

UNIVERSITY OF MACAU DEVELOPMENT FOUNDATION

# 澳門大學發展基金會

# 2021年報

**University of Macau Development Foundation Annual Report 2021** 

## 概覽 **Overview**

澳門大學發展基金會於2009年以行政公益 法人註冊成立,其宗旨為支持及促成澳門 大學實現學術及教育之目標,使澳門大學 在本地及國際上具有更佳之競爭力,且確 保其可持續發展。因此,澳門大學為基金 會的唯一受益人。

自2009年成立以來,在社會各界的共同支 持之下,澳門大學發展基金會穩步發展, 截至2021年12月31日止,歷年收到的捐贈 總額累計達15.4億澳門元,資產淨值約為 18.3億澳門元。

一直以來,基金會持續優化組織架構和運 作模式, 強化澳大與基金會的聯繫, 確保 兩者之間的永續關係。同時逐步擴大對澳 門大學的資助領域和範疇,促進澳大全方 位發展

Established as an administrative public utility person in 2009, the University of Macau Development Foundation aims at supporting and facilitating the University of Macau to attain its academic and educational goals; making it competitive locally and internationally and achieve sustainable development. Therefore, the University of Macau is the sole beneficiary of the foundation.

MOP1.83 billion.

aspects.



With the collective support of all the sectors of society, the foundation has been developing steadily since its inception in 2009. As of Dec 31, 2021, the grand total of donation over the years amounts to MOP1.54 billion, and its net asset value is at

The foundation has been striving to ensure that its functioning and activities are closely related to UM. All efforts has been made to quarantee a sustainable relationship between the two. Also, the foundation has gradually expanded the funding areas and scope for the University to promote its development in all

### 組織架構

### **Organisational Structure**

	信	託委員會 / Trustees Committee	
主 席	Chair	林金城 Lam Kam Seng Peter	
副主席	Vice Chairs	謝志偉 Tse Chi Wai	
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監事會 / Fiscal Committee			
む 中日	Chair		
監事長	Chair	崔煜林 Chui Yuk Lum António	
成員	Members	容永恩 long Weng lan 飛安達 António José de Freitas	





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# 主席寄語 Chair's Message

2021年,澳門大學邁向成立40週年的里程碑,進入繼往開來的新發展階段。澳大一方面繼續克服新冠疫情帶來的影響,另一方面,按照《五年發展規劃(2021/22-2025/26學年)》所編製的藍圖逐一落實各項工作。

澳大為基金會的唯一受益人,基金會秉承一貫宗旨於過去一年資助 澳大展開30多項不同領域的計劃,範疇涵蓋吸引高端人才、科研創 新、學生及書院發展、社會服務等領域。另外,也支持大學開展憲 法及基本法推廣、與內地高校交流合作等活動,促進大學實現其學 術及教育的目標。

基金會未來會繼續鼓勵大學善用已有優勢和特色,增強大學綜合實力,推動前沿及跨學科研究,營造優質的學習、科研和工作環境。

林金城博士 信託委員會主席





2021 marks a milestone for the University of Macau (UM), marching towards 40 since its establishment. UM has inherited the past and opened vistas for the future, and entered a new phase of development. While continuing to work to overcome the impact of the COVID-19 pandemic, the university implement works in accordance with the blueprint set out in the UM Five-Year Development Plan (AY 2021/22-2025/26).

With UM as its sole beneficiary, the University of Macau Development (UMDF) continued to support the university. Last year, more than 30 projects of UM were approved to be funded in which funding areas include attracting top talents, carrying out research and innovation, development of students and the residential colleges, and promoting social services. The funding also supported UM on raising awareness towards the Constitution and the Basic Law, and academic exchanges with higher institutions in the Mainland to enable the university to achieve its academic and educational goals.

In future, the UMDF will continue to encourage UM to utilize existing advantages and distinctive characteristics, enhance comprehensive strengths, promote cutting-edge and interdisciplinary research, and create a quality learning, research and working environment.

Dr Lam Kam Seng Peter Chair of the Trustees Committee



2021年是澳門大學建校四十週年。這一年,國家"十四五"規劃和 2035 年遠 景目標正式公佈,澳門特區政府頒佈並啟動落實《澳門特別行政區經濟和社會 發展第二個五年規劃(2021-2025年)》,《橫琴粵澳深度合作區建設總體 方案》也正式發佈。在澳門融入國家發展大局帶來新的歷史機遇之下,澳門大 學在人才培養、科研創新、對外合作、社會服務等方面不斷進步,在本地、區 域及國際的聲譽正不斷提升。

配合國家和澳門特區相關規劃部署的步伐,大學於2021制訂了《澳門大學五 年發展規劃(2021/22-2025/26學年)》,作為未來五年大學發展的綱領和 藍圖。澳門大學將以立足澳門、共建灣區、融入國家、走向世界為發展定位, 通過以學生為本的優質教育、具國際影響力的重點研究,以及高水平的社會服 務,矢志成為一所國際公認的卓越大學。

經過40年的發展,澳門大學在中央和特區政府的大力支持下,已成為大灣區一 所富有特色和實力的綜合性大學。我們衷心感謝基金會對澳門大學一如既往的 關心與支持,為大學的教研工作帶來鼓勵和動力,對實現大學的長遠發展策略 至關重要。展望未來,澳門大學將繼續循序漸進開展各方面的工作,推動大學 在傳承、變革與創新的基礎上,以新的思路、新的策略"揚帆追要"。

宋永華教授 校長

4 U.M.D.F.



The year 2021 marks the 40th anniversary of the University of Macau (UM). This year, the nation's 14th Five-Year Plan and the Vision for the Year 2035 have been officially announced. We have also witnessed the unveiling of the Second Five-Year Development Plan of the Macao SAR (2021-2025) and the Master Plan of the Development of the Guangdong-Macao Intensive Cooperation Zone in Hengqin. With new historical opportunities being brought about by Macao's integration into the development of the nation, UM has continued to make progress in many areas such as talent nurturing, research & innovation, external collaboration, community service, and generally enjoyed a growing reputation locally, regionally and internationally.

In line with the major plans of the central and local governments, UM has formulated its Five-Year Development Plan which serves as a framework and blueprint, guiding its development in the coming five years from 2021/22 to 2025/26. UM will take "being rooted in Macao, taking part in the development of the Greater Bay Area, integrating into the nation and going international" as its development positioning, and will seek to deliver student-centred quality education, research with international impact and high-standard community services. This is consistent with our aim to become an internationally recognised university of excellence.

Through 40 years of development, with the support of the central and local governments, UM has become a comprehensive university with features and strengths in the Greater Bay Area. We are very grateful to the University of Macau Development Foundation for its care and support, which brings encouragement and motivation to the university's teaching and research development, and is crucial to the realization of the university's long-term development strategy. In the future, UM will progressively implement key tasks in various areas and continue forging ahead with heritage, reform and innovation as foundation, adopting new ideas and new strategies to 'set sail for new shores'.

Professor Yonghua Song Rector

與個大學40通年 40th Anniversary of the University of Macau

不惑新航揚帆语声

SET SAIL ANEW ON

THE RUBY JUBILEE



澳門大學為基金會的唯一受益人,基金會 所得捐款按捐款人意願作一般用途資助或 特定資助。2021年基金會的主要資助領域 包括:人才招攬和培養、卓越教研項目、 產學研發展、學術交流、學生及書院發 展、服務社會的研究、憲法及基本法推廣7 個方面。 The University of Macau is the sole beneficiary of the UMDF. Donations to the Foundation are classed according to the donor's wishes as general endowment or designated fund for specific uses. In 2021, the UMDF has seven key areas of funding, including talent attraction and nurturing, outstanding teaching and research projects, industry-academia-research development, academic exchange, development of students and the residential colleges (RC), research that serves the community, promotion of the Constitution and the Basic Law.









