewer for Stem Cell Research & Therapy Journal
- 2012 – PRESENT Manuscript reviewer for Clinical Orthopaedics and Related Research (CORR) Journal
- 2011 – PRESENT Manuscript reviewer for Transfusion Journal
- 2011 – 2019 Manuscript reviewer for Academic Radiology Journal

PROFESSIONAL SOCIETY MEMBERSHIPS

- 2019 – PRESENT The Association of Bone and Joint Surgeons® (ABJS®)
- 2019 – PRESENT New England Orthopaedic Society (NEOS)
- 2018 – PRESENT Society of Asian Academic Surgeons (SAAS)
- 2015 – PRESENT European Knee Association (EKA)
- 2015 – PRESENT European Bone & Joint Infection Society (EBJIS)
- 2013 – PRESENT European Society of Sports Traumatology, Knee Surgery & Arthroscopy (ESSKA)
- 2013 – 2018 International Society of Arthroscopy, Knee Surgery, and Orthopedic Sports Medicine (ISAKOS)
- 2012 – PRESENT American Orthopaedic Association (AOA)
- 2012 – 2017 Pennsylvania Medical Society (PAMED)
- 2012 – 2015 North American Spine Society (NASS)
- 2012 – 2013 Allegheny County Medical Society
- 2011 – PRESENT Orthopaedic Research Society (ORS)

- 2011 – PRESENT Musculoskeletal Infection Society (MSIS)
- 2011 – PRESENT Ruth Jackson Orthopaedic Society (RJOS) Chen, Antonia F. Page 7 of 89
- 2009 – PRESENT American Association of Hip and Knee Surgeons (AAHKS)
- 2008 – PRESENT American Academy of Orthopaedic Surgeons (AAOS)
- 2008 – PRESENT Alpha Omega Alpha (AOA)
- 2005 – PRESENT Beta Gamma Sigma (BGS)
- 2002 – 2009 American College of Surgeons (ACS)
- 2002 – 2008 American Medical Association (AMA)

Rationale for one stage exchange of periprosthetic hip and knee infection

Jean-Yves JENNY

University Hospital Strasbourg France

Periprosthetic joint infection is a serious complication following hip and knee arthroplasty, leading to pain, dysfunction, and potential implant failure. One-stage exchange arthroplasty has emerged as a viable approach for managing PJI, offering several advantage over traditional two-stage procedure. The rotational for using a one-stage exchange for periprosthetic hip and knee infection includes the following key points.

One-stage exchange involves the removal of the infected prosthesis and simultaneous implantation of a new prosthesis in a single surgical procedure. Performing one single surgery minimized the risk of intra-operative recontamination from another pathogen, while eradication of the index infection is a s effective as after a two-stage procedure.

One-stage exchange helps preserve bone stock and soft tissue integrity. The removal of an infected prosthesis and thorough debridement are combined with the placement of a new implant, avoiding the need for a lengthy period of implant absence that may lead to bone loss and soft tissue contractures, which can occur in two-stage procedure.

By avoiding the need for a second surgery, prolong antibiotic therapy, and extended hospitalization, the one-stage exchange approach can result in reduced healthcare costs. This is particularly important in the context of healthcare resource allocation and cost-conscious healthcare system.

The decision to use a one-stage approach may be based on careful patient selection and through evaluation of infection characteristics. However, we published excellent results using a routine strategy.

Considerations in the choice of approaching route for para-spinal infection and spondylodiscitis

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Taichung Veterans General Hospital, Taiwan

Paraspinal infection of thoracolumbar or lumbar region including the psoas muscle abscess, epidural abscess and spondylodiscitis. The main strategy of management is culture confirm of infectious pathogen and antimicrobial therapy. However, surgical debridement remained its important roles in some victims with poor medical control of infection.

Conventionally, the choice of route for debridement remained the antero-posterior approach, which can provide direct debridement of infected tissue including disc, vertebra and psoas muscle, and can also provide direct reconstruction when it is mandatory. However, there was also several studies showed that other strategy can demonstrate feasible result including minimal invasive endoscopic debridement with bone grafting or cage augmentation, and the posterior-only debridement with instrumentation. Because of the diversity of infected area, severity of neurological compromise, degree of destruction of structural stability and also the host condition, in this report, we will briefly discuss some situations mentioned in the literature, as well as some cases we encountered in our clinical situation.

