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National Institute  
for Public Health  
and the Environment

# Annual Science Report 2005

**Annual Science Report**  
2005

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Director-General

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RIVM Annual Science Report 2005

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# RIVM: a research organisation at heart

Marc Sprenger,  
Director-General,  
National Institute for Public  
Health and the Environment  
(RIVM)

In 1992, I was a young scientist wondering whether to apply for a job at the National Institute for Public Health and the Environment (RIVM).

At the time, I mostly thought of RIVM as an institute that produced solid policy reports – always reliable, sometimes a bit dense, and, it seemed, not often straight from the front lines of science. I confess that I had some doubts about whether such an institute really was the right place for me.

That changed, however, when I found out that Daan Kromhout, a nutritional epidemiologist at RIVM, had published exciting research papers in well-respected international research journals like *The Lancet* and the *American Journal of Epidemiology*. It made me realise that RIVM was a place where I would feel right at home; a policy-oriented institute where at the same time scientists carried out high-quality research.

The experience illustrates the importance of showing the world that, besides producing fine and increasingly accessible reports for governments at home and abroad, we also do a lot of excellent research. That message is at the heart of this Annual Science Report.

## Workable solutions

RIVM is a public institute. Society, most notably the Dutch national government, is its main client. Our mission is to translate our knowledge and expertise into workable solutions for problems our society faces today in the areas of health, nutrition, and environmental protection.

We counsel politicians and other policy makers on how to deal with the threat of emerging infectious diseases like SARS and pandemic flu; we explore how our country can enable its healthcare system to meet the demands of an ageing population and improve public health through prevention; we try to reliably assess the risks to our natural environment, whether it's from chemicals or radiation.

Another part of our work is to disseminate that same expertise to the public at large, using familiar as well as brand new means of communication. For example, we devise practical, Internet-based information tools such as 'Kies Beter', a state-of-the-art website that helps Dutch citizens make better-informed decisions on their personal health and healthcare. We will continue to find similarly innovative ways to promote our insights on health, nutrition and the environment to the rest of the world.

But at the same time people should know that RIVM at its core remains a scientific institute. Our researchers work closely with colleagues across Europe and the rest of the globe. Everything we do meets rigorous scientific standards and our research, which covers the gamut from radiation and toxicology to influenza and obesity, is published in international, peer-reviewed journals.

For our own RIVM staff too, this report has a lot to offer. I hope all our scientists will take the opportunity to re-acquaint themselves with the breadth and depth of our common research effort. All too often, we are so focused on finishing our own projects that we forget to find out what colleagues just down the hall have been up to. What's more, given our research areas and the fact that we are mostly funded by tax-payers, it's only fair that society gets the chance to learn about our research.

I hope RIVM researchers will also take home the message that rigorous science will always have a place at RIVM and that publishing top-notch papers in peer-reviewed journals is very important to us. In fact, I think we should celebrate such successes more frequently.

## Accomplishments

This Annual Science Report reinstates an old tradition at our institute. It demonstrates RIVM's scientific accomplishments by listing all research papers, books, book chapters, reports and doctoral theses our scientists published in 2005. It highlights a few of those publications, not because they're the best, but because together they represent the breadth of our multidisciplinary research. The report also gives some of our scientists a place in the spotlight; it tells us who they are, what they have done and what makes them tick. Like them, we should all explain to others what we are working on more often.

For young researchers who may wonder about our identity, just as I did many years ago: This report should convince you that RIVM is, and will remain, a research organisation at heart. I hope that it's the kind of institute you, too, would like to join.

Marc J.W. Sprenger, Ph.D. MD  
Director-General, National Institute for Public Health and the Environment (RIVM),

September 2006,  
Bilthoven, The Netherlands.

# Finding the Eschers in epidemic theories



Jacco Wallinga,  
Centre for Infectious  
Disease Control  
(RIVM-CIb)

After the sudden appearance of SARS, the use of models to understand and beat outbreaks of infectious diseases gained importance. RIVM's modellers, too, have taken centre stage.

Jacco Wallinga is a biologist first and foremost – but one not repelled by mathematical formulas. He likes to interpret rows of numbers that at first glance seem rather chaotic to find the systematic patterns hidden underneath.

As a pre-graduate at Wageningen University, Wallinga modelled the spread of rabies among foxes. At RIVM, he focuses on human infectious diseases like measles and pandemic flu. After the 2003 outbreak of Severe Acute Respiratory Syndrome (SARS), he sat at the table at the World Health Organisation (WHO) to assess the new virus's potential threat.

"Looking at these series of spikes representing the outbursts of new disease cases, I can't help but wonder: what's going on underneath?" Wallinga says. "What can we do to stop this from spreading?"

Statistical analysis, computer models and mathematical equations play leading roles in Wallinga's work. "Yet I get most excited about the biology, not the equations," he says.

## Escher drawings

The use of computers and mathematical models in biology often generates misunderstandings, Wallinga says. "Frequently people will ask me: 'We don't have any data, could you provide us with a model?' But without data, I have to tell them, there's nothing to model."

Another frequent misconception is that models are either 'right' or 'wrong', Wallinga says. "A model is a tool one uses to check the validity of a theory about biological mechanisms. When you try to translate your hypothesis into mathematical equations, inconsistencies will jump out pretty soon. It is like comparing epidemic theory with the famous drawings of M.C. Escher; while pieces of your theory can be accurate, the full picture may still be impossible. A mathematical model will quickly bring these errors to light."

In 2003, when the new, deadly SARS virus started to spread, Wallinga was working on an algorithm to convert timelines of flu cases into epidemiological models. He decided to enter the data on SARS cases that WHO put out on its website.

"The outcome shocked us," Wallinga says. "While WHO was reassuring people by saying SARS wasn't flu, our model predicted that it was actually worse. Harsh measures would be needed to contain the outbreak. We e-mailed our findings to a British colleague who was stationed at WHO during the SARS outbreak. It soon became clear that our predictions had been pretty accurate."

In May, when the outbreaks subsided, Wallinga was invited to speak at a WHO conference in Geneva. There he discovered other researchers had beaten him by submitting similar findings to *Science*, one of the world's premier research journals. Yet people in the modelling field knew RIVM was up to something. Speaking invitations kept popping up in his mailbox – in 2005 Wallinga addressed conferences in, for instance, Palm Springs (US) and Singapore. "The

advantage is, you don't have to pay your own airfare," he smiles.

More recently, Wallinga and his colleagues touched another hot-button issue: the threat of a new flu pandemic. This time, while other research groups were predicting a pandemic flu virus to spread like wildfire, with every patient infecting up to 17 others, RIVM modellers were early with less dire predictions. Based on historical records, they projected about 1.5 secondary infections from every patient. Again, Wallinga says, by the time they were ready to publish, other researchers had beaten them to the finish line. "We got a footnote in *Nature*," he says, "but colleagues know who were among the first. These days we get many requests to join European collaborations."

Sometimes, the team is more lucky. In 2005, Wallinga's work on measles bore fruit with a paper in *PLoS Medicine* (see sidebar). "We've always published regularly," Wallinga says, "and it's nice to see medical journals getting more interested. It's easier to get papers accepted now, although it's still a gamble. In the end, publishing is just nice, like a pat on the head. The real kick comes from suddenly spotting order in seemingly chaotic numbers. The rest is just a circus in which you have to play along."

"At the moment, we're doing well. In 2003 I was working on my own, now there's seven of us. It's like the start of an epidemic. Let's hope it doesn't die down, as most epidemics eventually do."

## Vaccination threshold sets the stage for major outbreak

Measles is a highly infectious, occasionally deadly viral disease for which a vaccine has been available for decades. In The Netherlands, over 90 percent of the population is vaccinated. Small subgroups don't, however, for mostly religious reasons. Unvaccinated members are susceptible to imported outbreaks unless they have been in contact with the virus before. Within these subgroups, susceptibility increases with time after the last major outbreak. Researchers checked Dutch vaccination records between 1976 and 2004 and related these to past outbreaks of measles. They discovered a threshold in susceptibility below which chances of a major outbreak are slim. When more than about 4.3 percent of the population becomes susceptible, however, the risk increases sharply. Further analysing the data, the authors estimated the benefit of vaccinating each additional child. When susceptibility rates are above the threshold, they calculated, each child that gets the vaccine will not only be protected

him- or herself but will also prevent 0.61 other cases in a subsequent major outbreak, clearly demonstrating the public health dimension of measles vaccination. The authors point out that in The Netherlands, the threshold was crossed in 2003. Without additional vaccination efforts, they say, the risk of a major outbreak is real and will continue to grow. The findings may be relevant to all countries with high vaccination rates, as well as countries hoping to attain them in the future. Keeping the fraction of susceptible individuals below the threshold may be the key to averting major measles outbreaks.

Wallinga J, Heijne JCM, Kretzschmar M

**A Measles Epidemic Threshold in a Highly Vaccinated Population**

*PLoS Medicine*, Nov 2005, Volume 2, Issue 11, pp. 1152-1157.

DOI: 10.1371/journal.pmed.0020316

# Reaping the profits of what has been SOWN

In the early 1990s, RIVM joined international cohort studies on lifestyle habits and chronic diseases like cancer. In 2005, an interim analysis confirmed that high meat consumption is associated with an increased risk of colorectal cancer. Over the next few years, frozen blood samples will shed much more light on such risks.

Bas Bueno de Mesquita started his career as a tropical doctor. For five years, he was stationed in a leprosy hospital in India, at one point delivering basic health care to 40,000 rural inhabitants by truck, and later helping local villagers improve the way they cultivate rice and maize.

Having seen extreme poverty changed Bueno de Mesquita's outlook on life, and on the purpose of research into western lifestyles and chronic diseases. "Those people maintained their pride and self-respect while working hard to improve their lives," he says. "So I reject the idea of low-income groups in rich countries being pitiful and not able to take responsibility. The only dignified way to deal with unhealthy lifestyles is to investigate the risks and then to inform people. If alcohol increases a woman's risk of getting breast cancer, then she should have access to that information, since to prevent is so much better than to cure. To that extent governments bear a responsibility, and I hope to contribute to that. But in the end, it's up to people to decide themselves."

## Many papers

Bueno de Mesquita's career took a sharp turn when in 1982, after studying public health at Johns Hopkins University in Baltimore (US), he failed to secure a new work permit for India, where he was set to start teaching at a university. Wondering whether he should take up his old job as a physician, he accompanied his former professor in social medicine to a meeting of the International Agency for Research on Cancer (IARC) in Lyon (France).

He has been working on cancer and lifestyle ever since.

"My work at RIVM basically spanned three large IARC projects," Bueno de Mesquita says. The third and biggest study, the European Prospective Investigation into Cancer and Nutrition (EPIC), will probably keep him busy for the remainder of his career, he adds. Co-ordinating the largest of two Dutch cohort studies, analysing questionnaires, health records and blood samples of close to 23,000 people, and co-authoring papers based on that mountain of data, consumes virtually all his time.

Apart from generating many research papers, international collaborations have another important advantage, says Bueno de Mesquita: They help prevent the confusion caused by many separate, smaller and often contradictory epidemiological studies. "Testing hypotheses in many centres across many countries shows right away whether results are consistent," he says. Sometimes, he adds, researchers have touted findings to the general public that should have been replicated first.

More solid conclusions may also come from the millions of blood samples currently frozen in liquid nitrogen. They were taken at the time people were enrolled in cohort studies and have

been meticulously kept ever since. For the RIVM cohorts, half of the samples are stored at the Bilthoven campus, while backups are kept in Lyon. "Right now there is a boom in research papers based on questionnaires, which mostly generate weak epidemiological associations," says Bueno de Mesquita. "In the coming years I expect a strong upsurge in papers based on biochemical and genetic markers found in those biological samples." Such studies could eventually help assign risks to individual people and their personal lifestyle decisions.

"Last week I took part in a teleconference on pancreatic cancer with the US National Cancer Institute," he adds. "They will analyse genes in samples taken from large international cohorts, including EPIC. Genomics will increasingly be integrated in epidemiological research. After that there will be proteomics, where we will be looking at patterns of proteins in the blood, and then metabolomics, focusing on metabolites. And all of that will only make sense when lifestyle factors are also taken into account. So there's a lot left to be done, and I hope to be able to take part in much of it in my remaining eight years at the institute."

To Bueno de Mesquita, these new research opportunities underscore a key point: RIVM will need to maintain its collection of blood samples for many years to come. "Public investments in the 1990s have filled this great repository," he says. "It would be very unfortunate if we would not be able to reap what we have sown."



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## Eating red meat associated with higher incidence of colorectal cancer

The European Prospective Investigation into Cancer and Nutrition (EPIC) was initiated in 1992. Supported by the European Commission, the World Health Organisation and the International Agency for Research on Cancer, it is one of the largest prospective studies ever undertaken into the relationships between diet, nutritional status, lifestyle, environmental factors and the incidence of cancer and other chronic diseases. More than 500,000 people in ten European countries were questioned and had blood samples taken at the time of enrolment. Their health status has been monitored ever since.

In The Netherlands, more than 40,000 subjects entered EPIC between 1993 and 1997, just over half of them through RIVM's MORGEN-EPIC study, co-ordinated by Bas Bueno de Mesquita. (The other half enrolled in PROSPECT, a study co-ordinated by Petra Peeters at Utrecht University.)

In June 2005, researchers published an analysis of the relationships between consumption of processed and red meat and fish on the one hand and the risk of developing colorectal cancer on the other.

The analysis showed that, as had been predicted, people with diets rich in processed and red meat develop colon or rectal cancer more often than those with low intakes of these products. The relationship was consistent across culturally diverse countries such as Greece, Spain, and The Netherlands.

The analysis suggests that an average 50-year-old who eats relatively large amounts of red meat has a 1.7% chance of developing colorectal cancer over the next 10 years, while for someone consuming relatively little red and processed meats, that chance is 1.3%.

Norat T, Bingham S, Ferrari P, Slimani N, (...), Bueno de Mesquita HB et al.

**Meat, Fish, and Colorectal Cancer Risk: The European Prospective Investigation into Cancer and Nutrition.**

Journal of the National Cancer Institute, Vol. 97, No. 12, June 15, 2005, pp. 906-916.

DOI: 10.1093/jnci/dji164

# Will baby boomers stay healthy longer than their parents?

At the request of the Dutch ministry of Public Health (VWS), RIVM's Centre for Public Health Forecasting publishes a prognosis of the country's future healthcare needs every four years. Fundamental research helps lay the foundations.



Johan Polder,  
Public Health and Health  
Services Division  
(RIVM-V&Z)

Johan Polder was trained as an economist. Unlike most of his college peers, he says, he was never attracted by courses in business administration, accountancy, or fiscal regulation. Macro-economic and institutional questions excite him much more. After graduating, he found his calling through his Ph.D. thesis, aptly titled 'Cost of illness in The Netherlands'. When he was asked in 2002 to join RIVM's Centre for Public Health Forecasting, Polder says, he asked for two things: full independence from policy makers, and a greater emphasis on scientific rigour. Both wishes were granted.

As to the centre's independence, Polder says, that's demonstrated by the conclusion, in last year's Primary Care report (see sidebar) that making patients pay small deductibles for primary care will not really reduce their demand, as many Dutch politicians hoped.

With regard to scientific rigour, Polder says, researchers at the centre are constantly challenging each other to aim for the highest standards. "We ask each other: Did you use the right data and methods? Was your literature search sufficiently comprehensive?" The Centre, Polder says, is built on two pillars. One consists of policy-oriented research, designed to help policy makers evaluate old policies and design new, more effective ones. The second pillar is fundamental scientific research, aimed at understanding the demographic and epidemiological forces that will shape future healthcare systems.

"It is like having two legs," Polder says; "I would not want to stand on just one of them."

## Red Herring theory

In science, Polder says, he still gets most excited by large-scale economic questions. He is fascinated, for instance, by the fact that we don't really know the effects of ageing populations on future healthcare costs. "Will costs rise? If so, to what extent? Will future 70-year-olds require as much healthcare as current 70-year-olds? Or is absolute age really not important, as Peter Zweifel's 'Red Herring theory' postulates, while proximity of death is? If that's true, then healthcare expenses would merely shift, not rise."

Polder has tested the Red Herring hypothesis using Dutch healthcare registries. The theory has some merit, he found, but it is not completely right. As is always the case in science, new research questions flowed from the analysis. Do different age cohorts have different healthcare demands? Will baby boomers stay healthy longer than their parents did because they enjoyed greater prosperity? If so, what does that mean for the future costs of healthcare? "I'm writing a research proposal to further look into those exact questions," Polder says.

At this point, Polder says, it would be classified as fundamental research, supported by RIVM's strategic research program and carried out in co-operation with universities such as Tilburg and Rotterdam. "Yet it could become very relevant for the 2010 edition of our policy-oriented

prospects," he says.