學生及書院發展

Development of students and the residential colleges



服務社會的研究

Research that serves the community



# 成果亮點 **Highlights**

繼續支持基金會冠名教授席及傑出學人計劃

Continue to support UMDF Named Professorship and Professorial Fellowship Scheme

#### 支持法學院深化憲法和基本法的研究和推廣

Support Faculty of Law to further deepen the education, promotion and theoretical research of the Constitution and the Basic Law



Support UM Macao Talent Programme, through which the university has enrolled 77 outstanding students in full-time PhD programmes, who would also engage in academic researches



Support UM in initiating research that focuses on cutting-edge academic themes that are unique to Macao and in line with international trends, including financial innovation, smart tourism and governance collaborations in the Greater Bay Area

#### 支持澳大人創新創業,投資校友成立的科創企業

Support UM associates on innovation and entrepreneurship, invest in enterprise of innovative technology which was founded by an UM alumni

72 個學院學術獎及年度教員獎 資助大學頒發

Provide grants for the university to present a total of 72 faculty-level academic awards and annual awards to eligible academic staff members



Offer designated scholarships, academic awards and financial aids to 76 students with outstanding academic performance or excellent community service, or eligible students in need



Present RC scholarships to 239 students who excel themselves in whole-person education



### 學生人次參加

Support the university in providing pastoral care services to Residential College students, who stayed on campus for Chinese New Year due to pandemic. 104 activities were held with total attendance over 3000



為支持大學延攬更多具國際影響力的著名學者加入,基 To support the university's efforts in recruiting renowned scholars with international influence, in 金會於2018年設立澳大發展基金會冠名教授席,每年 2018 the foundation established the UMDF Named 資助冠名教授的學術活動。目前基金會按校方建議共向 Professorship to support the academic activities of the 四位教授授予基金會冠名教授席,以支持大學聘任出色 named professors annually. Thus far, the foundation 的教研人員。 has conferred four UMDF Named Professorships to support UM in appointing outstanding faculty 2021年11月,校方啟動了"澳門大學發展基金會冠名教 members, as proposed by the university.

授講座"系列。首場講者胡偉星教授以"關於修正主義 的話語分析與當代中美關係"為題與校內外師生和嘉賓 交流互動。來年校方將繼續邀請各冠名教授以講座形式 加強他們與社會各界及師生的交流和聯繫,營造良好的 學術氛圍。



In November 2021, the university launched a lecture series titled 'University of Macau Development Foundation Named Professorship Lecture'. Speaker of the first lecture, Prof Hu Weixing, delivered a lecture titled The Discourse Analysis of Revisionism and Contemporary Sino-American Relations. He interacted with teachers, students and guests during the lecture. In the coming year, the university will continue to invite each named professor for lecture to strengthen communication and connection between them and the community as well as the faculty members and students, creating an excellent academic atmosphere.



## ◆ 澳門大學發展基金會智慧旅游講座教授

羅振雄教授擁有逾三十年高等教學及研究經驗,在旅遊信息管理、網絡和電子商務等方面學術成就卓 越。由於羅教授具計算機科學背景,他擅長以大數據研究及預測旅客需求,從而協助業界掌握目標旅 客群的喜好,縮小行業供應和旅客需求的差距。

對於智慧旅遊在澳門的應用,羅教授認為智慧旅遊主要是透過科技提升旅客的旅遊體驗,大數據應用 是旅遊業的發展趨勢,建立好收集數據的基建,例如可覆蓋全澳的免費無線網絡、結合所有旅遊資訊 的手機應用程式等十分重要,利用科技整合不同產品及服務,能讓旅客更容易獲得資訊,營造一個高 度開放及便利的數據系統。在後疫情時期,科技可為旅遊帶來更多可能性,例如利用虛擬現實技術, 可把澳門歷史城區的世界遺產打造成澳門人週末本地遊的新元素,而機械人的應用則可減少人與人之 間的接觸,成為推廣澳門安全旅遊的工具。

羅教授的研究應用性和適切性強,除了智慧旅遊,羅教授及其團隊對資訊管理於旅遊業的應用進行了 大量研究,包括社交媒體、電子口碑、網站瀏覽行為研究等。他們建立了不同的理論和模型來評估網 站的成效,業界可利用這些原理提升其網站的競爭力,改善顧客體驗和滿意度,從而增加營利,網站 評估的理論不但應用於酒店服務業,其他不同行業亦適用。以團隊在數據分析上的專長,羅教授同時 進行了很多有關旅遊款客領域的基礎研究,透過對文獻計量、論文引用及影響力的分析,評估大學的 研究表現,這對高等院校提升學術聲望有重要幫助。

羅教授的研究團隊和合作伙伴不乏年輕人,他寄語年青學者在學術研究的道路上,最重要是選擇自己 感興趣的主題,保持開放心態,勇於嘗試並不斷吸收新事物,學者要和業界合作,掌握最新數據並探 索對社會有益並具影響力的研究。

#### UMDF Chair Professor of Smart Tourism

With over 30 years of teaching and research experience, Prof Rob Law is recognized as a leading scholar in tourism and hospitality research, especially in applications, and management of information and communication technologies. With a computer science background, Prof Law is strong at examining and predicting tourists' demands by using big data. Industry can then master the preferences of target tourists in order to bridge the gap between supply and demand.

Regarding the application of smart tourism in Macao, Prof Law strongly believes that smart tourism can enhance the travel experience of tourists through technology. Using big data is a trend in tourism development, infrastructure advancements such as free Wi-Fi coverage in Macao and mobile applications to link the information and resources are crucial. Technology can be applied to integrate different products and services, forming an open and convenient data system that makes the information more accessible to tourists. During post-pandemic, technology may bring more opportunities to tourism. For example, virtual reality can be utilized to make good use of world heritage resources for local citizens' weekend leisure. In addition, applications of robots can reduce contact between people and promote safe travelling in Macao.

The research conducted by Prof Law is both applicable and relevant. In addition to smart tourism, Prof Law and his team are prolific researchers in tourism information management and technology applications. It includes, but is not limited to, examination on social media, electronic word-of-mouth and website browsing behavior. They have developed various approaches and models to evaluate the effectiveness of websites. Practitioners may then apply these theories to enhance the competitiveness of their websites, and improve customers' experience and satisfaction. This, in turn, increases potential business revenue. The model they have developed can also be applied in many other industries besides hospitality and tourism. With his team's expertise in data analysis, Prof Law also works on tourism and hospitality fundamental research. Through analyzing citation, impact factors and bibliometrics, they evaluate the research performance of universities, which is significant for higher institutions to raise academic reputation.

There are plentiful young researchers among Prof Law's research team and collaborators. He advises young scholars to work on topics they are interested in, stay open-minded, and be brave to try and obtain new knowledge ceaselessly. By collaborating with practitioners, academics may access the latest data from the industry and pursue research that positively impacts society and the world.

### 基金會傑出學人計劃

### **UMDF** Professorial Fellowship Scheme

為協助大學引進不同領域發展所需的人才,履行提供 優質教育的使命,基金會於2018年12月設立"傑出學 人計劃"。2020年,基金會按大學建議任命苗莉教授 為"澳門大學發展基金會綜合度假村及旅遊管理傑出 學人教授"。

苗教授主要研究領域是酒店和旅遊服務業的新興消費 者行為、行業人際關係、科技與人際互動等。加入澳 大後,苗教授聚焦研究疫情為旅遊業帶來的變化,特 別是後疫情時代旅遊消費行為的改變。苗教授認為款 客服務及旅遊作為應用學科,不但能以澳門作為情境 進行研究,探討行業發展和旅遊建設,也可利用澳門 大學的優勢檢視行業戰略發展方向,為旅遊研究的理 論建設作出貢獻。 To address the diverse needs of the university's talent system, the foundation established the UMDF Professorial Fellowship in December 2018. Through this scheme, UM is able to bring in the talent needed for the development of different fields and help the university fulfil its mission of providing quality education. The foundation appointed Prof Miao Li as the UMDF Professorial Fellow of Integrated Resort and Tourism Management in 2020 on the university's recommendation.

