

‘We must continue to

Frans Kok said goodbye to Wageningen UR in October after nearly a quarter of a century as professor and 18 years as head of the Human Nutrition department. ‘It is increasingly clear to us that the key to a good diet is not individual nutrients but nutritional patterns.’

TEXT ASTRID SMIT PHOTOGRAPHY MARCEL VAN DEN BERGH AND GUY ACKERMANS

‘I saw you on TV Gelderland. What was your farewell like?’ We are in Impulse, Wageningen UR’s informal meeting point and lots of people stop to talk to Kok. As the coffee machine churns out two fresh cappuccinos, he tells me he is still a bit ‘stoned’ from his farewell. ‘So much has happened in a week. First, I became a grandfather – yes, for the first time – then there was the farewell symposium with about 600 participants, after that the valedictory address and then to cap it all I was knighted.’ As we chat Kok is already trying to distance himself from his working life. He talks in terms of ‘they’, not ‘we’ and searches for the right expression for the one day a week he still spends at Human Nutrition. ‘It isn’t going to work, but what is it then?’ On those days he supervises two PhD candidates, stays actively involved in the Gelderland Valley Nutrition Alliance, keeps in touch with nutrition institutes in Indonesia, China and Africa, and advises food companies. Kok was professor in Wageningen for nearly a quarter of a century and head of the Human Nutrition department for 18 years. In that period he supervised 70 PhD candidates, saw thousands of students come and go, brought tens of millions of euros

in research funding into the department and expanded it from two chair groups to five, with about 180 nutrition researchers. ‘I am leaving a flourishing group behind,’ he says. Kok is succeeded as head of department by Kees de Graaf, professor of Sensory Science and Eating Behaviour.

NEW DEGREE

Kok was in the first cohort of students to take the new degree in Human Nutrition, and graduated in 1979. His career got off to a flying start. In 1982 he obtained his PhD in Wageningen for a study of cardiovascular disease, in 1984 he got his Master’s in epidemiology at Harvard University in Boston, and in 1992 he became professor in Wageningen at the age of 42. Track record: 350 publications. >

‘Nutrition science is still young’



refute hypes'



FRANS KOK'S CV

- 1950 Born in Ulft
- 1972 Food Technology at the Agricultural College in Den Bosch
- 1979 Nutrition and Health at Wageningen University
- 1982 PhD research with the Dutch Heart Foundation and Wageningen University: (Target group Segmentation in the Primary Prevention of Cardiovascular Diseases)
- 1984 Master of Science in Epidemiology at Harvard University, Boston USA
- 1992 Professor of Nutrition and Health, Wageningen University
- 1997 Head of the department of Human Nutrition, Wageningen University



He was not the kind of professor who delves into a narrowly defined scientific field. In the 80s, when he was working at Erasmus University and for applied science organization TNO, he was among the first to study the effects of antioxidants and free radicals on chronic diseases. He published on the subject in high ranking scientific journals such as *The Lancet* and *The New England Journal of Medicine*, but did not go on to become 'the antioxidant professor'. Kok: 'It suits me more to explore new subjects which are important for nutrition research. I always have my antennae out.'

Not that he is superficial, he hastens to add. 'I can really get stuck into a project.' That tenacity enabled him to launch *Cater with Care*, a joint project in which the Gelderse Vallei hospital in Ede, Wageningen UR and several companies seek to improve the diets of patients. And – only last year – *EatzMove*, a public-private project focusing on good nutrition for performance and recovery by sportspeople and patients.

Asked which of the nutrition studies under his supervision has been most fruitful, he counters with a question: fruitful for nutrition research or for public health? Because there is a big difference, he says. The research projects he set up or supervised often produced nice academic publications but no spectacular new insights for public health.

A few years ago, for instance, his research group was working on a potential new risk factor for cardiovascular disease: homocysteine. The higher the blood levels of homocysteine, the greater the risk of cardiovascular disease: that was the hypothesis. And the substance could be kept under control by taking folic acid. Sadly though, a large-scale study with 800 test subjects did not deliver the hoped-for results. Nor did homocysteine studies by other international groups. It was the same with research on the suspected positive contribution of supplementary minerals and vitamins to suppressing respiratory

infections. Still highly relevant research, scientifically speaking, but not a breakthrough for public health.

Isn't that frustrating?

