

臨床醫師

與大師 *Loscalzo* 教授的對話

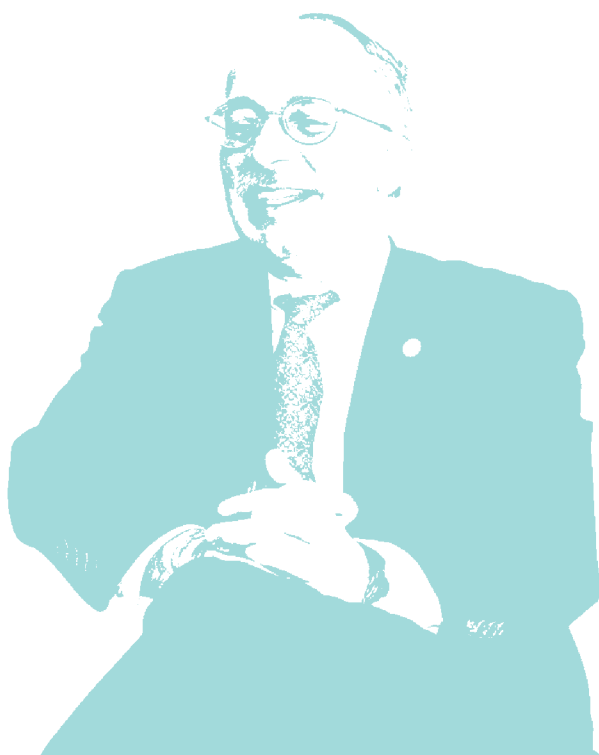
*Loscalzo*教授以哈佛多年最佳指導教授的身分向大家信心喊話：問對問題最重要。

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▲座談會後與眾生合影

來自全球醫學最高學府、哈佛大學醫學院內科主任、亦為世界一氧化氮研究先驅、美國國家醫學院院士、全球心血管研究專家，同時又是全球知名心血管期刊——「循環學」(Circulation)主編約瑟夫·洛斯卡爾佐博士 (Dr. Joseph Loscalzo) 今年秋天蒞臨成大訪問，利用中午簡餐之際，心臟內科同仁把握住機會，與大師 Loscalzo 教授來一段對話。以下是中英文的訪問記錄。



1

Loscalzo Q: What is the percentage of med students do combined degree in Taiwan?

A: Rare, we have modified program PhD program for physical clinicians. Undergraduate PhD program is in progress.

Q: What is the percentage of med students that study PhD in Harvard?

A: 1/4 of med students do this type degree and we get 3/4 of those as interns in our hospital.

Q: What is the percentage give up clinical for research?

A: 3/4 become academician or in industry. But that may be changing because less are willing to give up the lucrative lifestyle.

首先，Loscalzo教授問及臺灣學生修雙學位（MD+PhD）的比率多寡，與哈佛高達25%的高比率而言，我們還有進步的空間。在這群MD、PhD畢業生當中，令人驚奇的是，竟有高達75%的學生進入研究所路線，而沒有當醫生，他猜想和生活品質的好壞有很大的關連。

2

Q: How do you balance between career and life?

A: My wife and I would be married 35 years. We married as students. Our friends ask us what is the success to our marriage and my wife answers, "because I travel so much that we actually only spend 20 of those years together." She is a very understanding spouse. If you commit to career as academician, you do sacrifice some family time. But now I spend a lot more time with my granddaughter.

令人好奇的婚姻生活及工作家庭平衡的問題馬上就上桌了！Loscalzo教授有位賢內助，是位圖書館員，大學時認識，至今35年，不過由於他旅行過於頻繁，事實上相處才20年。最近Loscalzo有了一位新的寶貝孫女，他可疼著她呢！

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Q: What is the usual life being the chief of Circulation? Do you have to visit patients?

A: I still see patients and do cardiology service a couple months a year.

During weekday, I have study sessions with the other editors. My responsibilities also include editing textbooks that needs to be updated every 3 years. Ex I'm in charge of updating the cardio, pulmonary and reno section and other products. Key to success is to be very realistic and not micromanaging. It's very important to find people who work with you and you can trust and can represent your own views.