Prof Miao's field of study includes emerging hospitality and tourism behavior, interpersonal dynamics in hospitality and tourism experience, human-technology interactions, etc. Upon joining UM, Prof Miao focus her research on the changes in tourism development in the context of Covid-19, especially how tourism behavior changes in the post-pandemic era. According to Prof Miao, hospitality and tourism research is an applied area of research that does not only involve the examination of tourism development in the context of Macao, but also contributes to the theoretical development of tourism research based on the UM capabilities. 苗教授不僅是學術界的知名學者,在國際款客服務業界亦有豐富經驗,她認為在 疫情常態化的情況下,旅遊業界面對消費者行為改變的應對分為反應性和主動性 兩大類型。現時很多旅遊行為主要受制於疫情管控政策,這些管控隨疫情發展時 有改變,很難提前預期,導致業界多以提高應變的速度和靈敏度來反應性應對。 同時,苗教授認為疫情已改變了很多全球的消費和生活體驗模式。例如,"去全球 化"的狀態和"區域化"的特色越見明顯。隨著在家工作的普及,工作和生活的邊界 越來越模糊,更多不同的旅遊模式例如住宿式旅遊或旅遊中工作可能變得常見, 因此與其討論旅遊業何時會回到疫情前的狀態,苗教授認為應更多地探討疫情徹 底改變了旅遊業先前的哪些前提和假設。以澳門為例,探討後疫情時代如何讓旅 客享有體驗式和有深度的旅遊,令他們願意一來再來而不只是進行遊客式的行 為,這些都是對業界發展有幫助的前瞻性思考。

透過基金會的資助,苗教授自2021年上任後已開展了五項旅遊範疇研究項目,當 中有兩項已獲接納發表於知名期刊,餘下三項亦處於審閱階段。未來苗教授將運 用相關撥款資助有效地支援各教研工作。

> Apart from being a renowned scholar, Prof Miao has rich experience in international hospitality industry. In the new normal of Covid-19, she considers that tourism industries are both reactive and proactive in terms of coping with the behavioral change of consumers. Currently, most of the tourism behavior is bounded by travel restriction policies of the pandemic. These restrictions are hard to predict in advance whereas the industry is subject to reactive coping. However, industry can also proactively respond to the different consumption and lifestyle changes brought forth by the pandemic. For example, the trends of 'deglobalization' and 'regionalization' have become more prominent. Working from home is a more common practice where the boundary between work and life is blurred. In the context of tourism in Macao, instead of focusing the discussion on return and recovery to the pre-pandemic baseline, Prof Miao believes that we should explore how the pandemic has fundamentally changed the underlying assumptions of tourism and explore ways to provide tourists with a more immersive and in-depth destination experience so that visitors stay longer, spend more and return more frequently. She encourages scholars and practitioners to engage in more forward-thinking by re-examining previous assumptions underlying tourism.

> Since taking up the post in 2021, with the support of the foundation, Prof Miao Li conducted five research projects in the field of hospitality and tourism management, of which two have been accepted for publication in reputable journals and the remaining three are under review. Going forward, Prof Miao intends to utilise the funding to effectively support various teaching and research activities.

#### 苗莉 教授 Prof Miao Li





### **Recognising teaching excellence**

基金會自2017/2018學年起支持澳大的"學術獎勵計劃",以鼓勵大學人員在教學、研究及服 務各方面作出傑出的貢獻,去年基金會支持2020/2021學年學術獎勵計劃,包括大學級別 的卓越教學獎、學院級別的學術獎勵及教學人員年度獎勵計劃,以求進一步鼓勵教師教研及 服務水平提升。澳大向合資格的教學人員頒發33個學院級別的學術獎項及39個教學人員年 度獎項,大學級別的卓越教學獎得獎者是人文學院英文系助理教授 Jeremy De Chavez。

The foundation has also supported the university's Academic Award Scheme since the academic year 2017/2018 to encourage outstanding contributions to teaching, research and service by university staff. Last year, the foundation supported the Academic Award Scheme for the academic year 2020/2021, including the University-level Teaching Excellence Award, Faculty-level Awards and the Incentive Scheme for Outstanding Academic Staff, to further encourage teachers to improve teaching, research and service standards. UM presented 33 Faculty-level awards and 39 awards for the Incentive Scheme for Outstanding Academic Staff. The University-level Teaching Excellence Award was conferred to Jeremy De Chavez, assistant professor of the Faculty of Arts and Humanities.

# 跨領域科研項目 Interdisciplinary research projects

基金會自2020年起支持大學開展聚焦學術 前沿問題的研究,鼓勵跨學科合作,開拓 具澳門特色、又順應國際發展潮流的學科 方向,配合國家的發展戰略。

基金會支持跨學科融合和交叉的研究項 目,冀能促進不同學科打破固有的框架, 形成一種不同以往的新研究範式。

From 2020 onwards, UMDF has supported UM in initiating research that focuses on cutting-edge academic themes. The foundation encourages cross-disciplinary collaboration and the development of academic disciplines that are unique to Macao and in line with international trends, so as to complement national development strategies.

#### 學術獎勵計劃 Academic Award Scheme





In addition, UMDF supported cross-disciplinary and interdisciplinary projects, which aims at breaking existing boundary between subjects to form new research framework.

### 促進金融創新領域研究 **Promoting research in financial innovation**



澳大亞太經濟與管理研究所著重於跨學科 合作,利用交叉學科的優勢,對眾多社會 經濟問題進行深入研究,為亞太地區培養 具有國際競爭力和責任感的領導人才。在 基金會的支持下,2021年該研究所與浙江 大學共建"澳門大學——浙江大學金融創新 聯合研究中心",並展開兩個聯合科研項 目:"銀行國際化指數"及"區塊鏈與管理創 新: 數字化時代的企業競爭力提升"。兩個 項目的初稿已在2021年12月5日於浙大城 院數字金融研究院舉辦的數智變革與共同 富裕國際峰會發表。

此外,亞太經濟與管理研究所於2021年共 開展了六個"金融創新"相關種子項目,涵 蓋高速金融資產、智能投資顧問、金融指 數追蹤、區塊鏈在澳門國際商事仲裁運用 等應用領域。部分的研究成果已在相關期 刊及國際會議成功發表。

The Asia-Pacific Academy of Economics and Management (APAEM) of the University of Macau focuses on interdisciplinary collaboration, leveraging cross-disciplinary strengths to conduct in-depth research on a wide range of socio-economic issues, and develop internationally competitive and responsible leaders for the Asia-Pacific region. With the support of the foundation, in 2021 the APAEM established the Joint Research Centre for Financial Innovation with Zhejiang University and launched two joint research projects: 'Bank Internationalisation Index (BII)' and 'Blockchain and Management Innovation: Enhancing Enterprise Competitiveness in the Digital Age'. The first drafts of the two projects were presented at the Forum of Digital Transformation and Common Prosperity held by the Institute of Digital Finance of Zhejiang University City College on 5 December 2021.

In addition, the APAEM launched six seed grant projects related to financial innovation in 2021, covering subjects such as high-speed financial asset, Robo-Advisor, financial index tracking, and application of blockchain technology in international commercial arbitration in Macao. Some of the research findings have been published in relevant journals and international conferences.

### 開展智慧旅遊研究項目 Smart tourism research projects



澳大亞太經濟與管理研究所聯同工商管理學院和智慧城 市物聯網國家重點實驗室共同發起關於智慧旅遊的研究 項目。期望除了學術貢獻外,更可獲得具政策和現實意 義的研究成果。

#### ◆ 智慧旅遊目的地的特性和消費價值

項目透過研究遊客消費價值及對澳門智慧科技應用程 式的感知風險,為澳門社會提出不同的智慧旅遊行銷策 略。其中一篇論文已提交至旅遊研究期刊供出版考量, 另一篇亦將於2022年完成並提交到旅遊研究期刊。

#### ◆ 智慧旅遊中的交通運輸管理

針對澳門城市特性而展開的應用系統研究,包括景點推 薦與導航服務、澳門美食地圖導航服務、巴士站來車預 報服務、交通路口擁堵分析等系統,澳門旅遊服務小程 式已經逐步開始試運行,為澳門遊客和居民提供個性化 服務,推動澳門經濟發展的多元化。

#### ◆ 歷史建築之VR智慧導賞

透過收集歷史建築的資訊故事和智能導賞平台上的3D 模型,提高更多人對澳門旅遊景點的興趣,以形成新的 特色路線。團隊已完成虛擬平台的搭建工作,並以澳大 伍宜孫圖書館為系列起點。相關項目亦得到資訊系統公 司提出合作的意向。

The APAEM, the Faculty of Business Administration and the State Key Laboratory of Internet of Things for Smart City (SKL-IOTSC) of UM jointly launched a research project on smart tourism. The project includes:

#### Properties and Consumption Value of Smart **Tourism Destinations**

The research project aims to deepen the understanding of the effectiveness and risks of smart technological applications in Macao as perceived by tourists, and propose different smart tourism marketing strategies for the Macao community. One paper has been submitted to one of the tourism journals for publication consideration and another paper is expected to be completed and submitted to the tourism journal in 2022.

#### Transportation Management in Smart Tourism

The project studies the application services system which responds to characteristics of Macao as a city. Five services have been started on a trial basis, namely, Macao POI recommendation systems, Macao Food Map, Bus Arrival Prediction, Traffic Analytics and Prediction, and Question Answering System. These applications provide personalised services to visitors and residents of Macao and promote the diversification of Macao's economic development.

#### A Smart Guided Tour via VR for Historic Buildings

This project collects information, stories and intelligence of historical buildings and builds 3D models on the tour platform. It aims to attract more people's interest towards these attractions and form a new featured tourist route in Macao. The team has completed the construction of the virtual platform, which starts from the Wu Yee Sun Library of the University of Macau. Related projects have also received offers of collaboration from information systems firms.