Being part of the research community is important if RIVM wants to keep bridging the worlds of science and policy, Polder says. "Most debates these days play out on the international stage, and new ideas are floated at big conferences. We translate these to policy makers but also strive to participate in the scientific debate ourselves by publishing in peer-reviewed journals. I like writing, and I get a real kick out of seeing our papers printed and used in the field. I think it's good for RIVM to be seen as a real partner in the academic world."

Not everyone outside RIVM's walls is familiar with the institute's high-quality research, Polder says. "Recently one of my former university colleagues, after a couple of drinks, told me he thought that we don't do real science at RIVM. I was flabbergasted. It made me think, but he is wrong. Obviously, we're not a university. You won't find people here who keep digging in splendid isolation. Yet we have brilliant scientists for whom RIVM provides a very inspiring environment. And I myself have published one of my best papers while at this institute."

## The future of primary care in The Netherlands

Primary care in The Netherlands is facing rapid changes. The country's population ages while new types of care providers are reshaping the field. Also, rising healthcare costs prompt the Dutch government to seek regulatory changes.

This study, carried out jointly with the Netherlands Institute for Health Services Research (Nivel), aimed to assess all these developments and produce an integrated projection of demand, supply and organisation of primary care in 2020. It also predicted chances of success for potential policy measures.

The report concludes that overuse of primary care has diminished to a low level in 2005. Attempts to further curb unnecessary use will fail unless very high deductibles are introduced that cannot be reinsured. The recent restructuring of Dutch health insurance will not significantly affect demand.

Curbing demand through increased prevention will only work short-term. In the long run, prevention will increase demand for primary care, because preventive measures are often implemented by primary care givers. Moreover, prevention causes further ageing which in turn will lead to a higher prevalence of chronic disorders like asthma and diabetes and to more injuries, all increasing demand for

primary care. These trends will offset demand reductions thanks to the prevention of back and neck complaints. Rising numbers of part-time practitioners will require more large-scale providers.

Between 2005 and 2020, supply of general practice is expected to grow by 11.5%, yet demand will increase by 13% to 20%. The predicted shortage is less severe than in previous studies because primary care has become more efficient. Efficiency could grow further if more tasks are entrusted to assistants and nurse-practitioners, and primary mental healthcare is strengthened further. Serious shortages of nurses are projected because of sharp rises in home care.

Bakker DH de, Polder JJ, Sluijs EM, Treurniet HF (eds)

**Public health forecast for primary care in The Netherlands in 2020.**

["Op één lijn - Toekomstverkenning eerstelijnszorg 2020"].

Part of series: 'Public Health Status and Forecasting 2006' ([www.rivm.nl/vtv](http://www.rivm.nl/vtv))

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# Just a few chemicals are causing most of the problems

Environmental risk assessment often means dealing with many uncertainties; we know very little about the tens of thousands of chemicals floating around. How to make the best use of what we do know?

Dik van de Meent was trained in organic geochemistry at the University of Delft. Even as a student, he was curious about the environmental impact of man-made chemicals, whose number was rapidly growing. As an 'environmental chemist' at the university, Van de Meent tried to understand the behaviour of chemicals in the environment. To assess their long-range effects he helped build mathematical models in which chemicals moved between soil, freshwater, groundwater and the atmosphere.

Van de Meent's early work landed him a job as an environmental toxicologist at the Dutch National Institute for Drinking-water Supply (Rijksinstituut voor Drinkwatervoorziening), which merged into RIVM in 1984.

Van de Meent has fond memories of those early days. Working in a small institute, he says, often meant counselling policy makers very directly. He remembers being called into the office of Hans Könemann, who in the early 1980s headed the department of chemical substances at the Ministry of Public Housing, Spatial Planning and the Environment (VROM) and would later join RIVM. Könemann had a problem: A new law would oblige companies to report their new chemicals, after which the government had to quickly assess their environmental impact. He had no idea yet how to handle those reports.

"I remember telling him: 'One fool can ask more questions than seven wise men can answer'," says Van de Meent. "Afterwards, my boss had to save me from trouble."

For Van de Meent, the meeting became a turning point. "Könemann said: 'You can stay up in your ivory tower dealing with many scientific uncertainties, or you can come down and help me build a system that works.' With those words he converted me. We may not yet know everything about a situation, but that shouldn't keep us from using what we do know. If only nanograms of a compound are likely to be in the water, while grams are needed for toxic effects, then it's not a priority for regulation. In a way, that meeting ultimately led to the paper we finished in 2005" (see sidebar).

## Setting priorities

Over the past decades, many thousands of new chemicals have been introduced into the environment. Regulating them all to prevent harm is still a huge challenge, since very little is known about most of them. "The million dollar questions are how to quantify the environmental risk of all those chemicals together and to help governments set the right priorities."

For Van de Meent the big surprise came when he found that, at least mathematically, a tiny fraction of all chemicals is probably responsible for most of the environmental risk. "Our simulations suggest that 95 percent of the toxicity comes from just 5 percent of all chemical compounds. We just don't know yet which ones. That really opened my eyes, although,

looking back, I should have known it all along," he says. "To my mind, the message to governments is clear: Instead of regulating 10,000 chemicals, we should probably focus our efforts on quickly identifying the 500 most important ones."

Understandably, Van de Meent says, his clients are not overly interested in basic research questions like these; they have to work with the regulation as it has been enacted, and mathematical simulations usually don't solve their problems. As a result, it can be difficult for RIVM scientists to find the time to finish such research. That's why Van de Meent relishes his collaboration with Radboud University Nijmegen, where he has been a part-time professor since 2002. "I laid the groundwork for this research during my sabbatical in Osnabrück, Germany," he says, "but it was thanks to Jasper Harbers, a graduate student from Nijmegen, that we could finish this paper quickly. And it got published in *Environmental Science and Technology* – the highest-impact journal in the field."



Dik van de Meent,  
Environment and Safety  
Division  
(RIVM-MEV)

## Finding the needles in a chemical haystack

In Europe, more than 103,000 man-made chemicals are registered at the European Chemicals Bureau. Most of them are currently exempt from regulation since they were on the market when rules were introduced. Extensive toxicological data is available for only a small fraction, so worries remain about the thousands of chemicals about which we know very little.

The European Commission has proposed new legislation for Registration, Evaluation and Authorisation of Chemicals (REACH), which could come into effect as early as 2007. Industries would have to document the toxic effects of about 10,000 chemicals, both old and new.

Van de Meent and his colleagues collected data on 343 high-production chemicals reaching North Sea ecosystems. They calculated the so-called 'toxic pressure' of all those chemicals combined, and then tried to estimate the individual contribution of each one based on production volumes, emission rates, chemical structure, persistence, bio-reactivity, and so on.

Getting reliable estimates for individual compounds proved impossible because of the many uncertainties. By modelling

these uncertainties in a computer, however, they were able to estimate the overall toxic pressure much more reliably. The researchers went on to study the impact of the Pareto Principle, according to which 20 percent of any group will typically cause 80 percent of the effect. Statistically, they found, 83 percent of the chemicals can be expected to contribute only negligibly (less than 0.1 percent) to the overall toxic pressure, while the remaining 17 percent will be 'possibly relevant'.

Such calculations, the authors suggest, could lead to more cost-efficient ways to monitor and regulate the release of chemicals. Rather than spread research and regulation efforts evenly over all chemicals, governments could try to pinpoint the small number of compounds that have the most profound environmental effect.

Harbers JV, Huijbregts MJ, Posthuma L, Meent D Van de  
**Estimating the Impact of High-Production-Volume Chemicals on Remote Ecosystems by Toxic Pressure Calculation**  
*Environmental Science & Technology*, Vol. 40, No 5, pp. 1573-1580  
DOI: 10.1021/es051633m



# Four thousands steps on a typical workday

To combat rising overweight and a growing lack of exercise among its citizens, the Dutch government wants to promote physical activity. A large-scale intervention program could bring significant health gains at reasonable costs, researchers have found.

Wanda Bemelmans and Wanda Vos are often called 'the two Wandas'. They both studied nutrition at Wageningen University; they both bike to work from Zeist, a residential town six kilometres south of the RIVM campus; and upon arrival, they walk up to adjacent offices. To the outside world, such similarities can be confusing – especially because both ended up doing research for the same report. "Some people got lost looking for the right Wanda, but since we're next-door neighbours, that was easy to clear up," both Wandas say.

Wanda Vos was a dietician when she joined RIVM in 1997. She became a researcher and earned her Ph.D. degree in 2004 after studying the health aspects of physical exercise. Wanda Bemelmans joined RIVM in 2002 after finishing her doctoral thesis on lifestyle-counselling for high-risk patients. Together, they proved to be the perfect couple to co-ordinate a comprehensive, first-time study into the costs and feasible health gains of a national campaign promoting exercise.

## Shocked

Researching the blessings of exercise and training has made them more conscious of their own behaviour, the Wandas say, and made them realise how difficult it is to meet the Dutch Standard for Healthy Exercise: More than 30 minutes of moderate exercise at least five days a week. Bemelmans frequently takes weekend hikes, she says, but that isn't enough. Vos used to visit the health club twice a week, but hasn't picked up the routine after returning from maternity leave. She also used to do ballroom dancing, but that habit has waned, too. "For a long time, I thought I was easily getting my 10,000 steps a day," says Bemelmans. "When I finally used a step counter, I was quite shocked to learn that I barely reached 4,000. It's disappointing to realise how little exercise you get on a typical workday." Luckily for both, they still have their 20-minute bicycle commute. "Thanks to that, I'm still complying with the norm," says Bemelmans.

While both really enjoy doing scientific research, combining the work with other commitments can be challenging, they say. In recent years, they have sensed a tendency to move towards performing meta-analyses and compiling research published by others. "In the long run, that could harm our capacity to do high-quality research," says Bemelmans. Gathering your own data makes it a lot easier to publish papers and establish a scientific reputation, adds Vos.

Both researchers are brimming with plans for new research projects. Vos, fresh from maternity leave, is contemplating a study into how social environment affects exercise behaviour, a subject also topping international research agendas. Bemelmans has secured funding from the Netherlands Organisation for Scientific Research (ZonMw) to study the efficacy of computer-

aided lifestyle counselling. She's also considering writing a proposal to use blood samples from one of RIVM's cohort studies to find bio-markers that can predict obese people's risk of developing cardiovascular disease.

Meanwhile, both are still riding the wave of their successful cost-effectiveness study. "We scored points internationally," Bemelmans says. "It has become easier to give workshops and presentations, and I've been invited to a working group at the World Health Organisation." The researchers have submitted adapted versions of the report to several peer-reviewed journals. Says Vos: "As researchers, we also have a personal reputation to uphold. We liked putting out a colourful RIVM report, but publishing in the New England Journal of Medicine wouldn't harm either."



Wanda Vos and  
Wanda Bemelmans,  
Public Health and  
Health Services Division  
(RIVM-V&Z)

## Exercise plan would save lives at moderate cost

As part of a strategy to combat rising obesity and overweight, the Dutch Ministry of Health, Welfare and Sport (VWS) plans to launch a National Action Plan for Sport and Physical Activity. The authors set out to give the plan scientific underpinnings and to calculate the cost-benefit ratio in euros per life year gained.

Comprehensive research of the literature and an inventory of expert opinions and experiences from local programs produced key factors and conditions determining the chances of success. Any plan should use an integrated approach and secure support and operational assistance of all relevant stakeholders, the authors conclude. Groups that can be targeted selectively should be identified and scientific research should be part of the plan.

Based on analyses of two Dutch pilot projects, the authors defined feasible objectives of a National Action Plan. After five years, they say, such a plan could reduce the prevalence of inactive individuals (currently at about 8%) by one or two percentage points, and the prevalence of overweight (currently at about 47%) by one to three percentage points. Implementation would

cost approximately € 94 million per year or € 6 per capita. Meeting the plan's objectives would prevent tens of thousands of cases of cardiovascular disease, diabetes and cancer over the next twenty years, which would save many lives. Every life year gained, the authors calculated, would cost somewhere between € 6,000 and € 6,500. Added quality-adjusted life years (QALY) would cost between € 5,600 and € 6,100 – amounts well within generally accepted boundaries for health interventions, they conclude.

Wendel-Vos GCW, Ooijendijk WTM, Baal PHM van, Storm I, Vijgen SMC, Jans M, Hopman-Rock M, Schuit AJ, Wit GA de, Bemelmans WJE

**Cost-effectiveness and health gains in realising policy ambitions for physical activity and overweight: underpinning the National Action Plan for Sport and Physical Activity.**

[Kosteneffectiviteit en gezondheidswinst van behalen beleidsdoelen bewegen en overgewicht - Onderbouwing Nationaal Actieplan Sport en Bewegen]

RIVM report 260701001/2005

<http://www.rivm.nl/bibliotheek/rapporten/260701001.pdf>

# Tiny particles having large health effects

Much confusion arose in 2005 when new, EU-mandated limits for peak concentrations of particulate matter went into force. Refining such standards and understanding the health effects of small particles in ambient air will take many years of research.

Flemming Cassee was trained as a biologist and earned his Ph.D. at Utrecht University after studying the health effects of inhaling aldehydes. Following a few years at the Dutch institute for applied research (TNO) in Zeist, he moved to RIVM in Bilthoven, also close to Utrecht, in 1995.

Cassee now heads RIVM's section of Toxic Effects of Air Pollution, where he still does inhalation research. Part of that work is done in RIVM's unique mobile lab, a trailer in which human volunteers can be exposed to various concentrations of particulate matter in air sampled at remote high-risk locations such as highway roadsides.

In 2005, Cassee found himself in the eye of a political storm after the implementation of new EU rules on maximum levels of particulate matter. Overall levels in the Netherlands had fallen for many years and still continued to decline. But to the public at large, the introduction of lower limits for peak loads suggested they were rapidly rising instead. The new measures caused many major building projects to be put on hold, leading to intense legal and political wrangling and a flurry of media reports. Ultimately, the Dutch government decided to take sea salt particles, blown in from the North Sea, out of the equation – a pragmatic solution that isn't necessarily evidence-based, Cassee notes.

In an attempt to stem the confusion, Cassee, together with the Netherlands Environmental Assessment Agency, authored a comprehensive report, entitled 'A closer look at particulate matter' (Fijn stof nader bekeken).

Halfway 2006, the political dust has mostly settled. What's left are the many news clippings covering Cassee's office walls.



Flemming Cassee,  
Environment and Safety  
Division  
(RIVM-MEV)

## Peer-reviewed

When Cassee arrived at RIVM, he says, reports used to be his department's main outlet – papers in peer-reviewed journals were published only occasionally. Cassee has worked hard to turn that situation around. Today, he says, his department produces as few reports as possible. "In general, gray literature, including reports, is no longer cited in reviews by the US Environmental Protection Agency (EPA) or the World Health Organisation," he says. "Our work has to be peer-reviewed."

Cassee doesn't regret the transition. Writing reports is often time-consuming because many people like to have their say, he says, while research papers only need the consent of co-authors and, if the subject is politically sensitive, his boss. What's more, he adds, reports don't show up on PubMed, an international, web-based database for life-science-related papers. Cassee has published papers in highly respected journals in the field of toxicology, aerosol research, epidemiology and environmental exposure. "Personally, however, I don't have strong

preferences on which journal we publish in, as long as our peers and the public can find our papers," he says.

Being involved in experimental and field research is essential for RIVM, Cassee says, although policy questions will always be the starting point. Luckily, he says, his main client, the Ministry for Housing, Spatial Planning and the Environment (VROM), agrees that broader research has a place within its assignments. More fundamental research, Cassee says, is funded by RIVM's own strategic research fund (SOR) and sources outside.

Even those two sources cannot answer all the needs of an ambitious research group. That's not a bad thing, Cassee says. "Our limited capacity has forced us to collaborate with colleagues abroad. Thanks to that, we now have strong partnerships with all the important players in the field – in Europe, the US and Japan."

Having seen examples world-wide, Cassee likes the set-up of the US EPA. "EPA has a strong research programme on air pollution. What's more, EPA also funds external research, enabling it to influence science agendas elsewhere," he says. Cassee helped EPA review joint research programs of US universities and institutes. "I'd love to set up similar projects with universities and TNO in our own country," he says.

The next few years Cassee hopes to clear up how particulate matter produces health effects. "Thus far we've done mostly association studies in which all particle types and sizes were added up," he says. "We have learned a lot about the complexity of particulate matter, but for more source-oriented abatement strategies we need to know what goes on underneath. Do particles enter the body only through the lungs, or can they also enter through nasal passages? Which type causes which health effect? What's the role of particles smaller than one hundred nanometres, which currently are not regulated at all? Are peak exposures very important or should we focus on long-term exposures? Those are the questions that really get us excited."

## Hypertensive rats can be models for susceptible humans

The health consequences of airborne particulate matter are of major concern because epidemiological studies have shown effects at concentrations often observed in ambient air. Increased concentrations of particulate matter have been linked to increased hospital admissions, visits to emergency rooms, and even premature deaths. Health effects have also been observed in animal research and inhalation studies using human volunteers. Not only the respiratory tract is affected; cardiovascular disease, too, appears to be an important consequence of exposure to particulate matter.

