

Italy & China For Health

中意医疗保健合作

Pilot Projects to promote

Sino-Italian Health Care Cooperation

加强中国-意大利医疗保健合作的试点项目



Camera di Commercio Italiana in Cina
中国意大利商会
China-Italy Chamber of Commerce



The publication is supported by ICE Agenzia



ITALIAN TRADE AGENCY

ICE - Agenzia per la promozione all'estero e
l'internazionalizzazione delle imprese italiane

意大利对外贸易委员会

Sino-Italian Cooperation in Health

中国-意大利在医疗保健领域的合作



The Sino-Italian Healthcare Cooperation has had a long and fruitful history since its start in the early 80's. In 2000, Italian Ministry of Health and China National Health Commission reinforced their ties by signing a Memorandum of Understanding in Rome, which has been implemented through triennial Action Plans. The two ministries signed in Beijing in 2016-2017, and renewed in Rome in 2019, the Action Plan for Health Cooperation and the Programme of Implementation of the Action Plan for Health Cooperation, which identifies the prevention, treatment and rehabilitation of cancer and cardiovascular diseases, the primary care and general medicine, the prevention, diagnosis, and treatment of infectious diseases and the response to public health emergencies and the training of

health professionals as the priority areas of the mutual cooperation.

Within the framework of these bilateral agreements, the China-Italy Chamber of Commerce Healthcare Working Group, Assolombarda and a group of top Italian universities and Research Institutes teamed up together and are willing to contribute to supporting the deepening of China's ongoing reform process, through the implementation of supply-chain healthcare projects in China and abroad, based on the Italian excellence of care and on their internationally renowned best practices and know-how in health.

早在上世纪八十年代初起,中国和意大利即开始了医疗保健领域内的合作,几十年来,两国的合作结出了丰硕的成果。2000年,意大利国家卫生部和中国国家卫生健康委员会在罗马市签订了《合作备忘录》,进一步加强了两国的合作关系,该备忘录将通过三年期的行动计划来实施。2016年-2017年,两个部门在罗马签订了《医疗保健合作行动计划》和《医疗保健合作行动计划实施方案》(2019年续签),该《计划》和《实施方案》将癌症和心血管疾病、感染性疾病的初级预防、治疗和康复,感染性疾病的初级医疗(即社区医疗)、一般用药、预防、诊断和治疗,对公共卫生突发事件的反应,以及医疗保健专业人员的培训等,确定为双方合作的优先领域。

在这些双边协议框架内,中国意大利商会医疗保健工作组、伦巴第大区企业协会、以及一组意大利一流大学和研究机构团结起来,愿意为中国目前改革的深化贡献一份力量,方式是基于意大利护理保健的优点、国际知名的实践作法和医疗保健专业技术知识,在中国和国外开展各项供应链医疗保健项目。



The Excellences of The Italian Healthcare System 意大利医疗保健体系的优点

According to international rankings by Bloomberg and WHO, Italy is one of the top healthy countries in the world and has one of the best Healthcare Systems in terms of effectiveness and efficiency on the global level. International recognition stems from a cutting-edge model based on the centrality of the patient and his needs, capable of providing universal access to its population at extremely low costs compared to other countries, as well as to ensure the continuity of care, through an integrated network of multidisciplinary and personalised services. Strong in its medical-scientific, managerial and technological excellence, Italy is highly qualified to actively support China in the ongoing reform processes in the country.

根据彭博社和WHO(世界卫生组织)的国际排名意大利是世界上顶级的“健康”国家之一,它的医疗保健体系是世界上最佳的医疗保健体系之一,其效率和成绩达到了国际水平。意大利的医疗保健体系以其先进的模式闻名于世,该模式以患者和患者的需要为本,与其他国家相比,它能以极端低廉的费用为民众提供全面的医疗服务,还可通过多学科服务和个性化服务的综合网络,来确保患者护理的连续性。鉴于在医疗科技、管理和技术方面的优点,意大利完全有资格为中国的深化改革提供帮助。

PREVENTION

预防

Italy is cutting-edge in terms of prevention activities, with more than 150 public departments and over 10,000 dedicated staff. As an effect of a strong system of prevention and an effective performance, amenable mortality rates in Italy are among the lowest in Europe.

意大利是疾病预防工作方面的领先者,它拥有150家公共卫生机构和10,000多名专业人员。得益于其强大预防系统的卓越表现,意大利的可避免死亡率在整个欧洲最低。

PRIMARY CARE

初级医疗

The primary care key pillar in Italy is the general practitioner, who is acting as the gatekeeper of the whole system. Primary care is delivered in Italy through “primary care complex units” involving cross-disciplinary professionals – GPs, specialists, nurses, social workers – working together to provide integrated services to patients.

意大利初级医疗的关键支柱是全科医生(即家庭医生),他们担负着整个系统把门人的作用。意大利的初级医疗通过“初级医疗复合单位”来实现,参与者包括跨学科专业人员(即全科医生)、专科医生、护士、社会工作者,他们共同为患者提供综合服务。

AGEING

老龄化

Having the most long-lived population in the world, Italy has developed a comprehensive and advanced system to respond to the specific needs of the elderly. Strongly founded on the “Ageing at place” concept, the Italian system offers not only to cure or stabilize the patient’s health conditions, but also to improve their quality of life, by fostering older adults independence and social inclusion, and by facilitating their interaction with peers, informal caregivers, medical staff, family members and the community.

意大利是世界上人均寿命最长的国家,为此,意大利建立了全面而先进的系统,来应对老年人的特殊需要。基于“居家养老”概念,意大利的医疗保健体系不仅仅治疗或稳定患者的健康状况,还着眼于改善他们的生活质量,具体方式是帮助老年人恢复自理能力,积极融入社会等,例如,帮助他们与同龄人、非正式照护者、医务人员、家人和社区加强沟通交流。

SURVEILLANCE SYSTEMS

监控系统

Italy implements an advanced and integrated public health surveillance system, involving both the central government and the local health authorities, which systematically collect meaningful qualitative and quantitative data over the population’s epidemiology, behaviors and other meaningful indicators. Such data is then processed to evaluate existing trends and predict the future ones, identify risk factors in the population, monitor and control the performance of hospitals and facilities, identify gaps and best practice in health performance so that to better support decision-makers in the planning and implementation of healthcare policies on both the national and local level).

意大利先进的公共卫生监控系统,是一种中央政府和地方医疗保健机关均参与的综合系统,该系统可系统性地收集关于人群流行病学、行为及其他指标方面的重要质化和量化数据。收集的数据经过处理后,用于评估目前的趋势和预测未来的趋势,确定人群中的风险因素,监督和控制医院及相关机构的服务质量,确定医疗保健工作中的差距和最佳典范,以便为国家和地区决策者规划和落实医疗保健政策提供支持。



❖ HOSPITALS – CENTERS OF EXCELLENCE

医院 - 卓越中心

Italian General and specialized hospitals, both public and private, hold prominent positions internationally in terms of quality of service, clinical and management expertise and technological innovation. Many of our Hospitals and Intitutes rank among the top 50 world's most reliable hospitals, world's top 25 cardiology and world's top 20 oncology hospitals.

意大利的综合性医院和专科医院,无论是私营还是公立,均以其服务质量、临床和管理经验及技术上的先进性而享用国际盛誉。这些医院中有很多名列世界50大最可靠医院、世界25大心脏病医院和世界20大肿瘤医院。

❖ CLUSTERS

集群

In Italy there are important Life Sciences Clusters that brings together public and private players in the diagnostics, advanced therapies, pharmaceuticals, medical devices and healthcare technologies areas to foster progress in this sector and to create new business opportunities for its members. One notable example is the Lombardy Region's Life Science & Healthcare Ecosystem, which involves over 1,000 hospitals and healthcare facilities, with more than 207B euros of production value, 5B euros invested in scientific research and a total of 1.7M professionals.

意大利有许多重要的生命科学集群,它们将诊断、新疗法、药品、医疗用品领域的许多公立和私营企业团结在一起,推动医学进步,为成员创造新的商机。一个值得称道的例子是伦巴第大区的“生命科学与医疗保健生态系统”,该系统涉及1000家以上的医院和医疗保健机构,其产值达到了2070亿欧元,科学研究方面的投资达到了50亿欧元,共有170万名专业人员参与。

❖ TECHNOLOGICAL EXCELLENCE

技术优势

Italian healthcare product and service providers achieved world-class excellence and a sustainable technological edge. Many Italian companies are international leaders in their market segment, combining innovative and top-notch technologies with competitive pricing.

意大利的医疗保健产品和服务提供商享有世界级的声誉,拥有可持续的技术优势。许多意大利公司都是它们各自市场区间的国际领导者,成功地将创新的一流技术与富有竞争力的价格结合在了一起。



Who we are Our Offering to China

简介 我们为中国的奉献

We are a network of Italian hospitals, universities and product/service providers representing the best excellences of the Italian Healthcare industry, in every area of expertise: hospital architecture and design, healthcare management, digital health, medical and wellness equipment and devices, pharma and legal/strategic consultancy.

We propose to the Chinese hospitals, healthcare authorities and other healthcare stakeholders as a strategic partner for the implementation of supply-chain pilot projects in key areas such as assistance to the elderly/ people with disabilities and in medical specialities including oncology, cardiology, neurology, and primary care, aimed at the implementation of innovative, effective and technologically advanced health models, based on the principles of integration, inclusiveness and sustainability.