### 探索大灣區政務合作的新思路 **Exploring new ideas of governance** collaborations in the Greater Bay Area

自2020年1月成立以來,"澳大社會科學學 院粵港澳大灣區研究中心"致力推動澳門與 粵港澳大灣區的融合發展,促進大灣區的 智慧政務合作,努力成為專注大灣區研究 的學術機構和智庫。

雖然受到疫情的影響,該中心的工作仍取 得一定的進展。在2021年度上半年完成了" 澳門智慧警務體系的體系、政策演變、為 治理模式帶來的演變"的研究並編寫論文數 篇, 並舉辦了"橫琴粵澳深度合作區建設' 座談會,與會學者從不同層面對深合區方 案作出討論,為合作區未來的建設發展建 言獻策。同時亦與其合作單位籌辦了"有關 全球灣區發展"的國際會議,以及就"粵港 澳大灣區與滬澳合作"的議題舉辦學術研討 會,加強在相關領域的學術交流。

明年中心將與國內外同行形成知識與創新 的大灣區研究合作網絡,共同開展大灣區 研究。此外,在過去已收集的一些各地數 字政府案例的研究基礎上,繼續分析大數 據如何推動大灣區數字政府合作與創新**,** 藉此為澳門建設數字政府提供借鑒。

Since its establishment in January 2020, the Centre for the Guangdong-Hong Kong-Macao Greater Bay Area Studies of the Faculty of Social Sciences has committed to promoting the integrated development of Macao and the Guangdong-Hong Kong-Macao Greater Bay Area, facilitating collaborations in smart governance and endeavour to serve as an academic institution and think tank dedicated to the research on the Greater Bay Area.

The centre made progress with its projects despite the pandemic. In the first half of 2021, the centre completed a study on the system and policy changes of smart policing in Macao and the evolution they bring to the governance model. In addition, the centre hosted a seminar on the development of the Guangdong-Macao intensive cooperation zone in Henggin, where scholars engaged in discussions from different aspects and offered their recommendations and advice for the future development of the cooperation zone. It also collaborated with its partner institutions in organising an international conference on global bay area development and an academic conference on collaboration between Guangdong-Hong Kong-Macao Greater Bay Area, Shanghai and Macao, which were aimed to facilitate academic exchange in said areas.

In the coming year, the centre will develop a knowledge-based and innovative cooperation network with partners from home and abroad on studies of the Greater Bay Area. It will continue to analyse how big data drives digital government cooperation and innovation in the Greater Bay Area using cases studies collected previously, so as to provide inspirations for the Macao government in its digitisation initiative.





### 推動腦科學和神經認知的研究 **Facilitating research in brain science** and neurocognition

### ◆ 遊戲和賭博成癮的神經認知機制



#### Neurocognitive Mechanisms of Gaming and Gambling Addiction

The Centre for Cognitive and Brain Sciences of the Institute of Collaborative Innovation initiated a two-year research project on the neurocognitive mechanisms of gaming and gambling addictions in 2021. Data is collected from participants through brain imaging, cognitive and decision-making tests and psychological and behavioural profiling, and is integrated into a multimodal database to gain a deeper understanding of the brain structure and mechanisms of addictive behaviours in people with gaming and gambling addiction or disorders.

The research team signed a collaboration agreement with Sheng Kung Hui Macau Social Services Coordination Office (SKH) for the latter to recruit participants for the research project. In 2021, the research team shared their research result by publishing articles on journals or seminars. Next year, the team will continue to recruit more eligible participants for the study. It will strengthen interactions with local NGOs in multiple aspects and translate academic research into practice in the community.

澳門大學協同創新研究院認知與腦科學研究中心於 2021年開展一項為期兩年跨學科的研究項目"遊戲和賭 博成癮的神經認知機制",通過為參加者進行腦掃瞄的 數據收集,透過腦影像、認知與決策測查和心理與行為 特性分析,透過多維數據的整合,以對賭博及網絡遊戲 成癮或失調人士的大腦結構及成癮行為的形成機制有更 深入的了解。

該研究團隊已與聖公會澳門社會服務處簽訂科研項目委 託協議,並進行以賭博失調人士為主的研究參加者招募 工作。相關團隊去年亦透過在多個學術會議和研討會上 發表論文,分享研究成果。明年團隊將繼續積極招募更 多符合研究納入標準的人士參與研究,與本地非政府組 織共同加強多方交流,搭建起了學科研究與社區實踐之 間的橋樑。



跨語言處理中的執行功能: 基於神經認知的研究 Executive functions in cross-language processing: a neurocognitive-based study

澳門大學協同創新研究院認知與腦科學研 究中心計劃進行一項先導研究項目,透過 3T核磁共振掃描儀研究澳門不同群體的單 語、雙語和多語受試者的聽、說、讀三種 在澳門最常用的語言(即中文、葡文和英 文)的大腦區域,以及在語言之間切換時 的大腦動力學神經網絡。

研究團隊去年達成起初的目標,即建立一 個小型多組群、多語言、多模態的大腦圖 譜庫,並以此作為下個階段的試點研究。 按照研究的初步結果,團隊在去年在國際 翻譯、認知研究和神經語言學的會議上發 表了主題演講、小組演講、和海報展示。 研究團隊證實了相關研究設計的可行性, 未來將對項目進行總結,以便在高影響力 期刊上發表,對腦科學領域作出貢獻。 The Centre for Cognitive and Brain Sciences of the Institute of Collaborative Innovation is conducting a pilot study using 3T MRI scanner. It will study the brain regions of different groups of monolingual, bilingual and multilingual speakers in Macao in listening, speaking and reading the three languages most often used in Macao (namely Chinese, Portuguese and English) and the neural network of their brain dynamics when switching between languages.

The team attained its first goal last year, which is to build a small-scale multi-layered, multilingual and multimodal brain map database to serve as a trial for the next stage. Preliminary findings of the study were presented in key note presentation, panel presentations and poster presentations on international conferences in the areas of translation, cognitive research and neurolinguistics last year. Having confirmed the feasibility of the research design, the team will draw up a research summary to be published in high-impact journals as a contribution to the field of brain science.



### 網上用戶互動:基於數據的跨領域研究 Online user interaction<sup>:</sup>a cross-disciplinary research based on data

此項目為澳門大學協同創新研究院數據科學 研究中心的一項多學科交叉的研究項目, 利用網路數據瞭解不同人口特徵的個體與組 織在不同環境中的互動。為更好開展有關項 目,該團隊於2021年已完成相關理論框架, 開發了一套指標來量化網路交流過程中的行 為,並建立了一個新聞數據庫,為將來獲得 的數據處理任務提供服務。 This project is a cross-disciplinary research conducted by the Centre for Data Science of the Institute of Collaborative Innovation. It aims to use online data to understand the interactions among individuals and organisations with different demographic characteristics in various contexts. To better carry out the research, in 2021 the team developed a theoretical framework and a set of indicators to quantify behaviours in the process of online communication. It is also studying a hybrid human-machine method for content analysis in order to provide a more advanced and comprehensive index. The team also built a news SQL database to serve upcoming data processing tasks.

### 强化微電子領域研究 Facilitating research in microelectronics

澳大微電子專業作爲其重點學科,目前已具 備世界領先學術創新水平。去年基金會透過 捐贈人的意願,支持大學開展在集成電路領 域不同具前瞻性的研究項目,包括:數據轉 換和信號處理、無線通信、電力電子控制器 芯片等領域。基金會希望相關資助能助澳大 研發更多創新的原創技術,透過產學研結合 促進澳門經濟多元發展。 Microelectronics is a key discipline of the university and boasts world-leading academic innovation capabilities. Last year, UMDF allocated funding for various pioneering research projects in the field of integrated circuits as designated by the donors, covering areas of data conversion, signal processing, wireless communications and power electronics controller ICs. It is hoped that such funding can support the university in developing more innovative and original technologies and promote the economic diversification in Macao through industry-academia-research collaboration.

### 服務社會的研究

### **Research that serves the community**

基金會一直十分支持大學利用其全方位的專業學術團隊服務社 會,2021年大學與不同社服組織和企業一起參與了數項與澳門社 會和經濟發展相關的計劃和活動,為社會帶來裨益。

The foundation has always been supportive of the university in serving the community with its multi-faceted professional academic teams. In 2021, the university joined various social organisations and enterprises in programmes and events that promoted the social and economic development of Macao, bringing benefits to the community.