Much research will be needed, however, to understand these relationships and to compare the effects of ambient air at different locations.

This study, part of two multi-centre EU-funded research projects, aimed to determine which dose should be used in animal testing and how long after exposure necropsies on the animals should be performed. The study used rats prone to hypertension to guarantee that effects are picked up, and to simulate susceptible humans.

Air taken from a road tunnel was injected directly into the trachea of the rats at various concentrations. For this breed of rats, the optimal testing dose lies between three and ten milligrams of particulate matter per kilogram body weight, the researchers found. Necropsies to check for health effects are best performed 24 hours after exposure. Among the health effects seen were pulmonary inflammation, oxidative stress and, possibly, changes in blood circulation. Spontaneously hypertensive rats are good models for assessing possible health effects of particulate matter in humans, the researchers conclude.

Gerlofs-Nijland ME, Boere AJF, Leseman DLAC, Dormans JAMA, Sandström T, Salonen RO, Bree L van, Cassee FR.

**Effects of particulate matter on the pulmonary and vascular system: time course in spontaneously hypertensive rats**  
Particle and Fibre Toxicology 2005, 2:2, 24 March 2005.

[www.particleandfibretoxicology.com/content/2/1/2](http://www.particleandfibretoxicology.com/content/2/1/2)

DOI:10.1186/1743-8977-2-2

# Fighting microbes without borders

A world-wide epidemic of tuberculosis is raging, and strains of the microbe that are resistant to drugs and a widely used vaccine are emerging. Recognising these strains is the first step in understanding the epidemic—and ultimately defeating it.

Kirsten Kremer used to dream about leaving her country and going to Ethiopia, to fight poverty and tropical diseases where they occur. But the plan fell through; instead Kremer now contributes to the fight from the RIVM campus in Bilthoven. From 2000 to 2003, she managed an international effort to find the best way to identify separate strains of *Mycobacterium tuberculosis*, the causative agent of TB, a disease that kills nearly two million people world-wide annually.

Thanks in part to Kremer's research, there now is a new standard test for discriminating between different *M. tuberculosis* strains; it produces reliable results in less than a day, rather than several weeks. What's more, thanks to these tests researchers are now homing in on why some tuberculosis strains evade the current TB vaccine more easily than others. Such knowledge could help researchers find new, better vaccines.

## Genetic fingerprinting

Kristin Kremer's career path at RIVM was unusual. She didn't start out as a researcher; in 1993, after graduating from the Institute for Life Sciences and Chemistry, she became a lab technician at RIVM's Diagnostic Laboratory for Infectious Diseases and Perinatal Screening. There, she performed genetic fingerprinting techniques.

Thanks in part to her being fluent in English, Kremer quickly found her way into international collaboration projects. In 2000, the lab initiated a new research project funded by the European Commission (EC), and Kremer's boss, Dick van Soolingen, co-ordinated the contributions from 32 participating labs. Kremer became the project's manager, a perfect position for setting up research for a Ph.D. thesis.

And as it turned out, the project also gave her ample opportunity to fulfill her desire to spend time abroad. "I enjoy being in touch with people all over the world," Kremer says. "Our lab has a good reputation, and people ask me all sorts of questions about genetic fingerprinting. It's great to be able to help them out quickly."

She loves doing research, but it often has to be combined with other assignments, Kremer says. Recently, for instance, she has taken over a few management tasks; she's also filling in for a colleague who coordinates the diagnostic analysis of *Mycobacterium* samples, which routinely come in at a rate of about 1,500 per year. "Diagnostic testing always comes first," Kremer says. And she doesn't regret it; it's nice to work on real patients, people with names and histories, once in a while.

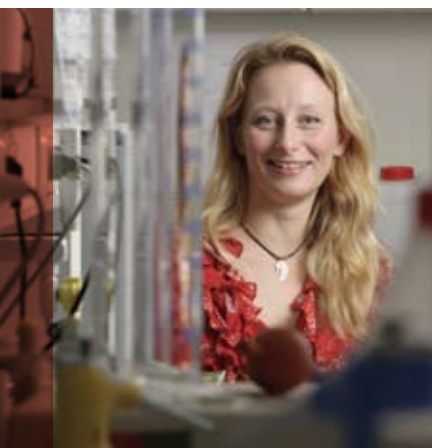
Besides, the daily routine can also spawn new research. "In 1997, for example, we characterised a new *Mycobacterium* species from a two-year-old Somalian patient."

After earning her Ph.D. in 2005, Kremer quickly moved on to new international research projects. RIVM will co-ordinate a new EC-funded project called TB-ADAPT, in which eleven labs will take a very close look at genetic variation among *M. tuberculosis* strains. The goal: to find specific spots in the genome that affect resistance against vaccines or drugs. Because

many previous studies focused on Europe and Asia, Kremer plans to do more testing on strains emerging in Africa and South-America. (She's already looking forward to the meetings abroad.)

Another advantage of the collaboration project is that there's an emphasis on fundamental research, leading to many opportunities to publish in peer-reviewed journals. "To me, that's very important," Kremer says. "Apart from one yearly report on the state of TB in The Netherlands, these days we try to publish in international journals. That way, everyone can read what we've done. And yes, I prefer to publish in high-impact journals; I think every researcher should aim for a paper in *Science* or *Nature*. But of course it usually doesn't work that way. We just had a paper published in *Emerging Infectious Diseases*, which was great, although I confess we had tried *The Lancet* first."

Next on Kremer and Van Soolingen's list: applying for a grant from RIVM's strategic research fund to have the genomes of about twenty TB strains fully sequenced. That, too, could prove invaluable for the development of a new, improved, and affordable vaccine, which many scientists agree is the world's best hope to halt TB in poor countries. Says Kremer: "I really hope I will be able to contribute to that."



Kristin Kremer,  
Centre for Infectious  
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(RIVM-CIb)

## Beijing strain may be evading TB drugs and vaccines

Although tuberculosis (TB) has all but disappeared in rich countries, the disease is still raging world-wide. The World Health Organisation (WHO) estimates that one-third of the world's population is infected with *Mycobacterium tuberculosis*, TB's causative agent. Many of them, especially those who are also carrying HIV, will eventually become ill. In 2004, according to WHO figures, 9 million people got sick and 1.7 million died of TB, with death rates highest in Africa and Southeast-Asia.

Hampering the battle against the bacillus is the appearance of strains that have become resistant to either anti-TB drugs or Bacille Calmette-Guerin (BCG), a partially effective vaccine used in many countries. Learning how to quickly and reliably distinguish TB strains is important for understanding the epidemic and devising new control strategies.

As part of a European research project Kremer worked with 30 other labs to compare 21 DNA fingerprinting tests. All labs characterised 131 unmarked isolates, 62 of which were doubles. Two tests topped the list with equal reproducibility and discriminatory power, the researchers found.

Kremer then checked 49 studies world-wide for the occurrence of the so-called *M. tuberculosis* Beijing strain, first described in Beijing in 1995 but found all over the world since then. The strain is now dominant in Southeast Asia and some parts of Russia, while in Western Europe its impact is still small but growing.

Finally, Kremer and colleagues applied the best fingerprinting techniques to analyse two subtypes within the Beijing strain. Only one of these, dubbed the 'typical Beijing strain', proved to be associated with vaccine and drug resistance. It was also more prominent in younger patients. The findings add weight to the theory that the Beijing strain is the microbe's adaptive response to the current generation of TB drugs and vaccines.

Kremer K

**Genetic markers for *Mycobacterium tuberculosis*; characterisation and spread of the Beijing genotype**  
(Ph.D. thesis)

ISBN 90901955521

# The exploding field of medical nanotechnology

Triggered by developments in science, RIVM set out to take stock of the potential health risks of emerging nanotechnologies.

Researchers at the institute are preparing to extend their own work in the budding field.

Robert Geertsma was trained in organic chemistry – back at the University of Twente, he considered switching to courses in medical materials but decided against it. Yet at RIVM he ended up at the Medical Technology Section, and he now is a senior author of two comprehensive reports on medical applications of nanotechnology.

The irony isn't lost on him, but Geertsma says he's hardly the only one who ended up switching to nanotechnology. He cites the example of David Reinhoudt, his university mentor, who now chairs the board of NanoNed, a Dutch research and development initiative dedicated to nanotechnology.

A few years ago, Geertsma approached the Ministry of Health, Welfare and Sport (VWS) with the idea of identifying potential health risks of this emerging technology. His international contacts told him a lot was happening, Geertsma says, and the government agreed it was time to take stock of developments and start thinking about potential problems.

The results of the study, written jointly with Boris Roszek and Wim de Jong, surprised him, says Geertsma. "Nanotechnology has already developed further and more widely than I had ever imagined," he says. "That is also the key message in these reports: the technology is booming and in medicine it's already being applied today. We urgently need more toxicology research because, apart from the fact that nano-particles can be highly reactive, we don't really know very much about the risks."



Robert Geertsma,  
Nutrition, Medicines and  
Consumer Safety Division  
(RIVM-VGC)

## Dig deeper

On a scale ranging from policy advisor to bench scientist, Geertsma describes himself as somewhere in the middle. His lab experience dates back to his university years, which ended in 1994. At RIVM, his main clients are policy departments at the health ministry and the Dutch Health Care Inspectorate (IGZ), both of which are focused more on 'desk research' than on experimental studies.

For their investigation of the state of the art and the risks of nanotechnology, Geertsma and colleagues researched the scientific literature, examined company websites and attended scientific conferences. The study resulted in two reports, both of which made his clients happy. They're now used internationally to summarise the issues in the budding field.

Yet Geertsma himself would have liked the opportunity to delve just a little bit deeper, and redraft the reports into full-blown research papers that could have been submitted to peer-reviewed journals. Finding the time to do that, however, isn't easy, he says. In recent years, Geertsma says, it has become more difficult to convince policy makers at the health ministry that RIVM researchers sometimes need to dig deeper than the policy question at hand. Being intimately involved with the research itself, Geertsma says, will nevertheless be

important for RIVM's ability to stay in touch with the principal scientists in the field. "If you do research yourself, you are better able to assess the importance and quality of other people's work, even if it's in a neighbouring field," he says. "At conferences, people approach you differently if you present your own data." He cites the example of Wim de Jong, his co-author and RIVM colleague, who is well known internationally because of his experimental work. RIVM's unique position as a public health institute that actively participates in research programs has benefited policy clients, says Geertsma. For instance, when he represents the Dutch government in European Union committees, strong ties with research have helped put The Netherlands on a par with bigger member states like France, Germany, and the UK. "In 2004, the Dutch government used our scientific input to place emerging medical technologies high on the agenda in Europe," he says. "Subsequently, the European Commission asked The Netherlands to chair a working group on the topic."

Many more chances for in-depth research may be just around the corner. Researchers from several RIVM departments have joined hands to set up a Nanotechnology Safety Centre. Funded by internal as well as external sources, they plan to collaborate extensively with research partners outside.

## More data on nano-particles' toxic effects needed

Nanotechnology is the design, characterisation, production and application of structures, devices and systems by controlling the shape and size of materials at the nanometre scale. (One nanometre is one-millionth of a millimetre.) In two reports, published simultaneously in 2005, RIVM presented an overview of current and future medical applications of the technology as well as an assessment of its risks for human health.

In medicine, the first report says, the impact of nanotechnology will be profound, ranging from diagnostics to therapy and tools for prevention. Some types of nanotechnology are already in use, for instance in surgery, medical imaging, and tissue engineering. Examples include nano-structured surgical blades and suture needles reinforced with stainless-steel. Other applications are found in contrast-enhancing agents for magnetic resonance imaging, bone replacements, wound dressings, anti-microbial textiles, in-vitro molecular diagnostic chips, micro-cantilevers, and micro-needles. In the next few years, many other applications will hit the market, in particular in surgery, cancer diagnosis, cancer therapy, bio-detection of disease markers, molecular imaging, implant technology, tissue engineering, and devices for drug, protein, gene, or radionuclide delivery.

Still, not much is known about nanomaterials' potential toxic effects, the second report says. Free-floating particles in the nanometre range in particular warrant research, since very small particles tend to be much more reactive than bigger ones with the same chemical composition. Therefore, relying on existing toxicological data will not be sufficient. Special attention should be given to drug-delivery systems that release nano-particles or nano-tubes inside the body. Regulatory guidance at European levels is recommended, as is further research into nanotoxicology.

Roszek B, Jong WH de, Geertsma RE

**Nanotechnology in medical applications - State of the art in materials and devices**

RIVM Report 265001001/2005

[www.rivm.nl/bibliotheek/rapporten/265001001.pdf](http://www.rivm.nl/bibliotheek/rapporten/265001001.pdf)

Jong WH de, Roszek B, Geertsma RE

**Nanotechnology in medical applications - Possible risks for human health**

RIVM Report 265001002/2005

[www.rivm.nl/bibliotheek/rapporten/265001002.pdf](http://www.rivm.nl/bibliotheek/rapporten/265001002.pdf)

Research Output

# Research output

## Centre for Infectious Disease Control

### Cib

#### Research Papers (International, 143)

**A**bbink F, Buisman AM, Doornbos G, Woldman J, Kimman TG, Conyn-van Spaendonck MAE  
Poliovirus-specific memory immunity in seronegative elderly people does not protect against virus excretion  
*J Infect Dis* 2005; 191(6):990-9

Amersfoorth SCM van, Schouls LM, Heide HGJ van der, Advani A, Hallander HO, Bondeson K, Konig CHW von, Riffelmann M, Vahrenholz C, Guiso N, Caro V, Njamkepo E, He Q, Mertsola J, Mooi FR  
Analysis of *Bordetella pertussis* populations in European countries with different vaccination policies.  
*J Clin Microbiol* 2005; 43(6):2837-43

Apetroaie C, Andersson MA, Sproer C, Tsitko I, Shaheen R, Jaaskelainen EL, Wijnands LM, Heikkila R, Salkinoja-Salonen MS  
Cereulide-producing strains of *Bacillus cereus* show diversity.  
*Arch Microbiol* 2005; 184(3):141-51

Arend SM, Haas P de, Leyten E, Rosenkrands I, Rigouts L, Andersen P, Mijs W, Dissel JT van, Soolingen D van  
ESAT-6 and CFP-10 in clinical versus environmental isolates of *Mycobacterium kansasii*.  
*J Infect Dis* 2005; 191:1301-10

Asten L van, Zangerle R, Aguado IH, Boufassa F, Broers B, Brettle RP, Robertson JR, McMenemy J, Coutinho RA, Prins M  
Do HIV disease progression and HAART response vary among injecting drug users in Europe?  
*Eur J Epidemiol* 2005; 20(9):795-804

Avoort HGAM van der  
P3 ELISA unfairly managed  
Quarterly update WHO Polio Labnetwork 2005; XI-1:3

**B**ackendorf C, Wit J de, Oosten M van, Stout GJ, Mitchell JR, Borgstein AM, Horst GT van der, Gruij FR de, Brouwer J, Mullenders LHF, Hoeijmakers JHJ  
Repair characteristics and differentiation propensity of long-term cultures of epidermal keratinocytes derived from normal and NER-deficient mice.  
*DNA Repair* 2005; 4(11):1325-36

Bakker-Woudenberg IAJM, Vianen W van, Soolingen D van, Verbrugh HA, Agtmael MA van  
Antimycobacterial agents differ with respect to their bacteriostatic versus bactericidal activities in relation to time of exposure, mycobacterial growth phase, and their use in combination.  
*Antimicrob Agents Chemother* 2005; 49(6):2387-98

Banus HA, Kranen HJ van, Mooi FR, Hoebee B, Nagelkerke NJ, Demant P, Kimman TG  
Genetic control of *Bordetella pertussis* infection: identification of susceptibility loci using recombinant congenic strains of mice.  
*Infect Immun* 2005; 73(2):741-7

Barwolff S, Grundmann H, Schwab F, Tami A, Behnke M, Geffers C, Halle E, Gobel UB, Schiller R, Jonas D, Klare I, Weist K, Witte W, Dinger E, Beilecke K, Ruden H, Gastmeier P  
Incidence of transmission of pathogens in intensive care units. Results of the SIR 3 study.  
*Anaesthesist* 2005; 54(6):560-6

Berg H van den, Lodder W, Poel W van der, Vennema H, Roda Husman AM de  
Genetic diversity of noroviruses in raw and treated sewage water.  
*Res Microbiol* 2005; 156(4):532-40

Berk PA, Jonge R de, Zwietering MH, Abee T, Kieboom J  
Acid resistance variability among isolates of *Salmonella enterica* serovar Typhimurium DT104.  
*J Appl Microbiol* 2005; 99(4):859-66

Bogaert D, Veenhoven RH, Sluijter M, Wannet WJ, Rijkers GT, Mitchell TJ, Clarke SC, Goessens WH, Schilder AG, Sanders EA, Groot R de, Hermans PW  
Molecular epidemiology of pneumococcal colonization in response to pneumococcal conjugate vaccination in children with recurrent acute otitis media.  
*J Clin Microbiol* 2005; 43(1):74-83