Effect of Surgeon Volume on Complications Following Resection Arthroplasty for PJI

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China Medical University Hospital, Taichung Taiwan

Effect of surgeon volume on mechanical complications after resection arthroplasty for periprosthetic knee infection Two-stage exchange arthroplasty with antibiotic cement articulating spacer is the preferred treatment method for chronic periprosthetic knee infection. However, spacer-related mechanical complications have occurred during interim, such as spacer fracture or migration, joint dislocation, periprosthetic fracture, or extensor apparatus problems. These problems might lead to further surgery and poor functional outcomes. These disturbing results led us to ask whether surgeon volume associated with mechanical complications after resection arthroplasty with articulating spacer.

Early surgery with antibiotics treatment had better clinical outcomes than antibiotics treatment alone in patients with pyogenic spondylodiscitis

蔡宗廷 Tsung-Ting Tsai MD. PhD.

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- Director of Bone and Joint Research Center, Chang Gung Memorial Hospital

Abstract

Background

Pyogenic spondylodiscitis is a form of spinal infection that can result in severe back pain and even death. However, information is lacking on the relative effectiveness of various therapies. A retrospective chart review was conducted to investigate whether early surgical treatment of pyogenic spondylodiscitis coupled with intravenous antibiotics results in better patient prognoses than intravenous antibiotics therapy alone.

Methods

All patients treated for pyogenic spondylodiscitis at a single medical center from July 2006 to July 2011 were retrospectively reviewed. The inclusion criteria consisted of diagnosis of an early stage infection without neurological deficit, and patients without severe sepsis who were suitable candidates for early surgery as determined by a Pittsburgh bacteremia score <4, and patients with delayed diagnosis and lost to outpatient follow-up were excluded. Clinical outcomes included patient demographic data, kyphosis angle, length of treatment, Oswestry Disability Index and visual analogue pain scale were analyzed.

Results

Of 90 enrolled patients, Group 1 (n=47) received only antibiotic therapy and Group 2 (n=43) received early surgery with post-surgery antibiotics for 2 to 4 weeks. Group 2 exhibited significantly better results than Group 1 for mean antibiotic administration period, mean hospitalization period, kyphotic angle correction. Of 61 patients who participated in telephone follow-up after discharge, Group 2 (n=26) had significant lower mean ODI score, and mean back pain score than Group 1 (n=35).

Conclusions

While infection control was similar for both groups, patients treated with early surgery and antibiotics were hospitalized for fewer days and required less antibiotics than those treated with antibiotics alone, also having better functional outcomes. In short, early surgical treatment of pyogenic spondylodiscitis typically achieves a better prognosis, shorter hospitalization period, and subsequent significant improvement in kyphotic deformity and quality of life.

Keywords: Pyogenic spondylodiscitis, Medical treatment, Antibiotic therapy, Surgical approaches, Kyphosis angle, Oswestry disability index

Exploring the Latest Trends in Debridement, Antibiotics, and Implant Retention (DAIR) for Prosthetic Joint Infections: A Novel Approach to Optimizing Patient Outcomes

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Abstract:

Title: Exploring the Latest Trends in Debridement, Antibiotics, and Implant Retention (DAIR) for Prosthetic Joint Infections: A Novel Approach to Optimizing Patient Outcomes

Background: This topic explores the latest advancements in the use of Debridement, Antibiotics, and Implant Retention (DAIR) for managing prosthetic joint infections (PJI), aiming to optimize patient outcomes. In the introduction, we provide an overview of PJI, emphasizing the burden of the disease and the potential benefits of DAIR as a primary management strategy.

Materials and methods: Our methodology involves a comprehensive literature review and analysis of clinical trials, studies, and reports on DAIR conducted between 2020 and 2023. We further dissect novel developments in debridement techniques, antibiotic regimens, and strategies for implant retention.

Results: Enhanced debridement methods have resulted in increased removal of biofilm, thereby improving infection clearance. Adjustments in antibiotic therapy, including the introduction of more potent, broad-spectrum antibiotics and the use of antibiotic-loaded bone cement, have also shown a significant reduction in reinfection rates. Additionally, advances in implant retention strategies have decreased the need for revision surgeries, improving patient quality of life.

