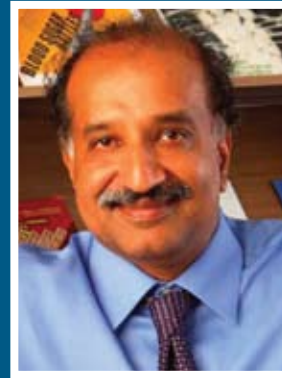




Interview with Professor Ranga Krishnan

By Dr Lim Boon Leng, Editorial Board Member



K. Ranga Rama Krishnan, MB ChB, is the Dean at the Duke-NUS Graduate Medical School Singapore (Duke-NUS). He is also Professor and Chairman of the Department of Psychiatry and Behavioral Sciences, Duke University Medical Center, Durham, North Carolina.

His department of psychiatry includes more than 490 faculty members, conducts more than 270 human-subject studies a year and a similar number of in-vitro and in-vivo animal studies, and receives approximately US\$40 million of research funding annually.

Dr. Krishnan earned his medical degree and completed a rotating internship at Madras Medical College in Madras, India. He then completed his residency and held a fellowship in neurobiology at the Duke University Medical Center.

Dr. Krishnan has created a translational research center for depression in the elderly, the only such center in the United States funded by the National Institutes of Health.

Dr. Krishnan is an elected member of the Institute of Medicine – the world's foremost national resource for independent, scientifically informed analysis and recommendations on human health issues. As a further recognition of his contributions to biomedical science, Dr. Krishnan received the 2007 Distinguished Scientist Award from the American Association for Geriatric Psychiatry. More recently, Dr. Krishnan was the 2008 recipient of the C. Charles Burlingame Award, which recognizes his outstanding leadership and lifetime achievement in psychiatric research and education. Dr. Krishnan serves or has served on many editorial boards of scientific journals and has received numerous awards.

Dr Lim Boon Leng: It's not often that we have a Dean who is a psychiatrist in Singapore. Duke-NUS has started training its second batch of students. Having taught them, do you think there are any differences between local students and those you have taught elsewhere?

Professor Ranga Krishnan: Prior to Singapore, I have only trained students in the US. I observe that there are two small differences. Firstly, not all the students who train here at Duke-NUS hail from a pre-medical background, whereas in the US, most people have had pre-medical training and then come into medical school. Here, there is no true pre-medical training so some of our students had their training when they were studying in the US, but a lot of them do not. Their background knowledge in science is therefore less uniform, and quite diverse.

Secondly, our students are very self motivated. Since many of them come from different backgrounds, but still have to take the same exams, they have to be particularly motivated and very capable of understanding and learning on their own in order to do well, especially if they do not have a pre-med background. A key difference between a typical Duke-NUS and an American medical student is that there's a lot more self-directed learning here, which is more adult learning.

BL: Locally, are Singapore students more exam-oriented than overseas students?

RK: Almost half the students in our first intake were trained outside Singapore and the rest were trained here. Initially, I think there were questions about passing and failing, that we do not rank people and so on. So there was an initial competitive spirit



Boon Leng is a trainee in psychiatry who recently learned the hard way that the only financial investment he should be dabbling with is in opening his child's Children Development Account (CDA).

which I think is typical, but what we actually found was that they quickly understood that this was really a team effort. Our students had to work in a group or in a team, and the main thing is for them to learn to do this, and not to compete unnecessarily. It is a very different approach; you are learning to achieve a certain set of skills rather than learning to pass an exam.

So if you look at training, whether it is a student or whether it is a house officer or registrar, it is quite different from how it is done in the summative assessment model. For this, you take an exam, you pass and you are done. But in the American-based formative assessment, you are actually doing day-to-day work. You are picking up the skills and attaining the graded level of responsibility and accountability. The purpose is not to punitively judge pass or fail but to make sure you acquire the required skills before you move to the next step. So this is quite a different approach, and this holds true right throughout the physician's training.

BL: This brings me to my next question, because locally, students tend to value postings or rotations like surgery or medicine more than they would value training in Psychiatry. Do you think psychiatric training is important for medical students?

RK: It is, and for several reasons. Firstly, if you actually go and work in the real world, at least 20 to 30% of your patients are going to have at some point, psychiatric issues and/ or alcohol or substance abuse issues. It is one of those constants. This comes in the form of physical symptoms based on a problem so if you don't recognise that promptly, it can be a problem. We call it the "ticket to entry", and this comes in the form of physical symptoms based on a problem – you get chest pains and so on. But sometimes they are not medical in the classic sense, and are much more somatic and influenced by psychological factors. So you are going to have to figure out how to recognise it, how to approach it and how to talk to people.

The other advantage is that good psychiatric training also actually teaches you skills which are essential to being a good doctor, for example, how to communicate. So here at Duke-NUS, our Year One students learn communications skills right from the beginning with simulated subjects, and we hire people to act as patients. And we train them in how to interview patients, and how to do it in different contexts because there are so many different styles.

