



湯復基博士
Dr Franklin Fuk Kay TONG

榮譽大學院士
Honorary Fellow of HKUST

In 1983, a young PhD student from Hong Kong arrived at The Massachusetts Institute of Technology (MIT)'s Lincoln Laboratory, where he was given a seemingly impossible challenge: How to set up an optical communication channel between a satellite in space to a submarine deep beneath the ocean's surface?

For many, this would have been an insurmountable problem, especially since electromagnetic waves normally fail to penetrate water. But for Dr Frank Tong, it was precisely the kind of intellectual exercise he had been tackling nearly all his life. With a heart full of scientific rigor and a bold imagination, he took on the challenge.

Born and raised in Hong Kong, Dr Tong moved to the west coast of the United States with his family when he was a teenager. After graduating from his high school La Salle College, he went on to earn bachelor's and master's degrees in physics from University of California (UC) San Diego and UC Santa Barbara, followed by a second master's and a PhD in applied physics from Columbia University.

While pursuing his doctorate at Columbia, he set sights on semiconductor lasers and optical communications, but since the university had no laser physicist to guide his research, he was seconded to MIT. His time at the Lincoln Laboratory was marked by a relentless spirit of inquiry that would accompany him throughout his career.

After completing his PhD in 1987, Dr Tong decided to advance laser technology for the private sector. He chose to join IBM's Almaden Research Center in San Jose. There, he worked on blue-green laser technology for the optical read and write as part of the efforts delivering Blu-ray disc technologies years later.

Dr Tong later moved to IBM's main research lab at Yorktown Heights, where he spent close to a decade pioneering the development of optical networking and optical interconnects for data communications, laying a foundation for the high-speed data infrastructure we rely on today.

Despite his success in the United States, the call of home remained strong. When Nobel Laureate Prof. Charles KAO, then President of the Chinese University of Hong Kong, invited him to join the university, Dr Tong accepted without hesitation. On his return to Hong Kong, he became not only a respected professor but also a sought-after consultant, advising the industry on fiber optics and photonics. His work in this area was instrumental in shaping the city's emerging tech landscape.

In 2001, Dr Tong played a key role in helping to establish the Hong Kong Applied Science and Technology Research Institute (ASTRI), where he led the effort to build a photonics division from the ground up. With his deep

1983年，一位來自香港的年輕博士生初抵麻省理工學院林肯實驗室，迎來一項看似不可能的挑戰：如何架設一條光通訊通道，連接太空衛星與深海潛艇？

對多數人而言，這無疑是一道難以逾越的技術難關，畢竟電磁波難以穿透水層。然而，對湯復基博士而言，這恰是他畢生孜孜以求、埋首鑽研的學術課題。憑藉滿腔科學熱忱和天馬行空的想像力，他毅然迎難而上。

湯博士在香港土生土長，畢業於喇沙書院，後隨家人移居美國西岸。他先後於加州大學聖地亞哥分校和聖塔芭芭拉分校取得物理學學士與碩士學位，繼而於哥倫比亞大學獲得應用物理學碩士學位及博士學位。

在哥倫比亞大學攻讀博士期間，他專注於半導體激光及光學通訊研究。因校內缺乏激光物理學家能提供指導，他獲安排轉赴麻省理工學院林肯實驗室，堅毅不拔地潛心研究，其求知求真的精神延續至職涯每一個篇章。

於1987年取得博士學位後，湯博士決意投身業界，推進激光技術的發展。他加入國際商業機器公司（IBM）位於美國聖荷西的阿爾馬登研究中心，鑽研藍綠光技術，應用於光學讀寫系統，這項技術為日後藍光光碟的誕生奠定技術基礎，影響深遠。

其後，湯博士調任至IBM位於約克鎮高地的主要實驗室，深耕近十年，專注研發應用於數據通訊的光網絡及光互連技術，屢有突破，為現今高速數據通訊基建打下關鍵根基。

儘管在美國事業有成，思鄉之情從未減退。當時香港中文大學（中大）校長、諾貝爾獎得主高錕教授誠邀他到中大任教，湯博士欣然應允。回港後，他不僅成為桃李滿門的教授，也是業界炙手可熱的顧問，為光纖及光學領域提供專業洞見，為香港新興的科技圖景貢獻所長，建樹良多。

2001年，湯博士參與成立香港應用科技研究院（應科院），並領導創建光子學部門。他高瞻遠矚，憑藉對市場脈動與技術創新的深刻洞察，成功匯聚

understanding of market dynamics and technical innovation, he was able to attract top talent and forge partnerships that led to successful spin-offs. His venture was acquired by Japanese tech giant TDK, marking a milestone in Hong Kong's tech commercialization.