#### ◆ 拓展金融技術對澳門銀行和中小企業的影響 The impact of financial technology on banking and SMEs in Macao

澳大亞太經濟與管理研究所與本地銀行合 作開展研究項目"金融技術對澳門銀行和中 小企業的影響",目標從理論和實證上分 析金融科技對金融體系潛在的金融風險問 題,以及研究移動支付(以本澳為重點)的 發展。該項目分二個階段完成,目前已提 交了第一篇相關論文到優質金融期刊供考 慮發表;第二階段研究團隊準備了從不同 角度研究的建議計劃,以及所需的數據清 單,整體項目將計劃於2022年完結。

The Asia-Pacific Academy of Economics and Management has collaborated with local banks to carry out a research project on the impact of financial technology (fintech) on banking and SMEs. The objective is to analyse from a theoretical and empirical point of view the potential financial risks of fintech to the financial system and to examine the development of mobile payments (with Macao as the focus). The project is divided into two stages. One paper has been submitted to a prestigious financial journal for consideration for publication. For the second stage, the team has prepared a research proposal from different angles and a list of data requirement. The whole project is expected to be completed in 2022.



#### ◆ 推廣科普活動

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在本澳金融機構的特定資助下,澳大科學暨工程科普推 廣中心和校友及發展辦公室合辦"STEM 40"科普活動 計劃,旨在推廣科普,培養中學生在科技領域的跨學科 運用能力,激發他們的創新潛能,為澳門中小微企提供 科技創新思維,用創新科技服務社會。"STEM 40"的 一系列活動包括科研實驗室參觀、實踐科學活動、校友 企業參觀及"中銀科創菁英挑戰賽"。

#### Science promotion activities

With the designated funding granted by Macao financial institutions, the Centre for Science and Engineering Promotion and the Alumni and Development Office jointly carried out the STEM 40 project, which is aimed to help local secondary students develop interdisciplinary knowledge in science and technology, stimulate their creativity, and discover their potential. It is also aimed to provide innovative ideas to local SMEs to better serve the needs of the community with new technologies. STEM 40 includes a series of activities such as laboratory tours, hands-on experimentation, visits to alumni-owned businesses and the BOC STEM Talent Challenge.





### ◆ 關注學生的心理健康 Supporting the mental health of students

為提升澳門大學生的心理健康,澳門大學 與上海紐約大學共同開發"一步步"心理健 康應用程式,並獲得澳門商業機構及服務 團體的贊助。在世界衞生組織開發的電子 心理健康手機應用程式的基礎上,據此前 的研究結果開發了針對大學生群體的試行 版本,利用電子心理健康手機應用程式來 支援受情緒困擾的大學生。

研究團隊早前對電子心理健康干預的內容 進行修訂及文化適應,初步研究結果顯 示大部分學生的抑鬱和焦慮症狀都得以減 輕。因此,團隊希望透過大規模的隨機臨 床試驗,進一步對有關應用程式的內容進 行測試,為澳門高校的未來心理支援提供 更多服務的選擇,提升澳門青年的心理健 康。2022年研究團隊將繼續深化項目的內 容,以進一步優化應用程式的實施情況。

To improve the mental health conditions of university students in Macao, UM and the New York University Shanghai have jointly developed the Step by Step mental health application, which has been sponsored by a number of commercial institutions and social organisations in Macao. Based on the mobile mental health application developed by the World Health Organisation and with findings of previous studies, a beta version adapted to university students has been created to provide support to students who are experiencing emotional distress.

The research team made revision and cultural adaptation to the content of the digital mental health intervention. Preliminary results showed that depression and anxiety symptoms of most students were decreased. Therefore, the team hoped to carry out a large-scale random controlled trial to further test the application. The project is promising to provide more mental health service options for university students in Macao, improving the mental health of young adults in Macao. In 2022, the team will continue to enhance the programme to further improve the execution of the application.

### 憲法及基本法推廣

### **Promotion of the Constitution** and the Basic Law



#### ◆ 憲法與基本法教學推廣 Promotion of the Constitution and the Basic Law

澳門大學法學院與澳門基本法推廣協會計 劃於2021年至2023年期間共同開展一系列 的研究計劃及推廣活動,進一步深化憲法 與基本法在澳門高等院校、中小學及社會 上的教育、推廣和理論研究工作。

為達到預期效果,在教學方面,去年澳大 憲法與基本法研究中心一方面於校內為學 生提供通識課教學,另一方面又支援政府 部門、其他高等院校及澳門基本法推廣協 會的授課任務。在培訓方面,中心承擔了 中小學教師的兩法培訓工作,指導和支持 相關學校做好憲法與基本法的教學,成效 **顯著。此外,為培養更多愛國愛澳人才,** 中心與澳大書院合辦兩法講座活動,讓學 生在通識課外也有機會透過講座加深對兩 法的認識。去年更設立了種子培訓計劃 選出基本法大使,該同學們有機會到本澳 各中小學開展兩法推廣活動。

The Faculty of Law and the Macau Basic Law Promotion Association plan to jointly organise a series of research projects and promotional activities between 2021 and 2023, in an effort to further deepen the education, promotion and theoretical research of the Constitution and the Basic Law in the higher education institutions, schools and community of Macao.

To achieve the desired objectives, in terms of education, the Centre for Constitutional Law and Basic Law Studies provided general education (GE) courses for students last year, as well as supported government departments, tertiary institutions and Macau Basic Law Promotion Association in providing relevant courses. In terms of training, the centre undertook the training of primary and secondary school teachers on the Constitution and the Basic Law, and provided guidance and support to school in the teaching of the related subjects. In addition, to fortify national and local identity, the centre joined the Residential Colleges in hosting seminars on the Constitution and the Basic Law, giving students the opportunity to deepen their understanding of the laws outside the GE courses. Last year a seed training programme was launched, where students were selected as Basic Law Ambassadors to carry out relevant promotional activities in local schools.

另外,中心亦受到不同機構或單位如國家 教育部、香港特區政府等委託開展多項相 關的課題研究。亦與澳門基本法推廣協會 合作進行《澳門特區憲法與基本法普及教 育系統化研究》《憲法與基本法系統化教 學在澳門高校開展可行性研究》等項目。 同時,中心為了收集過往涉及澳門基本法 之司法判例而建構了《澳門基本法》司法 判例數據庫。

Law of Macao.

### ◆ 出版憲法教材《中國憲法簡明讀本》

為加強憲法教學推廣工作,澳門大學法學院憲法與基本法研究中心於 2020年初開展《中國憲法簡明讀本》編寫工作,以滿足澳門公務人員 培訓及澳大通識教育課程之教材需求。去年,相關編寫工作完成後便 進行校對工作,並進入出版印刷的階段。而電子檔已在部分學士課程 及通識課作為試行教材。此外,此讀本亦被教育及青年發展局採納使 用,作為澳門中小學憲法教材編寫參考藍本。澳大希望透過出版相關 教材,在不同層面加深各界對憲法發展歷程的了解。

#### Publishing the textbook Concise **Readings of the Chinese Constitution**

To strengthen the promotion and education of the Constitution, the Centre for Constitutional Law and Basic Law Studies of the Faculty of Law started developing the textbook Concise Readings of the Chinese Constitution in early 2022 for civil servant training in Macao and for teaching the GE courses in UM. The writing of the textbook was completed last year and was submitted for revision and publishing. The digital version is already being used as teaching materials in some bachelor programmes and GE courses. The textbook has also been adopted by the Education and Youth Development Bureau as a reference for the development of teaching materials for Macao primary and secondary students. Through publishing the textbook, UM hopes to enhance public's understanding of the development process of the Constitution.

