



Mr Chancellor,

I sense your excitement at the pending Royal Wedding between Kate Middleton and Prince William. As a father, you will no doubt be looking on with just a slight tinge of envy. The Middleton's eldest daughter will be marrying the future King of the United Kingdom of Great Britain and Northern Ireland. Surely there can be no better catch?

But of course, their joy comes at a cost. We have seen the world-wide broadcast of illicit gum-chewing at a recent royal military event.....and the ceaseless flash of paparazzi cameras each time Kate pops out for a pint of milk. And then there is the prospect of sharing a bill for the flower arrangements in Westminster Abbey – a thought that would send a cold shiver down the back of any honourable father, bracing himself to write the large cheque.

The wedding will irreversibly change the life of their eldest daughter, throwing the entire family into the limelight. None of us would relish that prospect.

But perhaps they have passion for tea and cucumber sandwiches on the lawn at Buckingham Palace? Or maybe they like cuddling corgis? Is it the prospect Christmas at Sandringham? Easter at Balmoral? Or maybe regular holidays on those renowned sun-kissed beaches in the Principality of Wales?

Mr Chancellor, I suspect that all of these reasons provide some explanation – but I believe there is a much more profound rationale underpinning their joy. A carefully measured scientific reason. Something that will be of great benefit future generations

of their family. Mr Chancellor.....Kate, Mr and Mrs Middleton clearly have a deep knowledge of the academic work of Professor Rudi Westendorp.

A specialist in Internal Medicine, Rudi Westendorp is one of the most highly regarded physicians in the world, focussing his energies on the field of elderly care. Based in Leiden, his work has had massive impact on our understanding of biological basis of ageing. However, unlike many gerontologists, he puts his theoretical work into action through his daily clinical practice, reducing, and preventing the burden of disease in our later years.

Growing up in a rural village in the Netherlands, Rudi was profoundly influenced by a near-fatal asthma attack affecting his sister. Walking around the hospital wards, he was drawn into a medical career, and shortly afterwards he began the seven year training towards his MD. Graduating from Leiden University in 1984, he commenced a 5-year residency in Internal Medicine at the Leiden University Medical Centre. He initially specialised in emergency medicine and intensive care, studying for a PhD whilst practicing as a Consultant on the Intensive Care Unit.

During this time he met the highly respected clinical epidemiologist Jan Vanderbroucke, who drew him away from the high-tech of the Intensive Care into the world of statistical epidemiology. This move shocked his colleagues. How could he leave the “buzz” of life-and-death decision making behind? How could he move into a world of “writing, counting and working with data”? And “how could [he] forget about his patients?”

But the then Dr Westendorp was playing the long game. He had a burning desire to address fundamental scientific issues underpinning human ageing and chronic disease, and he was driven by an ambition to take scientific advances back to the bedside.

Mr Chancellor, we can gain further insight into his slightly maverick approach in today’s ceremony. As you will see, he is probably the only person in the congregation who is wearing a bow tie. Why should this be the case? Well, as a newly qualified doctor in the mid 1980s, Rudi and his colleagues turned up for work in their usual casual attire. But the senior medical staff were not impressed, and he was asked to “spruce up”. Never a one to conform, he decided that, on that particular

Monday, he would wear a bow tie.....and from the day onwards, he has never been without one. In the words of one colleague: "*they look like a collection of exotic butterflies. One for each occasion*". Mr Vice-Chancellor, surely we should add one to his collection, emblazoned with the Newcastle University crest?

His interest in the elderly began in his first year as a junior doctor, working in a small hospital in Bleuland. He found conversations with his older patients refreshing, open and direct – not dressed up in pretence. So, having completed his training in epidemiology, he was drawn back to the geriatric medicine clinic, armed with new scientific tools. His colleagues at the time found this all rather bizarre. Did he want to be a doctor, or a scientist? And why was he moving into the clinical speciality of geriatrics, long considered to be a rather dull backwater?