Boot R, Berg L van den, Lith HA van, Veenema JL  
Rat strains differ in antibody response to natural *Haemophilus* species infection.  
*Laboratory Animals* 2005; 39(4):413-20

Boot R, Hinz KH  
Antigenic relationship of avian strains of three *Bordetella* species determined by ELISA.  
*Vet Rec* 2005; 157(15):447-8

Borgdorff MW, Werf MJ van der, Haas PEW de, Kremer K, Soolingen D van  
Tuberculosis elimination in the Netherlands.  
*Emerg Infect Dis* 2005; 11(4):597-602

Borgen K, Loo I van, Koedijk F, Laar M van de  
Increase of gonococcal quinolone resistance in the Netherlands from 2002-2004.  
*Eurosurveillance Weekly* 2005; 10(11)

Boshuizen JA, Reimerink JHJ, Korteland-van Male AM, Ham VJJ van, Bouma J, Gerwig GJ, Koopmans MPG, Buller HA, Dekker J, Einerhand AWC  
Homeostatis and functional of goblet cells during rotavirus infection in mice.  
*Virology* 2005; 337(2):210-21

Bosman A, Meijer A, Koopmans M  
Final analysis of Netherlands avian influenza outbreaks reveals much higher levels of transmission to humans than previously thought.  
*Eurosurveillance Weekly* 2005; 10(1)

Boven M van, Mooi FR, Schellekens JFP, Melker H de, Kretzschmar M  
Pathogen adaptation under imperfect vaccination: implications for pertussis.  
*Proc R Soc B* 2005; 272(1572):1617-24

Brussee JE, Smit HA, Brunekreef B, Jongste JC de  
Author's reply to: Exhaled nitric oxide in 4-year-old children: relationship with asthma and atopy [Letter to the editor].  
*Eur Resp J* 2005; 26(2):359-60

Buijtels PCAM, Petit PLC, Verbrugh HA, Belkim A van, Soolingen D van  
Isolation of nontuberculous mycobacteria in Zambia: eight case reports.  
*J Clin Microbiol* 2005; 42(12):6020-6

**C**aro V, Njamkepo E, Amersfoorth SCM van, Mooi FR, Advani A, Hallander HO, He Q, Mertsola J, Riffelmann M, Vahrenholz C, Konig CHW von, Guiso N  
Pulsed-field gel electrophoresis analysis of *Bordetella pertussis* populations in various European countries with different vaccine policies.  
*Microbes Infection* 2005; 7(7-8):976-82

Chacon-Salinas R, Serafin-Lopez J, Ramos-Payan R, Mendez-Aragon P, Hernandez-Pando R, Van Soolingen D, Flores-Romo L, Estrada-Parra S, Estrada-Garcia I  
Differential pattern of cytokine expression by macrophages infected in vitro with different *Mycobacterium tuberculosis* genotypes.  
*Clin Exp Immunol* 2005; 140(3):443-9

**D**eutekom H van, Supply P, Haas PEW de, Willery E, Hoijing SP, Locht C, Coutinho RA, Soolingen D van  
Molecular typing of *Mycobacterium tuberculosis* by mycobacterial interspersed repetitive unit-variable-number tandem repeat analysis, a more accurate method for identifying epidemiological links between patients with tuberculosis  
*J Clin Microbiol* 2005; 43(9):4473-9

Diavatopoulos DA, Cummings CA, Schouls LM, Brinig MM, Relman DA, Mooi FR  
*Bordetella pertussis*, the causative agent of whooping cough, evolved from a distinct, human-associated lineage of *B. bronchiseptica*  
*Plos Pathogens* 2005; 1(4):e45

Diaz R, Crespo FM, Herrera S, Sevy-Court J, Marrero A, Soolingen D van  
Laboratory cross-contamination of *Mycobacterium tuberculosis* during preparation of smears.  
*Internet J Third World Med* 2005; 2(2)

- D** Diederer BMW, Jong CMA de, Aarts I, Peeters MF, Gageldonk-Lafeber AB van, Wilbrink B, Zee A van der  
No evidence of Legionella infection in general practice patients presenting with acute respiratory infections in The Netherlands  
*Clin Microbiol Infection* 2005; 11(5):410-2
- Duijkeren E van, Wolfhagen MJHM, Heck MEOC, Wannet WJB  
Transmission of a Panton-Valentine leucocidin-positive, methicillin-resistant Staphylococcus aureus strain between humans and a dog  
*J Clin Microbiol* 2005; 43(12):6209-11
- Duizer E, Koopmans M  
Efficacy of ethanol-based hand rubs [Letter to the editor]  
*J Hosp Infect* 2005; 61(4):362-3
- Duynhoven YT van, Jager CM de, Kortbeek LM, Vennema H, Koopmans MP, Leusden F van, Poel WH van der, Broek MJ van den, eXplosie Project Team  
A one-year intensified study of outbreaks of gastroenteritis in The Netherlands  
*Epidemiol Infect* 2005; 133(1):9-21
- F** Fischer ARH, Jong AEI de, Jonge R de, Frewer LJ, Nauta MJ  
Improving food safety in the domestic environment: the need for a transdisciplinary approach  
*Risk Analysis* 2005; 25(3):503-17
- Flint JA, Duynhoven YT van, Angulo FJ, DeLong SM, Braun P, Kirk M, Scallan E, et.al.  
Estimating the burden of acute gastroenteritis, foodborne disease, and pathogens commonly transmitted by food: an international review  
*Clin Infect Dis* 2005; 41(5):698-704
- Foppen JW, Mporokoso A, Schijven JF  
Determining straining of Escherichia coli from breakthrough curves  
*J Contam Hydrol* 2005; 76(3-4):191-210
- Gageldonk-Lafeber AB, Heijnen MLA, Bartelds AIM, Peters MF, Plas SM van der, Wilbrink B  
A case-control study of acute respiratory tract infection in general practice patients in the Netherlands  
*Clin Infect Dis* 2005; 41(4):490-7
- Gazouli M, Ikononopoulos J, Koundourakis A, Bartos M, Pavlik I, Overduin P, Kremer K, Gorgoulis V, Kittas C  
Characterization of Mycobacterium tuberculosis complex isolates from Greek patients with sarcoidosis by Spoligotyping  
*J Clin Microbiol* 2005; 43(9):4858-61
- Geubbels ELPE, Wille JC, Nagelkerke NJD, Vandenbroucke-Grauls CMJE, Grobbee DE, Boer AS de  
Hospital-related determinants for surgical-site infection following hip arthroplasty  
*Infect Control Hosp Epidemiol* 2005; 26(5):435-41
- Giessen JWB van der, Fonville M, Briels I, Pozio E  
Phylogenetic analysis of encapsulated and non-encapsulated Trichinella species by studying the 5S rDNA tandemly repeated intergenic region  
*Vet Parasitol* 2005; 132(1-2):51-5
- Gooskens J, Neeling AJ de, Willems RJ, Wout JW van 't, Kuijper EJ  
Streptococcal toxic shock syndrome by an iMLS resistant M type 77 Streptococcus pyogenes in the Netherlands  
*Scand J Infect Dis* 2005; 37(2):85-9
- Gori A, Bandera A, Marchetti G, Esposti AD, Catozzi L, Nardi GP, Gazzola L, Ferrario G, Embden JDA van, Soolingen D van, Moroni M, Franzetti F  
Spoligotyping and mycobacterium tuberculosis  
*Emerg Infect Dis* 2005; 11(8):1242-8
- Griethuysen A van, Loo I van, Belkum A van, Vandenbroucke-Grauls C, Wannet W, Keulen P van, Kluytmans J  
Loss of the mecA gene during storage of methicillin-resistant Staphylococcus aureus strains  
*J Clin Microbiol* 2005; 43(3):1361-5
- Grode L, Seiler P, Baumann S, Hess J, Brinkmann V, Eddine AN, Mann P, Goosmann C, Bandermann S, Smith D, Bancroft GJ, Reyrat JM, Soolingen D van, Raupach B, Kausmann SHE  
Increased vaccine efficacy against tuberculosis of recombinant Mycobacterium bovis bacille Calmette-Guerin mutants that secrete listeriolysin  
*J Clin Invest* 2005; 115(9):2472-9
- Grotenberg GM, Witte MD, Hoof PA van, Spalburg E, Reiss P, Noort D, Neeling AJ de, Koert U, Marel GA van der, Overkleeft HS, Overhand M  
Synthesis and biological evaluation of gramicidin S dimers  
*Org Biomol Chem* 2005; 3(2):233-8

Grundmann H, Baerwolff S, Tami A, Behnke M, Schwab F, Geffers C, Halle E, Gobel UB, Schiller R, Jonas D, Klare I, Weist K, Witte W, Beck-Beilecke K, Schumacher M, Ruden H, Gastmeier P  
How many infections are caused by patient-to-patient transmission in intensive care units?  
*Crit Care Med* 2005; 33(5):946-51

Grundmann H, Goossens H  
Report of working group 1: public health challenges  
*Clin Microbiol Infect* 2005; 11(Suppl 1):36-40

**H** Hahne S, Macey J, Tipples G, Varughese P, King A, Binnendijk R van, Ruijs H, Steenbergen J van, Timen A, Loon AM van, Melker H de  
Rubella outbreak in an unvaccinated religious community in the Netherlands spreads to Canada  
*Eurosurveillance Weekly* 2005; 10(5)

Hahne S, Ward M, Abbink F, Binnendijk R van, Ruijs H, Steenbergen J van, Timen A, Melker H de  
Large ongoing rubella outbreak in religious community in the Netherlands since september 2004  
*Eurosurveillance Monthly* 2005; 10(1-3):53

Hak E, Schonbeck Y, Melker H de, Essen GA van, Sanders EAM  
Negative attitude of highly educated parents and health care workers towards future vaccinations in the Dutch childhood vaccination program  
*Vaccine* 2005; 23(24):3103-7

Havelaar AH, Garssen J, Takumi K, Koedam M, Ritmeester W, Foneyne L de la, Bousema T, Vos JG  
Intraspecies variability in the dose-response relationship for Salmonella Enteritidis associated with genetic differences in cellular immune response  
*J Food Prot* 2005; 67(9):2008-15

Heide R van der, Koopmans MPG, Shekary N, Houwers DJ, Duynhoven YTHP van, Poel WHM van der  
Molecular characterizations of human and animal group a rotaviruses in The Netherlands  
*J Clin Microbiol* 2005; 43(2):669-75

Hijnen M, Gageldonk PG, Berbers GA, Woerkom T van, Mooi FR  
The Bordetella pertussis virulence factor P.69 pertactin retains its immunological properties after overproduction in Escherichia coli  
*Protein Expr Purif* 2005; 41(1):106-12

**K** Kam KM, Yip CW, Tse LW, Wong KL, Lam TK, Kremer K, Au BK, Soolingen D van  
Utility of mycobacterial interspersed repetitive unit typing for differentiating multidrug-resistant Mycobacterium tuberculosis isolates of the Beijing family  
*J Clin Microbiol* 2005; 43(1):306-13

Kamp HJ van der, Oudshoorn CG, Elvers BH, Baarle M van, Otten BJ, Wit JM, Verkerk PH  
Cutoff levels of 17-alpha-hydroxyprogesterone in neonatal screening for congenital adrenal hyperplasia should be based on gestational age rather than on birth weight  
*J Clin Endocrinol Metab* 2005; 90(7):3904-7

Kasteren MEE van, Mannien J, Kullberg BJ, Boer AS de, Nagelkerke NJ, Ridderhof M, Wille JC, Gysens IC  
Quality improvement of surgical prophylaxis in Dutch hospitals: evaluation of a multi-site intervention by time series analysis  
*J Antimicrob Chemother* 2005; 56(6):1094-102

Kerkhof M, Wijga A, Smit HA, Jongste JC, Aalberse RC, Brunekreef B, Gerritsen J, Postma DS, PIAMA Study Group  
The effect of prenatal exposure on total IgE at birth and sensitization at twelve months and four years of age: The PIAMA study  
*Pediatr Allergy Immunol* 2005; 16(1):10-8

Kivi M, Pelt W van, Notermans D, Giessen A van de, Wannet W, Bosman A  
Large outbreak of Salmonella Typhimurium DT104, the Netherlands, september-november 2005  
*Eurosurveillance Weekly* 2005; 10(no 12)

Koopmans M  
Outbreaks of viral gastroenteritis: what's new in 2004?  
*Curr Opin Infect Dis* 2005; 18(4):295-9

Koopmans M  
Food-borne norovirus outbreaks: a nuisance of more than that?  
*Wiener Klin Wochenschr* 2005; 117(23-24):789-91

Koster B, Borgen K, Meijer H, Plas S van der, Kuyvenhoven V  
Large scale contact tracing after a case of open tuberculosis in a supermarket, the Netherlands, January-February  
*Eurosurveillance Weekly* 2005; 10(2)

**K** Kovats RS, Edwards SJ, Charron D, Cowden J, D'Souza R, Ebi KL, Gauci C, Gerner-Smidt P, Hajat S, Hales S, Hernandez Pezzi G, Kriz B, Kutsar K, McKeown P, Mellou K, Menne B, O'Brien S, Pelt W van, Schmid H  
Climate variability and campylobacter infection: an international study  
*Int J Biometeorol* 2005; 49(4):207-14

Kremer K, Arnold C, Cataldi A, Gutierrez C, Haas WH, Panaiotow S, Skuce RA, Supply P, Zanden AGM van der, Soolingen D van  
Discriminatory power and reproducibility of novel DNA typing methods for *Mycobacterium tuberculosis* complex strains  
*J Clin Microbiol* 2005; 43(11):5628-38

Kremer K, Kam Yan Au B, Chi Wai Yip P, Skuce R, Supply P, Man Kam K, Soolingen D van  
Use of variable-number tandem-repeat typing to differentiate *Mycobacterium tuberculosis* Beijing family isolates from Hong Kong and comparison with IS6110 restriction fragment length polymorphism typing and spoligotyping  
*J Clin Microbiol* 2005; 43(1):314-20

Kummeling I, Thijs C, Penders J, Snijders BEP, Stelma F, Reimerink J, Koopmans M, Dagnelie PC, Huber M, Jansen MCJF, Bie R de, Brandt PA van den  
Etiology of atopy in infancy: the KOALA Birth Cohort Study  
*Pediatric Allergy Immunol* 2005; 16(8):679-84

Kurepina N, Likhoshvay E, Shaskina E, Mathema B, Kremer K, Soolingen D van, Bifani P, Kreiswirth BN  
Targeted hybridization of IS6110 fingerprints identifies the W-Beijing mycobacterium tuberculosis strains among clinical isolates  
*J Clin Microbiol* 2005; 43(5):2148-54

**L** Laar MJW van de, Fenton KA, Ison C, on behalf of the ESSTI network  
Update on the European lymphogranuloma venereum epidemic among men who have sex with men  
*Eurosurveillance Monthly* 2005; 10(4-6):134

Landeweert R, Leeflang P, Smit E, Kuyper T  
Diversity of an ectomycorrhizal fungal community studied by a root tip and total soil DNA approach  
*Mycorrhiza* 2005; 15(1):1-6

Langermans JAM, Doherty TM, Vervenne RAW, Laan T van der, Lyashchenko K, Greenwald R, Agger EM, Aagaard C, Weiler H, Soolingen D van, Dalemans W, Thomas AW, Andersen P  
Protection of macaques against *Mycobacterium tuberculosis* infection by a subunit vaccine based on a fusion protein of antigen 85B and ESAT-6  
*Vaccine* 2005; 23(21):2740-50

Lanting CI, Tijn DA van, Loeber G, Vulmsa T, Vijlder JJM de, Verkerk PH  
Clinical effectiveness and cost-effectiveness of the use of the thyroxine/thyroxine-binding globulin ratio to detect congenital hypothyroidism of thyroidal and central origin in a neonatal screening program  
*Pediatrics* 2005; 116(1):168-73

Li WM, Wang SM, Li CY, Liu YH, Shen GM, Zhang XX, Niu TG, Gao Q, Soolingen D van, Kremer K, Duanmu HJ  
Molecular epidemiology of *Mycobacterium tuberculosis* in China: a nationwide random survey in 2000  
*Int J Tuberc Lung Dis* 2005; 9(12):1314-9

Lodder WJ, Roda Husman AM de  
Presence of noroviruses and other enteric viruses in sewage and surface waters in The Netherlands  
*Appl Environm Microbiol* 2005; 71(3):1453-61

Lodder-Verschoor F, Roda Husman AM de, Berg HHJL van den, Stein A, Pelt-Heerschap HML van, Poel WHM van der  
Year-round screening of noncommercial and commercial oysters for the presence of human pathogenic viruses  
*J Food Prot* 2005; 68(9):1853-9

Loots MA, Jong MD de, Soolingen D van, Wetsteyn JC, Faber WR  
Chronic leg ulcer caused by *Mycobacterium immunogenum*  
*J Travel Med* 2005; 12(6):347-9

