

INTERVIEW WITH DR MICHAEL BERRY PRESIDENT OF THE INTERNATIONAL ACADEMY OF AVIATION AND SPACE MEDICINE

By Dr Gan Wee Hoe



BIOGRAPHY – Michael A. Berry, M.D., M.S.

Dr Michael A. Berry received his M.D. degree from the University of Texas Southwestern Medical School in Dallas in 1971. After a general surgery internship in the United States Air Force, he spent four years as a fighter squadron flight surgeon in Spain and England. In 1976, he entered his residency in Aerospace Medicine at Ohio State University in Columbus, Ohio, and received his Master's Degree in Preventive Medicine in 1977. In 1978, he was certified by the American Board of Preventive Medicine in Aerospace Medicine. Following his residency, he became the Chief of the Flight Medicine Clinic at the National Aeronautics and Space Administration (NASA) Johnson Space Center in Houston, Texas. Dr Berry left NASA in 1981 and entered private practice in Aerospace Medicine for 25 years. In 2006, he accepted a Senior Executive position with the Federal Aviation Administration in Washington, D.C. where he is the Manager, Medical Specialties Division at FAA Headquarters.

Dr Berry is a Fellow of the Aerospace Medical Association, and the American College of Preventive Medicine. He is a Past President of the Aerospace Medical Association, past Vice-President of the Civil Aviation Medical Association, and current President of the International Academy of Aviation and Space Medicine (2009-2011). He served as a Board Member and Trustee of the American Board of Preventive Medicine and as the Vice-Chair for Aerospace Medicine from 1990-1998. Dr Berry is the recipient of numerous national awards, has several academic appointments, and authored many scientific papers and book chapters.

During his stay in Singapore for the 58th ICASM, I had an opportunity to interview Dr Michael Berry, President of the International Academy of Aviation and Space Medicine. In the interview, Dr Berry spoke on his pursuit and passion for Aerospace Medicine, and his vision to promote Aerospace Medicine to the rest of the international medical fraternity.

DR GAN WEE HOE - GWH: What made you decide to pursue Aerospace Medicine?

DR MICHAEL BERRY - MB: While I was in medical school, I initially decided that I wanted to be a paediatric surgeon. Upon graduation, I did my surgical internship in the United States Air Force (USAF). During that year of surgical

training, I realised that though I was enthusiastic about surgery, it was not of the same level as the surgeons whom I viewed as mentors and role models. They loved performing surgery at any hour of the day, even at 3 or 4 am in the morning.

Being in the USAF at that time, I had the option of going into Aerospace Medicine and

postponing surgery training. I had been aware of Aerospace Medicine as a medical specialty since I was a young boy because my father was an Aerospace Medicine physician. I completed the initial training and the Air Force sent me to Spain as a flight surgeon and I absolutely loved it!

I loved taking care of the pilots in the squadron – it was a three-year assignment, and after two years as a flight surgeon, I was sure that this was what I wanted to do. I spent three years in Spain and then a year and half in England. It was in England that I met my wife, who was an Air Force nurse in the same base.

GWH: Can you tell us a little about your training in Aerospace Medicine? Is there a mentor in this field who has been a great influence in your training or professional life?

MB: I did my initial training in the Air Force to become a flight surgeon, and had almost five years of practice experience. I then did my Aerospace Medicine residency in Ohio, in the United States. At that time, there were only three Aerospace Medicine residency programmes in the US – a civilian residency programme at Ohio State University (OSU) and a military residency programme each in USAF and the United States Navy. I had completed my tour in the Air Force at that time, and wanted to follow in my father's footsteps and work for NASA and the US space programme. Hence, I applied and was accepted for the residency at OSU.

The first year of residency was spent at OSU's Columbus campus, and the second year at NASA Johnson Space Centre in Houston, Texas. After completing my residency programme and exams, I obtained my Board certification in Aerospace Medicine and worked as a NASA flight surgeon, and the Chief of Flight Medicine.

My father was my mentor from the beginning and has been an inspiration to me throughout my career. He was among the first group of physicians in the US to be certified in Aerospace Medicine, was in the Air Force for 16 years before going to work for NASA, and was one of its first flight surgeons for the NASA space programme. He was with NASA during the Mercury, Gemini, Apollo and Skylab programmes (the first US-manned space laboratory). He helped to select the first seven astronauts.

During my time in NASA, I became the Chief of Flight Medicine in Johnson Space Centre. I was responsible for the medical selection of astronauts, and oversaw their medical fitness and the health of their family members. I was also in charge of the physiological and medical monitoring of astronauts during actual space flights.

GWH: Why did you leave NASA, and what did you do after that?

I think one of the biggest challenges is to always be willing to re-evaluate medical policies and to make rational decisions whether a pilot with a medical condition can return to flying safely. The easiest answer is always to tell the pilot he cannot fly anymore. The difficult option is to take the step of evaluating him and to be able to make realistic, informed, and evidence-based decisions in light of today's medical knowledge.