Discussions: The discussion underscores the growing evidence supporting the efficacy of these innovations in DAIR. Furthermore, we propose an integrated, patient-specific approach that combines the latest advancements in DAIR, considering individual patient factors such as infection severity, immune status, and the type of prosthetic joint involved. It also indicates a promising future for DAIR in PJI management, suggesting potential for improved patient outcomes and reduced healthcare costs. However, we also acknowledge the need for further research and large-scale, randomized controlled trials to validate these findings and establish robust, standardized protocols.

The surgical approach in spondylodiscitis the current update

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Surgical intervention plays a crucial role in the management of spondylodiscitis, particularly in cases where conservative treatment fails or there are complications such as neurological deficits, spinal instability, or abscess formation. Various surgical approaches have been employed to address spondylodiscitis, each with its own advantages and considerations. The choice of surgical approach depends on factors such as the location and extent of the infection, the presence of spinal instability, the involvement of neural structures, and the overall health status of the patient. The choice of surgical approach should be individualized based on the specific characteristics of each case. A multidisciplinary approach involving spine surgeons, infectious disease specialists, and other healthcare professionals is crucial to optimize surgical outcomes and minimize complications.

Epidemiology of Bone and joint infection

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Abstract

Bone and joint infections (BJI), known as osteomyelitis and septic arthritis, are serious diseases characterized by the presence of pathogens such as bacteria or fungi within the bone or joint tissue. BJI can be caused by open wounds, direct contamination from surgery, or blood-borne pathogenic bacteria from other parts of the body. BJI often requires blood cultures and even tissue biopsies to confirm the diagnosis, identify the causative pathogen, and guide appropriate and effective antimicrobial therapy.

Rheumatoid arthritis, neonates, diabetes, alcoholism, and elderly are possible risk factors for BJI, as are recent joint surgeries, joint prostheses, past intra-articular injections, history of skin infection or skin ulcers, HIV infection, and patients on suppressive therapy are at increased risk for BJI. Epidemiological studies revealed diabetic foot osteomyelitis to be the most common BJI, followed by non-vertebral osteomyelitis. Pathogens include Gram-positive cocci, Gram-negative bacilli, and fungi. In recent years, there has been extensive use of advanced surgical interventions in the treatment of BJI, including removal of infected tissue and implants, and the use of targeted antibiotics. Antibiotic resistance, particularly of invasive bacterial species, has been prevalent and, as a result, the consumption of last-line antibiotics such as vancomycin, carbapenem, and even daptomycin, continues to increase for the treatment of BJI.

Advance in diagnosis for bone and joint infection

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Taichung Veterans General Hospital, Taiwan

Bone and joint infections represent a complex medical challenge, requiring accurate and timely diagnosis to prevent complications and ensure effective treatment. Traditional methods, although vital, have limitations in specificity, sensitivity, and speed. This talk will explore the contemporary advancements in the diagnostic technologies for bone and joint infections, offering a comprehensive overview of the recent innovations. We will delve into how these advances have augmented our ability to diagnose infections with greater accuracy and efficiency. Additionally, the talk will discuss the associated challenges such as cost, accessibility, and ethical considerations, while also shedding light on promising future directions in research and technology development. The aim of this talk is not only to present the state-of-the-art in the field but also to stimulate further research, collaboration, and innovation in the diagnosis of bone and joint infections.

Management of Bone and Joint Infection: ID perspectives

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Chi Mei Medical Center, Taiwan

• Staphylococcus aureus is the most common pathogen in all three major classes of osteoarticular infection, osteomyelitis, native joint septic arthritis, and prosthetic joint infection. Coagulase-negative staphylococci (CoNS) are more prevalent in prosthetic joint infection (PJI) followed by S. aureus. Clinical treatment for bone and joint infections included surgery plus early and appropriate antibiotics: significantly reduce recurrence rate of infection and improve quality of life. Other concern: Biofilm production is the most important factor in developing chronic osteomyelitis. Biofilm formation in prosthesis-related infections focus on planktonic cells attach to metal substrate, initial cells undergo apoptosis – "sacrificial cells" become matrix for biofilm. Biofilm: semi dormant bacterial phase where the microbe is trying to live in a symbiotic state which are low metabolic rate and less sensitive to most antibiotics. According to literature reviews, the low molecular weight fosfomycin penetrates into deep layers of newly formed or even mature biofilms along with enhancement of its antimicrobial activity under anaerobic conditions and have synergy effect such as fosfomycin combined with quinolones or arbekacin. Fosfomycin also enhanced the activities of linezolid, minocycline, vancomycin and teicoplanin, these combinatorial treatments were even better than rifampin-based regimens, and may provide therapeutic advantages in catheter-related or prosthetic joint infections. According to the proceedings of International Consensus on Orthopedic Infections: 98% delegate vote agreed: The treatment of PJIs takes a multidiscipline approach, with interactions between the orthopedic surgeon, anesthesiologist, infectious disease specialist, medical microbiologist, plastic surgeon, and ancillary service teams. The Oxford bone infection unit (UK), Oregon Health and Science University (US) suggest that MDT/IDT and outpatient parenteral antimicrobial therapy services can improve PJI management. Successful IDT approach and impact cases. Gravius et al reviewed 147 PJI patients, multidisciplinary teamwork, Follow-up 29 months, 73.5% microorganisms identified, antibiotic therapy was adjusted in 42% of cases, based on discussions with infection specialists, 71.4% (definitely) and 5.4% (probably) free from infection, 3.4% died of PJI and sepsis, graded as "difficult to treat"