**M** Mangen MJJ, Havelaar AH, Bernsen RAJAM, Koningsvels R van, Wit GA de  
The costs of human *Campylobacter* infections and sequelae in the Netherlands: a DALY and cost-of-illness approach  
*Acta Agricult Scand C* 2005; 2:35-51

Meijer A, Valette M, Manuguerra JC, Perez-Brena P, Paget J, Brown C, Velden K van der  
Implementation of the community network of reference laboratories for human influenza in Europe  
*J Clin Vir* 2005; 32(2):87-96

Mooijman KA, Ghameshlou Z, Bahar M, Jofre J, Havelaar AH  
Enumeration of bacteriophages in water by different laboratories of the European Union in two interlaboratory comparison studies  
*J Virol Methods* 2005; 127(1):60-8

Morcillo N, Giulio B de, Chirico C, Kuriger A, Dolmann A, Alito A, Zumarraga M, Soolingen D van, Kremer K, Cataldi A  
First description of *Mycobacterium tuberculosis* Beijing genotype in Argentina  
*Rev Argent Microbiol* 2005; 37:92-5

Morre SA, Spaargaren J, Fennema JSA, Vries HJC de, Coutinho FA, Pena AS  
Real-time polymerase chain reaction to diagnose lymphogranuloma venereum [Letter to the editor]  
*Emer Infect Dis* 2005; 11(8):1311-2

Mostowy S, Inwald J, Gordon S, Martin C, Warren R, Kremer K, Cousins D, Behr MA  
Revisiting the evolution of *Mycobacterium bovis*  
*J Bacteriol* 2005; 187(18):6386-95

**N** Nauta MJ  
Microbiological risk assessment models for partitioning and mixing during food handling  
*Int J Food Microbiol* 2005; 100(1-3):311-22

Nauta MJ, Havelaar AH  
A process risk model for *Campylobacter* in poultry  
*Acta Horticulturae* 2005; 674:392-402

Nys S, Tjhie JHT, Bartelds AIM, Heijnen MLA, Peeters MF, Stobberingh EE  
Erythromycin resistance in the commensal throat flora of patients visiting the general practitioner: a reservoir for resistance genes for potential pathogenic bacteria  
*Int J Antimicrob Agents* 2005; 26(2):133-7

**P** Pebody RG, Gay NJ, Giammanco A, Baron S, Schellekens J, Tischer A, Olander RM, Andrews NJ, Edmunds WJ, Lecoœur H, Levy-Bruhl D, Maple PAC, Melker H de, Nardone A, Rota MA, Salmaso S, Conyn-van Spaendonck MAE, Swidsinski S, Miller E  
The seroepidemiology of *Bordetella pertussis* infection in Western Europe  
*J Clin Microbiol* 2005; 43(3):1220-7

Pedoby RG, Gay NJ, Giammanco A, Baron S, Schellekens J, Tischer A, Olander RM, Andrews NJ, Edmunds WJ, Lecoœur H, Levy-Bruhl D, Maple PA, Melker H de, Nardone A, Rota MC, Salmaso S, Conyn-van Spaendonck MA, Swidsinski S, Miller E  
The seroepidemiology of *Bordetella pertussis* infection in Western Europe  
*Epidemiol Infect* 2005; 133(1):159-71

Pinelli E, Withagen C, Fonville M, Verlaan A, Dormans J, Loveren H van, Maizels RM, Giessen J van der  
Persistent airway hyper-responsiveness and inflammation in *Toxocara canis*-infected BALB/c mice  
*Clin Exp Allergy* 2005; 35(6):826-32

Poel WHM van der, Heide RV van der, Bakker D, Loeff M de, Jong J de, Manen N van, Gaasenbeek CPH, Borgsteede FHM  
Attempt to detect evidence for tick-borne encephalitis virus in ticks and mammalian wildlife in The Netherlands  
*Vector Borne Zoonotic Dis* 2005; 5(1):58-64

Poel WHM van der, Heide R van der, Verstraten ERAM, Takumi K, Lina PHC, Kramps JA  
European bat lyssavirus, the Netherlands  
*Emer Infect Dis* 2005; 11(12):1854-9

**R** Reisig F, Kremer K, Amthor B, Soolingen D van, Haas WH  
Fast ligation-mediated PCR, a fast and reliable method for IS6110-based typing of *Mycobacterium tuberculosis* complex  
*J Clin Microbiol* 2005; 43(11):5622-7

Reniers G, Araya T, Schaap A, Kumie A, Kebede D, Nagelkerke N, Coutinho R, Sanders EJ  
Monitoring cause-specific adult mortality in developing countries: a comparison of data sources for Addis Ababa and its implications for policy and research  
*Social Sci Med* 2005; 61(9):1952-7

Reuter G, Krisztalovics K, Vennema H, Koopmans MP, Szucs G  
Evidence of the etiological predominance of norovirus in gastroenteritis outbreaks-emerging new-variant and recombinant noroviruses in Hungary  
*J Med Virol* 2005; 75(4):598-607

Robinson DA, Kearns AM, Holmes A, Morrison D, Grundmann H, Edwards G, O'Brien F, Tenover FC, McDougal LK, Monk AB, Enright MC  
Re-emergence of early pandemic *Staphylococcus aureus* as a community-acquired methicillin-resistant clone  
*Lancet* 2005; 365(9466):1256-8



Rockx B, Baric RS, Grijs I de, Duizer E, Koopmans MPG  
Characterization of the homo- en heterotypic immune responses after natural norovirus infection  
*J Med Virol* 2005; 77(3):439-46

Rockx BH, Bogers WM, Heeney JL, Amerongen JL van, Koopmans MP  
Experimental norovirus infections in non-human primates  
*J Med Virol* 2005; 75(2):313-20

Rockx BHG, Vennema H, Hoebe CJP, Duizer E, Koopmans MPG  
Association of histo-blood group antigens and susceptibility to norovirus infections  
*J Infect Dis* 2005; 191(5):749-54

Rodriguez-Lazaro D, D'Agostino M, Herrewegh A, Pla M, Cook N, Ikonopoulou J  
Real-time PCR-based methods for detection of *Mycobacterium avium* subsp. *paratuberculosis* in water and milk  
*Int J Food Microbiol* 2005; 101(1):93-104

Rutjes SA, Italiaander R, Berg HHJL van den, Lodder WJ, Roda Husman AM de  
Isolation and detection of enterovirus RNA from large-volume water samples by using the nucliSens miniMAG system and real-time nucleic acid sequence-based amplification  
*Appl Environ Microbiol* 2005; 71(7):3734-40

Ry van Beest Holle M de, Meijer A, Koopmans M, Jager CM de, Kamp EEHM van de, Wilbrink B, Conyn-van Spaendonck MAE, Bosman A  
Human-to-human transmission of avian influenza a/H7N7, The Netherlands, 2003  
*Eurosurveillance Monthly* 2005; 10(12)

Samper S, Iglesias MJ, Rabanaque MJ, Gomez LI, Lafoz MC, Jimenez MS, Ortega A, Leczano MA, Soolingen D van, Martin C, the Spanish Working Group on MDR-TB  
Systematic molecular characterization of multidrug-resistant *Mycobacterium tuberculosis* complex isolates from Spain  
*J Clin Microbiol* 2005; 43(3):1220-7

Santibanez S, Niewiesk S, Heider A, Schneider-Schaulies J, Berbers GAM, Zimmermann A, Halenius A, Wolbert A, Deitemeier I, Tischer A, Hengel H  
Probing neutralizing-antibody responses against emerging measles viruses (MVs): immune selection of MV by H protein-specific antibodies?  
*J Gen Virol* 2005; 86(2):365-74

Schellekens J, Konig CH von, Gardner P  
Pertussis sources of infection and routes of transmission in the vaccination era  
*Pediatr Infect Dis J* 2005; 24(5 Suppl):19-24

Schets FM, During M, Italiaander R, Heijnen L, Rutjes SA, Zwaluw WK van der, Roda Husman AM de  
*Escherichia coli* O157:H7 in drinking water from private water supplies in the Netherlands  
*Water Res* 2005; 39(18):4485-93

Schets FM, Engels GB, During M, Roda Husman AM de  
Detection of infectious *Cryptosporidium* Oocysts by cell culture immunofluorescence assay: applicability to environmental samples  
*Appl Environ Microbiol* 2005; 71(11):6793-8

Schets FM, Roda Husman AM de  
Health complaints linked to surface water recreation in the Netherlands, 2000-2003  
*Eurosurveillance Weekly* 2005; 10(3)

Schijven JF, Roda Husman AM de  
Effect of climate changes on waterborne disease in The Netherlands  
*Water Sci Technol* 2005; 51(5):79-87

Schouls LM, Ende A van der, Pol I van de, Schot C, Spanjaard L, Vauterin P, Wilderbeek D, Witteveen S  
Increase in genetic diversity of *Haemophilus influenzae* serotype b (Hib) strains after introduction of Hib vaccination in the Netherlands  
*J Clin Microbiol* 2005; 43(6):2741-9

Schouten JM, Giessen AW van de, Frankena K, Jong MCM de, Graat EAM  
*Escherichia coli* O157 prevalence in Dutch poultry, pig finishing and veal herds and risk factors in Dutch veal herds  
*Prev Vet Med* 2005; 70(1-2):1-15

Schouten JM, Graat EAM, Frankena K, Giessen AW van de, Zwaluw WK van der, Jong MCM de  
A longitudinal study of *Escherichia coli* O157 in cattle of a Dutch dairy farm and in the farm environment  
*Vet Microbiol* 2005; 107(3-4):193-204

Semret M, Alexander DC, Turenne CY, Haas P de, Overduin P, Soolingen D van, Cousins D, Behr MA  
Genomic polymorphisms for *Mycobacterium avium* subsp. *paratuberculosis* diagnostics  
*J Clin Microbiol* 2005; 43(8):3704-12

Skraber S, Italiaander R, Lodder WJ, Roda Husman AM de  
Noroviruses in archival samples  
*Emerg Infect Dis* 2005; 11(3):489-91

Skraber S, Schijven J, Gantzer C, Roda Husman AM de  
Pathogenic viruses in drinking-water biofilms: a public health risk?  
*Biofilms* 2005; 2:1-13

Spaargaren J, Fennema HSA, Morre SA, Vries HJC de, Coutinho RA  
New lymphogranuloma venereum chlamydia trachomatis variant, Amsterdam  
*Emerg Inf Dis* 2005; 11(7):1090-2

Spaargaren J, Schachter J, Moncada J, Vries HJC de, Fennema HSA, Pena AS, Coutinho RA, Morre SA  
Slow epidemic of lymphogranuloma venereum L2b strain  
*Emerg Inf Dis* 2005; 11(11):1787-8

Steenbergen J van, Debast S, Kregten E van, Berg R van den, Notermans D, Kuijper E  
Isolation of *Clostridium difficile* ribotype O27, toxinotype III in the Netherlands after increase in *C. difficile*-associated diarrhoea  
*Eurosurveillance Weekly* 2005; 10(7)

Stout GJ, Oosten M van, Acherrat FZ, Wit J de, Vermeij WP, Mullenders LHF, Gruijl FR de, Backendorf C  
Selective DNA damage responses in murine Xpa, Xpc and Csb keratinocyte cultures  
*DNA repair* 2005; 4(11):1337-44

Surikova OV, Voitech DS, Kuzmicheva G, Tatkov SI, Mokrousov IV, Narvskaya OV, Rot MA, Soolingen D van, Filipenko ML  
Efficient differentiation of *Mycobacterium tuberculosis* strains of the W-Beijing family from Russia using highly polymorphic VNTR loci  
*Eur J Epidemiol* 2005; 20(11):963-74

Takumi K, Garssen J, Jonge R de, Jong W de, Havelaar W  
Release kinetics and cell trafficking in relation to bacterial growth explain the time course of blood neutrophils and monocytes during primary *Salmonella* infection  
*Int Immunol* 2005; 17(1):85-93

Takumi K, Giessen J van der  
Transmission dynamics of *Echinococcus multilocularis*; its reproduction number, persistence in an area of low rodent prevalence, and effectiveness of control  
*Parasitology* 2005; 131(1):133-40

Teunis P, Brandhof W van den, Nauta M, Wagenaar J, Kerkhof H van den, Pelt W van  
A reconsideration of the *Campylobacter* dose-response relation  
*Epidemiol Infect* 2005; 133(4):583-92

Teunis PFM, Lodder WJ, Heisterkamp SH, Roda Husman AM de  
Mixed plaques: Statistical evidence how plaque assays may underestimate virus concentrations  
*Water Res* 2005; 39(17):4240-50

Tiemersma EW, Monnet DL, Bruinsma N, Skov R, Monenn JCM, Grundmann H  
*Staphylococcus aureus* bacteremia, Europe [Letter to the editor]  
*Emerg Inf Dis* 2005; 11(11):1798-9

Trotter C, Samuelsson S, Perrocheau A, Greeff S de, Melker H de, Heuberger S, Ramsay M  
Ascertainment of meningococcal disease in Europe  
*Eurosurveillance Monthly* 2005; 10(10-12):247

Tsolaki AG, Ganeux S, Pym AS, Goguet de la Salmoniere YOL, Kreiswirth BN, Soolingen D van, Small PM  
Genomic deletions classify the Beijing/W strains as a distinct genetic lineage of *Mycobacterium tuberculosis*  
*J Clin Microbiol* 2005; 43(7):3185-91

Veen Y van der, Hahne S, Ruijs H, Binnendijk R van, Timen A, Loon A van, Melker H de  
Rubella outbreak in an unvaccinated religious community in the Netherlands leads to cases of congenital rubella syndrome  
*Eurosurveillance Monthly* 2005; 10(10-12):274

Veldhuijzen IK, Smits LJ, Laar MJ van de  
The importance of imported infections in maintaining hepatitis B in The Netherlands  
*Epidemiol Infect* 2005; 133(1):113-9

- V** Versteegh FGA, Mertens PLJM, Melker HE de, Roord JJ, Schellekens JFP, Teunis PFM  
Age-specific long-term course of IgG antibodies to pertussis toxin after symptomatic infection with *Bordetella pertussis*  
*Epidemiol Infect* 2005; 133(4):737-48
- Versteegh FGA, Weverling GJ, Peeters MF, Wilbrink B, Veenstra-van Schie MTM, Leeuwen-Gerritsen JM van, Mooi-Kokenberg EANM, Schellekens JFP, Roord JJ  
Community-acquired pathogens associated with prolonged coughing in children: a prospective cohort study  
*Clin Microbiol Infect* 2005; 11(10):801-7
- Viebahn M, Doornbos R, Wernars K, Loon LC van, Smit E, Bakker PAHM  
Ascomycete communities in the rhizosphere of field-grown wheat are not affected by introductions of genetically modified *Pseudomonas putida* WCS358r  
*Environ Microbiol* 2005; 7(11):1775-85
- Viebahn M, Veenman C, Wernars K, Loon LC van, Smit E, Bakker PAHM  
Assessment of differences in ascomycete communities in the rhizosphere of field-grown wheat and potato  
*FEMS Microbiol Ecol* 2005; 53:245-53
- Vlaminckx BJM, Pelt W van, Schouls LM, Silfhout A van, Mascini EM, Elzenaar CP, Fernandes T, Bosman A, Schellekens JFP  
Long-term surveillance of invasive group A streptococcal disease in The Netherlands, 1994-2003  
*Clin Microbiol Infect* 2005; 11(3):226-31
- Vlaminckx BJM, Pelt W van, Schellekens JFP  
Epidemiological considerations following long-term surveillance of invasive group A streptococcal disease in the Netherlands, 1992-2003  
*Clin Microbiol Infect* 2005; 11(7):564-8
- Vrese M de, Rautenberg P, Laue C, Koopmans M, Herremens T, Schrezenmeir J  
Probiotic bacteria stimulate virus-specific neutralizing antibodies following a booster polio vaccination  
*Eur J Nutr* 2005; 44(7):406-13
- Waar K, Herremans MMPT, Vennema H, Koopmans MPG, Benne CA  
Hepatitis E is a cause of unexplained hepatitis in the Netherlands  
*J Clin Virol* 2005; 33(2):145-9