我们是一个由意大利多家医院、高校和医疗产品/服务提供商组成的网络，代表着意大利医疗保健行业各种专业技术领域内的最高水平，这些领域包括：医院的结构和设计，医疗保健管理，数字医疗，医疗用品、保健设备和装置，制药、法律/战略咨询。

我们可以作为战略伙伴，给中国的医院、医疗保健机关及其他医疗保健利益相关者提供关键领域中供应链试点项目实施方面的建议，这些关键领域包括帮助老年人/失能者，推动专科如肿瘤、心脏病、神经病等的发展，以及初级医疗系统等，目的是基于整合、包容和可持续原则来实现创新、高效、技术上先进的医疗保健模式。



CARDIOLOGY
心脏病

PROJECT SCOPING/FEASIBILITY STUDY /
MASTER PLANNING
项目范围/可行性研究/总体规划



ONCOLOGY
肿瘤

ARCHITECTURE/DESIGN
结构/设计



NEUROLOGY
神经疾病

CARE MODELLING/PATIENT PATHWAYS
护理建模/患者途径



PRIMARY CARE
初级医疗

DIGITAL HEALTH SOLUTIONS DESIGN
AND IMPLEMENTATION
数字医疗保健方案设计和实施



ELDERLY CARE
老年人护理

MEDICAL/WELLNESS EQUIPMENT/DEVICE
医疗用品/保健设备/装置

HOSPITAL OPERATIONS AND MANAGEMENT
医院的运营和管理



MEDICAL TOURISM
医疗旅游

CLINICAL AND CARE SERVICES
临床服务和护理服务



INNOVATION
创新

CLINICAL/ HEALTH MANAGEMENT
TRAINING
临床/医疗保健管理培训

PHARMA
制药

SCIENTIFIC RESEARCH
科学研究

LEGAL/STRATEGIC CONSULTANCY
法律/战略咨询

Our Associations

我们的组织关系



China-Italy Chamber of Commerce Healthcare Working Group

中国意大利商会医疗保健工作组

The China-Italy Chamber of Commerce Healthcare Working Group was launched in 2013 by the Embassy of Italy in Beijing. The Group's vision is to aggregate and integrate Italy's best Healthcare expertise, to promote innovative and advanced healthcare solutions in China, in full cooperation with the local stakeholders.

For this purpose, the Group brings together over 40 Healthcare Italian companies, most of which are already active in China with consolidated case studies in the Country. The Group offers a comprehensive set of products and services -healthcare management/ modeling, pharmaceutical, Digital Health, medical equipment/device, hospital architecture/design and strategic/legal consultancy -covering the whole scope of healthcare industry needs.

中国意大利商会医疗保健工作组于2013年由意大利驻北京大使馆创建。工作组的愿望是汇集和综合意大利的最佳医疗保健经验，通过与中国当地的利益相关者全面合作，来促进创新和先进医疗保健方案的实施。

出于此目的，工作组将40家意大利的医疗保健公司团结在了一起，这些公司中的大多数曾积极参与中国的综合案例研究。工作组可提供一组全面的产品和服务——医疗保健管理/建模、制药、数字医疗保健、医疗设备/用品、医院结构/设计、战略/法律咨询——覆盖了医疗保健行业需要的方方面面。

Assolombarda 伦巴第大区企业协会

Assolombarda is part of Confindustria (Italian Entrepreneurial Association) as the largest territorial association of the entire entrepreneurial system in Italy with approximately 6,750 firms located in the Provinces of Milan, Lodi, Monza and Brianza, Pavia. The mission of the Association is to protect and represent the enterprises' interests in dealing with the political world, with social and political organizations and with local authorities as well as with trade unions.

Assolombarda also provides its associated firms with a great variety of services, that include management and strategy aspects.

Firms of all dimensions, either service industry or manufacturing industry or both are eligible to become members of Assolombarda. One of the most important attractive sector is Life Science.

伦巴第大区企业协会是意大利企业联合会的组成部分，它是意大利整个企业系统中最大的一个地区协会，成员包括大约6750个位于米兰、Lodi、Monza和Brianza、Pavia的企业。协会的使命是在与政界、社会和政治团体、地方机关、工会打交道时保护和代表企业的利益。

伦巴第大区企业协会还给成员企业提供各种各样丰富的服务，包括管理和战略方面的服务。

所有行业类别，包括服务业、制造业或同时从事两者的企业，无论规模大小，均可申请成为伦巴第大区企业协会的成员。协会中一个引人注目的行业领域就是生命科学。

Lombardy's Life Sciences Cluster

伦巴第生命科学集群

Lombardy's Life Science Cluster is a community devoted to life sciences in the Lombardy Region. It brings together public and private players to foster progress in the life science sector, to facilitate internationalization, contamination and the creation of new business opportunities among its members. Lombardy's Life Science Cluster is one of the nine technological clusters in Lombardy. It is a member of ALISEI, the National Cluster of Life Science, where it acts also as Technical Secretariat.

The cluster involves public and private players active in the diagnostics, advanced therapies, biotechnology, pharmaceuticals, medical devices, nutraceuticals and healthcare technologies areas.

伦巴第生命科学集群是伦巴第地区一个专注于生命科学的社会团体。伦巴第生命科学集群将公立和私营企业联合在一起,推动它们的国际化,为其成员创造新的商机。伦巴第生命科学集群是伦巴第的九个技术集群之一。它是ALISEI(国家生命科学集群)的成员之一,在该组织中,它的作用相当于技术秘书处。

该集群的参与者包括活跃在诊断、先进治疗、生物技术、制药、医疗用品、保健品和医疗保健技术领域的多家公立和私营企业。

Some of our case studies 案例研究示例

Regional Health Interoperability & Cooperation Project – China

区域医疗保健互通与合作平台 – 中国

The Project, implemented by the Chinese subsidiary of the Italian Healthcare IT Group Dedalus for the Daqing Municipality Health Bureau, consisted in the implementation of a Regional Health Interoperability & Cooperation Platform, to interconnect and integrate the local Health Bureau, 8 third-tier hospitals, 17 second-tier hospitals, 67 township hospitals, 99 community facilities and 864 village clinics. The Platform enabled all the institutions and facilities within the network to share and process patients' administrative and clinical data, covering a target population of about 3 million. Thanks to the Platform's Citizen Portal, residents have been enabled to access and consult their healthcare records, while the Municipality's referral system has been enhanced thanks to specific modules to facilitate the prompt transfer of critical patients from community clinics to hospitals.

Other projects based on the Italian Interoperability & Cooperation technology are being implemented at several third-tier and second-tier hospitals all around the Country, thanks to the strategic cooperation with national key partners.

该项目由意大利泰迪罗医疗保健系统集团为大庆市卫生局实施，本地化区域医疗保健互通与合作平台，实现地区卫生局、8家三级医院、17家二级医院、67个乡镇卫生院、99家社区机构和864家乡村卫生站的互通和整合。通过该平台，网络内机构可分享300万目标人群的行政管理、财务和临床数据。通过公民门户网站，民众可查询他们的临床记录。双向转诊系统促进了社区诊所将危重病人转诊至网络内其他医院。得益于与国家主要合作伙伴的战略合作，其他基于意大利互通与合作技术的项目正在中国各地的三级和二级医院实施。

Traditional Chinese Medicine – China, Europe

中医药 – 中国、欧洲

Italian-Chinese company Tong Ren Tang Giomi is the joint venture established between the Giomi and Beijing Tong Ren Tang corporate groups and represents the first experience in the health sector regarding the integration between traditional Chinese medicine and modern western medicine. Founded in 1669, Beijing Tong Ren Tang is a leading company in the field of traditional Chinese medicine and the Chinese Ministry of Commerce has recognized Tong Ren Tang as an Ancient Chinese Trademark.

The Sino-Italian company Tong Ren Tang Giomi develops the following activities primarily in Italy and Germany:

- selling TCM products
- opening pharmacies and drugstores
- opening centers for TCM treatments with a western-style management both stand-alone and within Giomi's healthcare facilities
- providing training for doctors and nurses, both western and Chinese
- development of inter-university relations for fostering studies about the integration of TCM and modern western medicine.

意大利-中国公司Tong Ren Tang Giomi (同仁堂Giomi)，是Giomi和北京同仁堂集团公司共同创办的合资企业，代表着医疗保健行业内中医与现代西方医学的第一次整合尝试。创建于1669年的北京同仁堂公司是中医领域内的龙头公司，中国商务部已经将“同仁堂”列入“中国古代商标”。

意大利-中国公司Tong Ren Tang Giomi有限责任公司主要在意大利和德国开展以下业务：

- 出售TCM (中医药) 产品
- 开办药房和药店
- 开办中医药治疗中心，采用西方式的管理，包括单独开设的中心和位于Giomi医疗保健机构内的中心
- 为西方和中国的医生和护士提供培训
- 增进高校间的联系，推动关于中医与现代西方医学整合的研究



Some of our case studies 案例研究示例

International Specialized Hospital of Uganda (ISHU) - Uganda

乌干达国际专科医院 (ISHU) - 乌干达

The International Specialized Hospital of Uganda (ISHU) is located near Uganda's capital Kampala, with an area of 300,000 square meters. It is a top medical center that will cover a wide range of medical specialties, including the treatment of oncology, heart and neurological diseases, telemedicine, and the first Africa nuclear medicine center. ISHU will provide a safe, healthy and efficient space, and harmony with the surrounding natural environment. It will be outstanding because of its highly innovative research standards and also because of its meticulous care for patients: a "people-oriented" treatment place designed for patients. The hospital has been also designed to meet the LEED certification standards. The main contractor in charge of construction is a leading Chinese Company, Power China. According to the spokesperson of the Ugandan Presidency, ISHU will allow the government to save over 180 million dollars, the average annual amount devoted to supporting citizens' treatments and therapies abroad.

乌干达国际专科医院 (ISHU) 位于乌干达首都坎帕拉附近, 占地300,000平方米。它是一处一流的医疗中心, 内设各种各样的医学专科, 例如肿瘤、心脏和神经疾病、远程医疗等, 还是非洲第一个核医学中心。ISHU将提供安全、卫生和高效的医疗空间, 并与周围的自然环境和諧共处。由于高创新研究标准和为患者提供的无微不至的关怀, 它必将成为一个出色的医疗中心: 专为患者设计的“以人为本”的治疗中心。医院的设计同时还符合LEED (能源与环境设计先锋) 认证标准。负责施工的总承包商是中国的龙头公司, 中国电力建设集团。乌干达总统的发言人表示, ISHU平均每年将为政府节省1.8亿美元以上的医疗开支 (包括国民在国外的治疗)。

Virtual Lab- China, Italy

虚拟实验室 - 中国、意大利

Members of the working group lead a world-wide experimental collaboration in Computational Biology involving labs at ShanghaiTech University, Padova University and the Pasteur Institute in Montevideo. The collaboration focuses on how to pair computer simulations and machine learning to optimize a candidate drug molecule (small molecule or antibody) by improving its biochemical properties and increasing its chance to become a real drug.

The possibility to completely delegate the process of drug optimization to computer simulation, even if it may apparently be seen as a narrow scope, is in fact of utmost importance, not only because it can reduce considerable time and costs along with the drug development procedure, but also because it is the first necessary step to design completely new molecules, having therefore the potential to lead a revolution in the drug discovery field.

