

From University To Private Practice

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Kristian Thestrup-Pedersen has been chairing the department of Dermatology at University of Aarhus during 1987–2003 and from 2003–2008 he has acted as affiliated professor. Following his 60 years birthday in 2003, he spent 2 years in Riyadh, Saudi Arabia, at the King Faisal Specialist Hospital and Research Centre. Since 2005 he runs his own clinic in Nykøbing and has thus great experience in both University life in comparison with a private practice. Here he gives some views and thoughts.



*We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.*
(Little Gidding, Four Quartets, T. S. Eliot)

Sometimes you need to sit down and take an “armchair look” at what you are doing, and question yourself: “I had this hypothesis on – say – atopic dermatitis. Clearly, an allergic disease! I have studied dendritic cells, I have done patch testing, and I have performed exclusion diets”. And, what was the outcome? Did you solve “atopic dermatitis”?

The same goes for psoriasis. Prostaglandins? No. Interleukins? No. Perhaps innate immunity? No. Maybe some antigen-specific T-cell clones, or accumulation of CD8+ T cells in epidermis reacting in a “auto-immune” pattern? Or a fault in the IKK2 signalling of keratinocytes? No-one knows.

Did you solve the conundrum of “skin cancer”? And so on....

Medicine has achieved much over the last century. The greatest achievements for humankind are clearly in “vaccinations”. Pasteur should have received the Nobel Prize several times over. This achievement, stemming back to Edward Jenner’s experiments on cowpox, is fascinating.

My own interest in the immune system developed when I spent 7 months at a leprosy hospital in South India as a medical student, seeing a huge number of patients with leprosy with different clinical symptoms, from a small hypopigmented patch (tuberculin leprosy) to the widespread disease affecting all organs (lepomatous leprosy), all dependent on how the patient’s immune system reacted towards *Mycobacterium leprae*. This bacillus was discovered and described by Armauer Hansen of Norway, Bergen, in 1873, which is why I participated in the Century Meeting on Leprosy in Bergen in 1973, which took place in the brightest of Nordic sunshine,

and a visit to the home of Edvard Grieg at Kollhaugen. Some say it rains in Bergen; I have been there three times – always in sunshine! Now, this might lead one to the philosophical thought that if you really want something, you can get what you are looking for.

My time in the leprosy hospital stimulated my interest in “immunology” and skin diseases, and in the variety of “skin manifestations”. I vividly remember a young chap coming into our open-air outpatient clinic with large areas of his trunk covered in grey scales, almost like crusts. I took photographs. The Swiss head doctor couldn’t give a diagnosis and nor could the Indian doctor, and he walked away. Approximately 20 years later I was faced with an elderly patient admitted to our department at Marselisborg Hospital with the same grey crusts on major parts of the body. Then I learned it was Norwegian scabies! I went home, found the photograph, and there it was as clear as day.

The University life

I was fortunate enough to join the Department of Dermatology, Aarhus University, in 1984 and became Professor of Dermatology and Venereology in 1987. Here, venereology was studied intensively in the 1980s with many “lymphocyte transformation tests in syphilis patients”. In the UK, Professor Peter Friedmann was carrying out research in the same field, and he has since told me how frustrated he was about this group in Denmark – who were always publishing results on syphilis immunology just ahead of his own group, and the first author had such a terrible, long name. I met Peter this February in Southampton, UK, at his farewell symposium and we had a good laugh about the “old days”.

I have always loved the “research life”. From 1971, when I became an MD, I went straight into “immunology”. The project was to study cell-mediated immunity in rabbits when vaccinated with the Calmette vaccine – a parallel with the leprosy experience.

I worked hard for one year, drawing rabbit blood, trying to make phytohaemagglutinin (PHA) stimulation of lymphocytes using the lymphocyte transformation test. However, it didn't work; the lymphocytes were flat on their backs – with absolutely no incorporation of carbon-14-labelled thymidine. I had done exactly as stated in the published papers, and had done it for 1 year (although in retrospect I was too stubborn). In my desperation, I walked through the wonderful campus of Aarhus University, and then I began to think about "temperatures". What is the ordinary temperature of a human being? Thirty-seven degrees Celsius. What about a mouse?: 38.5°C. And a rabbit?: 39.5°C. I found this information in the Swiss book entitled Documenta Geigy.