- Wallinga J, Heijne JCM, Kretzschmar M  
A measles epidemic threshold in a highly vaccinated population  
*Plos Genetics* 2005; 2(11):e316
- Wannet WJB, Spalburg E, Heck MEOC, Pluister GN, Tiemersma E, Willems RJL, Huijsdens XW, Neeling AJ de, Etienne J  
Emergence of virulent methicillin-resistant staphylococcus aureus strains carrying panton-valentine leucocidin genes in the Netherlands  
*J Clin Microbiol* 2005; 43(7):3341-5
- Ward M, Brandsema P, Straten E van, Bosman A  
Electronic reporting improves timeliness and completeness of infectious disease notification, The Netherlands, 2003  
*Eurosurveillance Monthly* 2005; 10(1-3):27-30
- Welte R, Postma M, Leidl R, Kretzschmar M  
Costs and effects of chlamydial screening: dynamic versus static modeling  
*Sex Transm Dis* 2005; 32(8):474-83
- Wensing AMJ, Vijver DA van de, Angarano G, Coul EL op de, et al.  
Prevalence of drug-resistant HIV-1 variants in untreated individuals in Europe: implications for clinical management  
*J Infect Dis* 2005; 192(6):958-66
- Widdowson MA, Rockx B, Schepp R, Poel WHM van der, Vinje J, Duynhoven YT van, Koopmans MP  
Detection of serum antibodies to bovine norovirus in veterinarians and the general population in the Netherlands  
*J Med Virol* 2005; 76(1):119-28
- Wijngaard C van den, Asten L van, Rockx B van, Pelt W van, Godeke G, Koopmans M  
Syndromic approach to West Nile virus: the Netherlands 2002-2003  
*Morb Mortal Weekly Report* 2005; 54(Suppl):205
- Willems RJL, Top J, Santen M van, Robinson A, Coque TM, Baquero F, Grundmann H, Bonten MJM  
Global spread of vancomycin-resistant *Enterococcus faecium* from distinct nosocomial genetic complex  
*Emer Infect Dis* 2005; 11(6):821-8

- X** Xiridou M, Kretzschmar M, Geskus R  
Competition of pathogen strains leading to infection with variable infectivity and the effect of treatment  
*Math Biosci* 2005; 197(2):153-72
- Z** Zee A van der, Heck M, Sterks M, Harpal A, Spalburg E, Kazobagora L, Wannet W  
Recognition of SCCmec types according to typing pattern determined by multienzyme multiplex PCR-amplified fragment length polymorphism analysis of methicillin-resistant *Staphylococcus aureus*  
*J Clin Microbiol* 2005; 43(12):6042-7

## Research Papers (Dutch, 59)

- A** Avoort HGAM van der  
Polio in 2004: de dynamiek van een verdoemd virus  
*Infectieziekten Bulletin* 2005; 16(2):46-8
- Beaujean DJMA, Tiemersma EW, Neeling AJ de, Wannet WJB  
Nationale MRSA-surveillance nieuwe stijl: de resultaten na een half jaar  
*Infectieziekten Bulletin* 2005; 16(4):113-6
- Bijkerk P  
Risicobeheersing van *Campylobacter*-infecties via kuikenvlees in Nederland  
*Infectieziekten Bulletin* 2005; 16(7):237-40
- Boer IM de, Duynhoven YTHP van  
Meldingen van voedselgerelateerde infecties en explosies  
*Infectieziekten Bulletin* 2005; 16(10):377-83
- Boot R, Berg I van de, Vlemminx M  
Serologisch onderzoek van wilde *Rattus rattus* en *R. norvegicus*  
*Biotechniek* 2005; 44:120-3
- Coul ELM op de, Laar MJW van de  
Stijging in meldingen acute hepatitis C door LGV-uitbraak?  
*Infectieziekten Bulletin* 2005; 16(6):206-9
- D** Dijkstra F, Plas SM van der, Meijer A, Wilbrink B, Jong JC de, Bartelds AIM  
Surveillance van respiratoire infectieziekten in 2004/2005  
*Infectieziekten Bulletin* 2005; 16(6):198-205
- Zeijl JH van, Bakkers J, Wilbrink B, Melchers WJG, Mullaart RA, Galama JMD  
Influenza-associated encephalopathy: no evidence for neuroinvasion by influenza virus nor for reactivation of human herpesvirus 6 or 7  
*Clin Infect Dis* 2005; 40(3):483-5
- Zouza FA de, Declerck S, Smit E, Kowalchuk GA  
Morphological, ontogenetic and molecular characterization of *Scutellopora reticulata* (Glomeromycota)  
*Mycol Res* 2005; 109(6):697-706
- A** Duizer E, Kroneman A, Vennema H, Duijnhoven Y van, Koopmans M  
Veel uitbraken van gastro-enteritis door norovirus veroorzaakt door een nieuwe GGII.4-variant  
*Infectieziekten Bulletin* 2005; 16(2):59-61
- B** Duizer E, Morroy G, Wijk P van, Timen A, Koopmans M  
Inactivatie van calicivirussen: maatregelen in geval van een norovirusbesmetting  
*Infectieziekten Bulletin* 2005; 16(2):61-3
- Duynhoven YTHP van, Jager CM de, Heuvelink AE, Zwaluw WK van der, Maas HME, Pelt W van, Wannet WJB  
H9e stond het met de Shiga toxineproducerende *Escherichia coli* O157 in Nederland in 2004?  
*Infectieziekten Bulletin* 2005; 16(9):336-42
- F** Fuijkschot J, Pasma JW, Kortbeek LM, Verrips A, Willemsen MAAP  
Neurocysticercose: een importziekte om aan te denken  
*Tijdschr Neur Neurochir* 2005; 106:3-8
- G** Greeff SC de, Hahne SJM, Melker HE de  
Rijksvaccinatieprogramma nog altijd zeer effectief  
*Infectieziekten Bulletin* 2005; 16(7):235-7
- Greeff SC de, Schellekens JFP, Mooi FR, Melker HE de  
Effect van vaccinatie tegen kinkhoest op de incidentie van kinkhoest in Nederland, 1996-2003  
*Ned Tijdschr Geneesk* 2005; 149(17):937-43

**H** Hahne S, Ruijs H, Abbink F, Binnendijk R van, Melker H de  
Rubella-epidemie in Nederland  
Infectieziekten Bulletin 2005; 16(2):42

Hahne SJM, Abbink F, Binnendijk RS van, Ruijs WLM,  
Steenbergen JE van, Melker HE de  
Rubella-epidemie in Nederland in 2004-2005: alertheid op  
congenitaal rubellasyndroom vereist  
Ned Tijdschr Geneesk 2005; 149(21):1174-8

Heijnen ML, Waldhober Q  
Overzicht van kiemsurveillance die voor de openbare  
gezondheidszorg van belang is  
Infectieziekten Bulletin 2005; 16(10):360-3

Heuvelink AE, Ripping M, Duynhoven YTHP van  
Zo rauw hadden ze het niet gegeten, maar wel gedronken.  
Escherichia coli O157 en/of Campylobacter  
Infectieziekten Bulletin 2005; 16(8):268-9

Hof S van den  
Uitspraak Raad van State van belang voor vrijwillige  
surveillancesystemen  
Infectieziekten Bulletin 2005; 16(1):10-1

**J** Jacobs PHA, Gageldonk-Lafeber AB van, Jager CM de, Bruin JP  
Legionella-besmetting op een vakantiepark  
Infectieziekten Bulletin 2005; 16(7):257-9

Jong A de  
Hygiënisch koken voorkomt infecties  
Voedingsmiddelentechnologie 2005; 38(1/2):9

Jong JC de, Rimmelzwaan GF, Bartelds AIM, Meijer A,  
Fouchier RAM, Osterhaus ADME  
Het influenzaseizoen 2004/05 in Nederland met de  
grootste epidemie van de laatste 5 jaar, door virusvariant  
A/California, en de vaccinsamenstelling voor het seizoen  
2005/06  
Ned Tijdschr Geneesk 2005; 149(42):2355-61

**K** Kate LP ten, Loeber JG, Knijf P de, Bovenberg JA  
Trends in onze genen: hielprikkaarten bewaren voor  
onderzoek op lichaamsmateriaal  
Medisch Contact 2005; 60(4):1767-9

Koedijk F, Coul ELM op de, Laar MWJ van de  
Aangifte acute hepatitis B in 2004. Aandeel mannen  
neemt toe  
Infectieziekten Bulletin 2005; 16(8):296-8

Koedijk F, Veen M van, Laar M van de  
Mogelijkheden voor internationale samenwerking bij de  
bestrijding van LGV in Europa  
Infectieziekten Bulletin 2005; 16(5):153-5

Koedijk FDH, Coul ELM op de, Laar MJW van de  
Aangifte acute hepatitis B in 2003. Aandeel van  
heteroseksuelen neemt toe  
Infectieziekten Bulletin 2005; 16(1):15-7

Koedijk FDH, Doul ELM op de, Laar MJW van de  
Chronische hepatitis B infecties in Nederland: een  
overzicht van 2001-2003  
Infectieziekten Bulletin 2005; 16(1):18-22

Kooi TII van der, Hofs S van den, Wille JC  
Surveillance van beademing-gerelateerde pneumonien  
binnen PREZIES  
Tijdschr Hyg Infectiepreventie 2005; 24(1):7-9

Koopmans MPG  
Poxviridae en de volksgezondheid  
Infectieziekten Bulletin 2005; 16(3):94-5

Kuijper EJ, Debast SB, Kregten E van, Vaessen N, Notermans  
DW, Broek PJ van den  
Clostridium difficile ribotype O27, toxinotype III in  
Nederland  
Ned Tijdschr Geneesk 2005; 149(38):2087-9

**L** Laar MWJ van de  
SOA nemen opnieuw toe: voorlopige cijfers 2004  
Infectieziekten Bulletin 2005; 16(4):116-7

Loo IHM van, Spaargaren J, Laar MJW van de  
Resistentie van gonokokken in Nederland; resultaten van  
een enquête bij medisch-microbiologische laboratoria  
Ned Tijdschr Geneesk 2005; 149(22):1217-22

Medema GJ, Roda Husman AM de  
Inspectierichtlijn voor analyse microbiologische veiligheid  
drinkwater  
H2O 2005; 38(2):9-11

Morroy G, Wijkmans C, Duizer E  
Norovirusuitbraak op een internationale jamboree  
Infectieziekten Bulletin 2005; 16(2):57-9

Mulder J, Giessen J van der  
Hoe oud is deze vos  
Zoogdier 2005; 16(1):3-7

Mylius S  
Interventiedilemma's bij grieppaniek  
Infectieziekten Bulletin 2005; 16(2):49-50

**N** Neeling AJ de, Verbrugh HA  
Gebruik van antibiotica in Nederland het laagste van  
Europa  
Infectieziekten Bulletin 2005; 16(6):191-2

Notermans DW, Pelt W van, Kivi M, Giessen AW van de,  
Wannet WJB, Bosman A  
Sterke toename van infecties met Salmonella serotype  
Typhimurium DT104 in Nederland  
Ned Tijdschr Geneesk 2005; 149(53):2992-4

**O** Oosten M van  
Extra hepatitis-B-vaccinatie voor baby's van draagsters  
Infectieziekten Bulletin 2005; 16(10):364

Oosten M van, Boer AS de  
BMR-vaccinatie en autisme  
Infectieziekten Bulletin 2005; 16(5):171-4

**P** Pelt W van, Wannet WJM, Giessen AW van de, Mevius DJ,  
Koopmans MPG, Duynhoven YTHP van  
Trends in gastro-enteritis van 1996 tot en met 2004  
Infectieziekten Bulletin 2005; 16(7):250-6

**R** Rahamat-Langendoen JC, Vliet JA van, Suijkerbuijk AWM  
Signalering van bedreigingen door infectieziekten  
in Nederland in 2002 en 2003 door het wekelijkse  
signaleringsoverleg  
Ned Tijdschr Geneesk 2005; 149(40):2238-42

Ruijs WLM, Morroy G  
Ervaringen van GGD-artsen met influenza in verpleeg- en  
verzorgingshuizen in het influenzaseizoen 2004-2005  
Infectieziekten Bulletin 2005; 16(7):242

**S** Sande MAB van der, Ruijs WLM, Cools HJM, Meijer A, Plas SM  
van der  
Toepassing van antivirale middelen bij  
influenza-uitbraken in verpleeghuizen in het  
influenzaseizoen 2004-2005  
Infectieziekten Bulletin 2005; 16(7):240-2

Sande MAB van der, Ruijs WLM, Meijer A, Cools HJM, Plas SM  
van der, Morroy G  
Influenza uitbraken in verpleeghuizen 2004-2005. Wat  
zijn de consequenties voor het komende griepseizoen?  
Tijdschr Verpleeghuisgeneesk 2005; 30:22-5

Schets FM, Roda Husman AM de  
Gezondheidsklachten in relatie tot recreatie in  
oppervlaktewater in de zomer van 2004  
Infectieziekten Bulletin 2005; 16(10):372-7

Schets FM, Vries JMC de, Lierop GS van, Lodder WJ,  
Duynhoven YTHP van, Roda Husman AM de  
Twee explosies van zwemmersjeuk in de zomer van 2004  
Infectieziekten Bulletin 2005; 16(4):130-5

Spanjaard L, Hof S van den, Melker HE de, Vermeer-de Bondt  
PE, Ende A van der, Rijkers GT  
Toename van het aantal invasieve infecties door  
Haemophilus influenzae type b  
Ned Tijdschr Geneesk 2005; 149(49):2738-42

**T** Timen A, Vliet JA van, Koopmans MPG, Steenbergen JE van,  
Coutinho RA  
Vogelgriep H5N1 in Europa: vooralsnog gering  
gezondheidsrisico voor Nederland  
Ned Tijdschr Geneesk 2005; 149(46):2547-9

Timmermans R, Boot R, Reubsaet FAG  
Microbiologische verrassingen in sentinels en fosterdieren  
Biotechniek 2005; 44:195-7

**V** Vliet JA van  
MRSA in de openbare gezondheidszorg  
Infectieziekten Bulletin 2005; 16(1):9-10

Vliet JA van, Warris-Versteegen AA  
De naoorlogse geschiedenis van Yersinia enterocolitica in  
Nederland  
Infectieziekten Bulletin 2005; 16(7):265-6

Vries G de, Altena R van, Soolingen D van, Broekmans JF, Hest  
NAH van  
Een uitbraak van multiresistente tuberculose uit Oost-  
Europa in Nederland  
Ned Tijdschr Geneesk 2005; 149(35):1921-4

**W** Ward M, Prins JM, Bruynesteijn van Copenraet L, Lindeboom  
J, Kuijper EJ, Sande MAB van der  
Een cluster van kinderen met chronische lymfadenitis en  
M. haemophilum  
Infectieziekten Bulletin 2005; 16(10):358-9

Warris-Versteegen AA, Vliet JA van  
De naoorlogse geschiedenis van salmonellose anders dan  
(para)tyfus in Nederland  
Infectieziekten Bulletin 2005; 16(5):176-9

**W** Wijngaard CC van den, Asten L van, Vliet JA van, Pelt W van, Koopmans M  
Syndroomsurveillance om uitbraken van ongebruikelijke infectieziekten vroegtijdig te signaleren  
Ned Tijdschr Geneeskd 2005; 149(40):2243-5

Wille J, Hof S van den  
Openbaarheid geen doel op zicht. Rechterlijke uitspraak beschermt vrijwillig surveillanceproject  
Medisch Contact 2005; 60(10):399-401

**Z** Zeeuw AE van de, Wille JC, Hof S van den  
Aandachtspunten bij het starten en onderhouden van surveillance van ziekenhuisinfecties binnen het PREZIES netwerk. Praktische punten tijdens de uitvoering van de surveillance (fase 2)  
Tijdschr Hyg Infectiepreventie 2005; 24(2):27-32

#### Books, Chapters & Reports

**B** Bosman A, Vliet JA van  
Surveillance en signalering van infectieziekten  
In: Helsloot I, Steenbergen JE van, eds. Infectieziektenbestrijding. Studies naar organisatie en praktijkwerking.  
Den Haag: Boom Juridische Uitgevers, 2005;85-107

**C** Conyn-van Spaendonck MAE, Haperen VR van  
Kennis vergaren, vermeerderen en verspreiden  
In: Helsloot I, Steenbergen JE van, eds. Infectieziektenbestrijding. Studies naar organisatie en praktijkwerking.  
Den Haag: Boom Juridische Uitgevers, 2005;221-39

**E** Everdingen J van, Steenbergen J van  
Leven op aarde: de mens als macrobe  
In: Steenbergen J van, Everdingen J van, eds. Waar zouden we zijn zonder infecties? Essays over infectieziekten ter gelegenheid van 10 jaar LCI.  
Alphen aan den Rijn, Belvedere-Medidact, 2005:17-24

**H** Helsloot I, Steenbergen JE van, eds  
Infectieziektebestrijding. Studies naar organisatie en praktijkwerking.  
Den Haag: Boom Juridische Uitgevers, 2005

Zeeuw AE van de, Wille JC, Hof S van den  
Aandachtspunten bij het starten en onderhouden van surveillance van ziekenhuisinfecties binnen het PREZIES netwerk. Praktische punten naar aanleiding van de ontvangst van de surveillanceresultaten (fase 3)  
Tijdschr Hyg Infectiepreventie 2005; 24(3):55-7

Zeeuw AE van de, Wille JC, Hof S van den  
Aandachtspunten bij het starten en onderhouden van surveillance van ziekenhuisinfecties binnen het PREZIES netwerk. Praktische punten bij kwaliteitsverbeterende activiteiten (fase 4)  
Tijdschr Hyg Infectiepreventie 2005; 24(6):125-8

**K** Kerkhof JHTC van de, Steenbergen JE van  
Introductie in de infectieziektebestrijding  
In: Helsloot I, Steenbergen JE van, eds. Infectieziektenbestrijding. Studies naar organisatie en praktijkwerking.  
Den Haag: Boom Juridische Uitgevers, 2005;19-48

Kimman TG, Hoebee B  
Relevance of genetic background in respiratory tract infections  
In: Kimpen J, Ramilo O, eds. The microbe-host interface in respiratory tract infections. Norfolk: Horizon Bioscience, 2005;1-30

**P** Pieterman R, Steenbergen J van, Everdingen J van  
Maximale veiligheid? Fantomen van voorzorg bij infectieziekten  
In: Steenbergen J van, Everdingen J van, eds. Waar zouden we zijn zonder infecties? Essays over infectieziekten ter gelegenheid van 10 jaar LCI.  
Alphen aan den Rijn, Belvedere-Medidact, 2005:189-204

Pinelli E  
Medische parasitologie  
In: Polderman AM, Giessen JWB van de. Medische parasitologie: handleiding bij de laboratoriumdiagnostiek. 4e dr. Arnhem: Syntax Media, 2005

Pinelli E, Kortbeek LM, Giessen JWB van der  
Toxocara  
In: Cox FEG, Wakelin D, Gillespie SH, Despommier DD, eds. Parasitology. Topley & Wilson's microbiology and microbial infections. 10th ed.  
London: Hodder Arnold, 2005;750-6

Polderman AM, Giessen JWB van de  
Medische parasitologie: handleiding bij de laboratoriumdiagnostiek. 4e dr.  
Arnhem: Syntax Media, 2005

**S** Schets FM, Roda Husman AM de, Havelaar AH  
Water analysis: microbiological  
In: Worsfold PJ, Townshend A, Poole CF, eds. Encyclopedia of analytical science. 2nd ed.  
Oxford: Elsevier, 2005;336-44

Steenbergen J van, Everdingen J van, eds  
Waar zouden we zijn zonder infecties? Essays over infectieziekten ter gelegenheid van 10 jaar LCI  
Alphen aan den Rijn, Belvedere-Medidact, 2005

#### Doctoral Theses

**K** Kremer K  
Genetic markers for Mycobacterium tuberculosis: characterization and spread of the Beijing genotype  
Amsterdam: Universiteit van Amsterdam, 2005.