工作组的多位成员领导着计算生物学方面的合作实验, 涉及上海科技大学、帕多瓦大学的实验室和Montevideo的Pasteur研究所。合作的重点是怎样将计算机模拟与机器学习相匹配, 以便优化候选药物分子 (小分子或抗体), 方式是改良其生物化学特性, 增加其成为真正药物的几率。

完全将药物优化过程交给计算机模拟, 虽然普遍被视为一种应用范围狭小的领域, 但实际上具有极其重要的意义, 不仅仅是因为这样可减少药物开发程序中大量的时间和成本, 还因为这是设计全新分子药物的第一步必要步骤, 因此, 这种方法有可能引发药物研发领域的革命。



Some of our case studies 案例研究示例

“Healthy Lombardy” Medical Tourism Project - Italy (健康伦巴第) 医疗旅游项目 - 意大利

“Healthy Lombardy” is one of the biggest Healthcare facilities network in Italy, in both size and representativeness, which encompasses over 200 Italian private and public hospitals and 19 research Hospitals (IRCCS), including many of the main European centers of excellence, such as San Donato Group, the Italian Center of Diagnostics (CDI), the European Institute of Oncology (IEO), Humanitas Research Hospital and Monzino Cardiology Center.

The most important hospitals can arrange services for every kind of client, to make it easier for a foreign patient to stay in a foreign country and guarantee proper assistance through a foreign patients' office, open all day, and a free 24-hour translation service. All communications, reports and medical documentation are translated into the most widely-spoken languages, including Chinese.

“Healthy Lombardy”是意大利最大的医疗保健机构之一，无论规模还是代表性均是如此，它包括200家以上的意大利公立和私营医院、19个研究机构（IRCCS），还包括一些重要的欧洲卓越中心，例如San Donato医院集团、意大利诊断中心（CDI）、欧洲肿瘤研究所European Oncology Institute（IEO）、人文研究医院和Monzino心脏病治疗中心。

其中最主要的一些医院可以给客户安排各种服务，为外国患者在外国的生活提供方便，确保他们能通过外国患者办事处（全天开业，提供24小时不间断的翻译服务）得到适当的帮助。所有交流信息、报告和医疗文档等，都被翻译成最广泛使用的语言，包括汉语。

The network has set up a portal dedicated to foreign patients and to promoting medical tourism. The portal, available in English, Russian and Chinese, is able to offer a gateway towards a comprehensive offer for foreign patients, from travel arrangements to the selection of patient-tailored service offering, in all the major medical specialties, from cardiovascular to neurology medicine, from orthopedics to oncology, by guaranteeing the best quality of services within a friendly environment and at the most convenient pricing.

Besides medical tourism projects, many of the top hospitals composing the network are interested to cooperate with the local counterparts to supply-chain projects in China as well.

该网络专为外国患者创建了一个门户网站，以便宣传医疗旅游。该网站的语言可选择英语、俄语和汉语，通过该网站，外国患者可得到综合服务，从行程安排到针对性的各主要专科医疗服务，包括心血管、神经系统、除医疗旅游项目外，该网络内的许多一流医院还希望能与中国地方的医院合作，开展供应链项目。

除医疗旅游项目外，该网络内的许多一流医院还希望能与中国地方的医院合作，开展供应链项目。



Some of our case studies 案例研究示例

Exscalate4CoV, a supercomputing platform for delivering new drugs to fight the Covid 19 pandemic

Exscalate4CoV, 是一个超级计算平台, 可用于寻找治疗 COVID 19 (新冠肺炎) 的新药

To counter the Sars-Cov2 pandemic faster and more efficiently, Italy is leading Exscalate4CoV (E4C), a public-private consortium leveraging EU's supercomputing resources and coupling them with some of the continent's best life-science research facilities.

The aim of E4C is twofold, identify molecules capable of targeting the coronavirus (2019-nCoV) and develop a tool for countering future pandemics to be consolidated over time.

At the core of the project is Exscalate (EXaSCale smArt pLatform Against paThogEns), which is at present the most powerful (and cost-efficient) intelligent supercomputing platform in the world. Exscalate, developed by Dompé, leverages a "chemical library" of 500 billion molecules, thanks to a processing capacity of more than 3 million molecules per second.

为更快速、更高效地控制Sars-Cov2 (新冠病毒) 的大流行, 意大利承担了 Exscalate4CoV (E4C) 联盟的领导任务, E4C是一个利用欧盟超级计算资源进行科研工作的公私合作联盟, 它将欧盟的超算资源与欧洲大陆一些最优秀的生命科学研究机构结合在了一起。

E4C的目标有两个, 一是寻找能以新冠病毒 (2019-nCoV) 为靶向的药物分子, 另一个是开发一种对抗未来(很可能发生的) 疫病大流行的工具。

项目的核心是Exscalate (EXaSCale smArt pLatform Against paThogEns), 目前世界上最强大的(也是最具成本效益比的) 智能超算平台。Exscalate由Dompé公司开发, 使用了由5000亿个分子组成的“化学库”, 这要归功于它每秒超过3百万种分子的计算能力。

In June 2020 E4C identified Raloxifene, a molecule already approved on worldwide level, as a candidate drug for treating mild Covid 19 patients. This result emerged from the first virtual (in silico) screening conducted on the Consortium's supercomputers of more than 400,000 molecules (safe-in-man drugs and natural products) made available by Dompé farmaceutici and the partner Fraunhofer (IME) to the Consortium. The molecules were prioritized if in clinical stage or already on the market. More than 7,000 molecules with certain promising characteristics were tested.

Access to Europe-wide clinical trials for the use of Raloxifene in mild Covid 19 patients has been applied for in fall 2020.

2020年6月, E4C确定雷洛昔芬可作为治疗轻度新冠肺炎患者的候选药物, 在此之前, 雷洛昔芬已在世界范围内通过了批准。这一结果是联盟的超级计算机第一次对400,000种以上的分子(对人体安全的药物和自然产品)进行虚拟(在计算机中进行)筛选的结果, 该超级计算机由Dompé farmaceutici公司及其合作伙伴Fraunhofer (IME) 实验室提供给联盟。在筛选中, 已处于临床阶段或已经上市的药物优先, 共有超过7,000种可能有效的分子经过了试验。

2020年秋天, 已申请在欧洲范围内开展使用雷洛昔芬治疗新冠患者的试验。



Some of our case studies 案例研究示例

Smart Health Innovation Lab 智能健康创新实验室

NeMO Lab is a technological hub sub-divided into 9 high-tech laboratories: BioRobotics Lab, Mobility Lab, Voice Lab, Entertainment Lab, Opto Lab, Home Lab, Me-Mo Lab, Ortho Lab and Smart Health Innovation Lab. Regarding the latter, NeMO Lab, in collaboration with the IT start-up RiAtlas, is developing a project that will give the possibility to particularly fragile patients of NeMO clinical centers to use a remote telemonitoring service (divided into: application mobile, wearable system, webpage and central operating unit). The technology is able to facilitate patient monitoring, both on motor and cognitive performances, in particular for those affected by ALS, PD, Alzheimer and FTD. The same technology can be used to preventively monitor healthy people carrying gene mutations. Moreover, it will play an important role in the evaluation of treatments or rehabilitative programs effects. In the post cCovid19 reorganization, it is important to improve patients' remote follow-up systems.

NeMO实验室是一个技术中心,分为9个高科技实验室:仿生机器人实验室、移动实验室、语音实验室、娱乐实验室、光电子实验室、家庭实验室、Me-Mo实验室、Ortho实验室和智能健康创新实验室。针对后者,NeMO实验室正在与IT初创公司RiAtlas合作,开发一个为NeMO临床中心特别脆弱的患者提供远程监护服务的项目(分为:移动应用、可穿戴系统、网页和中央操作单元)。该技术能够促进对患者运动和认知表现的监测,特别是对那些患有ALS、PD、阿尔茨海默病和FTD的患者。同样的技术也可以用来预防监控携带基因突变的健康人。此外,它将在治疗或康复计划的效果评估中发挥重要作用。在新冠肺炎期间,改善对患者的远程随访系统十分重要。





SINO-ITALIAN COOPERATION PROJECT CONCEPTS 中国-意大利合作项目概念

Long-term Care Project 长期护理项目

Caring for an aging population 给老年人口的关怀

China will soon have the world's largest senior population, generating an unprecedented demand for elderly care services. To address this issue, the Chinese government has instituted a number of initiatives to provide a framework for healthy ageing, including the development of a "silver industry" in the 12th Five-Year plan.

中国很快将成为世界上老龄人口最多的国家,对老年人护理服务的需要将达到史无前例的程度。为应对这一问题,中国政府实施一系列方案建立了一个“健康老龄化”框架,包括十二五计划中的发展“银发产业”。

Long-term care facilities 长期护理机构

THE LONG-TERM CARE FACILITIES' RESIDENTS ARE MOST VULNERABLE PEOPLE FOR THE FOLLOWING REASONS:

- usually they suffer from underlying medical diseases or they are affected by chronic and co-morbidity diseases
- usually they are elderly people
- they are in close contact with other residents / roommates and it's difficult to manage their relationships with cognitively impaired residents
- they spend a lot of time indoors with other vulnerable people

长期护理机构的居住者主要是因以下原因需要照顾的人:

- 患有基础疾病、慢性病者(包括出现合并症者)
- 通常是老人
- 他们与其他居住者/室友密切接触,但很难管理与有认知障碍的居住者之间的关系
- 他们大部分时间待在室内,与其他需要照顾的人在一起

AS STATED ABOVE, IN ORDER TO DELIVER QUALITY HEALTHCARE IN THE LTC FACILITIES, IT IS NECESSARY TO SET UP PATIENT-CENTRIC PROGRAMS AIMED AT:

如上所述,为了在LTC(长期护理)机构内提供高质量的医疗保健服务,有必要制订以患者为本的方案,这些方案的目标是:

预防和控制慢性病

PREVENTING AND MANAGING CHRONIC DISEASES

Chronic diseases pose a significant challenge as the patient journey extends for manyacross years, rather than months;requirements to be managed management requirements to be managedmanagement requirements change over time and the need for expertise often plays a critical role in both prevention and treatment.