Ignoring the snipes, Rudi took over the Leiden 85+ study, first established in 1987, and he initiated the follow-up study of 600 elderly volunteers between 1997 and 1999. The study provided rich pickings, with over 40 high-calibre publications in seven years. To describe just one example, for the first time he showed that a high cholesterol was a risk factor for heart disease in old age – a view that was totally contrary to the prevailing opinion at the time. This work led to a randomized controlled trial in 5804 elderly patients, called PROSPER, which revealed the importance of "statins" in protecting the ageing heart. Quite apart from the practical clinical importance of these findings, his work was energising the field of geriatric medicine. Under his leadership, this "dead end" speciality was "growing up"....it was "coming of age".

Intrigued by the basic biology of ageing, and refusing to accept the view that chronic disease was an inevitable consequence of growing older, he took time out to study biogerontology in Manchester – forging links between laboratory research in model organisms and the human condition. This was no mean feat, and was only possible because of his sharp incisive intellect, and a refusal to accept dogma as fact without seeing the proof first hand. When asked to describe him in one word, his friends and colleagues universally call Rudi Westendorp a "terrier" – refusing to let go of a very difficult problem until it is solved. Mr Chancellor, we are fortunate that this terrier is chasing the scent of ageing. It is an issue that is relevant to all of us – albeit a more

pressing issue for some than others (*look at all the academic staff behind the Chancellor*).

Despite running a highly successful laboratory research programme, he remains a highly respected physician, and is currently re-shaping clinical service provision in Leiden to ensure the ageing population gets “the best deal”. He continues to teach enthusiastically, and has recently been voted “best teacher” by the junior medical staff in Leiden. He has inspired and built a new generation of “old age physicians”, and in doing so, he has moved geriatric medicine out of the backwater to the cutting-edge.

So why, Mr Chancellor, do I think that the work of Professor Westendorp’s work has been on Kate Middleton’s reading list, and why is it relevant to the Royal Wedding?

Well, in 1998, the then Dr Westendorp published a landmark study in the scientific journal *Nature*. Aware of the “disposable soma theory”, which predicts an inverse relationship between longevity and fertility, he scrutinised the family records of the British aristocracy spanning back over the centuries. He showed that our Royal Family behaved rather like fruit flies – those who reproduced less, lived a long life – and vice versa. The genetic basis for this phenomenon is well understood in flies, and the explanation may lie within the immune system. In humans, women who are able to aggressively fight infection then live a long life – but might be less likely to “tolerate” pregnancy – and vice versa. In his terrier-like pursuit of this hypothesis, Rudi Westendorp found the first evidence to support it in *homo sapiens*, and published the inverse relationship between longevity and reproductive capacity in the British Royal Family.

Mr Chancellor, by marrying into the Royal Family, the Middletons will ensure that their descendents will live well beyond their current predicted “three score years and ten”, providing – that is – that they show a little more restraint than Prince William’s great, great, great Grandmother. As you know, Queen Victoria had 9 children and 42 grandchildren. Imagine the cost of the Christmas presents at this time of year.

Mr Chancellor, Professor Rudi Westendorp is a man of remarkable energy. He has dedicated his life to understanding the profound biological question: “why do we age?” But unlike many gerontologists, he is no pure theorist. His work has profound

practical benefits, which he puts into practice on a daily basis through his clinical work, reducing the burden of burden of disease in later years. He has generously worked closely with research groups within the Faculty of Medical Sciences in Newcastle, sharing experience and contributing new ideas. In particular, his input was the key to establishing the Newcastle 85+ study of a healthy aging community in Newcastle, and he has therefore made a major contribution to the University's "Changing Age" theme for 2010.

Mr Chancellor, widely regarded as the "bow-tied terrier" of ageing medicine, Rudi Westendorp manages to combine world class research with an active clinical practice, teaching and leadership. In recognition for his groundbreaking work which is shaping Ageing Medicine throughout the world, I ask that you bestow on him the degree of Doctor of Medicine, *honoris causa*.

Patrick Chinnery

4th December 2010