

由中国牵头的国际元宇宙医学组织成立了！

白春学教授提出了元宇宙医学是通过 AR 技术实施的物联网医学，并邀请来自亚洲、美国和欧洲的医生，以及相关计算机和信息专家组成了多学科专家组，进一步明确白教授提出的元宇宙医学的定义，达成元宇宙医学共识（发表在 Clinical eHealth）。其目的是应用元宇宙虚实融合、人机融合和虚实联动技术结合物联网全面感知、可靠传输和智能处理技术的策略，全时空地指导经验不足的医生解决医学问题。以便联动、高效、精准、同质化地提高医疗服务和大健康水平，产生“物联健康新契机，直面名家零距离，虚实联动加质控，人机融合谁能敌”效果。

基于此，创立国际元宇宙医学协会和联盟（International Association and Alliance of Metaverse in Medicine, IAMM)的时机已经成熟，在 2022 年 2 月 18 日启动了元宇宙医学协会暨联盟创立（IAMM）大会和线上讨论修改 IAMM 章程、遴选委员和投票选举领导人。这次线上投票参加选举委员 80 人，实际投票 80 人。4 名没有中国微信的外宾根据邮件意见计算投票。选举在 2022 年 2 月 18 日晚 11 点顺利结束，白春学教授当选为主席，Charles A. Powell 教授，Niels H. Chavannes 教授，Christoph Thuemmler 教授，潘毅院士和陈荣昌教授当选为副主席！

这不但意味着国际元宇宙医学协会和联盟成立了，而且意味着这一国际组织从筹建就得到了相关国际权威人士认可和参加。因为副主席中 Powell 教授是全球最大的放射学会的前任主席，Chavannes 教授曾在 WHO 任职，现任荷兰 LUMC 教授，Thuemmler 教授曾任中国欧盟物联网合作的主要欧盟专家。此外，Clinical eHealth（KeAi 出版社）英文杂志不但在全球率先发布白教授提出的元宇宙医学的定义，以及国际专家达成的元宇宙医学共识，而且公布该杂志主编会议提议（且得到出版社同意），将欢迎元宇宙医学元素的论文、综述、述评、研究方案和 Video 摘要在该杂志发表。这不但扩大了中国影响，还会助力我们位于国际领先水平，而且有助于事半功倍地完成健康中国 2030 计划。

国际元宇宙医学协会和联盟

2022 年 2 月 20 日

President: Chunxue Bai, MD, PhD

Professor of Zhongshan Hospital Fudan University, Director of Shanghai Institute of Respiratory Diseases, Chief, Shanghai Engineer & Technology Research Center of IoT for Respiratory Medicine, Chairman of Chinese Alliance Against Lung Cancer, Chairman of International Alliance of Intelligent Health



白春学 复旦大学附属中山医院教授，上海市呼吸病研究所所长，上海物联网医学工程技术研究中心主任，中国肺癌防治联盟主席，国际智能健康联盟主席，上海控烟协会会长，健康中国互联网 TV 平台首席专家，杂志主编：《Clinical

eHealth》，SCI 期刊副主编：《AJP-Lung》，SCI 期刊编委：AJRCCM (IF21.4)；Cancer (IF6.9)。主要学术成就：在全球最早提出“物联网医学”和“元宇宙医学”。获国家自然科学基金重大、重点和面上等课题 46 项，纵向经费约 1.5 千万。获批专利 46 项；主编中英文专著《物联网医学》和《现代呼吸病学》等 11 部；发表论著 700 余篇，ORCID 检索：SCI 期刊 280 篇，IF>1403,总引用 1.35 万次，h-index 46

Vice President: Charles A. Powell, MD, MBA.

Janice and Coleman Rabin Professor of Medicine, System Chief, Division of Pulmonary, Critical Care, and Sleep Medicine CEO, Mount Sinai-National



Jewish Health Respiratory Institute Medical Director, Mount Sinai Hospital Respiratory Care Services Icahn School of Medicine at Mount Sinai Professor of Medicine, National Jewish Health. Dr. Powell's International

Reputation in the field is demonstrated by his election as President of the Fleischner Society (全球最大的放射学会)

Vice President: Niels H. Chavannes, MD, PhD

Professor of Primary Care Medicine, Chair of eHealth Applications in



Population Health Management, Head of Prevention and Lifestyle, Research Council LUMC, Department of Public Health and Primary Care, Leiden University Medical Center (LUMC), the Netherlands. Founder of National eHealth Living Lab (NeLL): www.nell.eu, Steering Group CAIRELab LUMC, Management Team Lifestyle 4 Health, Vice-Chair COPD & Asthma Advisory Group, National Advisor Action