慢性病会给患者带来严重的麻烦,病程往往持续多年,而非几个月;管理要求随时间而改变,在疾病的预防和治疗中,对专业知识都有迫切的需要。

防治感染性疾病

FIGHTING INFECTIOUS DISEASES

Infectious diseases place a significant amount of pressure on healthcare systems.

感染性疾病给医疗保健体系造成沉重的压力。



Long-term care facilities

长期护理机构

Within Long-Term Care facilities, the frequency of healthcare-associated infections from patients is 5% on average, and 5-10% of these belongs to epidemic infections. On the basis of 100 infections associated with the assistance of health workers, an average of 20% are preventable with significant differences depending on the type of infection and the context. Moreover, the COVID-19 pandemics has raised health workers' awareness about the importance of care assessment and the preparedness to face both the healthcare-associated infections and Coronavirus diseases on the basis of patient / resident characteristics, facility organization, scope of services, hospital affiliation.

在长期护理机构中，与医疗保健有关的患者感染的发生率为平均5%，其中5%-10%为传染病引起的感染。每100例与保健人员的帮助有关的感染中，平均有20例（20%）是可以预防的，差异主要取决于感染的类型和环境。此外，由于正处于COVID-19（新冠病毒）感染期的缘故，保健人员们对提高护理质量、做好应对医疗护理相关感染和新冠肺炎的准备工作（基于患者/居住者特点、机构组织情况、服务范围和医院联系）有了新的、更充分的认识。

Insights and Recommendations

见解与建议

The recognized Italy's world-class healthcare system and substantial experience in handling a range of demographic, healthcare and disease challenges could complement China's current healthcare efforts around four key themes:

- Providing integrated end-to-end solutions across disease management life cycles, value chains and stakeholder groups.
- Delivering superior quality and safety solutions, complemented by training and after-sales services for end users.
- Driving innovation within China, through cooperation with Chinese companies and scientific institutions.
- Prioritizing investments in relevant segments of the Chinese healthcare supply chain to maximize patient benefits and business impact.

意大利公认的世界级医疗保健体系，以及处理一系列人口信息、医疗保健和疾病难题的丰富经验，可为中国目前围绕四个关键主题的医疗保健工作提供帮助：

- 跨越疾病控制周期、价值链、利益相关者群体提供综合的端到端解决方案
- 实施安全的顶级质量方案，以培训和给终端用户提供售后服务为补充
- 通过与中国的公司和科研机构等合作，来推动中国国内创新
- 优先投资多样化的中国市场的相关部分，以便使患者的利益最大化，加大商业影响



Project Scope 项目范围

The Project aims at creating a Patient-Centered Integrated Healthcare system based on a network of players' collaboration for the wellbeing of the elderly population, by providing systemic and cost-effective healthcare solutions, in strict cooperation with the already existing local facilities, and with International (Italy-based) Centers of Excellences.

The Project will include the set-up of an Elderly Care facility, which will offer support to ageing people, according to different levels of self-sufficiency, by providing residential care, rehabilitation and integrated home care services.

项目的目标是建立一个以患者为本的综合医疗保健体系,该系统基于一个由相互合作的参与者组成的网络,通过提供系统性的、高性价比的医疗保健方案,来为老年群体的健康做贡献,在这样做的同时,与现有的地方机构、国际卓越中心(位于意大利)保持密切合作。

项目将包括建立一个老年人护理机构,根据老年人自理能力程度的不同,为他们提供帮助,具体内容包括居住照护、康复治疗、综合家居照护服务等。

Integrated Service 综合服务

The Italy's expertise and experience offers an integrated approach to creating high quality services for the elder and their families.

意大利的专业知识和经验能以一种综合的方式为老年人及其家人提供高质量的服务。

Project Coordinator 项目协调人

Giomi Group

Giomi集团

The following stages identifies key areas of activities that should be considered by Long-Term Care facility projects, on the basis of the specific requirements of the local partner/costumer.

以下各个阶段将确定需要考虑的长期护理机构项目的各个关键方面, 在考虑这些方面时, 要基于地方合作伙伴和客户的具体要求。

01 Planning 规划

STRATEGIC ASSESSMENT AND PLANNING

战略评估与规划

- Nursing home / Retirement home management model & Chinese partner
- District area market and competitor analysis
- Number of elderly people, chronic diseases and inhabitants
- Competitors and LTC activities already carried out at territorial tier
- 地区市场和竞争对手分析
- 老年人、慢性病患者和居住者数量
- 竞争对手和LTC(长期护理)工作已经在地区层面进行

PROJECT SCOPING / FEASIBILITY STUDIES

项目范围与可行性研究

- Delivery time of the fully built-up LTC facility area
- Layout plan of the LTC facility area
- Total number of beds expected, healthcare disciplines, relevant treatments, services
- 整个LTC机构区域的交付时间
- LTC机构区域的平面布置图
- 预计的床位总数、医疗保健学科、相关治疗、服务

MASTER PLANNING

总体规划

- Healthy and beautiful interior and exterior design / engineering
- Efficient space and open-air garden
- Accuracy in procurement of functional and stylish furnishings / equipment
- IT Solutions & Services
- 卫生而美观的内外设计/工程
- 高效的空间和户外花园
- 购买合适、时尚的实用家具/设备
- IT(信息技术)方案与服务

02 Staffing 人员配备

BASIC STAFFING CATEGORIES

基本人员类别

- Director & General Manager
- Physicians/Health Workers (nursing, occupational, rehabilitation, physical therapy treatments etc.)
- Risk manager, Quality manager and Administrative Director
- Pharmacist, Nutritionist
- Environmental (such as housekeeping) services, Engineering/maintenance services
- 护理主任和医疗主任
- 医生/保健人员(护理、职业、康复、理疗.....)
- 风险经理、质量经理和行政主管
- 药剂师、营养师
- 环境(或家务)服务, 工程/维护服务

MEDICAL AND PARAMEDICAL STAFF

医务人员和辅助医务人员

- Selection on the basis of skills, healthcare disciplines, relevant treatments, services
- Physicians/Health Workers related to: number of beds, local rules compliance regarding request for LTC facilities
- 根据技能、医疗保健学科、相关治疗、服务进行选择
- 与以下方面有关的医生/保健人员: 床位数、关于LTC(长期护理)机构的地方规定

03 Clinical and Care Services 临床服务和护理服务

■ CARE MODELLING

护理模式

- Multi-Dimensional Evaluation (MDE), Individual Elderly Assistance Plan
 - Treatment of chronic diseases, medical and nursing care, orthopedic and neurological rehabilitation therapies
 - Up-to-date innovative medical devices and diagnostic equipment
 - The provision of drugs/pharmaceutical products
- 多维评估 (MDE)、个别老人帮助计划
 - 慢性病的治疗、保健及护理, 骨科和神经系统疾病康复疗法
 - 现代化的创新医疗用具和诊断设备
 - 提供药品

04 Clinical Risk Management (CRM) 临床风险管理 (CRM)

■ MEASURES AND PROTOCOLS

措施与方案

- Monitoring of healthcare-associated infections
 - Monitoring system of infection control of COVID-19 among residents and healthcare personnel
 - Containing and managing risks during the provision of clinical treatment and patient care
 - Clinical risk assessment
 - Specific training for the correct adoption of precautions and procedures in the assistance of all residents
- 居住者和医疗保健人员的COVID-19感染控制监控系统
 - 在提供临床治疗和患者护理时控制和管理风险
 - 临床风险评估
 - 关于在所有居住者的配合下怎样正确采取预防措施的专门培训

05 Quality Management System (QMS) 质量管理体系 (QMS)

■ QUALITY IMPROVEMENT IN PATIENT'S CARE

改进患者护理的质量

- Analysis of quality processes and care outcomes
 - Quality assurance and accreditation system
 - Procedures and guidelines for Physicians/Health Workers/Administrative Staff
 - Residents' satisfaction feedback system
- 质量流程与护理结果分析
 - 质量保证和认证系统
 - 给医生/保健人员/行政管理人员规定的程序和准则
 - 居住者满意度反馈系统

06 Digital Health 数字医疗

■ DIGITAL SOLUTIONS

数字方案

- Interoperability Solutions to: enable the integration and clinical cooperation among different healthcare stakeholders, standardize and unify patient's coding systems, support the referral system and the continuity of care
 - Business Intelligence Solutions to draw up reports and statistics about clinical, administration and financial current status and future trends
 - IoT home care services to monitor fragile patients at home, through dedicated APPs and integrated wearable devices
- 通过互通/中间平台, 能够实现整合和临床合作, 标准化和统一患者的编号系统, 支持社区诊所向LTC机构转介病人
 - 人群健康管理, 起草和提供关于临床、管理、当前财务状况、未来趋势的报告和统计数据
 - IoT (物联网) 居家护理服务, 可通过专门的APP (应用程序) 或集成的可穿戴装置监控易出意外的居家患者

07 Education and training 教育与培训

MANAGEMENT AND MEDICAL TRAINING COURSES

管理和医疗培训课程

- Innovative teaching model topics and materials
 - E-learning platform
 - Professional external trainers/ university lecturers
 - Innovative teaching model topics and materials
 - E-learning platform
 - Professional external trainers/ university lecturers
- 创新教学模式课题和材料
 - 在线学习平台
 - 专业的外部培训师/大学讲师

08 Governance 治理

OPERATION AND MANAGEMENT 运营与管理

- Parties assign their own qualified personnel who shall be responsible for the operational plan
 - Working on the mandatory/operative requirements of the building (number of beds and wards, medical staff and health workers, etc.)
 - Interior and exterior design, recruitment of physicians/health workers, staff training, operational plan, etc.
 - Economic impact evaluation concerning beds'occupancy ratio/related monthly revenue
- 各方任命自己的合格人员, 他们将负责运营计划
 - 研究法定要求/运营要求(床位数和病房数、医务人员和保健人员.....)
 - 室内设计和外部设计、医务人员/保健人员的招聘、人员培训、运营计划.....
 - 与床位占用率/相关月收益有关的经济影响评估

TASKS ASSIGNMENT 工作分配

- Drawing up a business plan on the basis of mutual benefits and in accordance with Chinese laws and rules
 - Monthly rental fee rate (including internal/external decorations and furniture) required by the building/area owner
 - Medical devices, diagnostic equipment, gym/wellness/rehab equipment, IT solutions & services
 - Relationships with Chinese government bodiesunits for authorizations/ certifications and medical licences
 - Financial incentives for the start-up of working according to the project/ district
- 基于双方的利益、根据中国的法律和规定起草经营计划
 - 建筑/区域业主每月的租借费率(包括内/外装修和家具)
 - 医疗用品、诊断设备、健身器材、保健设备、康复设备、IT方案和服务
 - 与中国领导机关的关系, 以便通过授权/认证, 取得行医执照
 - 根据项目/区域, 出于启动工作之目的提供财务激励

SINO-ITALIAN COOPERATION PROJECT CONCEPTS 中国-意大利合作项目概念

Early Diagnosis and Treatment of Liver Tumor Project

肝脏肿瘤早诊断和治疗项目

The need for early diagnosis

对早诊断的迫切需要

The WHO estimates every year nearly 400,000 Chinese people are diagnosed with liver cancer (9.2% of all cancers), and around 368,000 people die from it.