MB: I was with NASA for six years, and was in the team of flight surgeons for NASA's first and second space shuttle launches. It was very exciting to be part of this historic milestone. Being in NASA was the achievement of my ultimate goal – practising Aerospace Medicine, being a NASA flight surgeon, and being involved in its space programme. And when you have achieved all your goals, you begin to think about new challenges at some point.

At the same time, I felt that NASA was too bureaucratic and I was not allowed to practise Aerospace Medicine in the way I had been taught in residency and in the Air Force. I spoke with my father, and this is one of the advantages of having a mentor who is also your father. He had worked through some very stressful and difficult times in NASA, such as the pressure to get our astronauts to the moon before the end of the decade. I asked him whether he ever disliked his job or going to work when things were the most stressful, and he replied that no matter how much push or pressure he faced, it had never affected his passion for the job.

It was then I realised that though I liked my job, there were other aspects that I disliked and

maybe it was time to leave. I subsequently went into private aerospace medical consulting with my father in 1982, where we practised together for the next 24 years. Our clients were airlines and aerospace companies, and I enjoyed the challenge of managing pilots with complicated medical issues and eventually optimising them to return to flying safely.

In 2006, I got my present job in the Medical Specialties Division of the Office of Aerospace Medicine at the Federal Aviation Administration (FAA). This is a senior executive position and I answer directly to the Federal Air Surgeon. I saw this as a job where I could have major influence on Aerospace Medicine within the FAA, since I would be responsible for the development and review of all current and new aviation medical policies.

GWH: What do you think are the challenges facing Aerospace Medicine physicians today?

MB: I think one of the biggest challenges is to always be willing to re-evaluate medical policies and to make rational decisions whether a pilot with a medical condition can return to flying safely. The easiest answer is always to tell the pilot he cannot fly anymore. The difficult option is to take the step of evaluating him and to be able to make realistic, informed, and evidence-based decisions in light of today's medical knowledge.

As Medicine, Science and Technology advance, what was then incurable is now often curable, and there are also increasing modalities for effective treatment. As an example, we used to only allow hypertensive pilots to be treated with hydrochlorothiazide if they were to continue to fly, but now we accept most of the major drugs used to treat hypertension. As another example, the FAA has to date allowed four heart transplant individuals to hold a Class 3 licence (Private Pilot Licence).

GWH: You have been working in field of Aerospace Medicine for 38 years, in both military and civil aerospace organisations. What are three of the most memorable experiences you have had over the years?

MB: One of the most memorable experiences is being part of the team for the launch of the

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first NASA space shuttle in 1981. I was in the control centre for the actual launch, and was tasked with the monitoring of physiologic parameters for our astronauts throughout the mission.

The other two pertains to being President of the Aerospace Medical Association (AsMA), and now President of the International Academy of Aviation and Space Medicine (IAASM). What is so special is that my father was also President of AsMA and IAASM years ago. This is the first time that a father and a son have taken turns to lead both organisations, so it is extremely rewarding that I could follow in my father's footsteps.

GWH: As President of IAASM, are there any agendas or programmes that you would like to see through during your tenure?

MB: The vision of IAASM is to promote and advance the science and art of Aviation Medicine throughout the world by collaboration on teaching and research. In particular, I would like to try and reach out to countries where Aerospace Medicine is not well known, either by having the International

Congress of Aviation and Space Medicine in that country, or through identifying individuals practising Aerospace Medicine and helping him or her promote this specialty in that country. What is interesting is that in the US, Aerospace Medicine has been a Board certified medical specialty since 1952, much longer than more commonly known specialties such as Family Practice and Emergency Medicine. Yet, the rest of Medicine does not know that Aerospace Medicine exists.

My other goal has to do internally with the Academy. IAASM was formed in 1955, but many academicians, especially the younger ones, do not know or understand our history well. I am asking my father and some of the other senior Academy physicians and leaders, most of whom have retired, to put down our history in writing. In order for an organisation to successfully move forward, it must have clear knowledge and understanding of its past. I want that for IAASM.

GWH: Having spent the last week in Singapore, what are your thoughts of this city-state, and is there a unique experience you have

encountered during your stay that has left a deep impression?

MB: Over the past two days, I toured Singapore with my wife, and we went to many places including the WWII sites and memorials in Changi. Apart from learning about what Singapore went through during those days, it is even more amazing to contrast with where you have arrived as a nation today. For example, the Singapore Air Force was built up into a very credible air force over such a short period of time.

I am also impressed that as a people, Singaporeans are very industrious and do not have an attitude of entitlement. Everyone is willing to work hard for their achievements, and this is impressive. There is a vibrancy here and a pride of being Singaporean. As a nation, you should be highly congratulated on your achievements. **SMA**



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