In addition, the Centre was also commissioned by various organisations and entities such as the Ministry of Education and the Hong Kong SAR government to carry out research on a number of topics. It also collaborated with the Macau Basic Law Promotion Association in carrying out the projects titled 'Study on the Systematisation of the Popularisation and Education of the Constitution and the Basic Law of the Macao Special Administrative Region' and 'Feasibility Study on the Systematic Teaching of the Constitution and the Basic Law in Non-tertiary Education'. In the meantime, the centre established a database for the collection of past judicial precedents involving the Basic



## 學術交流活動

ЧП

### **Academic Exchange Activities**

# 澳門大學40週年校 一屆成癮與

Celebrating the 40<sup>th</sup> Anniversary of the University of Macau: The 1st International Symposium on Addiction and Decision Making

19-20/11/2

19-20/11/2021 University of Macau

#### ◆ 探討成癮與決策神經科學研究成果

澳大協同創新研究院認知與腦科學研究中心為加強跨學科研究及學術交流, 於2021年11月19至20日於澳門大學結合線上線下模式舉行"第一屆成癮與決 策神經科學國際研討會",當中包括14名來自校內外學者的主題演講、學生 及博士後的海報展示和演講,分享了全球在成癮和決策神經科學領域的最新 科研成果。是次研討會達到了提升澳大和認知與腦科學研究中心在相關領域 國際影響力,亦有助中心與幾位具影響力的學者建立聯繫。

#### Research exploring the neuroscience of addiction and decision making

To promote interdisciplinary research and academic exchange, the Centre for Cognitive and Brain Sciences under UM's Institute of Collaborative Innovation held the first International Symposium on Addiction and Decision Making in a blend online and onsite format on 19 and 20 November 2021 at the University of Macau. The symposium featured keynote presentations from 14 scholars from inside and outside the university, and posters and presentations from students and post-doctorates, sharing the latest global research findings in the neuroscience of addiction and decision-making. The event has boosted the international influence of UM and its Centre for Cognitive and Brain Sciences in the field and allowed the centre to network with several prominent scholars.







### ◆ 鼓勵人文社科的交叉結合

Encouraging cross-disciplinary integration of arts and humanities

基金會一直支持大學校外及校內的學術交流,營造良好的學術氛圍,2021年基金會撥款資助澳大 人文社科高等研究院以線上及線下的方式舉辦以"跨越學科的反思:中國故事與文理對話"為主題 的研討會,來自清華大學、北京大學、復旦大學、南京大學、中國人民大學和同濟大學等多所知名 學府的 15 位學者和澳門大學25位學者聚首一堂,與現場及通過Zoom與線上的數百名觀眾及與會 師生就"中國故事"進行深入的學術討論,促進學者之間的進一步合作,有助推動高研院提高人文 和社會科學領域的研究質量。

The UMDF has continuously supported academic exchange within and beyond the university to create a favourable academic ambience. In 2021, the foundation supported the Institute of Advanced Studies in Humanities and Social Sciences (IAS) in organising an online and on-site conference titled 'Reflection across Disciplines: the China Story and Dialogue between Arts and Humanities'. During the conference, 15 scholars from various renowned institutions including Tsinghua University, Peking University, Fudan University, Nanjing University, Renmin University of China and Tongji University, and 25 scholars from the University of Macau came together to discuss in depth 'the China Story' with an audience of hundreds of people and teachers and students face to face and via Zoom. The event promoted further cooperation between scholars, thereby helping the IAS advance its research quality in humanities and social sciences.





#### ◆ 推動院校間的教研合作和交流 Fostering cooperation and exchange of teaching and research between institutions

為加強教師對內地的認識,以及培養對國 家的認同及體驗國情,澳大教育學院透過 基金會的資助,舉辦了為期7天的教育培訓 計劃。9名學院教職員分別拜訪了山西師範 大學、華東師範大學以及西安交通大學。 除擴闊視野外,亦促進與內地院校更多教 學及科研的合作,包括初步達成"2+2"本 科和 "4+2" 研究生交流計劃框架的實施。

framework.





To enhance teachers' knowledge about the Mainland, foster their national identity and allow them to gain experience of national conditions, the Faculty of Education (FED) of UM organised a seven-day Teacher Professional Training Field Trip with funding from the UMDF. 9 faculty members of the FED visited Shanxi Normal University, East China Normal University and Xi'an Jiaotong University respectively. In addition to broadening academic staff's horizons, the FED also stepped up teaching and research collaboration with institutions in the Mainland, such as reaching a preliminary consensus on the implementation of the 2+2 undergraduate and 4+2 postgraduate exchange programme

### 學生及書院發展

### **Development of students and the** residential colleges

### ◆ 關顧新春期間留校度歲的同學

在2021年農曆新年期間,鑑於全球疫情尚未受控,澳門 特區政府評籲居民留澳度歲,減少出行。部份非本地生 配合政府的呼籲,取消回鄉過年的行程,於新春期間留 校共度佳節。

在澳門大學發展基金會的支持下,各書院為留校學生舉 辦一系列春節關顧的活動,包活福袋派發、團年飯、本 地深度遊體驗、社區服務類活動等,讓他們在留校期間 感受到節日氣氛和歡欣,與書院裡的"家人"一同慶祝。

大年初一,宋永華校長與一眾大學領導到書院向師生拜 年,關心留校學生的情況,並向他們派發福袋,送上節 日的祝福。各書院亦共組織了104個關顧活動,包括團 年飯、寫揮春、深度遊澳、劇目欣賞、社區服務、團隊 建設等,吸引眾多留校學生,共有3,166人次參加。學 生們也感謝書院在春節期間的特別安排,讓他們在學校 裡度過一個溫馨的新春假期。





#### Supporting the university in providing pastoral care services to students



With the COVID-19 pandemic still wreaking havoc worldwide, the Macao SAR government urged people to stay in Macao and avoid travelling during the Chinese New Year (CNY) period. As a result, some nonlocal students cancelled their plans to return home for Chinese New Year and stayed on campus. With the support from the UMDF, the residential colleges (RC) put together a series of pastoral care activities during the CNY recess to create festive vibes, so that those students could celebrate the time together with their 'RC family members'. The celebrations included the distribution of lucky bags, reunion meals, extensive local tours and community service activities, among others.

On the first day of the Chinese New Year, Rector Song Yonghua and the university management team paid a New Year call to the students and faculty at the colleges to learn about the students' situation, give out lucky bags and extend festive wishes. The RCs held a total of 104 activities, including reunion meals, writing Spring Festival couplets, local tours, drama appreciation, community services and team building. These activities attracted many students who stayed on campus, with an attendance of 3,166 people. The students were grateful to the colleges for those special arrangements, which gave them a warm Chinese New Year holiday.



### 獎勵優秀學生

### **Awards to Outstanding Students**

2021年,各界的機構透過基金會向54名成績優異的學生 發放超過69萬澳門元的特定獎學金及學術獎項。同時, 基金會亦繼續向教育學院撥出20萬澳門元的獎助學金, 嘉勉17名表現優秀的學生。去年基金會另獲5萬澳門元捐 贈増設"澳門大學發展基金會社會科學學院獎學金",共 有5名學生獲獎。

此外,基金會一直以來按捐贈者的意願,支持住宿式書 院的社群生活。為支持書院實踐全人教育的理念及獎勵 表現優異之宿生,基金會於2021年繼續向10所書院撥出 共100萬澳門元的獎學金,共有239名學生學生獲獎。

In 2021, through the UMDF, organisations from various sectors granted over MOP690,000 in designated scholarships and academic awards to 54 students with outstanding academic performance. Meanwhile, the foundation continued to allocate MOP200,000 to the Faculty of Education for scholarships and financial aid, which were granted to 17 students with exceptional performance. Last year, the foundation received a new donation of MOP50,000 to set up the University of Macau Development Foundation Scholarship for the Faculty of Social Sciences and five students were awarded.

In addition, the UMDF has always supported the communal life of the Residential Colleges (RC) according to donors' wishes. To facilitate the RCs in implementing whole-person education and awarding RC students for outstanding performance, the foundation continued to appropriate a total of MOP1 million to the 10 RCs for scholarships. 239 students were recipients of the grants.