Summary:

•S. aureus is the leading cause of bone and joint infections. Surgery + Early and appropriate antibiotics: significantly reduce recurrence rate of infection and improve quality of life. Biofilm production is the most important factor in developing chronic osteomyelitis: Daptomycin has high concentration in bone and joint tissue and demonstrated very good bactericidal activity against bacteria in suspension and attached biofilms. Higher dosage (≥ 8 -10 mg/kg QD daptomycin) is recommended in IDSA guideline for treatment Osteomyelitis. Combination therapy could be considered. Rifampin, vancomycin, and fusidic acid were most commonly combinations. Rifampin was part of any antibiotic therapy. Not monotherapy due to rapid drug resistance may emergence. The role of fosfomycin should be considered.

Management of MDRO related bone and joint infection

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Over the last several decades, periprosthetic joint infection (PJI) has been increasing in incidence and is one of the most devastating complications from arthroplasties. While there have been advances in both surgical and medical treatment strategies, treatment of PJIs is highly challenging as more than one surgical intervention as well as long-term antibiotic treatment are often required. Although Gram-positive bacteria (mostly staphylococci) account for the main causative agents in PJIs, an increase in PJIs due to GNB has been reported recently. Furthermore, emerging multidrug-resistant (MDR) GNB decreases the therapeutic options. However, little is known about the epidemiology, clinical presentation, therapeutic strategies and outcomes of patients diagnosed with MDR GNB PJIs. Here, I present the current management of PJIs caused by MDR GNB, focusing on the outcomes, antibiotics regimens and collaborative care.

Early diagnosis of surgical site infection after spinal instrumentation surgery

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Department of Orthopaedic Surgery, Shinshu University School of Medicine

Surgical site infection (SSI) after spinal instrumentation surgery is difficult to treat, causing pain and suffering to the patient. SSI also results in considerable medical costs and a strained doctor-patient relationship. Therefore, it is very important to detect and manage SSI at an early stage. In this talk, I will present our approaches and experience in the early diagnosis of SSI following spinal instrumentation surgery.

Our standard postoperative protocol is to measure C-reactive protein (CRP) on the second postoperative day. Then, CRP, white blood cell count, and white blood cell differential are evaluated on the fourth and seventh days after surgery. Since CRP due to surgical invasion peaks 2 days later (Takahashi J, et al. Spine 2001), we consider the patient to be safe if CRP is lower on the fourth day than on the second day. However, when lymphocyte differential on day 4 is less than 10%, neutrophil differential is more than 80%, and lymphocyte count is less than 800/ μ L, there is a possibility of SSI, including infection in the tissue (Takahashi J, et al. Spine 2006); thus, the blood test on day 4 is important from a variety of standpoints.