接著有蔡良敏主任問及當“Circulation”這本心臟學第一名雜誌主編生活，Loscalzo分析了工作與生活不容易平衡的高層生命：他一年裡大概看臨床病人2-3個月，在非週末時，他得和這些副主編共同討論投稿的文章，和雜誌未來走向；其實除了主編工作外，他還兼一些教科書的改編和撰寫工作（大約每三年就會改版，壓力很大）。他告訴我們一個訣竅：找一些你信任的人，他們可以代替你的部份意見。



▲看大師侃侃而談的風範。左：蔡良敏主任；右：陳志鴻教授。

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Q: Is there chance we can send more junior staff to the department to practice...and what are the requirements?

A: Yes, that is one of the purposes of my trip. But we still need to figure out the procedure to allow direct patient care. It would be easier to start with observerships for clinical research that do not require direct contact with the patients. But we have to start by formalizing the means.

我們也嘗試和Harvard更接近些，陳志鴻教授問了些交流的問題：我們可以送多一年輕的主治醫師去交流嗎？有沒有甚麼條件限制？（其實哈佛大學整體來講，用一句話形容最好：得天下英才而教之，世界第一的大學地位是永遠屹立不搖的吧！）。只是，在美國如果外國學者要直接接觸病患照顧，其實是有法律限制，恐怕以觀察性或以後處理模式整理病人資料可能性較高。

5

Q: What do you foresee the hot topics in the 5 coming years?

A: Regenerative medicine, molecular image, genomic medicine. Genomic medicine is a more distant dream but still very hot. The geneticists instead of thinking linear, they should think nonlinear, like p value -8 etc. It will be very important to recruit a team of different backgrounds like engineers, radiologist, physicists, biologists etc, this way we can explain mechanisms in a more systemic based analysis way. Engineers will know about concept emergent behaviors, electrocircuits, applying output, resistors and combine with biologist who know about enzymes etc. It's holistic integrative system. We need to work together to identify new preventive and regenerative means.

我向Loscalzo問到是否能預見未來五年內，心臟科有較為熱門的研究題材？Loscalzo以其多年的經驗告訴芸芸眾生：再生醫學、分子影像學、分子能量學及基因醫學是很有希望而值得投入的領域。同時他也是強調整合型計劃，分工合作，綜合各種領域專長專家的重要性，譬如：整合物理、電子、生物化學或分子生物的共同研發，才有辦法解開自然界的奧秘。



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Q: Many young staffs are interested in research but they are anxious/discouraged because they do not know how to find the focus for research interest. What would be your advice?

A: If you don't have any research background, be open minded so that you can ask the best right question. Asking the right question is important. It can be a question that perhaps will not lead us to new conclusion or anything exciting but will lead you to finding further supporting observations. Finding the right lab of interest is also important. It will provide develop new techniques and new ideas.

Later on, the young staff should have a plan for developing independence. It's sometimes embarrassing to talk about this topic but it's very important for the mentors to guide the young investigators and help them develop their career. It's better to be clear at the beginning so that it doesn't lead both sides into disappointments. There are cultural differences, when you finish your career, people will ask you what your contributions were, and those would be your papers.

接下來有人討論年輕研究者常為主題，或研究過程所遇到的挫折困擾他們的未來走向。Loscalzo以哈佛多年最佳指導教授的身分向大家信心喊話：問對問題最重要！君不見多少諾貝爾獎的發現都是意外，仔細觀察，問對問題，小心求證，仔細認證是實證的不二法門。另外，較為資深的老師有時也要負責指導他們如何作「自主研究」，自己尋求研究資源及獎助（當然，首先這些資源不要被資深研究員吃掉就要算萬幸了！Loscalzo強調過其實有些尷尬，如果一開始大家沒有講明，其實是很危險的），他最後補充了一句話：“文化差異”和作者在文章掛名的關係，其實是很微妙的！看來，他還真了解臺灣的學術文化。

7

Q: How do you train your students to become independent, besides getting own funding.