China accounts for almost half of all new liver cancer cases globally, but the population of China is only about a fifth of the world's population.

Hepatocellular carcinoma (HCC) accounts for 75%-85% of PLC cases and intrahepatic cholangiocarcinoma (ICC) for 10%-15%, while the residual cases include other rare types. Hepatitis B and C and aflatoxins (contained in food, including rice) may be among the most common causing factors, which act individually or in synergy. Moreover, heavy alcohol intake, obesity, and type 2 diabetes mellitus, all growing in China, are additional risk factors.

据WHO (世界卫生组织) 估计, 每年大约有400,000名中国人被诊断患有肝癌(占所有癌症的9.2%), 而死于这种癌症的中国人则每年达到了368,000人。

中国每年的新增肝癌患者人数, 占全球总新增人数的大约一半左右, 但中国的人口只占世界总人口的五分之一左右。

肝细胞癌(HCC)占PLC(原发性肝癌)的75%-85%, 肝内胆管细胞癌(ICC)占10%-15%, 其余为罕见类型的肝癌。乙型肝炎、丙型肝炎和黄曲霉素(存在于食物中, 包括大米)有可能是最常见的肝癌促发因素, 它们可单独发挥致癌作用或共同发挥作用。此外, 中国的重度饮酒、肥胖和2型糖尿病患者也在不断增加, 这些都是额外的危险因素。

Nonalcoholic fatty liver disease (NAFLD), having a high prevalence in China, is considered to be an important risk factor of HCC development.

Early diagnosis is demonstrated to be of great help to people at high risk because survival rate is much higher in treated patients when the tumor is still small.

Also, people diagnosed early for HCC are surviving much longer than before, thanks to new treatments that are made available in the last few years. However, the symptoms of liver cancer such as weight loss and jaundice only become evident in later stages of the disease.

China has made big progress in the containment of liver cancer, thanks to Hepatitis B vaccination and screening of population in areas at higher incidence.

Unfortunately, as an analysis of some regional tumour cancer registers has shown, there is a considerable disparity between rural areas and urban ones, which is directly with a much higher mortality in the first, linked, except among other factors, linked to the late diagnosis.

Accessibility to early diagnosis has to be improved, especially in rural areas.

非酒精性脂肪性肝病 (NAFLD) 在中国也很常见, 这种疾病也是HCC发病的一个重要危险因素。

目前已确定早诊断对肝癌高危群体有益, 在肿瘤尚小时即接受治疗, 可大大提高患者的生存率。

而且, 得益于近年来的新治疗方法, 早诊断的HCC患者的生存期要长得多。然而, 肝癌的症状, 如消瘦和黄疸等, 仅见于疾病的后期阶段。

得益于乙肝疫苗的普及及高发地区的人群筛查, 中国在控制肝癌方面已经有了长足的进步。

遗憾的是, 关于一些地区肿瘤登记记录的分析显示, 农村地区和城市之间在死亡率方面存在着相当大的差异, (除其他一些因素外) 这一差异直接与诊断的早晚有关。

早诊断必须进一步普及, 尤其是在农村地区。



The guidelines of different scientific societies recommend the use of Ultrasound (US) for HCC screening, due to its low cost, widespread availability, repeatability, acceptability by patients, lack of ionizing radiation. However, there still exists operator and US equipment dependency and some technical limitations.

CT and MRI have a better diagnostic accuracy of Ultrasound. However, despite the large number of this type of equipment installed in China in the last 10 years, their accessibility is still very uneven between large cities and rural areas.

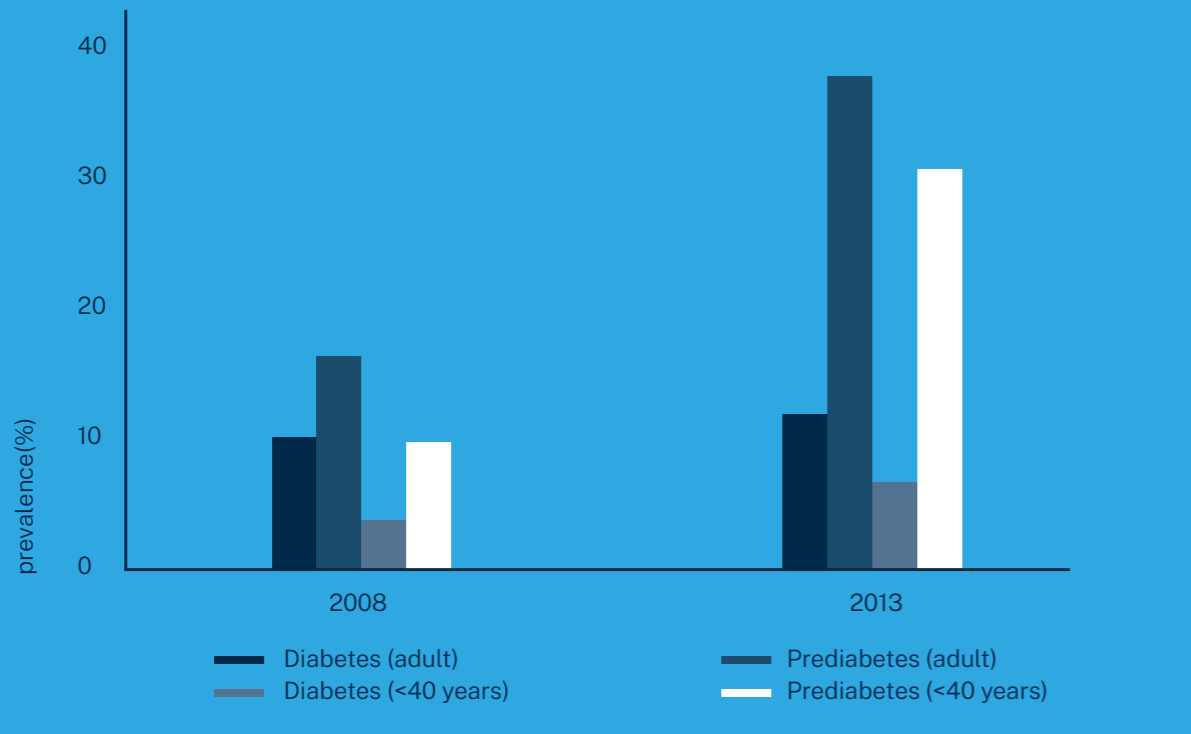
一些学术团体的指导准则建议使用超声 (US) 来进行HCC筛查,原因是超声的成本低廉、普及较广、可重复、易于为患者接受,且无离子辐射。然而,操作人员和超声设备存在着依赖性,而且还有一些技术上的局限性。

2018年的一项荟萃分析表明,除超声检查外,增加甲胎蛋白 (AFP) 检验,可增加早期HCC的筛查敏感度。

CT和MRI (磁共振) 检查比超声的诊断准确性高,但是,尽管中国在近十年来大量增加了这两种设备,可城市和农村地区之间,这两种设备的普及率仍然有着非常大的差异。

Furthermore, several publications demonstrated a low adherence to screening programs. In a 2018 Chinese publication, the compliance with the recommendation of undergoing ultrasonography every 6 months was only 7.3% of HBsAg-positive participants who completed the recommended schedule of ultrasonography. Patients who followed the recommended screening had a better prognosis than those who did not.

此外,有几份发表的文章证明了筛查方案的依从性较差。中国2018年发表的一篇文章称,接受建议每6个月复查一次超声的HBsAg (乙肝表面抗原) 阳性者只有7.3%。遵照建议接受筛查的患者,与未遵照建议做的患者相比,预后要好。