#### Professorial Chairs

**C** Coutinho RA  
Professor of Epidemiology and Infectious Disease control  
University of Amsterdam

**G** Gründmann H  
Professor of Epidemiology of microbial diseases  
University of Groningen

Steenbergen JE van, Dalen PJ van  
Structuur van de infectieziektebestrijding  
In: Helsloot I, Steenbergen JE van, eds. Infectieziektenbestrijding. Studies naar organisatie en praktijkwerking.  
Den Haag: Boom Juridische Uitgevers, 2005;109-36

**T** Timen A, Wijngaarden JK van  
De leerpunten van SARS  
In: Helsloot I, Steenbergen JE van, eds. Infectieziektenbestrijding. Studies naar organisatie en praktijkwerking.  
Den Haag: Boom Juridische Uitgevers, 2005

**K** Koopmans MPG  
Professor of Viral infections in the gastrointestinal tract  
Erasmus University, Rotterdam,

**M** Mooi FR  
Professor of Molecular Microbiology  
Utrecht University

# Research output

## Public Health and Health Services

### V&Z

#### Research Papers (International, 74)

**A** Abbink F, Buisman AM, Doornbos G, Woldman J, Kimman TG, Conyn-van Spaendonck MAE  
Poliovirus-specific memory immunity in seronegative elderly people does not protect against virus excretion  
*J Infect Dis* 2005; 191(6):990-9

Aijanseppa S, Notkola IL, Tjhuis M, Staveren W van, Kromhout D, Nissinen A  
Physical functioning in elderly Europeans: 10 year changes in the north and south: the HALE project  
*J Epidemiol Community Health* 2005; 59(5):413-9

Al MJ, Feenstra TL, Hout BA van  
Optimal allocation of resources over health care programmes: dealing with decreasing marginal utility and uncertainty  
*Health Econ* 2005; 14(7):655-67

Arah OA, Westert GP, Delnoij DM, Klazinga NS  
Health system outcomes and determinants amenable to public health in industrialized countries: a pooled, cross-sectional time series analysis  
*BMC Public Health* 2005; 5:81-91

Arah OA, Westert GP  
Correlates of health and healthcare performance: applying the Canadian health indicators framework at the provincial-territorial level  
*BMC Health Serv Res* 2005; 6:76-89

Avendano M, Kunst AE, Lenthe F van, Bos V, Costa G, Valkonen T, Cardano M, Harding S, Borgan JK, Glickman M, Reid A, Mackenbach JP  
Trends in socioeconomic disparities in stroke mortality in six european countries between 1981-1985 and 1991-1995  
*Am J Epidemiol* 2005; 161(1):52-61

**B** Banus HA, Kranen HJ van, Mooi FR, Hoebee B, Nagelkerke NJ, Demant P, Kimman TG  
Genetic control of Bordetella pertussis infection: identification of susceptibility loci using recombinant congenic strains of mice  
*Infect Immun* 2005; 73(2):741-7

Berg B van den, Brouwer W, Exel J van, Koopmanschap M  
Economic valuation of informal care: the contingent valuation method applied to informal caregiving  
*Health Econ* 2005; 14(2):169-83

Berg M, Meijerink Y, Gras M, Goossensen A, Schellekens W, Haeck J, Kallewaard M, Kingma H  
Feasibility first: Developing public performance indicators on patient safety and clinical effectiveness for Dutch hospitals  
*Health Policy* 2005; 75(1):59-73

Boer AH de, Klerk MMY de, Cardol M, Westert GP  
Het sociale netwerk en het ontvangen van informele hulp  
*Tijdschr Gezondheidswetenschappen* 2005; 83(4):213-9

Boldingh EJK, Jacobs-van der Bruggen MAM, Bos CFA, Lankhorst GJ, Bouter LM  
Determinants of hip pain in adult patients with severe cerebral palsy  
*J Pediatr Orthop B* 2005; 14(2):120-5

Bos G, Snijder MB, Nijpels G, Dekker JM, Stehouwer CD, Bouter LM, Heine RJ, Jansen H  
Opposite contributions of trunk and leg fat mass with plasma lipase activities: the Hoorn study  
*Obes Res* 2005; 13(10):1817-23

Boshuizen HC  
Reply to: Twisk and Proper: evaluation of the results of a randomized controlled trial: how to define changes between baseline and follow-up  
*J Clin Epidemiol* 2005; 58:209-10

Bree A de, van der Put NM, Mennen LI, Verschuren WM, Blom HJ, Galan P, Bates CJ, Herrmann W, Ullrich M, Dierkes J, Westphal S, Bouter LM, Heine RJ, Stehouwer CD, Dekker JM, Nijpels GN, Araujo F, Cunha-Ribeiro LM, Refsum H, Vollset S, Nygard O, Ueland PM  
Prevalences of hyperhomocysteinemia, unfavorable cholesterol profile and hypertension in European populations  
*Eur J Clin Nutr* 2005; 59(4):480-8

Brink CL van den, Picavet HSJ, Bos GAM van den, Giampaoli S, Nissinen A, Kromhout D  
Duration and intensity of physical activity and disability among European elderly men  
*Disabil Rehabil* 2005; 27(6):341-7

Brink CL van den, Tjhuis M, Bos GAM van den, Giampaoli S, Nissinen A, Kromhout D  
The contribution of self-rated health and depressive symptoms to disability severity as a predictor of 10-year mortality in European elderly men  
*Am J Public Health* 2005; 95(11):2029-34

Brouwer WBF, Exel NJA van, Berg B van den, Bos GAM van den, Koopmanschap MA  
Process utility from providing informal care: the benefit of caring  
*Health Policy* 2005; 74(1):85-99

Brunekreef B, Strien R van, Pronk A, Oldenwening M, Jongste JC de, Wijga A, Kerkhof M, Aalberse RC  
La mano de DIOS ... was the PIAMA intervention study intervened upon?  
*Allergy* 2005; 60(8):1083-6

Brussee JE, Smit HA, Kerkhof M, Koopman LP, Wijga AH, Postma DS, Gerritsen J, Grobbee DE, Brunekreef B, Jongste JC de  
Exhaled nitric oxide in 4-year-old children: relationship with asthma and atopy  
*Eur Respir J* 2005; 25(3):455-61

Brussee JE, Smit HA, Strien RT van, Corver K, Kerkhof M, Wijga AH, Aalberse RC, Postma D, Gerritsen J, Grobbee DE, Jongste JC de, Brunekreef B  
Allergen exposure in infancy and the development of sensitization, wheeze, and asthma at 4 years  
*J Allergy Clin Immunol* 2005; 115(5):946-52

Brussee JE, Smit HA, Brunekreef B, Jongste JC de  
Author's reply to: Exhaled nitric oxide in 4-year-old children: relationship with asthma and atopy [Letter to the editor]  
*Eur Resp J* 2005; 26(2):359-60

**C** Carter JY, Loolpapit MP, Lema OE, Tome JL, Nagelkerke NJ, Watkins WM  
Reduction of the efficacy of antifolate antimalarial therapy by folic acid supplementation  
*Am J Trop Med Hyg* 2005; 73(1):166-70

Droomers M, Schrijvers CTM, Casswell S, Mackenbach JP  
Father's occupational group and daily smoking during adolescence: patterns and predictors  
*Am J Public Health* 2005; 95(4):681-8

Elzinga G  
Vertical-horizontal synergy of the health workforce  
*Bulletin WHO* 2005; 83(4):242

Elzinga G  
Who cares? Health systems cannot cope  
*Dev Today* 2005; XV(4-5):11

**F** Feenstra TL, Hamberg-van Reenen HH, Hoogenveen RT, Rutten-van Molken MPMH  
Cost-effectiveness of face-to-face smoking cessation interventions: a dynamic modeling study  
*Value in Health* 2005; 8(3):178-90

Ferrari P, Al-Delaimy WK, Slimani N, Boshuizen HC, Roddam A, Orfanos P, Skeie G, Rodriguez-Barranco M, Thiebaut A, Johansson G, Palli D, Boeing H, Overvad K, Riboli E  
An approach to estimate between- and within-group correlation coefficients in multicenter studies: plasma carotenoids as biomarkers of intake of fruits and vegetables  
*Am J Epidemiol* 2005; 162(6):591-8

Geubbels ELPE, Wille JC, Nagelkerke NJD, Vandenbroucke-Grauls CMJE, Grobbee DE, Boer AS de  
Hospital-related determinants for surgical-site infection following hip arthroplasty  
*Infect Control Hosp Epidemiol* 2005; 26(5):435-41

**H** Harries AD, Zachariah R, Bergstrom K, Blanc L, Salaniponi FM, Elzinga G  
Human resources for control of tuberculosis and HIV-associated tuberculosis  
*Int J Tuberc Lung Dis* 2005; 9(2):128-37

Hoeymans N, Lindert H van, Westert GP

The health status of the Dutch population as assessed by the EQ-6D  
Qual Life Res 2005; 14(3):655-63

Hoffmann S, Peterbauer A, Schindler S, Fennrich S, Poole S, Mistry Y, Montag-Lessing T, Spreitzer I, Loschner B, van Aalderen M, Bos R, Gommer M, Nibbeling R, Werner-Felmayer G, Loitzl P, Jungi T, Brcic M, Brugger P, Frey E, Bowe G, Casado J, Coecke S, de Lange J, Mogster B, Naess LM, Aaberge IS, Wendel A, Hartung T  
International validation of novel pyrogen tests based on human monocytoïd cells  
J Immunol Methods 2005; 298:161-73

Hommerson P, Nedeljkovic SI, Klungel OH, Boer A de, Ostojic MC, Grujic MZ, Vojodic NM, Bloemberg BPM, Kromhout D  
Cardiovascular drug use and differences in the incidence of cardiovascular mortality in elderly Serbian men  
Pharm World Sci 2005; 27(2):124-8

Hoogendoorn M, Rutten-van Moelken MPMH, Hoogenveen RT, Genugten MLL van, Buist AS, Wouters EFM, Feenstra TL  
A dynamic population model of disease progression in COPD  
Eur Respir J 2005; 26(2):223-33

Houben RMA, Leeuw M, Vlaeyen JWS, Goubert L, Picavet HSJ  
Fear of movement/injury in the general population: factor structure and psychometric properties of an adapted version of the Tampa scale for kinesiophobia  
J Behav Med 2005; 28(5):415-24

Iestra JA, Kromhout D, Schouw YT van der, Grobbee DE, Boshuizen HC, Staveren WA van  
Effect size estimates of lifestyle and dietary changes on all-cause mortality in coronary artery disease patients: a systematic review  
Circulation 2005; 112(6):924-34

Kasstele J van de, Dekkers ALM, Stein A, Velders GJM  
Model-based geostatistical interpolation of the annual number of ozone exceedance days in the Netherlands  
Stoch Environ Res Risk Assess 2005; 19(3):173-83

Kerkhof M, Wijga A, Smit HA, Jongste JC, Aalberse RC, Brunekreef B, Gerritsen J, Postma DS, PIAMA Study Group  
The effect of prenatal exposure on total IgE at birth and sensitization at twelve months and four years of age: The PIAMA study  
Pediatr Allergy Immunol 2005; 16(1):10-8

Kremers SP, Visscher TL, Seidell JC van, Mechelen W van, Brug J  
Cognitive determinants of energy balance-related behaviours: measurement issues  
Sports Med 2005; 35(11):923-33

Kremers SPJ, Visscher TLS, Brug J, Chin A Paw MJM, Schouten EG, Schuit AJ, Seidell JC, Baak MA van, Mechelen W van, Kemper HCG, Kok FJ, Saris WHM, Kromhout D  
Netherlands research programme weight gain prevention (NHF-NRG): rationale, objectives and strategies  
Eur J Clin Nutr 2005; 59(4):498-507

Kruijshaar ME, Barendregt J, Vos T, Graaf R de, Spijker J, Andrew G  
Lifetime prevalence estimates of major depression: an indirect estimation method and a quantification of recall bias  
Eur J Epidemiol 2005; 20(1):103-11

Kruijshaar ME, Hoeymans N, Spijker J, Stouthard MEA, Essink-bot ML  
Has the burden of depression been overestimated?  
Bulletin WHO 2005; 83(6):443-8

Kruit MC, Launer LJ, Ferrari MD, Buchem MA van  
Infarcts in the posterior circulation territory in migraine. The population-based MRI CAMERA study  
Brain 2005; 128(9):2068-77

Lagoe R, Aspling DL, Westert GP  
Current and future developments in managed care in the United States and implications for Europe  
Health Res Policy Syst 2005; 3(1):4-15

Lagoe R, Westert G  
Using electronic distribution of health care data to improve community wide care. Bringing HTA into practice.  
Ital J Public Health 2005; 2(2):122

Lagoe RJ, Westert GP, Kendrick K, Morreale G, Mnich S  
Managing hospital length of stay reduction: a multihospital approach  
Health Care Management Rev 2005; 30(2):82-92

Loon AJM van, Tijhuis M, Surtees PG, Ormel J  
Determinants of smoking status: cross-sectional data on smoking initiation and cessation  
Eur J Publ Health 2005; 15(3):256-61

M

Makinen J, Mertsola J, Mooi FR, Amersfoorth S van, Arvilommi H, Viljanen MK, Qiushui H  
Bordetella pertussis isolates, Finland [Letter to the editor]  
Emerg Infect Dis 2005; 11(1):183-4

Mangen MJJ, Havelaar AH, Bernsen RAJAM, Koningsvels R van, Wit GA de  
The costs of human Campylobacter infections and sequelae in the Netherlands: a DALY and cost-of-illness approach  
Acta Agricult Scand C 2005; 2:35-51

Mantel-Teeuwisse AK, Klungel OH, Schalekamp T, Verschuren WMM, Porsius AJ, Boer A de  
Suboptimal choices and dosing of statins at start of therapy  
Br J Clin Pharmacol 2005; 60(1):83-9

McKeever TM, Lewis SA, Smit HA, Burney P, Britton JR, Cassano PA  
The association of acetaminophen, aspirin, and ibuprofen with respiratory disease and lung function  
Am J Respir Crit Care Med 2005; 171(9):966-71

Mol GD, Lisdonk EH van de, Smits JPJM, Hoogen JMP van den, Bor JHJ, Westert GP  
A widening gap in general practice? Socio-economic differences in morbidity between 1975 and 2000 in the Netherlands  
Public Health 2005; 119(7):616-25

N

Nagelkerke N, Smits J, Cessie S le, Houwelingen H van  
Testing goodness-of-fit of the logistic regression model in case-control studies using sample reweighting  
Stat Med 2005; 24(1):121-30