Programme Chronic Lung Diseases of LAN

Vice President: Prof. Christoph Thuemmler, PhD



Professor of E-Health
Consultant Physician
Centre for Applied E-Health
Faculty of Health, Life & Social Sciences
Germany

Vice President: Yi Pan, PhD



潘毅博士，中国科学院深圳理工大学计算机科学与控制工程学院
长、讲席教授；
中国科学院深圳先进技术研究院首席科学家；
美国佐治亚州立大学州校董荣休教授、前系主任、前副院长；
美国医学与生物工程院院士、乌克兰国家工程院外籍院士、英国皇家公共卫生院院士、联合国科学院院士、广东院士联合会
会员、长江学者、国家特聘专家；入选全球前 2% 顶尖科学家
榜单；入选世界顶尖 1000 名计算机科学家榜单；2013 年被中国校友会网评为
杰出高考状元；2017 年入选中国大陆高考状元职业成就排行榜；深圳机器人协
会理事长、深圳物流机器人产业联盟理事长。

Vice President: Rongchang Chen, MD



深圳市人民医院深圳市呼吸疾病研究所所长、特聘教授；广州
医科大学附属第一医院国家临床医学研究中心副主任；中华医
学会呼吸病学分会前任主委；中国呼吸医师协会副会长；国际
智能健康联盟副主席

2022 年 2 月 19 日大会报道（文汇报）

Report on the conference on February 19, 2022 (Wen Hei Po)

元宇宙医学来了。今天（2 月 19 日），由上海呼吸物联网医学工程技术研究中心、元宇宙医学联盟筹委会联合主办，国际呼吸病学会、国际智能健康协会和联盟、中国肺癌防治联盟、上海市呼吸病研究所和复旦大学呼吸病研究所协办的元宇宙医学协会暨联盟创立大会在上海徐汇滨江举行。会上，元宇宙医学联盟（IAMM）正式成立，探索以数字新技术破局“老问题”。

Metaverse in Medicine is coming. Today (February 19), sponsored by Shanghai Engineer & Technology Research Center of Internet of Things for Respiratory Medicine and the Preparatory Committee of International Association for Metaverse in Medicine Association, co sponsored by the International Society For Respiratory Diseases, the International Association for Intelligent Health and Alliance, Chinese Alliance Against Lung Cancer,

Shanghai Respiratory Research Institute and Respiratory Research Institute of Fudan University, The founding conference for International Association and Alliance of Metaverse in Medicine was held in Binjiang, Xuhui, Shanghai. At the meeting, the International Association for Metaverse in Medicine Association (IAMM) was officially established to explore new digital technologies to break the "old problems".

现阶段，我国医疗环境面临诸多挑战，如慢性病患者率较高、医疗资源分布不均等。传统医疗模式下产生的“二难、三低”困境值得人们关注，即入名院难、看名医难；社区医院高端设备覆盖率低、高端技术掌握度低、病人认可度低。如何有效解决这些问题？从物联网医学进一步拓展的元宇宙医学可能将给医学带来新的力量。

At this stage, China's medical environment is facing many challenges, such as the high prevalence of chronic diseases and the unequal distribution of medical resources. The dilemma of "two difficulties and three low" under the traditional medical model deserves people's attention, that is, it is difficult to visit famous hospitals and see famous doctors; Community hospitals have low coverage of high-end equipment, low mastery of high-end technology and low patient recognition. How to effectively solve these problems? The further expansion of the Metaverse in Medicine from Medical Internet of Things may bring new strength to medicine.

通过元宇宙医学创立暨联盟（IAMM）选举已经在 2022 年 2 月 18 日完成，复旦大学附属中山医院呼吸科教授、上海市呼吸病研究所所长白春学出任元宇宙医学创立大会主席。谈及元宇宙医学，他首先与记者聊起自己的门诊经历：有一次，他的半天门诊看了足足 6 个小时、92 名患者，看完最后一名患者他精疲力竭。也是这次，他做了一次患者“回访”，大部分患者认为解决了自己的问题，但也有人抱怨，“排队 2 小时，才看了 3 分钟”。

The election through the founding International Association for Metaverse in Medicine Association (IAMM) was completed on February 18, 2022. Bai Chunxue, Professor of Department of Pulmonary and Critical Care Medicine, Zhongshan Hospital Fudan University and director of Shanghai Respiratory Research Institute, served as the chairman of the founding conference for International Association and Alliance of Metaverse in Medicine. Talking about Metaverse in Medicine, he first talked with reporters about his outpatient experience: once, he spent a half day in the outpatient clinic for 6 hours and 92 patients. After watching the last patient, he was exhausted. Also this time, he made a patient "return visit". Most patients thought they had solved their problems, but others complained that "they waited in line for 2 hours and only watched for 3 minutes".