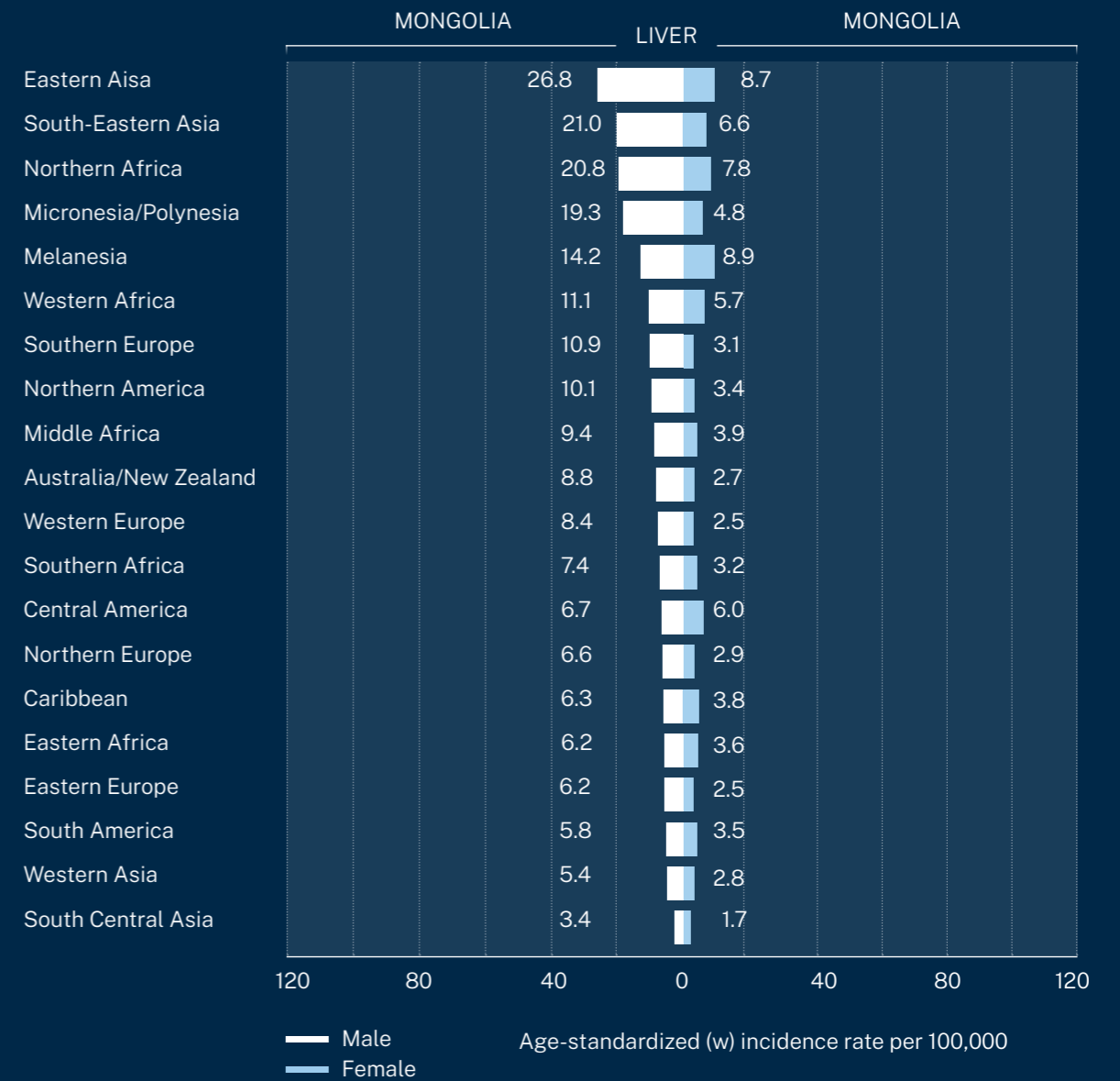


Prevalence of diabetes and prediabetes among Chinese adults or individuals <40 years of age, according to the 2008 and 2013 nationwide survey.

Cheng H. Weiping J. Diabetes in China: Epidemiology and Genetic Risk Factors and Their Clinical Utility in Personalized Medication. Diabetes 2018 Jan; 67(1): 3-11.

中国成年人或40岁以下个人的糖尿病和前驱糖尿病患病率, 2008年和2013年全国调查数据。

Cheng H. Weiping J, 《中国的糖尿病患者: 流行病学研究、遗传风险因素和个体化用药的临床效果》, 《糖尿病》, 2018年1月; 67(1): 3-11.



Region-Specific Incidence Age-Standardized Rates by Sex for Cancers of the Liver in 2018. Source: GLOBOCAN 2018.

2018年按性别划分的肝癌地区相关发病率和年龄标准化率。来源: 2018年GLOBOCAN (全球癌症统计数据库)。



Why a project with Italy?

为什么与意大利合作开展项目?

Italy is among the western countries with the highest rate of hepatocarcinoma and therefore designed and implemented early diagnosis programs across the whole Italian territory.

Italian researchers are among the few global experts involved in the design and implementation of guidelines.

Furthermore, several Italian companies present in China have products (equipment, medicines, etc.) used for the early diagnosis and treatment of hepatocarcinoma.

意大利是西方国家中肝癌发病率最高的国家,因此,整个意大利国内都设计并实施了早诊断方案。

意大利的研究人员曾参与全球肝癌治疗指导原则的设计与实施(这方面的专业人员非常少)。

此外,有几家意大利的公司已经出现在了中国市场上,提供用于肝癌早诊断和治疗的产品(设备、药品等)。

Project descriptions

项目说明

The project aims at offering the healthcare system to provide an all in one solution for the patient about with prevention, diagnosis, therapy and post-therapeutic follow-up. Exactly speaking, it is achieved, with through diagnostic and therapeutic tools non invasive and inexpensive and through an advanced organizational methodology, to treat in patients with higher increased risk (rural areas with a high prevalence of hepatitis B), and they are non invasive and inexpensive...

Two trucks (or two containers mounted on self-propelled vehicles) will be equipped to receive respectively Ultrasound equipment and patients and control and management room for telemedicine.

项目的目标是创建一个医疗保健体系,给患者提供预防、诊断、治疗和治疗后随访等方面的一体化服务,具体实现方式是采用先进的组织方法,使用诊断和治疗工具,来无创地诊断和治疗高风险患者(乙肝发病率高的地区),而且价格不贵。

两辆卡车(或两个安装在能自动推进的车辆上的集装箱)将装备上超声设备、门诊室、控制和管理室,用于远程医疗。

The vehicles will be traveling, after gaining agreement with local health authorities, to small towns, in regions of China where hospitals are not yet equipped to carry out this type of examination. The mobile units will operate in the same location for a period proportional to the number of local patients offering the possibility to pre-selected Chinese citizens at higher risk (positive for hepatitis B or C and high AFP) of undergoing a liver ultrasound test.

In case of focal lesions visible at the baseline Ultrasound test, another Contrast Enhanced Ultrasound examination will be immediately performed, increasing to 100% the adherence of patients who to the need for a second examination study to 100%. The examination will be carried out by local doctors who previously received remotely training with an online app and the result will be sent, through a telemedicine device, to a second diagnostic station in Class III hospitals for a second opinion.

The patient's medical records will be stored in a cloud database, and used for the preparation of an epidemiological study, to be published on a Chinese and international scientific journal; the results will also be presented during online workshops involving Italian and Chinese doctors.

The preparatory training will include the use of equipment and drugs for the treatment of possible adverse reactions, although rare.

The project will also provide tools for the computerized management of prevention campaigns, aimed at optimizing management and communication processes and strengthening mechanisms of monitoring, with a consequent improvement of the service provided and the level of participation in the screening by the local population.

在征得地方卫生机关的同意后, 车辆将在中国缺乏超声设备的小乡镇之间巡诊。这些移动单位将根据当地患者的数目, 在当地停留一段时间, 以便尽可能给预先选出的较高风险患者(乙肝、丙肝阳性或AFP较高)提供肝脏超声检查。

如果在基线(第一次)超声检查时发现病灶, 将立即进行增强超声检查, 将需要二次检查的患者的依从度增加到100%。检查将由预先远程接受培训(使用网上APP)的地方医生进行, 结果将通过远程医疗设备改善到III级医院的第二诊断站, 以便听取第二意见(上级医师的意见)。

所有患者的病历将保存在云数据库中, 用作流行病学研究的材料, 研究结果将发表在中国和国际科学期刊上; 结果还将在有意大利和中国医生参加的网络研讨会上展示。

初步培训将包括使用设备和药物治疗可能出现的不良反应(虽然很罕见)。

项目还将给预防活动的计算机化管理提供工具, 目标是优化管理和沟通过程, 加强监控机制, 最终提高服务质量, 提高地区人群的参与度。



To this end, the system provides functionality to support the identification of risk groups, the planning of the screening test on the basis of the symptoms and risk factors identified, the transmission of calls for test and notifications of the results, as well as the conduct and reporting of examinations.

In addition, the competent authorities will be given the opportunity to carry out statistics and reports on the epidemiological status in the target area and on the effectiveness of the prevention campaign, strengthening health monitoring and planning mechanisms.

出于此目的, 系统将提供各种功能来帮助风险群体的识别、基于症状和所确定的风险因素的筛选的规划、检查通知的发送、结果的通知, 以及检查的进展和报告。

此外, 通过本项目, 主管部门将有机会对目标地区的流行病学状况、预防活动的效果进行统计分析并上报, 从而加强卫生监控, 并规划相关的机制。



Impact and benefits 影响与益处

The project will provide local and central health authorities with the opportunity to assess the impact of a widely available, portable, low costs screening methodology on the survival and life quality of life of the population at risk for liver cancer when undergoing early care. It will also provide the opportunity to validate a management methodology of these patients who don't desire require to move them to larger cities. The project can therefore contribute to improving both accessibility and social sustainability.

本项目将给地区和中央卫生机关提供一个良机,使他们能评价分析流动便携式低成本筛选方法对肝癌风险患者(接受早治疗后)生存期和生活质量的影响。本项目还提供了一个验证这些患者(他们不想到大城市去)管理方法的机会。因此,本项目可以为医疗可及性和社会可持续性的提高做出贡献。

Project Coordinator 项目协调人

Shanghai Bracco Sine Pharmaceutical.

上海博莱科信谊药业有限责任公司。

SINO-ITALIAN COOPERATION PROJECT CONCEPTS 中国-意大利合作项目概念

Inclusive Tourism 包容性旅游

Sports, Active, and Cultural - Outdoor and Indoor Inclusive Tourism.
运动、活动和文化 - 户外和室内包容性旅游。

Scenario 方案

According to the United Nations, approximately 83 million people in China are estimated to have a disability (6.5% of the total population), of which 20.71 million (25.96%) individuals of the disabled community reside in urban areas, whereas 62.25 million (75.04%) in rural areas.

According to the China Disabled Persons' Federation, approximately 12.33 million (14.86%) people have visual disabilities, 20.04 million (24.16%) have a hearing disability, 1.27 million (1.53%) have a speech disability, 24.12 million (29.07%) have a physical disability, 5.54 million (6.68%) have an intellectual disability, 6.14 million (7.40%) have a developmental disability, and 13.52 million (16.30%) have multiple disabilities.

根据联合国数据,中国大约有8300万残障人士(占总人口的6.5%),其中2071万(25.96%)生活在城镇地区,6225万(75.04%)生活在农村地区。

根据中国残疾人协会的数据,大约有1233万(14.86%)残疾人患视觉障碍,2004万(24.16%)患听力障碍,127万(1.53%)患语言障碍,2412万(29.07%)有身体残疾,554万(6.68%)有智力障碍,614万(7.40%)有发育异常,1352万(16.30%)患有多种障碍。

Disabled people were used to be and still are partially excluded from the leisure activities offered to people without mobility problems.