So, by increasing the temperature to 39.5°C, it all worked fine! Why hadn't the other authors written that in their article? Because, they didn't know. However, their laboratory technician knew: a little higher temperature and it all worked fine!

Temperatures are all about membrane physiology. A few researchers found my observation interesting, and Børge Teisner

and Svend Haahr published an article in Nature (1974; 247: 568) on poikilothermia and susceptibility of suckling mice to Coxsackie B1 virus. If you keep baby mice with Coxsackie B1 virus-induced encephalitis at high temperatures they survive, as their body temperature is normally around 34°C, which is lower than a normal mouse. Did you know that the "development" of the HaCat cell line happened because the laboratory incubator broke down and over one weekend the keratinocytes were exposed to a temperature of 38.5°C, causing them to become immortalized?

Thus, as I learned the hard way, and as has been confirmed in so many experiments: you must do your controls! You cannot say this too much or for too long to your PhD students. Do your controls – try to "cheat" yourself. If you are then sure of your "results" you can start trusting them. This is the first dogma in science. And I have seen so many examples of "rubbish" published, even in high-ranking journals. Yes, the "control work" is tedious, but it is absolutely necessary.

Coming of age and entering into the more political part of dermatology has been a major satisfaction to me. Working on the Nordic Dermatology Association Board, the European Academy of Dermatology and Venereology (EADV) board for six years, and now on the International Committee of Dermatology (ICD) board, which heads the International League of Dermatological Societies (ILDS; www.ilds.org), brings great satisfaction, as you meet so many wonderful people ready to promote skin health all over the world.

What are the pitfalls of university dermatology? Two rather important things: firstly, you are working, travelling, applying for research grants, have "too many meetings" including of the more organizational part – and you simply get tired; and, secondly, your research energy dries up and you feel the research train is leaving the station without you.

This is a dangerous feeling. And when I felt that I decided to withdraw from university dermatology. This I did at the age of 60 years, on 6 July 2003. Have I regretted it? Yes. I miss the university life very much. But, let me recount: I have had an enormously productive time, with so many good PhD students, whom I am always grateful to for having the "luxury" of working with. But I also know that "time" is not "on my side".

I miss Aarhus University. It is as simple as that.

Why a change...?

I cannot provide a simple answer, but part of the answer is that I had a "near-death" experience on 19 October 2000. We had



Fig. 1. The author at the Research Laboratory of Marselisborg Hospital.

just returned from a sabbatical in Riyadh, Saudi Arabia. I was physically well, but I suddenly developed a nagging pain in my epigastrium. Perhaps the coffee was too strong? I hadn't eaten anything during the day. We were three people, Klaus Ejner Andersen, Hans Christian Wulf and I, in Odense, discussing the next edition of our textbook of clinical dermatology and venereology. I had a drink of water and lay down for an hour, but it didn't get better.

Klaus and Hans Christian had to haul me into the emergency department of Odense University Hospital. I was too weak to support myself. Aha, they thought, an old chap, pale, sweating, etc. – no problem: cardiac infarction! But the electrocardiogram was normal. Abdominal perforation then? But there was no free air on the X-ray. And my haemoglobin was dropping by the hour. So I must be bleeding like "a stuck pig". Aortic aneurysm? No pain, aneurysms on the *a. mesenterica* sup and inf? Into the scanner, and the only thing they could see was a pool of blood, retroperitoneally. By that time I had received approximately 25 units of blood.

The last thing I heard was a female voice saying: "We will have to operate".

I just managed to say to the anaesthesiologist: "Tell my wife and kids I have had a good life". "Yeah-yeah", was the answer, and, bang, I was gone. Luckily I woke later, but with every conceivable tube stuck into my bodily orifices and veins. The worst was the tracheal tube, which kept hammering on my bifurcature when I breathed – very painful and unpleasant. I managed to scribble something on a piece of paper: "Take that tube out – it is killing me".