The first principle is based on the fact that what you hear is not necessarily what your patients actually meant. And what you say to them may not be what they hear. So if you learn those two things, then you can figure out how to start adjusting your communication so the other person knows what your reply is. Conversely, understanding what they are really trying to tell you. That is a skill. So we are trying to do this very early in Year One because we see this as a critical skill. It is an important part of the medical training and it is the art of medicine, so we actually make communicating with patients part of the Duke-NUS curriculum.

BL: Do you observe them "live" in their patient interaction?

RK: That is our intention. We have not figured out exactly how we are going to do this but that is what we do back in Duke.

BL: A lot of the students tend to neglect this part of training – communications. Is there a way we can encourage them?

RK: I think the key here is to make it part of the formative assessment. In our setup, Duke-NUS students have to do it because that is how they advance to the next level. If you have difficulty interviewing, then we know you are going to have difficulty taking a patient's history. So this is an example of where building graded responses as part of our training is important. I doubt that poor communication will be an issue with our students because they start learning this skill from Year One; it is an essential requirement.

Duke-NUS students are aware this is very critical to becoming a good physician. It is not so much the technical knowledge but the actual soft skills that they acquire that are crucial.

BL: Moving on from medical school to specialisation, in Singapore we have the mental health blueprint. What the Ministry of Health wants is for psychiatrists to be doubled in numbers, from 100 to 200 in five years. In your view, is there a right patient-to-psychiatrist ratio?

RK: I would say this really depends on three things. Number one is the actual problem rate in the country. Number two, how much is stigma a problem so that access to Psychiatry is limited, and number three, what particular areas are problematic. From what I gathered, there is just a



Dean Ranga Krishnan, with members of the Emerging Infectious Diseases Signature Research Programme team of Duke-NUS Graduate Medical School Singapore. L-R: Dr Mariano Garcia-Blanco, Dr Subhash Vasudevan, Dean Ranga Krishnan, Dr Ooi Eng Eong and Dr Duane Gubler (Director).

handful of child psychiatrists here and the same thing is true for psychiatrists treating addictions. I understand there are only one or two people and clearly that is woefully insufficient. These are amazingly small numbers, but that seems to be true of many specialties in Singapore, so there seems to be a critical need.

And to me, this need stems from several reasons. One is acceptance and the second is affluence. If people become more affluent, they would want more healthcare. If there are too few psychiatrists, you cannot provide enough good psychotherapy sessions lasting one hour each. There probably is no way to handle the volume load if you have to go that route. But I do not know the exact numbers here in Singapore. However, with the population at four and a half million or so, I believe it has an extremely small number of psychiatrists.

BL: What would be some of the attributes you would be looking for in potential psychiatrists?

RK: Usually several hundred people apply for post-graduate slots, so this gives you an idea. First, we make sure that they have the right academic qualifications. Then they come for an interview. They spend all day with us in very structured interviews. What we are really trying to assess are their soft skills. For example, we try to assess how they communicate, whether they are empathic, and why they want to do Psychiatry; if they are any good or are they coming in for the wrong reasons. We actually use other psychiatric

residents to also interview them because we know they will be able to pick up cues, as the student may have a different communication style. Residents will also take them out for lunch. *(Laughs)* We continue to assess them but we do not want to make candidates feel stressed during the interview. The purpose here is really for us to get to know them as people, and for them to get to know us. It has to be a really good fit.

Usually by the stage we decide to interview the candidate, it basically means that the individual's qualifications are fine for entry to our School. But the interview process is where we eliminate the majority.

BL: The other school of thought is that we take everyone and we try to train them, and the attrition is at the exams.

RK: That is called summative assessment. Summative systems are very inefficient, because they are spending a lot of resources to train people who would not really be very good. Even if the students take the exams and pass, they still would not be the ones who excel later, and this is true for any speciality. We do not think it is good for the students, and we do not think that it is good for the faculty. It is much better to tell them at the start, "It's not going to work out for you, you should do something else." And even when we make the selection, we still let people go pretty early if they are unsuitable. And every year, it will happen. But it is done systematically and with no malice, with

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the intent of getting them into the right fit. You do not want a person who may be better off as a radiologist being a psychiatrist, or the other way round. You really want them to fit, and hopefully develop what they are good at.

BL: I guess you have a large pool to choose from. Locally, it seems like people are not so keen to join Psychiatry, maybe because of the stigma. What advice do you have for us?

RK: I think this matter depends on the medical school itself that makes people think of it as attractive. One of the reasons why Psychiatry in the US wasn't seen as attractive as neuroscience was the way it was taught. But Psychiatry is about the mind, and the mind is one of the last frontiers. There are a lot of exciting things happening, so we try to emphasise these aspects in the medical school. If you do not convey this excitement when teaching the students, it is unlikely they will become interested in Psychiatry. What you don't want students to do is to study Psychiatry as a default – students thinking Psychiatry is easier to do, or choosing it when they cannot get into something else. That does not work out well. It is not good for the field and not good for the person. It is much better if you are interested in Psychiatry. A lot of it is also having good teachers who connect with the student. The overall system has to say it is worth it.