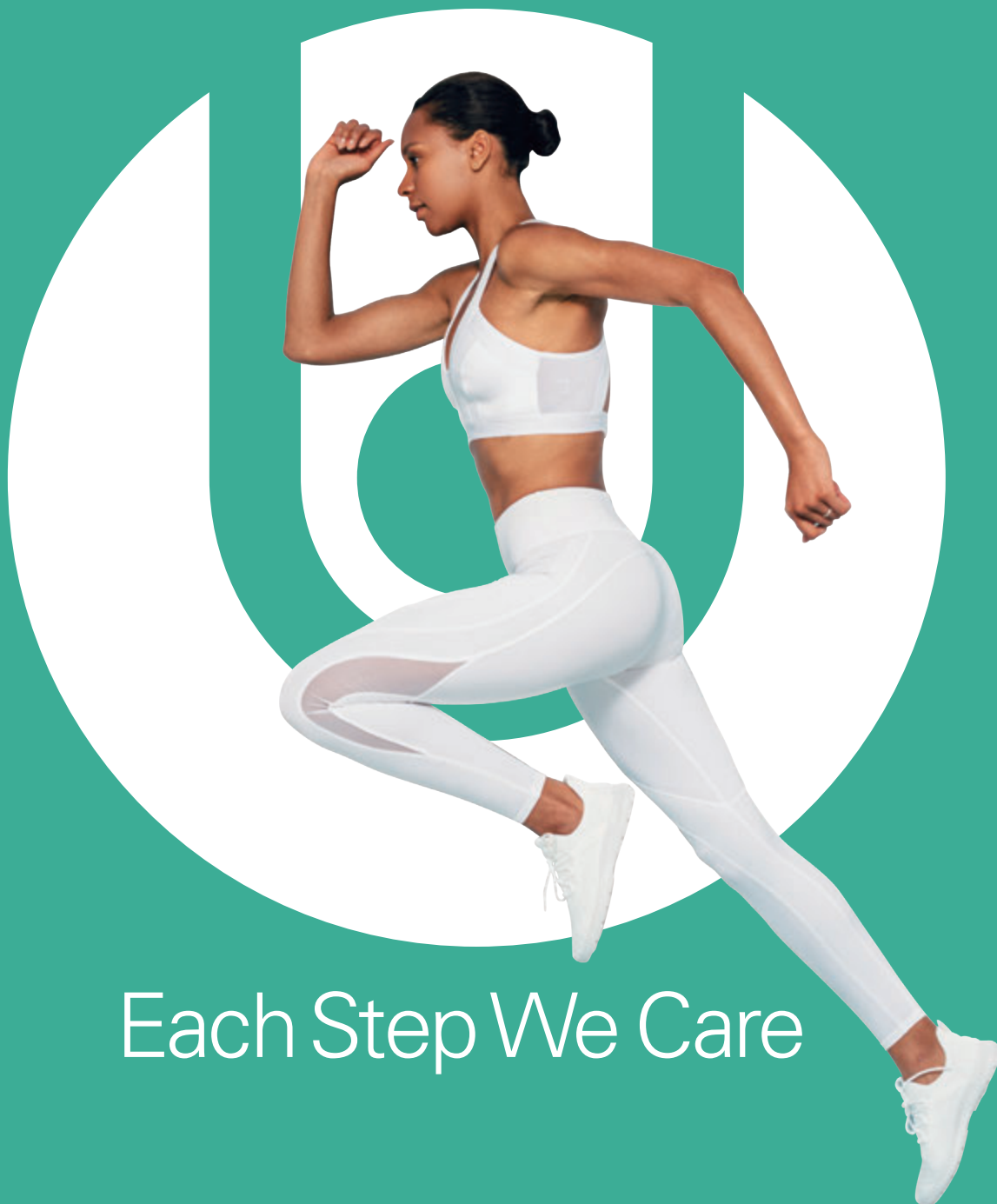
Based on the blood examination and wound findings on the fourth postoperative day, prophylactic antibiotic administration is usually halted if there are no problems, but can be switched to an antibiotic treatment regimen if SSI is suspected. Such monitoring may also allow the patient to be sedated before the infection manifests itself.

Advancements in PJI Treatment

Antonia F. Chen

Brigham and Women's Hospital Boston, USA

There are multiple ways to treat periprosthetic joint infections (PJI). With regards to surgical management, debridement, antibiotics and implant retention (DAIR), one-stage exchange arthroplasty, and two-stage exchange arthroplasty are most commonly used depending on the chronicity of the infection. There are multiple irrigation solutions that can be used in surgery, including povidone-iodine, chlorhexidine, acetic acid, hydrogen peroxide, and hydrochloric acid. Bacteriophage therapy can be used to disrupt biofilm by targeting specific bacteria, and may enhance the treatment of PJI. In the future, physical disruption using ultrasound may be useful along with photosensitive dye. Medications that inhibit quorum sensing and those that disrupt biofilm persisters may be necessary to prevent the recurrence of infection.



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