'Yes, but nutrition science is still young. It is increasingly clear to us that the key to good nutrition is not individual nutrients but nutritional patterns. After 50 years of research we can certainly offer very clear advice on that. A healthy diet contains fruit and vegetables, wholegrain products, vegetable oils, fatty fish, dairy and nuts. And not so healthy foods are red and processed meats, sugar, salt, saturated fat and alcohol. Anyone who sticks to these guidelines and gets enough exercise is on the right track. It's as simple as that. Only it seems a lot of people find it very difficult to maintain a lifestyle like that.'

Has nutrition research done its job then?

'I don't think so. At present we work on a one-size-fits-all basis. But people can vary

'A healthy lifestyle is very difficult for many people'

in the way they digest their food. In our Belly Fat Study one person lost eight kilos and another person only four kilos on the same restricted calories. We want to understand better why that is. I think we will gradually move towards personalized nutrition, just as medicine is moving towards personalized treatments. We can now measure so many things about people using MRI scans and all kinds of sensors, that we shall be able to distinguish subgroups and in future provide them with separate dietary advice.'

Five years ago Kok wrote a book together with Broer Scholtens, former science editor of Dutch newspaper *De Volkskrant*. The message was 'Eating healthily – just do it'. His motive was that he was 'fed up with diet gurus such as Dr. Frank, Michel Montignac and Sonja Bakker', and he wanted to make himself heard in the debate as a nutrition scientist. In one chapter he describes being a guinea pig himself. To demonstrate how quickly poor nutrition affects our health, he adopted unhealthy eating habits for a month and took little exercise. Result: he gained 2.5 kilos and his blood levels of cholesterol and inflammatory markers went up. When he afterwards resumed his normal healthy lifestyle, all the values went back to their old level in one month. Whether the book had much impact, he is not sure. It is very difficult to convince people who already believe in a particular diet of another perspective. Nevertheless, he advises his colleagues to get involved in the debate too, through books or social media. 'We must keep on explaining the latest scientific insights and refuting hypes,' says Kok.

But don't scientists partly have themselves to thank for those hypes? Scientists often go back on a finding which consumers have already run away with. So it turns out that vitamin E is not all that good for you, or antioxidants don't protect you from cancer after all.

'We are learning all the time. You see the same thing in medicine. In the old days you were advised to take total bedrest after a heart attack; now they get you out of bed as soon as possible.'

Two years ago your colleague Sander Kersten said nutrition scientists should always have a biological explanation for a suspected link, and should only publicize results when they have been confirmed by other studies.

'That is impossible. Academic journals make a big fuss of those initial results too. They put them on the front page and issue press releases about them. It is our job to put that news in context. The better newspapers do that as well.'

One third of the research at Human Nutrition is sponsored by the industry. That is not good for the credibility of nutrition science. Yet you are a big fan on private funding.

'Well, let's just say I'm not against it. My colleague Martijn Katan, emeritus professor at the VU University Amsterdam, says 'Stop all private funding because it only causes problems'. It is easy to say that when your own career is nearly over. I would have preferred to hear from him how young researchers are supposed to find their way in an era when public-private partnerships are the rule rather than the exception. Of course it would be fantastic if the government supported our profes-

sion financially, but that doesn't happen enough.

'Anyway, the industry is not only part of the health problem; it is also part of the solution. We can help think things through and conduct research that is in the interests of public health. Within companies bonuses should partly depend on how much contribution innovations make to health. In fact I don't understand why that is not the case already.

The universities of Amsterdam, Maastricht and Groningen are getting more and more involved in nutrition research. How can Wageningen continue to stand out?

'Wageningen is the only university with a Bachelor's degree. The combination we offer of food technology, consumer behaviour, plant and animal sciences, as well as the alliance with the Gelderse Vallei hospital, still gives us a potential head start. You can do research here on all aspects of nutrition. So for now Wageningen is still the home of the nutrition sciences in the Netherlands. There were about 100 professors in the procession at my farewell, half of whom came from other universities.

I found it heartwarming that the vast majority of them had done their degrees in the Human Nutrition department here. We did a good job there, I thought.' ■

www.wageningenur.nl/hne

WAGENINGEN ACADEMY

Wageningen Academy will run a course on Protein in senior nutrition in April 2016.

The course offers new insights into the effect of protein on intestinal health and muscle mass in older adults. For more information go to www.wageningenacademy.nl/course_seniorproteins