While Inclusive Tourism is usually perceived as an barrier-free access, this is just a part of it: it means specialized assistance. Most importantly, it's about creating an environment where all people feel welcome and included, not biased by a charity attitude. It creates choice and instills confidence in all people, empowering them to sign up for new experiences, to enjoy life in ways not always available. Travel at the end allows people to experience something different from the usual, to grow and mature, and to enjoy valuable time with the loved ones. It should be a chance granted to everybody. Not only the mobility or mentally-impaired people benefit from the improvements, but also their relatives, friends and other companions. Accessibility in tourism is a social right which concerns all citizens. "It is often limited to a certain group of people but it should be seen in a more holistic approach". (European Commission Enterprise and Industry, 2008).

无论是过去还是现在,残障人士部分被排除在提供给无行动障碍者的娱乐活动之外。

而包容性旅游通常被视为一种无障碍通道,但无障碍仅仅是包容性旅游的一部分:它还意味着专业化的帮助。最重要之处是包容性旅游创造了一个所有人都能感到自己受欢迎、被包容其中的环境,残障人不会感到自己是慈善施舍的对象。它给所有人提供了选择,给他们信心,使人们能参与新的体验,享受本来享受不到的生活。最终,人们能体验到与平常生活不同的体验,能成长和成熟,与亲近的人共享宝贵的时间。这是所有人都应享受的机会。不仅仅是行动或智力受损的人能从中受益,他们的亲人、朋友和其他伙伴也能从中受益。参与旅游,是所有公民都有的社会权利。“旅游通常局限于某一特定的群体,但我们应该让所有人的都能享受到它”。(欧盟企业与工业委员会,2008年)。

The Project 项目

Tourism practices should be open and inclusive toward different kind of disabilities, either physical or mental difficulty to various degrees, to generate wider social and economic benefits.

In China our aim is to promote an inclusive tourism towards motor and mental disabilities, offering the experience, excellence and service innovation that Italy can offer to Chinese tourists; together with medical and wellness services.

Not only the mobility-impaired people benefit from these specific service improvements, but also their relatives, friends and other companions. Our network is able to provide hospitality and tours already designed for this cluster. We aim to propose the travel experiences not only through the traditional tourism circuit (i.e. tour operating, OTA, etc), while focusing on a fringe-benefit package system to offered to companies, start-ups as wells as established ones, eventually with CSR programs already in place: the employee will have the opportunity to benefit from traveling abroad, experiencing inclusive services or a package tourism which includes medical treatments: medical check-ups or specific requirements as well as services linked to wellness (i.e. Thermal).

旅游应该向各种不同的残障人士(无论何种程度的肢体或智力障碍)开放,包容他们,以便产生更广泛的社会和经济益处。

在中国,我们的目标是促进一种面向行动和智力障碍人士的包容性旅游,提供意大利所能向中国游客提供的创新体验和优良服务,包括与医疗和保健有关的服务。

这些特殊服务改进项目的受益者不仅仅是残障人士,还包括他们的亲人、朋友和其他同伴。我们的网络能为残障人士提供精心设计的款待和观光服务。我们的目标不仅仅是通过传统旅游圈(例如旅游公司、OTA(在线旅游公司)等)向游客提出旅游体验建议,还着重于最终与已有的CSR计划一起,以额外福利的方式向各种企业、新公司和知名公司提供旅游体验:员工们将有机会享受国外旅行,体验包容性的服务,或包括医疗在内的服务包:医学检查或专科要求,以及其他与健康有关的服务(例如热疗等)。

Impact and benefits 影响和益处

To Start-Up companies, as well as more established ones, this benefit can be quite attractive and enhance both the image of the company and the interest and satisfaction/loyalty of the employee, besides, not being a taxable remuneration.

对于新成立的公司和大公司来说,这些福利很有吸引力,可以提高公司形象,增加员工的满意度和忠诚度,而且,这是一种无需纳税的报酬。



The social commitment is a very powerful tool to obtain attention from potential customers/partners across a wide range of business fields, and Italy as destination have long years of expertise in providing services ranging from outdoor sports like ski and mountain activities to cultural related visits to this specific cluster of guests. Not only the mobility-impaired people benefit from these specific service improvements, but also their relatives, friends and other companions.

Like many European countries, China has an employment quota system which mandates public and private companies reserve at least 1.5 per cent of their positions for disabled persons, depending on the region (France now mandates 6 per cent and Germany 5 per cent, with penalties for larger employers which do not comply).

在许多商业领域中,社会责任感是一种吸引潜在客户/合作伙伴的非常强大的工具,意大利作为目的地,在提供服务方面拥有多年的丰富专业知识,可以为特殊的游客提供从户外运动如滑雪、山地活动等,到文化观光等各种旅游项目。这些特殊服务改进项目的受益者不仅仅是残障人士,还包括他们的亲人、朋友和其他同伴。

与许多欧洲国家一样,中国也实施有残疾人配额雇用制度,强制要求公立和私营公司必须雇用至少1.5%的残疾人士,具体比例取决于地区(法国为6%,德国为5%,不遵守此规定的大公司将受到惩罚)。



Main Services 主要服务

The following services, not a comprehensive overview, are available to physical and mentally impaired guests and tailored to their needs.

- Ski (mono & dual)
- Nature Excursions (also by electric wheelchairs)
- Rafting
- Handbike
- Swimming
- Tennis (also on wheelchairs)
- Bowery (also on wheelchair)
- Fencing (also on wheelchair)
- Adventures parks
- Cultural visits
- Skating
- Snowshoes explorations
- Bobsleigh
- Rock Climbing

以下服务是提供给肢体和智力障碍游客的服务(不是全部),均根据需要专门设计过。

- 滑雪(单板或双板)
- 在大自然中远足(也可坐在电动轮椅上)
- 漂流
- 手动自行车
- 游泳
- 网球(也可坐在轮椅上)
- 农庄游(也可坐在轮椅上)
- 击剑(也可坐在轮椅上)
- 冒险公园
- 文化观光游
- 滑冰
- 雪鞋探索
- 大雪橇
- 攀岩

-Organization of individual and group holidays (marine/ heliotherapy and spa holidays) designed for disadvantaged people, and people with psycho-physical disabilities, and their families

-组织弱势群体、肢体-智力残疾人士及其家人的个人和团体游(海上游/日光浴疗法和温泉度假)

Project Coordinator 项目协调人

Cooperative Tourism Center

合作旅游中心

SINO-ITALIAN COOPERATION PROJECT CONCEPTS 中国-意大利合作项目概念

Medical Tourism 医疗旅游

Background and strengths 背景与优势

Health tourism actually helps counter average seasonality in tourism as a whole. The share of health tourists arriving from outside the EU amounts to an estimated 6%.

Each year, seven million people around the world take a trip for medical reasons, generating a turnover of 100 billion dollars. Tourists have been attracted also by artistic and natural beauty of the countries, so it's more easy to develop health tourism in Italy and benefit from the growing numbers of medical tourists.

疗养旅游有助于缓解旅游业整体的淡季旺季问题。据估计，欧洲以外地区来欧洲疗养旅游。

每年，全世界有七百万游客出于各种医学原因来到欧洲，产生的营业额高达1000亿欧元。不仅仅是医疗支持，欧洲国家的人文艺术和自然之美对游客们也极具吸引力，因此，在意大利发展疗养旅游是件相对容易的事，旅游业可从不断增长的医疗旅游人数受益。



Now, Italy represents 17% of the medical tourism share in Europe, amounting to 2 billion euros, offering quality treatments especially in the field of neurology, cardiac surgery, oncology, bariatric surgery, and orthopedics and it requires coordinated and targeted action to facilitate the growth of this system of innovative activities.

The HCWG network gathers health facilities and excellent tourism brands with the aim to leverage on the strengths of the “Italian life style”, namely, art, culture and food as well as high-end quality healthcare treatments. The network involves hospitals promoting their services internationally providing interpreters, medical records in the patient’s language, nurses available even at night, but also shuttle services to and from the airport, rooms for relatives, agreements with major hotels, satellite TVs in rooms, etc.

The Italian healthcare companies provides patients and their families with a fully personalized and comprehensive services and outstanding healthcare covering a wide range of medical specialties, thanks to high skilled medical staff and interpreters who will care the patient through their stay and the eventual connection with doctors or relatives located in the patients’ native country.

如今，意大利占欧洲医疗旅游17%的份额，总值达20亿欧元，可提供高质量的治疗，尤其是神经内科、心脏手术、肿瘤、减肥手术和矫形外科（骨科）领域的治疗，意大利需要协调而有针对性的行动来促进这一创新领域的增长。

HCWG（医疗保健工作组）网络将医疗保健机构与优秀的旅游品牌联合在了一起，目的是充分利用“意大利生活方式”的优势，即艺术、文化和美食，以及高品质的医疗。参与该网络的医院在国际上宣传其服务，包括翻译、使用患者语言的病历、护理等服务（包括在夜间），可提供来往机场之间的接送服务、陪护房间、酒店房间（房间配有卫星电视）……

意大利的医疗保健公司可为患者及其家人提供完全个性化的综合服务，包括优质的医疗保健服务，范围包括各种各样的专科医疗，技术熟练的医务人员和翻译人员将在患者停留期间提供无微不至的关怀，并与患者家乡的医生或亲人保持联系。



Target patients 目标患者

-Patients from China whom needs of most advanced healthcare techniques, technologies and procedures, providing tailor-made package tripourism including check-up programs, care treatment, therapy or rehabilitation, combined withas well as a holiday in Italy.

-Chinese expats living or working in Italy and in need of comprehensive care, but they have a low level of Italian language knowledge. Within Italian healthcare facilities patients are assisted by a team of specialized doctors, health workers and interpreters available 24/7, also dealing with administrative matters such as contacting the patient's insurance company and, where applicable, billing international or travel insurance directly.

-目标群体是需要最先进医疗护理技术、检查和手术治疗的中國患者,可提供定制旅游,包括体检方案、保健、治疗和康复治疗,在接受医疗服务的同时,在意大利度假。

-需要全面医疗护理的外派到意大利或在意大利生活但语言不熟练的华人。在意大利的医疗保健机构内,患者可24/7(每周七天,每天24小时)接受由医生、保健人员和翻译人员组成的团队提供的帮助,还可帮助患者处理各种事务,如与保险公司签订合同、直接填写国际保单或旅游保单等(如适用)。

-Full assistance for Chinese students having health problems during their stay in Italy within the Italian hospitals, thanks to the specialized team of doctors, health workers and interpreters, providing a personalized service 24/7 days.