It was a long haul, but I eventually returned to Marselisborg.

Something had changed: I realized that my dear wife, my children, and my friends were much more important to me than results about telomerase activity, telomere length, epidemiology, and so on. I realized that "immortality" was not an option; it was the people around me who mattered. This was an important change in thinking at 60 years of age.

The transition

We spent another 2 years in Riyadh, leading up to the current problems between Arabs/Islam and the West, about which I must clearly say: the Arabs have many problems, but they have to solve them themselves. And, to George Bush in particular, laser-guided missiles do not bring "democracy" (which under Bush's terms should be spelled "Democracy"). Western countries have made major mistakes over the last five years.

The private clinic

Returning from Riyadh, my wife and I had a clear goal: to live in, or near to, Copenhagen, as both of our children are living there, with one grandchild and two more to come this year. We are close to them and visit them, or are visited, very often.

However, discovering that it would take an investment of approximately 3 million Danish Crowns and further loans in order to establish a clinic made us decide that we didn't want to make too many "5-year plans". Then Nykøbing F came up, 125 km south of Copenhagen – an old provincial town, cosy and very convenient. "Everything" is here. Our daughter-in-law loves it: there are no traffic problems, short distances, good prices and it is easy to get around, as well as being pretty and pleasant. I set up a clinic for almost free in Nykøbing, September 2005, and it is running well.

One works very hard in private practice compared with in a university clinic. In 2007 the clinic carried out more than 15,500 consultations. This is much more "efficient" than any university department, but we do no teaching and only a small amount of clinical research. However, it is a tough job, in which you need diagnostic accuracy and certainty combined with decisions about therapeutic interventions. And the patients are yours, meaning that if you do not help them they will return with their problems.

To be very brief: 80% of what I see is completely "routine". However, it is fun, with clinical pictures that are interesting: atopic eczema in many babies, psoriasis in all its forms, pityriasis rosea, medical rashes, lichen planus, skin tumours; I could go on. Twenty percent of cases are more exciting, although of course the care of all patients is equally important.

What are the difficulties in private practice? They are not very different from those of the university clinics. However, I see much more skin cancer here, as well as benign skin tumours. I have learned to have great respect for these small dots with irregular pigmentation, which may indicate malignant melanoma.

I have also been frustrated by our lack of therapeutic options for severe atopic dermatitis, severe psoriasis, severe hand eczema, and for elderly patients suffering from "prurigo" – with a non-specific rash on top of that.

There are so many excellent clinical challenges in dermatology. We still have a lot to do and learn in order to improve care for our patients.

The private life ... of being a “pensioner”

This life is very pleasant – attending conferences of your choice, some scientific work, lecturing, trying to hit a small golf ball on beautiful golf resorts, family reunions, etc. And the “pace” has slowed down. Other aspects of life take more time, and that too is enjoyable.

Finally, I wish all the best for our university departments. They should receive support and acknowledgement for all the hard work associated with education, teaching and research. I would encourage further Nordic collaborations between laboratories with overlapping interests. It is always positive to have, perhaps not brain-storming meetings, but positive discussions.

Nordic dermatology has done well, and can do better. This is up to our more youthful colleagues to confront; we old guys will always be happy to give advice if asked.

I end my note with a wonderful photograph taken on holiday this Easter on the beach on the island of Sal, Cape Verde. The scientific question is: how do you explain, physiologically, that an almost 2-year-old child, who is not yet able to talk, but who expresses her feelings loud and clear, can tip-toe on the beach a sunny afternoon? This is an example of “quality



Fig. 2. One afternoon on the Beach of Sal, Cap Verde. Notice her physiological achievements in “tip-toeing”. The dress is designed by Hans Christian Andersen (The Emperor’s New Clothes), except for her hat. She had sun-protection factor 50 on her skin, and then the hat. (Photograph taken by her grandfather: all rights reserved).

time”. Just for the record, this is my grand-daughter, Filippa. She just does it without knowing the neurological explanation (and with no Nike shoes).

I wish you all the best for the rest of 2008.