BL: Being a psychiatrist yourself, do you feel that it allows you to function as a better administrator

or Dean, and does it put you in a position to better understand other people?

RK: To some extent, it is helpful. For one, it helps you understand other people. If you are a good psychiatrist, you should know how to understand others. But I do not think this skill necessarily makes you a better administrator because the skills you need are not the same. It does help, but it is not the same. One of the things that happen in academics is that there is no training in how to run things, how to deal with issues and so on. So at Duke-NUS, we actually do that. We introduce our students to leadership programmes in the very first weeks of medical school. The reason for it is that no matter what you do in the future, you are actually going to need to practise in teams. Working in teams means learning leadership at every level. So the important things that you need to learn are again, communications, being able to be fair, firm but empathic. It is a blend of being able to do it well and certainly it will become a skill. Duke has a Masters in Clinical Leadership programme and maybe eventually we will bring these kinds of programmes here.

BL: Do you think these things are inherent characteristics or attributes, and can they really be learnt?

RK: Well, some of them are inherent, and some of them are learnt so you can be naturally good, probably. But on top of that, you still need to acquire some skills. Most people are not going to be



Mr Tony Chew, Chairman of Duke-NUS Governing Board and Dean Ranga Krishnan catch up with Dr Chee Phui Hung, SMA Honorary Member during Duke-NUS' Inaugural White Coat Ceremony for the entering class of 2007.

naturally good, but they could become good enough to handle these issues. It also really boils down to the fit. One of the things that we know is that success in any position depends on the fit. Do you fit in a particular position or a particular setting? You could be very good in one place, but terrible in another because you do not fit – your style does not fit, or the situation does not fit. And it's very tough to pick who is going to actually succeed.

BL: Are there any advantages or disadvantages that you think psychiatrists face in an administrative or academic role, and if there are any disadvantages, how do you overcome them?

RK: Actually there are no disadvantages, and I am not sure if there are any true advantages either. There are many psychiatrists who have done well in leadership positions, at least in the US. The person who heads Columbia is a psychiatrist. The previous President of Duke was a psychiatrist, and quite a few Deans are psychiatrists. Whether that is by accident or not, I do not know. (*Laughs*) In general, some of them would say that it really makes a difference. In all honesty, I would rather not say it does.

If you are too empathic, it can also be a problem. You do not have time to be a psychiatrist to everyone who works with you. You are really managing what the goal needs to be, with the people that you have rather than trying to help them in their particular problems. You also need to make sure that everything works the way it is supposed to work. And in fact, one of the few times I have seen some people run into problems is when they cannot switch roles. For example, you really should not get involved in someone's family problems if you are supervising them.

BL: As junior doctors, we always struggle. There's the administrative part of work, there's the research part of work and there's the clinical part of work. How do we balance all of this?

RK: Actually, all three are the same role. If you want to be a good clinician; you also need to know how to run a good practice. So you really cannot separate the two. And if you are a good clinician, you are like Sherlock Holmes – you are a sleuth, you have to think, frame your question, look for the data, get inferences and hypotheses. That is actually how you decide what to do; it is all probability here. There is no certainty that if you choose a medicine or a particular psychotherapy, it is going to work. You

are choosing it based on asking and eliciting, and putting everything into context so the difference between doing it one-on-one patient-by-patient, and research, is being systematic about it. If you think about it that way, you learn from every patient. However, when it becomes a routine, as you get more and more practiced, the danger is getting to the point where you do not think anymore.

Much of the practice that I used to do clinically was to work with patients who have failed other treatments. One of the first things that you look for are the other things that people missed. There are many things that if you do not ask, patients will not tell you and therefore you miss it. When you get quicker and quicker in practice, you do not ask everything. You make assumptions and you miss things. In Psychiatry, we have a lot of work we call hidden conditions. Patients do not come and tell you about their experience. In the US, I think 10 to 25% of all psychiatric patients have been traumatised. And medications or whatever you do, will not work as well unless you can work with the trauma. From what I have seen in Asia, it is the same thing; again, unless you elicit, you will not get it out of the patient. The same thing is seen for obsessive compulsive disorder which gets missed all the time because you do not look for it. You do it when you are a resident and you do it systematically but when you get into practice, you do not do it. (*Laughs*) That is the danger, especially if you work with a high volume patient load.

Therefore one of the things you can do is adapt. One of the things we do is set up some form of pre-screening: this means patients can give you some indicators before you see them. So it immediately gives you information to work on and makes your session more efficient. But in Psychiatry, the key to working with patients is to look for everything. No patient is going to be identical to the previous one, and that is what makes things interesting. By approaching medicine like a sleuth, it is more fun; you are learning every time. You learn more from patients than any textbook. What you learn can also be misleading and that is where the danger lies because if you see one patient, you should not presume that everybody else is the same. So that is where systematic learning really comes in. Duke actually teaches a lot of systematic learning, and that is what we are planning to do here also for our students, so thinking becomes more organised and systematic.

BL: Thank you for your time. ■