-由医生、保健人员和翻译人员组成的专业团队,可以给有健康问题的中国学生在意大利医院逗留期间提供全面的24小时不间断帮助。

Main services

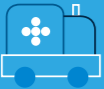
主要服务



TRANSLATORS AND ON-SITE INTERPRETERS
翻译和现场翻译



HOUSE-CALL DOCTORS AND HOTEL VISITS
出诊医生和酒店内就诊



AMBULANCE SERVICES
救护车服务



MULTIDISCIPLINARY PATIENTS' APPROACH
多科会诊治疗



URGENT CARE 24 / 7
紧急护理24/7



INSURANCE RELATIONSHIPS
保险关系



The Project 商业案例

The following key areas of activities are prominent to develop an effective project aimed to establish a long-term cooperation with Chinese partners (primarily Travel Agencies, Insurance Companies, Hospitals & Elderly Care facilities,) both for Emergency and Elective Care Services at the Italian healthcare facilities. With the development of telemedicine, it is already possible to follow up international patients in distance, such as monitoring neurological and orthopedical rehabilitation program with virtual reality, or remotely checking the functioning parameters and heart range so as to alert patients with any abnormality in real time for patients, of course, after heart rhythm management devices implantation surgeries.

以下关键领域的工作对于开展目标是与中国合作伙伴(主要是旅游公司、保险公司、医院和老年人护理机构等)建立长期合作关系的项目非常重要,包括意大利医疗保健机构的紧急护理和常规护理工作。随着远程医疗的发展,目前已可远程跟踪国际患者,例如通过虚拟技术来监视患者神经系统或骨科手术后康复计划的执行情况,或远程检查功能参数和心率,以便出现异常时实时向患者发出警告,当然,这需要事先通过手术在患者体内植入心率管理装置。

EMERGENCY AND ELECTIVE CARE SERVICES

急诊和常规护理服务

URGENT CARE 24/7	紧急护理24/7
PRIVATE ROOM, PERSONALIZED MEALS, DEDICATED STAFF	包间, 个性化餐饮, 专门的服务人员
TOP QUALITY TECHNOLOGIES AND BEST-IN-CLASS	顶级的科技和同类最优的技术
BLOOD TESTING LAB	血液化验
SPORTS MEDICINE	运动医疗
ROUND-TRIP TRAVEL SERVICE FOR PATIENTS AND FAMILY	患者及其家人的往返行程服务
ADVANCED RADIOTHERAPY CENTER (VERO, TRILOGY, CIBERKNIFE, TOMOTHERAPY)	先进放疗中心 (Vero, Trilogy, 射波刀, 螺旋断层放疗)
TRANSLATORS AND ON-SITE	翻译和现场翻译
AMBULANCE SERVICE	救护车服务
MULTIDISCIPLINARY VIRTUAL HOSPITAL	多学科虚拟医院
CHECK-UP	体检
SEXUAL HEALTH & BIRTH CONTROL	性健康与节育
STROKE UNIT	卒中治疗
ELDERLY CARE HOME / RETIREMENT	敬老院/ 退休之家
WOMEN'S CANCER TREATMENT CENTER	妇女癌症治疗中心

EMERGENCY ROOM	急诊室
HOUSE-CALL DOCTORS AND HOTEL VISITS	出诊医生和酒店内就诊
DIAGNOSTIC IMAGING	影像诊断
IIINJURIES AND WOUND CARE	损伤和外伤护理
MENTAL HEALTH/ILLNESS	心理健康/疾病
CYTOGENETICS AND MOLECULAR GENETICS	细胞遗传学和分子遗传学诊断
WHOLE-BODY MRI	全身MRI
CARDIOVASCULAR TELEMEDICINE	心血管病远程医疗
EMERGENCY ROOM	急诊室
VIDEO CONSULTATION	视频会诊
PRE-HOSPITALIZATION SECOND OPINION	住院前第二意见
IMMUNIZATION AND ALLERGY CARE	免疫疾病和过敏症护理
INSURANCE RELATIONSHIP AND ASSISTANCE	保险关系与帮助
PRE-HOSPITALIZATION SECOND OPINION	住院前第二意见
WOMEN'S HEART DISEASE TREATMENT CENTER	妇女心脏病治疗中心

DISCIPLINES AND TREATMENTS FOR INTERNATIONAL PATIENTS

为国际患者提供的各学科和治疗服务

ONCOLOGY AND REHABILITATION	肿瘤与康复治疗
CARDIAC AND MOTOR REHABILITATION	心脏与运动康复治疗
NEUROLOGY	神经内科
HAEMATO-ONCOLOGICAL	血液肿瘤治疗
SPINE TUMOR AND METASTASIS	脊柱肿瘤和转移癌
OPHTHALMOLOGY	眼科
PAEDIATRIC IMMUNO-HAEMATOLOGY AND GENE THERAPY	儿科免疫血液治疗与基因疗法
BREAST CANCER AND ONCOPLASTIC BREAST SURGERY	乳腺癌和乳腺肿瘤切除整复术
FERTILITY PRESERVATION AND ASSISTED REPRODUCTIVE TECHNIQUES	生育力保留和辅助生育技术
MELANOMA & SARCOMA SURGERY & ONCOLOGY	黑色素瘤、肉瘤的手术治疗
CARDIOVASCULAR DISEASES	心血管疾病治疗
SPINAL SURGERY	脊柱外科
NEUROLOGICAL REHABILITATION	神经康复治疗
BRUGADA SYNDROME TREATMENT	布鲁加达综合征的治疗
FOETAL SURGERY	胎儿外科
INTERVENTIONAL RADIOLOGY	介入放射科
CARDIAC IMAGING	心脏成像
MINIMALLY INVASIVE CARDIAC SURGERY	微创心脏手术
PAEDIATRIC AND ADULT CONGENITAL CARDIAC SURGERY	儿童与成年人先天性心脏病的手术治疗
GYNEACOLOGY SURGERY & ONCOLOGY	妇科手术与妇科肿瘤治疗

ORTHOPEDICS & TRAUMATOLOGY	骨科与创伤治疗
HEMODIALYSIS UNIT	血液透析室
INFECTIOUS DISEASES	感染性疾病
JOINT REPLACEMENT	关节置换术
BARIATRIC AND METABOLIC SURGERY	减肥和代谢手术
COSMETOLOGY	美容
CRITICAL CARDIOLOGY	严重心脏病治疗
INTERVENTIONAL CARDIOLOGY	介入性心脏病治疗
DIABETES AND DIABETIC	糖尿病与糖尿病并发症治疗
NEUROLOGICAL AND PSYCHIATRIC HOSPITAL FOR CHILDREN AND ADOLESCENTS	儿童和青少年神经与精神疾病治疗
UROLOGY SURGERY & ONCOLOGY	泌尿外科和泌尿系统肿瘤治疗
HYPERBARIC CHAMBER	高压氧舱
ARRHYTHMOLOGY AND ELECTROPHYSIOLOGY	心律失常学和电生理分析
NEUROSURGERY	神经外科
GYNAECOLOGIC ONCOLOGY	妇科肿瘤
THORACIC SURGERY & ONCOLOGY	胸外科和胸腔肿瘤治疗
VIC – VENTRICULAR INTENSIVE CARE	VIC – 心室疾病特别护理病房
ISLET AND PANCREAS TRANSPLANTATION	胰岛和胰脏移植
HEAD & NECK SURGERY & ONCOLOGY	头颈部手术和头颈部肿瘤治疗
MEMORY HOSPITAL	记忆力减退治疗

CHINA-ITALY CHAMBER OF COMMERCE

中国意大利商会

CONTACTS

联系方式

Beijing Office

北京办事处

ADDRESS:

3-2-21 Sanlitun Diplomatic
Residence Compound , Gongtibeilu No.1
Chaoyang District , Beijing
地址:北京市朝阳区工人体育场北路 1 号三里
屯外交公寓 3 号楼 2 单元 021 号公寓
TEL: 0086-10-85910545
电话: 0086-10-85910545
FAX:0086-10-85910546
传真: 0086-10-85910546
EMAIL:
info@cameraitacina.com
电子邮箱:
info@cameraitacina.com

Chongqing Office

重庆办事处

ADDRESS:

Floor 20th, Chongqing Liangjiang
International Cooperation Centre
n 6 Huang Shan Avenue Liangjiang
New Zone Chongqing. 401121 P.R. China
地址:重庆市两江新区黄山大道中段 6 号
重庆两江国际合作中心 20 楼
邮政编码: 401121
TEL: 0086-23-81156589
电话: 0086-23-81156589
EMAIL:
infochongqing@cameraitacina.com
cq.promotionalcentre@cameraitacina.com
电子邮箱:
infochongqing@cameraitacina.com
cq.promotionalcentre@cameraitacina.com

Guangzhou Office

广州办事处

ADDRESS:

Room 1201-1202, Garden Hotel, No.368
Huanshi Dong Road Garden Tower,
Guangzhou, 510064
地址:广州市环市东路 368 号花园大厦花园酒
店 1201-1202 室
邮编:510064
TEL: 0086-20-83652682
电话: 0086-20-83652682
FAX:0086-20-83652983
传真: 0086-20-83652983
EMAIL:
infoanguangdong@cameraitacina.com
电子邮箱:
infoanguangdong@cameraitacina.com

Suzhou Office

苏州办事处

ADDRESS:

No. 7, Fangzhou Road, Suzhou Industrial Park,
Suzhou,Jiangsu Province 215126 P.R.China
地址:江苏省苏州市苏州工业园区方洲路 7 号
邮编:215126
TEL: 0086-512-67996169
电话: 0086-512-67996169
EMAIL:
infosuzhou@cameraitacina.com
电子邮箱:
infosuzhou@cameraitacina.com

Shanghai Office

上海办事处

ADDRESS:

No. 777 Weihai road,
2nd Floor, Room 202, Jing'An District Shanghai
地址:上海市静安区威海路 777 号 2 楼 202 室
TEL: 021-63810268
电话: 021-63810268
EMAIL:
infohanghai@cameraitacina.com
电子邮箱:
infohanghai@cameraitacina.com



Pilot Projects to promote
the Sino-Italian Health Care Cooperation
加强中国-意大利医疗保健合作的试点项目



Camera di Commercio Italiana in Cina
中国意大利商会
China-Italy Chamber of Commerce



ASSOLOMBARDA