### 經基金會頒發的特定獎助學金及學術獎項

### **Designated Scholarships and Academic Awards** Issued through UMDF

獎助學金 / 學術獎項	Scholarship / Academic Prize	名額 No. of recipients
中國銀行學術獎項	Bank of China Academic Prize	8
中國銀行澳門分行精英運動員獎學金	Bank of China Macau Branch Elite Athletes Scholarship	7
中國銀行澳門分行澳門大學國旗儀仗隊 優秀隊員獎學金	Bank of China Macau Branch University of Macau National Flag Team Outstanding Team Members Scholarship	4
中國銀行獎學金	Bank of China Scholarship	17
曹光彪書院獎學金	Chao Kuang Piu College Scholarship	20
張崑崙書院獎學金	Cheong Kun Lun College Scholarship	25
鄭裕彤書院獎學金	Cheng Yu Tung College Scholarship	25
蔡繼有學術獎項	Choi Kai Yau Academic Prize	6
蔡繼有書院獎學金	Choi Kai Yau College Scholarship	20
蔡繼有獎學金	Choi Kai Yau Scholarship	2
教育學院經濟困難助學金	FED Fellowship for Financial Difficulties	3
教育碩士優秀論文獎學金	FED Scholarship for Outstanding MEd Thesis	2
教育學院研究生優秀研究成果獎學金	FED Scholarship for Outstanding Postgraduate Research Outcomes	2
教育學院優秀服務獎學金	FED Scholarship for Outstanding Service	2
教育學院優秀實習教師獎學金	FED Scholarship for Outstanding Student Teacher	4
教育學院優秀教務助理獎學金	FED Scholarship for Outstanding Teaching Assistant	2
教育學院全人發展獎學金	FED Scholarship for Whole-person Development	2
霍英東珍禧書院獎學金	Henry Fok Pearl Jubilee College Scholarship	22
呂志和書院獎學金	Lui Che Woo College Scholarship	15
滿珍紀念書院獎學金	Moon Chun Memorial College Scholarship	24
馬萬祺羅柏心書院獎學金	Ma Man Kei And Lo Pak Sam College Scholarship	30
紹邦書院獎學金	Shiu Pong College Scholarship	38
何鴻燊東亞書院獎學金	Stanley Ho East Asia College Scholarship	20
田家炳獎學金	Tin Ka Ping Scholarship	10
澳門大學發展基金會社會科學 學院獎學金	University of Macau Development Foundation Scholarship for the Faculty of Social Sciences	5

In alphabetical order of English abbreviations

#### 鄭裕彤書院獎學金得主

Recipient of Cheng Yu Tun College Scholarship

歐子琳 AO CHI LAM

我是來自鄭裕彤書院,主修計算機科學的大二學 生。在過去這兩年,我學習了許多用各種程式語言 編寫的算法,為求找到可以令程式以最高效運行的 算法,打開了我算法世界的大門。

除了在學業上找到了很大的樂趣,書院亦是另一個 給我帶來歡樂的地方。我很感恩能獲得書院所頒發 的澳門大學書院獎學金,更感恩書院所提供的一切 機會,豐富了我的大學生活。在未來,我不但會在 學業上繼續努力前行,亦會盡我所能為書院、學校 作出貢獻。

I am a second-year student from Cheng Yu Tung College, majoring in Computer Science. In the past two years, I have learnt many algorithms written in various programming languages, which has opened the door to the algorithm world in my quest to find the most efficient algorithms to run programmes. Apart from finding great enjoyment in my studies, the College is also another place that brings me joy.

I am grateful for the scholarship I received from the College, and I am also grateful for all the opportunities the College has provided to enrich my university life. In the future, not only will I continue to work hard in my studies, but I will also contribute to the College and the university in any way I can. 兩年的社會科學熏陶為我提供了多種框架和視角 用來分析這個不斷變化和充滿不確定性的世界。 我當初選擇澳大的政府和公共行政的課程是為了 滿足我的好奇心,具體來說是為了更好地了解在 不同背景下的政治系統如何運作。同時,這門 課 程也廢,有哪些改革方向是政客、學者、社會群 體正在討論的問題。這些議題深刻地吸引我去學 習和思辨,去更好地了解這門學科。因此我計劃 將來會攻讀與公共行政相關的博士學位。最後要 感謝澳門大學以及澳門大學發展基金會對我的鼓 勵和認可。

The two years of social science studies have provided me with a variety of frameworks and perspectives to analyse a world of constant change and uncertainty. I chose the Government and Public Administration programme at UM to fulfil my curiosity and, more specifically, to better understand how the political system works in different contexts. At the same time, the programme gave me a deeper understanding of what difficulties the government are encountering and what directions of reform are being discussed by politicians, academics and community groups. These are the issues that profoundly engage me in learning and thinking to better understand the subject.I therefore plan to pursue a PhD in public administration in the future. Finally, I would like to thank the University of Macau and the University of Macau Development Foundation for their encouragement and recognition.



#### 霍英東珍禧書院獎學金得主

Recipient of Henry Fok Pearl Jubilee College Scholarship



我是李俊姗,是霍英東珍禧書院、教育學院二年級 的學生,主修數學教育專業。很感謝澳門大學發展 基金會對我的學業上和書院貢獻上的認可,頒發給 我澳門大學住宿式書院獎學金。

這筆獎金對我來說意義非凡,它激勵著我不斷向 前,繼續在學業上努力奮鬥、為書院做出更多貢 獻。未來我計畫投身教育行業,不愧於母校的栽培 和基金會的認可,努力成為一名優秀的數學教師, 回報澳門大學。

My name is Li Jun Shan and I am a second-year student of the Faculty of Education, Henry Fok Jubilee College, majoring in Education (Mathematics).I am very grateful to the University of Macau Development Foundation for recognising my academic and College contributions by presenting me with the UM Residential College Scholarship.

This award means a lot to me, and it inspires me to continue to work hard in my studies and make more contributions to the College. In the future, I plan to pursue a career in education and strive to become an outstanding mathematics teacher in return for the support of UM, my alma mater and the Foundation.

"



澳大濠江博士生獎學金引領我走進學術殿堂,勇攀 科研高峰。被澳大哲學博士(教育學)課程錄取之 前,我在中學和高校從事英語教學工作。我對教育 工作的熱愛,讓我渴望更深入地探究教育學專業領 域。到澳大讀博後,我不僅獲得了系統的實證研究 方法訓練,還接觸到教育學最為前沿的研究課題。 在獎學金的支持下,我心無旁騖地鑽研學術,三年 來不僅完成了博士論文、多次參與了國內外教育學 權威學術會議,還在國內外核心期刊上發表了六篇 學術論文,其中2021年的研究論文《行穩致遠:澳 門高等教育發展的回顧與前瞻》被中國人民大學書 報複印資料轉載,向全國有力地推廣了澳門高等教 育的發展成果和影響力。

It was the UM Macao PhD Scholarship that provided me with the most valuable opportunity to enter the academic world and pursue scientific research. Prior to joining the Doctor of Philosophy in Education programme at UM, I had been an English teacher at a secondary school and a university. With deep passion and love for education, I was always eager to acquire more in-depth knowledge and be a professional in education studies. At UM, I received systematic training in empirical research methods and was exposed to the most cutting-edge research topics in education. With the support of the Scholarship, I was able to fully devote to my doctoral studies, complete my doctoral dissertation, participate in academic conferences, and publish six peer-reviewed academic papers within three years. In 2021, one of my published papers titled "Higher Education Development in Macao: Review and Prospective Study" has been reprinted by Information Center for Social Sciences, Renmin University of China, which promoted the achievements and influence of Macao's higher education nation-wide.



## 資助湖北省醫護人員子女獎學金

### Scholarship scheme for children of healthcare professionals of Hubei Province

澳門大學於2020年透過基金會的資助設立"澳門 大學湖北省醫護人員子女全免獎學金",為湖北省 醫護人員的抗疫工作作出支援及肯定,獎學金期 限為四學年。

經湖北省各市縣的醫療單位、教委及學校推薦 及在澳大的嚴格甄選下,共有9位優秀學生自 2020/2021學年起獲頒發該項獎學金,當中7位 獎學金獲獎人之學業成績達到指定要求,並於 2021/2022學年繼續獲得上述獎學金。

In 2020, the UMDF sponsored the university to set up a UM full scholarship scheme for children of those healthcare professionals for a period of four academic years, in recognition and appreciation of the significant contribution that the healthcare professionals of Hubei Province made during the outbreak of COVID-19 pandemic.

Upon the recommendation of medical institutions, education commissions and schools in Hubei Province and following the rigorous selection by UM, a total of 9 outstanding students were awarded the scholarship in the academic year 2020/2021. 7 of them met the academic requirements and continued to receive the scholarship in the academic year 2021/2022.

### 感謝醫護人員 抗疫防疫的貢獻

Thanks to the contributions of healthcare professionals

### 產學研發展

### Industry-academia-research Development

### ◆ 支持校友成立的科創企業 Support enterprise of innovative technology founded by UM alumni

芯耀輝科技有限公司(芯耀輝)是一家專 注於先進半導體IP技術研發和服務、賦能芯 片設計和系統應用的高科技公司,成立不 到一年就已經集結了近200位全球化科技精 英團隊。該公司聯席CEO余成斌教授為澳 大前教職員,亦為澳大校友,他於2020年 帶領團隊在橫琴發展微電子產業,並成立 了"芯耀輝"公司,其團隊不乏澳大校友, 在先進芯片研發方面擁有多年經驗。基金 會期望透過此項投資能進一步加強企業和 大學在產業創新科研和人才培育等領域開 展更深入的合作。



Akrostar Techology Co., Ltd (Akrostar) is a high-tech company dedicated to advanced semiconductor IP technology development and services, and empowering chip design and system applications. The co-CEO of Akrostar, Prof Ben U Seng Pan, who is a former UM academic staff member and a UM alumnus, has led his team to set foot on the chip industry in Hengqin since 2020 and established Akrostar. His team comprises many UM alumni and has years of experience in advanced chip research and development. The foundation hopes that this investment will further strengthen the university's collaboration with enterprises in areas such as innovative industrial research, and talent nurturing.