“无论经验多么丰富的医生，都很难满足超过数百倍于己的需求。”白春学教授说，正是临床的真实经历促使他多年前就开始了基于 AR、VR 等数字新技术开发肺癌早筛新场景的探索。

"No matter how experienced a doctor is, it is difficult to meet the needs of hundreds of times more than himself." Professor Bai Chunxue said that it was his real clinical experience that prompted him to explore a new scene for early screening of lung cancer based on new digital technologies such as AR and VR many years ago.



为高效、精准、同质化地提高医疗服务和大健康水平，此前，白春学提出和发展了物联网医学，但他发现，在临床实践中仍有一些无法解决的问题，特别是无法做到全时空地指导经验较少的医生、控制临床医疗质量、改善临床医生之间“手工业作坊式”的诊疗水平。白春学教授称，要想解决这些难题，需要更完善的技术平台，特别是基于元宇宙虚实融合、人机融合和虚实联动技术解决这些问题，这也将推动元宇宙医学健康快速发展。

In order to improve medical services and general health level efficiently, accurately and homogeneously, Bai Chunxue proposed and developed Medical Internet of Things , but he found that there are still some unsolvable problems in clinical practice, especially the inability to guide doctors with less experience and control the quality of clinical medical treatment in full time and space Improve the diagnosis and treatment level of "handicraft workshop" among clinicians. Professor Bai Chunxue said that to solve these problems, we need a more perfect technical platform, especially based on the virtual reality fusion, man-machine fusion and virtual reality linkage technology of the

meta universe, which will also promote the healthy and rapid development of Metaverse in Medicine .

“元宇宙”概念火热，医学领域怎么看？

The concept of " Metaverse " is popular. What do you think of it in the medical field?

白春学教授团队认为，元宇宙医学是通过 AR 技术实施的物联网医学，并邀请亚洲、美国、欧洲的医生和 IT 专家组成多学科专家组，进一步明确元宇宙医学的定义，达成元宇宙医学共识《Expert Consensus on the Metaverse in Medicine》，已于 2 月 4 日在线刊登在《Clinical eHealth》，白春学任通讯作者。该共识提出，创立“元宇宙医学”的条件已成熟，通过元宇宙医学的云加端平台，进行元宇宙教学、科普、会诊、分级诊疗和临床研究。专家们强调，元宇宙不是一种技术，而是多种数字技术的整合，对现有医学模式可能带来颠覆改变。在此期间，技术如何整合、如何开发应用、如何规范推广都非常关键，毕竟医学领域“人命关天”。

Professor Bai Chunxue's team believes that Metaverse in Medicine is an Medical Internet of Things implemented through AR technology, and invited doctors and it experts from Asia, the United States and Europe to form a multidisciplinary expert group to further clarify the definition of Metaverse in Medicine and reach a consensus on Metaverse in Medicine 《Expert Consensus on the Metaverse in Medicine》 , which was published online in Clinical eHealth on February 4, Bai Chunxue is the corresponding author. The consensus proposes that the conditions for the establishment of " Metaverse in Medicine " are ripe. Through the cloud plus platform of Metaverse in Medicine , Metaverse in Medicine teaching, popular science, consultation, hierarchical diagnosis and treatment and clinical research are carried out. Experts emphasized that the Metaverse is not a technology, but the integration of a variety of digital technologies, which may bring subversion and change to the existing medical model. During this period, how to integrate technology, how to develop and apply, and how to standardize the promotion are very key. After all, the medical field is "vital".