A: They are linked but not totally independent. I help them graduate become independent. It's not like one graduate December 1st definitely and I tell them to find their way. They keep work in my team we agree mutually how to do it and gradually learning curve to give them chance to find enough funding.

接著也是熱門話題的延續話題：我們如何幫助年輕研究者拿到研究經費或自主研究？這些其實是一種過程，你無法直接在學生即將畢業的前一天告訴他：「你得找自己的錢研究」，相反的，潛移默化是種原則，慢慢它讓他們了解如何運用現有資源，管理有限的經費，做最佳而有效率的投資。



▲Loscalzo教授的臨床教學，條理清晰而內容豐富。

8

Q: What are the most popular subdivisions in med school?

A: Dermatology, anesthesiology and orthopedics. In my period, the smart people would go for cardiologist or nephrologists. Later on intervention cardiologist many people came into the profession with diff expectation they don't care about gen cardiology they only want to fix lesions. It's just a different perspective.

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● 接近尾聲時，臨床醫師問了Loscalzo一個將來性的問題：醫學院裡那幾科最熱門，答案是皮膚科、麻醉科及骨科。Loscalzo時代，最聰明的學生選了心臟科或是腎臟科，時代不同，一直在變。

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Q: How many hours do you sleep per day?

A: I sleep average of 4 hours a night. During weekends and travels, I catch up and compensate my sleep. If you are successful, you will be asked more and more things outside your field. There are things that you want to say no but you can't because will compromise your career. The way I think of it is that if I focused only in editing books, would I have been as successful like now? If I only focused 1 single job, then I would not know so many different things. The way I rationalize my answer is that my mind is wired. I need to be thinking 3 or 4 things at the same time. That's for me.

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說了這麼多，有人問了Loscalzo他一天到底睡幾個小時？（其實這也是大家共同的問題，Loscalzo說他在全世界一直被問及這個題目），平均四個小時，但是週末會補眠。但是他一次得處理多項事件，倒不是他一心多用，他認為他如果只限於專注一件事，學習的種類有限，他要在短期內廣獵知識的求知慾無法滿足（告訴大家一個小秘密，筆者的恩師James K Liao，也是和Loscalzo同一個醫院的心臟科教授，曾在實習醫師時代和Loscalzo當總醫師時共事。有一天James遇到一個超複雜的病例，有人建議他照會Loscalzo。他也照做了照會。當時他看完病人之後，在病歷上想了又想，洋洋灑灑寫了數頁鑑別診斷。James好奇，看了一下照會單，天啊！不是只有建議和分析，他還寫了文章在教科書的篇數、頁數甚至文獻紀錄……真是超人的記憶力）。

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Q: My brain is very simple and I'm not interested in basic science. Would I still have bright future in university medical hospital?

A: Of course. Nowadays, there are many different ways of doing scholarly contribution. You can develop curricula for clinical fellows, publish case studies that highlight tech or new illness, in a creative way, you can still succeed. 10 years ago in Harvard, you would not be able to expect to be promoted by only doing clinical service, writing clinical reports. They have broadened the meaning of scholar contribution. I learn from interventionists as much as they learn from me.

最後，一位心臟科醫師真誠的問出心內深藏已久的問題：如果我不喜歡實驗性的分子研究，動物實驗或基礎醫學，我還有可能待在教學醫院嗎？（這問題像不像大家的問題？有趣吧！）Loscalzo認為是正面的，其實真正的臨床貢獻還包括：教育改革，高科技醫療發明，醫事教育及臨床服務，仍然可以在醫學院裡頂天立地。十年前的話恐怕真的得離開學術界，但是十年後的今天，我們事實上從許多臨床經驗裡，獲得和實驗室同等重要的資訊，臨床還是最接近人性的。

一個小時的交流，大家都獲益匪淺，他完全沒有大咖架子的親民態度，令人折服。有為者亦若是，相信從此哈佛與成大有更近一步的了解，未來合作也指日可待。說實在的，真想看看那張照會單……，或者，還是回家多寫一些稿子投Circulation較實際。



▲院內演講：講述肺動脈高壓的神情。