# 總結創新創業計劃的成果

#### Summary of the Innovation and Entrepreneurship Funding Scheme

基金會於2018年開展了"創新創業資助計劃",撥款 500萬澳門元資助大學推薦的團隊入駐創新創業中心進 行項目孵化,透過發放起步資助的形式鼓勵澳大師生把 創意理念轉化成實踐。

在基金會支持下,首批入駐的19支團隊於2020年7月 完成進駐,而第二期入駐的9支團隊亦於2021年6月結 束入駐孵化。各項目的業務涉及中醫藥、醫學科學和技 術、信息和通信技術、新材料、教育和旅遊服務等,而 所有入駐團隊已於2021年完成簽署轉股協議及相關公 證手續。

In 2018, the UMDF launched the Innovation and Entrepreneurship Funding Scheme, allocating MOP5 million to fund teams recommended by the university to incubate their projects in the Centre for Innovation and Entrepreneurship. By providing start-up capital, the foundation encourages UM professors and students to transform their creative ideas into practice. With the support of the foundation, the first batch of 19 teams entered the centre in July 2020, and the second batch of 9 teams moved in there in June 2021. These teams involve disciplines including traditional Chinese medicine, medical science and technology, information and communication technology, advanced materials, education and tourism services. All the incubated companies signed the equity transfer agreements and completed relevant notarisation in 2021.





在孵化過程中,創新創業中心為團隊提供培訓、交流、賽事、專家指導等方面 的支持。經過近幾年的努力和運作,該中心已形成一個較成熟的支援平台,扶 持各團隊建立起其事業。其中有團隊在區域性及全國性的創新創業比賽獲獎, 亦有團隊正積極將項目投入市場營運。因此,"創新創業資助計劃"的團隊和 中心的工作取得理想的進展

During the incubation period, the Centre for Innovation and Entrepreneurship provides teams with guidance covering training, exchange, competitions and experts. Following its efforts and operations in recent years, the centre has formed a relatively mature platform to support the teams in building their enterprises. Some of the teams have won awards in regional and national innovation and entrepreneurship competitions, while others are actively putting their projects on the market. In this regard, teams in the Innovation and Entrepreneurship Funding Scheme and the centre have both gained satisfactory progress.

The Macao SAR Government has always attached great importance to innovation and entrepreneurship among local youth. In line with the SAR Government's policy and considering the current uncertain global economic environment, the UMDF will continue to encourage UM students to engage in innovation and entrepreneurship activities. By providing them with more opportunities for development, and enhancing the innovation and entrepreneurship atmosphere at the university, the foundation will work to nurture outstanding talents in this area.



# 財務報告

### Financial Statements

澳門大學發展基金會 損益表 截至2021年12月31日止年度	2021	2020
捐款收入	<u>澳門元</u> 86,246,544	澳門元 87,686,660
利息收入	47,177,261	52,238,396
已實現及未實現之淨投資收益 / (損失)	5,097,366	(8,974,472)
	4,886,808	(2,555,530)
	143,407,979	128,395,054
淨資助支出	(15,493,756)	(13,434,270)
法律及顧問服務費	(529,000)	(529,000)
銀行費用及其他支出	(553,008)	(266,275)
	(16,575,764)	(14,229,545)
稅前盈餘	126,832,215	114,165,509
所得稅費用		-
本年度盈餘	126,832,215	114,165,509

#### FOUNDATION

財務報告

**Financial Statements** 

	2021 MOP	2020 MOP
	86,246,544	87,686,660
	47,177,261	52,238,396
5	5,097,366	(8,974,472)
	4,886,808	(2,555,530)
	143,407,979	128,395,054
	(15,493,756)	(13,434,270)
	(529,000)	(529,000)
	(553,008)	(266,275)
	(16,575,764)	(14,229,545)
	126,832,215	114,165,509
		-
	126,832,215	114,165,509

### 財務報告

### **Financial Statements**

澳門大學發展基金會 資產負債表		
夏產員價級 於2021年12月31日	2021 澳門元	2020 澳門元
資產		
非流動資產		
固定資產	423	719
長期股權投資	12,394,562	-
持有至到期債權證券投資	808,996,218	677,897,196
非流動資產合計	821,391,203	677,897,915
流動資產		
交易性股權證券投資	4,486,011	-
利息及其他應收款	4,567,431	7,304,793
定期存款	689,718,456	729,949,319
現金及現金等價物	310,120,401	287,972,872
流動資產合計	1,008,892,299	1,025,226,984
流動負債		
應付資助支出	1,136,090	809,702
其他應付款	137,825	137,825
流動負債合計	1,273,915	947,527
流動資產淨值	1,007,618,384	1,024,279,457
資產淨值	1,829,009,587	1,702,177,372
資金及儲備		
專用款項	15,562,719	13,022,452
專用留本基金	1,032,914,582	964,373,666
一般留本基金	780,532,286	724,781,254
資金及儲備總計	1,829,009,587	1,702,177,372

### 財務報告

### **Financial Statements**

UNIVERSITY OF MACAU DEVELOPMENT FOUNDATION STATEMENT OF FINANCIAL POSITION 31 December 2021

ASSETS	
NON-CURRENT ASSETS	
Fixed assets	
Long-term Investment	
Held-to-maturity financial assets	

#### CURRENT ASSETS

Trading securities

Interest and other receivable

Fixed deposits

Cash and cash equivalents

CURRENT LIABILITIES Grant expenditure payable Other payables

NET CURRENT ASSETS NET ASSETS

CAPITAL AND RESERVES Designated fund Designated endowment General endowment

2021 MOR	2020 MOR
МОР	MOP
423	719
12,394,562	-
808,996,218	677,897,196
821,391,203	677,897,915
4,486,011	-
4,567,431	7,304,793
689,718,456	729,949,319
310,120,401	287,972,872
1,008,892,299	1,025,226,984
1,136,090	809,702
137,825	137,825
1,273,915	947,527
1,007,618,384	1,024,279,457
1,829,009,587	1,702,177,372
15,562,719	13,022,452
1,032,914,582	964,373,666
780,532,286	724,781,254
1,829,009,587	1,702,177,372

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### **Donor Acknowledgement**

過去一年,社會各界不少熱心教育的人士 持續關懷澳大的發展,透過各項捐獻惠澤 澳大師生。為了答謝捐贈人對基金會及澳 大的支持,大學相關單位將會繼續努力維 繫大學與捐贈人之間的良好夥伴關係,並 以實際成果回饋社會及國家。 Over the last year, many kind-hearted people from different sectors of society continued to show care for UM's development and supported UM teachers and students through donations. In appreciation of donors' support for the UMDF and UM, relevant units of the university will continue to maintain a good partnership with its donors and give back to the community and the nation with concrete achievements.

### 我要捐贈

### Giving to UM

### 為甚麼捐贈

支持澳大實現大學使命,促進學術研究、 傳播知識,培育更多愛國愛澳、才德兼備 的專業人才。

#### 怎樣捐贈

只需掃描下面的二維碼,並填寫表格即可:



#### 感謝沿路有你

基金會一直致力為澳大的可持續發展爭取更 多發展資源,使澳大在教學、研究及服務社 會各方面不斷作出新的貢獻。未來,基金會 將順應各國大學基金會的發展趨勢和規律, 完善制度建設,探索符合自身特點的運作和 管理模式,並一如既往善用每一分資源,不 辜負捐贈人和社會各界對澳大的支持。

### Why Give

Making contributions to help UM to advance its mission of promoting academic research, disseminating knowledge, and cultivating virtuous talents who love motherland and Macao.

#### How to Give

Just scan the QR code underneath and fill out the form:



#### Thanks for your support as always

UMDF has been committed to contributing to UM efforts of achieving sustainable development and making new and greater contributions to teaching, research and serving society. Looking forward, the foundation will take reference from the latest trend in development patterns of university foundations from around the globe in order to optimize its funding system and explore a unique mode of operation and management that best serves its purpose. The foundation will, as always, make optimal use of resources and live up to what donors and society expect of the University.



澳門大學發展基金會 UNIVERSITY OF MACAU DEVELOPMENT FOUNDATION