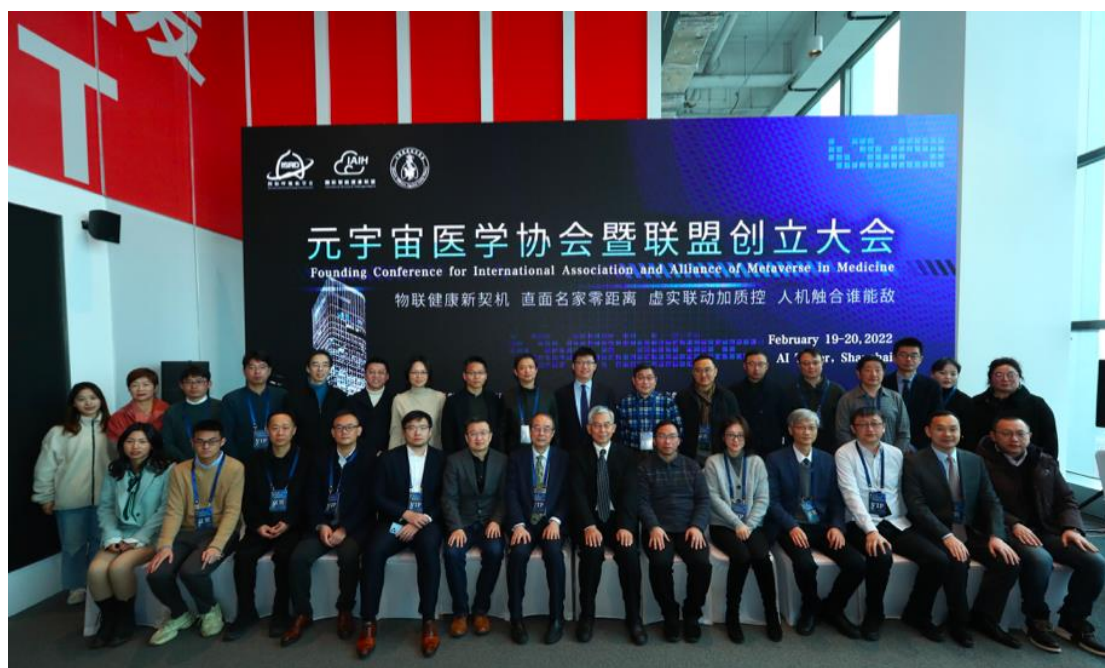
中国在元宇宙医学领域起步早。以白春学教授 BRM 一体机辅助肺癌早诊为代表，该项目已于 2018 年启动全球多中心 AR 辅助物联网医学临床研究，PI 为白春学教授，Co-PI 单位为 Powell 教授（时任全球影响力最大的放射学会“Fleischner”学会主席），Fong 教授（时任亚太呼吸学会主席）。该项目携手国内外多家单位，开创了国际首个元宇宙医学原型的临床研究，现在技术已全部就绪，将全面启动研究。

China started early in the field of Metaverse in Medicine . Represented by Professor Bai Chunxue's BRM all-in-one machine assisted early diagnosis of lung cancer, the project has launched the global multi center ar assisted

Internet of things medical clinical research in 2018. Pi is Professor Bai Chunxue, CO PI unit is Professor Powell (then chairman of the "fleischner" society of the world's most influential Radiology Society) and Professor Fong (then chairman of the Asia Pacific Respiratory Society). The project, together with many units at home and abroad, has created the first clinical research of the prototype of Metaverse in Medicine in the world. Now the technology is all ready and the research will be started in an all-round way.

此次大会上，专家们还提出“元宇宙医院”的设计，聚拢更多数字新技术突破现有医疗模式局限，造福更多患者。白春学教授称，通过“全息构建技术-全面感知”“全息仿真技术-智能处理”“虚实融合技术-质量控制”“虚实联动技术-人机融合”等技术开发应用，希望实现“物联健康新契机，直面名家零距离，虚实联动加质控，人机融合谁能敌”的元宇宙医学惠众愿景。

At the conference, experts also proposed the design of " Metaverse hospital", gathering more digital new technologies, breaking through the limitations of the existing medical model and benefiting more patients. Professor Bai Chunxue said that through the development and application of technologies such as "holographic construction technology - comprehensive perception", "holographic simulation technology - intelligent processing", "virtual and real integration technology - quality control" and "virtual and real linkage technology - man-machine integration", he hopes to realize the vision of Metaverse in Medicine benefiting the public of "a new opportunity for IOT health, facing famous experts at zero distance, virtual and real linkage plus quality control, and man-machine contact".



本次大会由国家人工智能标准总体组专家朱兆颖，深圳市人民医院深圳市呼吸疾病研究所所长陈荣昌，复旦大学附属中山医院科研处处长、急诊科副主任宋

振举，复旦大学附属中山医院呼吸与危重症医学科主任宋元林担任共同主席，并发表演讲。Charles A. Powell, Niels H. Chavannes, Christoph Thüemmler、陈荣昌、周建、杨达伟等数位国内外专家学者参会。

Zhu Zhaoying, an expert of the overall group of national artificial intelligence standards, Chen Rongchang, director of Shenzhen Institute of respiratory diseases of Shenzhen People's Hospital, song Zhenju, director of scientific research department and deputy director of emergency department of Zhongshan Hospital Affiliated to Fudan University, and song Yuanlin, director of respiratory and critical medicine department of Zhongshan Hospital Affiliated to Fudan University, served as co chairmen and delivered speeches. Charles A. Powell, Niels h. Chavannes, Christoph th ü emmler, Chen Rongchang, Zhou Jian, Yang Dawei and other domestic and foreign experts and scholars attended the meeting.