Steering TDK's SAE Magnetics, Dr Tong built upon his scientific foundation to excel as an executive specializing in production, business development and global operations. His leadership helped advance optical technologies used in consumer electronics, automotive systems and data communications.

In 2013, he joined a subsidiary of one of the Country's largest consumer electronics firms, Hisense Broadband Multimedia Technologies, as Vice President and Chief Technology Officer, spearheading acquisitions and building photonics labs in the United States. Two years later, he rejoined ASTRI as Chief Executive Officer, determined to contribute to Hong Kong's future in financial technology. Under his leadership, ASTRI set up collaborations with many financial institutions. It also helped train government agencies and banks in cybersecurity and assisted universities design fintech curricula. Through these efforts, Dr Tong laid the groundwork for the city's emergence as a regional hub for fintech.

In 2017, his journey took another turn when HSBC appointed him Global Head of Innovation and Strategic Investment (corporate venture capital). In this role, he travelled extensively across North America, Europe and Asia, scouting promising new technologies and guiding strategic investments that shaped the bank's innovation agenda.

Today, as Managing Partner of QBN Capital, Dr Tong channels his decades of experience into investing in transformative ventures. He is particularly interested in semiconductors and fintech, two areas where he believes Hong Kong and the Greater Bay Area can make a lasting impact. While not every investment leads to success, he sees value in every attempt, as progress can only be made with resilience and the courage to try again.

Alongside his professional achievements, Dr Tong continues a family legacy of philanthropy. Through the Tong Charitable Foundation founded by his father and uncle, he and his family reach out to remote parts of rural China, distributing needed materials and supporting underserved communities. He is especially passionate about helping "left-behind children" whose parents work in distant cities.

Dr Tong also generously lends his expertise to the HKUST School of Engineering as an academic advisor, championing closer collaboration between academia and industry and advocating for cross-border partnerships that unlock new opportunities in the Greater Bay Area.

A physicist, researcher, executive, investor, advisor and philanthropist, Dr Frank Tong is someone who believes in the power of science to transform and improve lives. HKUST proudly salutes his achievements and legacy that will continue to inspire the next generation of innovators.

頂尖翹楚，促成多項合作，其主導的科研專案後來獲日本科技巨頭東電化（TDK）收購，創下香港科技商業化的里程碑，傳為佳話。

研而優則商，湯博士執掌TDK旗下香港新科實業（SAE Magnetics）期間，專責生產、業務拓展及全球營運，運籌帷幄。在他的領導下，光學技術在消費電子產品、汽車系統及數據通訊等領域的應用取得長足進步，其雄韜偉略，實有以致之。

2013年，他加入中國消費電子巨頭海信集團旗下海信寬帶多媒體技術公司，擔任副總經理及首席科技總監，主導併購業務，並在美國設立光子學實驗室。兩年後，湯博士重返應科院出任行政總裁，決心為香港金融科技發展出謀獻策。他促成應科院與多家金融機構建立合作，為政府部門及銀行提供網絡安全培訓，並協助大學設計金融科技課程。湯博士為香港發展為亞洲金融科技樞紐奠下根基，其貢獻尤不可沒。

2017年，湯博士的職業生涯再啟新篇。他獲滙豐銀行委任為環球科技創新與戰略投資部總監，走訪北美、歐洲及亞洲各地，發掘具潛力的前沿科技，主導戰略投資，引領銀行的創新方向。

如今，作為建峰資本（QBN Capital）管理合夥人，湯博士運用在創科界數十年的經驗，重點投資具轉型潛力的企業，尤其關注半導體和金融科技領域，深信香港及大灣區能發揮深遠影響力。他認為投資的價值不在於每次成功，而在於每次嘗試所累積的經驗與毅力，勇於不斷嘗試，方能迎來收穫。

除專業成就以外，湯博士亦心繫公益。他與家人透過父親叔父創立的湯氏慈善基金會，深入中國偏遠地區扶困濟貧，特別關懷因父母出外工作而留守鄉間的兒童，致力改善其生活與教育環境。

同時，他慷慨支持教育發展，擔任香港科技大學（科大）工學院學術顧問，致力推動產學研緊密協作，倡導跨境合作，以開拓大灣區發展的新機遇。

湯博士集物理學家、研究員、企業領袖、投資者、顧問與慈善家於一身，篤信科學擁有改變世界、造福人類的力量。科大謹此表揚湯博士的卓越成就和深遠貢獻，其精神將持續激勵新一代創新者奮進前行。