Nam N van, Vries PJ de, Toi L van, Nagelkerke N  
Malaria control in Vietnam: the Binh Thuan experience  
Trop Med Int Health 2005; 10(4):357-65

Nunn P, Williams B, Floyd K, Dye C, Elzinga G, Raviglione M  
Tuberculosis control in the era of HIV  
Nature Rev Immunol 2005; 5(10):819-26

Perenboom RJM, Herten LM van, Boshuizen HC, Bos GAM van den  
Life expectancy without chronic morbidity: trends in gender and socioeconomic disparities  
Public Health Reports 2005; 120(1):46-54

P

Polder JJ, Meerding WJ, Bonneux L, Maas PJ van der  
A cross-national perspective on cost of illness: a comparison of studies from The Netherlands, Australia, Canada, Germany, United Kingdom, and Sweden  
Eur J Health Econom 2005; 6(3):223-32

Schayck CP van, Smit HA  
The prevalence of asthma in children: a reversing trend  
Eur Respir J 2005; 26(4):647-50

Schellevis FG, Westert GP, Bakker DH de  
The actual role of general practice in the Dutch health-care system. Results of the Second Dutch National Survey of General Practice  
Med Klin 2005; 100(10):656-61

Schellevis FG, Westert GP, Bakker DH de  
The actual role of general practice in the Dutch health-care system. Results of the Second Dutch National Survey of General Practice  
J Public Health 2005; 13:265-9

Scher AI, Terwindt GM, Picavet HS, Verschuren WM, Ferrari MD, Launer LJ  
Cardiovascular risk factors and migraine: the GEM population-based study  
Neurology 2005; 64(4):614-20

Severeijns R, Vlaeyen JW, Hout MA van den, Picavet HS  
Pain catastrophizing and consequences of musculoskeletal pain: a prospective study in the Dutch community  
J Pain 2005; 6(2):125-32

Slootmaker SM, Chin A Paw MJM, Schuit AJ, Seidell JC, Mechelen W van  
Promoting physical activity using an activity monitor and a tailored web-based advice: design of a randomized controlled trial  
BMC Public Health 2005; 5:134

Smits J, Keij-Deerenberg I, Westert G  
Effects of socio-economic status on mortality: separating the nearby from the farther away  
Health Econ 2005; 14(6):595-608

Steenenberg PA, Withagen CET, Dalen WJ van, Dormans JAMA, Heisterkamp SH, Loveren H van, Cassee FR  
Dose dependency of adjuvant activity of particulate matter from five European sites in three seasons in an ovalbumin-mouse model  
Inhal Toxicol 2005; 17(3):133-45

**S** Struijs JN, Genugten MLL van, Evers SMAA, Ament AJHA, Baan CA, Bos GAM van den  
Modeling the future burden of stroke in the Netherlands. Impact of aging, smoking, and hypertension  
*Stroke* 2005; 36(8):1648-55

**T** Teunis P, Brandhof W van den, Nauta M, Wagenaar J, Kerkhof H van den, Pelt W van  
A reconsideration of the Campylobacter dose-response relation  
*Epidemiol Infect* 2005; 133(4):583-92

Teunis PFM, Lodder WJ, Heisterkamp SH, Roda Husman AM de  
Mixed plaques: Statistical evidence how plaque assays may underestimate virus concentrations  
*Water Res* 2005; 39(17):4240-50

Thai KT, Binh TQ, Giao PT, Phuong HL, Hung Q le, Nam N van, Nga TT, Groen J, Nagelkerke N, Vries PJ de  
Seroprevalence of dengue antibodies, annual incidence and risk factors among children in southern Vietnam  
*Trop Med Int Health* 2005;10(4):379-86

Treurniet HF, Hoeymans N, Gijsen R, Poos MJJC, Oers JAM van, Thien WMAH  
Health status and the challenges for prevention in The Netherlands  
*Public Health* 2005; 19(3):159-66

#### Research Papers (Dutch, 25)

**A** Achterberg A, Tamsma N  
EUPHIX: inzicht in Europese gezondheid via het web  
*Intermezzo* 2006; (6):4-5

**D** Dis SJ van, Leest LATM van, Verschuren WMM  
Voeding en coronaire hartziekten: cijfers en feiten  
*Hart Bulletin* 2005; 36(1):29-32

Droomers M, Loon J van  
Op weg naar een zorgportal: kiesbeter.nl  
*Tijdschr Gezondheidswetenschappen* 2005; 83(2):121-2

**V** Verhaak PFM, Hoeymans N, Garssen AA, Westert GP  
Mental health in the Dutch population and in general practice: 1987-2001  
*Brit J Gen Pract* 2005; 55(519):770-5

Verstappen SM, Boonen A, Bijlsma JW, Buskens E, Verkleij H, Schenk Y, Albada-Kuipers GA van, Hofman DM, Jacobson JW, Utrecht Theumatoid Arthritis Cohort Study Group  
Working status among Dutch patients with rheumatoid arthritis: work disability and working conditions  
*Rheumatology* 2005; 44(2):202-6

Versteegh FGA, Mertens PLJM, Melker HE de, Roord JJ, Schellekens JFP, Teunis PFM  
Age-specific long-term course of IgG antibodies to pertussis toxin after symptomatic infection with *Bordetella pertussis*  
*Epidemiol Infect* 2005; 133(4):737-48

**W** Westert GP, Schellevis FG, Bakker DH de, Groenewegen PP, Bensing JM, Zee J van der  
Monitoring health inequalities through general practice: the Second Dutch National Survey of General Practice  
*Eur J Public Health* 2005; 15(1):59-65

Wilk EA van der, Jansen J  
Lifestyle-related risks: are trends in Europe converging?  
*Public Health* 2005; 119(1):55-66

**G** Graaf R de, Have M ten, Dorsselaer S van, Schoemaker C, Beekman A, Vollebergh W  
Verschillen tussen etnische groepen in psychiatrische morbiditeit. Resultaten van Nemesis  
*MGv* 2005; 60(7-8):703-16

**H** Huibers M, Knottnerus A, Windt D van der, Schoemaker C  
Het is niet bewezen dat de huisarts-patient-relatie een additief effect heeft bij psycho-sociale interventies  
*Huisarts Wet* 2005; 48(6):274-5

**L** Leest L van, Verschuren M  
Leefstijl- en risicofactoren voor hart- en vaatziekten bij jongeren  
*CBS Bevolkingstrends* 2005; 1e kwartaal:69-83

Leest LATM van, Koek HL, Trijp MJCA van, Bos G, Bots ML, Verschuren WMM  
Diabetes and hart- en vaatziekten: cijfers en feiten. Deel 2: prevalentie van risicofactoren, mortaliteit en morbiditeit  
*Hart Bulletin* 2005; 36(3):83-6

Leest LATM van, Koek HL, Trijp MJCA van, Baan CA, Jacobs-van der Bruggen MAM, Bots ML, Verschuren WMM  
Diabetes en hart- en vaatziekten: cijfers en feiten. Deel 1: prevalentie, incidentie en risicofactoren voor diabetes mellitus  
*Hart Bulletin* 2005; 36(2):56-60

Leest LATM van, Trijp MJCA van, Verschuren WMM, Dis SJ van  
Wetenschappelijke stand van zaken omtrent nieuwe risicofactoren voor hart- en vaatziekten. Deel 1: C-reactieve proteïne en fibrinogeen  
*Hart Bulletin* 2005; 36(5):146-8

Leest LATM van, Trijp MJCA van, Verschuren WMM, Dis SJ van  
Wetenschappelijke stand van zaken omtrent nieuwe risicofactoren voor hart- en vaatziekten. Deel 2: Lipoproteïne-a, homocysteïne, chlamydia pneumoniae  
*Hart Bulletin* 2005; 36(6):171-4

**O** Oers JAM van, Schrijvers AJP  
Preventie, je leve(n) lang  
*Tijdschr Gezondheidswetenschappen* 2005; 83(3):125

**P** Polder J, Treurniet H, Bakker H de, Sluijs E  
Op een lijn: toekomstverkenning eerstelijnszorg 2020  
*VGE Bulletin* 2005; 22:6-8

Polder JJ  
Solidariteit als risico  
*Tijdschr Gezondheidswetenschappen* 2005; 83(6):319-21

Polder JJ  
Een harde lijn  
*Tijdschr Gezondheidswetenschappen* 2005; 83(6):317-8

Polder JJ  
Het bittere einde: over de zorgkosten in het laatste levensjaar  
*VGE Bulletin* 2005; 22:8-12

Polder JJ, Bakker D de  
Lijnen naar een lijn  
*Tijdschr Gezondheidswetenschappen* 2005; 83(7):394-5

**S** Schoemaker C  
Als 't maar werkt  
*MGv* 2005; 60(9):889-90

Schoemaker C  
Multidisciplinair en integraal. Vijftig jaar anorexia nervosa in het Maandblad, 1946-1995  
*MGv* 2005; 60:1273-81

**T** Treurniet HF, Berg Jeths A van den, Hollander AEM de  
Vooruitzien in de volksgezondheid  
*Tijdschr Gezondheidswetenschappen* 2005; 83(7):441-5

Treurniet HF, Hoeymans N, Gijsen R, Poos MJJC  
Gezondheid en ziekte in Nederland; het Nationaal Kompas Volksgezondheid als informatiebron  
*Ned Tijdschr Geneesk* 2005; 149(5):226-31

Uiters E, Deville W, Foets M, Westert GP, Verheij RA, Groenewegen PP  
Is er samenhang tussen stedelijkheid en etnische verschillen in zorggebruik?  
*Tijdschr Gezondheidswetenschappen* 2005; 83(4):205-12

**V** Velden PG van der, Grievink L, Dorresteyn AM, Kamp I van, Drogendijk AN, Christiaanse B, Roskam AJ, Marcelissen F, Olf M, Meewisse M, Gersons BPR, Kleber RJ  
Psychische klachten en het gebruik van de geestelijke gezondheidszorg na de vuurwerkcramp Enschede: een longitudinaal vergelijkend onderzoek  
*Tijdschr Psychiatrie* 2005; 47(9):571-82

Verkleij H, Oers JAM van  
De toekomst van de eerstelijns  
*Tijdschr Gezondheidswetenschappen* 2005; 83(7):393-4

**W** Westert G, Cardol M  
Slapeloosheid becijferd  
*Huisarts Wet* 2005; 48(5):205

Wijga A, Visscher TLS, Bemelmans W  
Geen stijging meer van overgewicht bij jongeren?  
*Voeding Nu* 2005; 7(5):11

## Books, Chapters &amp; Reports

Bemelmans WJE, Mulder I, Hoogenveen RT

Het risico van roken: epidemiologie

In: Knol K, Hilvering C, Wagener DJT, Willemsen MC, eds. Tabaksgebruik: gevolgen en bestrijding.

Utrecht: Lemma, 2005;91-106

Bruijn GJ de, Kremers S, Wendel-Vos W, Lenthe F van, Brug J

Environmental interventions for selected dietary behaviours in youth

In: Brug J, Lenthe F van, eds. Environmental determinants and interventions for physical activity, nutrition and smoking: a review.

Rotterdam: ZonMw, 2005;204-39

Bruijn GJ de, Kremers S, Wendel-Vos W, Lenthe F van, Brug J

Environmental interventions on physical activity in youth

In: Brug J, Lenthe F van, eds. Environmental determinants and interventions for physical activity, nutrition and smoking: a review.

Rotterdam: ZonMw, 2005;78-107

Cardol M, Dijk L van, Jong JD de, Bakker DH de, Westert GP

Tweede nationale studie naar ziekten en verrichtingen in de huisartspraktijk. Huisartsenzorg: wat doet de poortwachter?

Utrecht: Nederlands Instituut voor onderzoek van de gezondheidszorg NIVEL; Bilthoven: Rijksinstituut voor Volksgezondheid en Milieu RIVM, 2005

Ferreira I, Horst K van der, Wendel-Vos W, Kremers S, Lenthe F van, Brug J

Potential environmental determinants of physical activity in youth

In: Brug J, Lenthe F van, eds. Environmental determinants and interventions for physical activity, nutrition and smoking: a review.

Rotterdam: ZonMw, 2005;32-77

Giskes K, Kamphuis C, Kremers S, Wendel-Vos W, Brug J, Lenthe F van

Potential environmental determinants of selected dietary behaviours in adults

In: Brug J, Lenthe F van, eds. Environmental determinants and interventions for physical activity, nutrition and smoking: a review.

Rotterdam: ZonMw, 2005;240-81

Horst K van der, Oenema A, Ferreira I, Wendel-Vos W, Giskes K, Brug J

Potential environmental determinants of selected dietary behaviours in youth

In: Brug J, Lenthe F van, eds. Environmental determinants and interventions for physical activity, nutrition and smoking: a review.

Rotterdam: ZonMw, 2005;168-203

Huisman M, Lenthe F van, Kremers S, Droomers M, Brug J

Environmental interventions on smoking

In: Brug J, Lenthe F van, eds. Environmental determinants and interventions for physical activity, nutrition and smoking: a review.

Rotterdam: ZonMw, 2005;338-62

Kremers S, Bruijn GJ de, Wendel-Vos W, Lenthe F van, Brug J

Environmental interventions for selected dietary behaviours in adults

In: Brug J, Lenthe F van, eds. Environmental determinants and interventions for physical activity, nutrition and smoking: a review.

Rotterdam: ZonMw, 2005;282-316

Kremers S, Bruijn GJ de, Wendel-Vos W, Lenthe F van, Brug J

Environmental interventions on physical activity in adults

In: Brug J, Lenthe F van, eds. Environmental determinants and interventions for physical activity, nutrition and smoking: a review.

Rotterdam: ZonMw, 2005;140-66

Lenthe F van, Huisman M, Droomers M, Kremers S, Brug J

Potential environmental determinants of smoking

In: Brug J, Lenthe F van, eds. Environmental determinants and interventions for physical activity, nutrition and smoking: a review.

Rotterdam: ZonMw, 2005;318-37

Linden MW van der, Westert GP, Bakker DH de, Schellevis FG

Tweede nationale studie naar ziekten en verrichtingen in de huisartspraktijk. Klachten en aandoeningen in de bevolking en in de huisartspraktijk

Utrecht: Nederlands Instituut voor onderzoek van de gezondheidszorg NIVEL; Bilthoven: Rijksinstituut voor Volksgezondheid en Milieu RIVM, 2005

Lindert H van, Droomers M, Westert GP

Tweede nationale studie naar ziekten en verrichtingen in de huisartspraktijk. Een kwestie van verschil: verschillen in zelfgerapporteerde leefstijl, gezondheid en zorggebruik.

Utrecht: Nederlands Instituut voor onderzoek van de gezondheidszorg NIVEL; Bilthoven: Rijksinstituut voor Volksgezondheid en Milieu RIVM, 2005

Polder JJ

Een rookgordijn: over de economische gevolgen van roken

In: Knol K, Hilvering C, Wagener DJT, Willemsen MC, eds. Tabaksgebruik: gevolgen en bestrijding.

Utrecht: Lemma, 2005;389-403

Polder JJ

Het leven is een geschenk, maar we krijgen het niet cadeau: over leeftijd en levensloop en de kosten van de gezondheidszorg

In: Wagemakers A, Ubachs-Moust J, Christ L, eds. Tijd van leven, tijd van zorgen.

Utrecht: Expertisecentrum LEEftijd, 2005;148-59

Wendel-Vos W, Droomers M, Kremers S, Brug J, Lenthe F van

Potential environmental determinants of physical activity in adults

In: Brug J, Lenthe F van, eds. Environmental determinants and interventions for physical activity, nutrition and smoking: a review.

Rotterdam: ZonMw, 2005;108-39

## Doctoral Theses

Agyemang CO

Ethnic variations in blood pressure and hypertension

Rotterdam: Erasmus Universiteit, 2005. Proefschrift

Arah O

Performance reexamined: concepts, content and practice of measuring health systems performance

Amsterdam: Universiteit van Amsterdam, 2005. Proefschrift

Bogers RP

Fruit and vegetable consumption: measurement, determinants and intervention

Maastricht: Universiteit Maastricht, 2005. Proefschrift

Brink CL van den

Functional disability in elderly men

Amsterdam: Universiteit van Amsterdam, 2005. Proefschrift

Dotinga A

Drinking in a dry culture. Alcohol use among second generation Turks and Moroccans: measurements and results

Rotterdam: Erasmus Universiteit, 2005. Proefschrift

Lambooij MS

Promoting cooperation. Studies into the effects of long-term and

short-term rewards on cooperation of employees

Utrecht: Universiteit Utrecht, 2005. Proefschrift

## Professorial Chairs

Oers H van

Professor of Public Healthcare

University of Tilburg

Westert G

Professor of Quality of Healthcare

University of Tilburg



# Research output

## Nutrition, Medicines and Consumer Safety

### VGC

#### Research Papers (International, 136)

Airolidi L, Vineis P, Colombi A, Bueno de Mesquita HB, et al. 4-Aminobiphenyl-hemoglobin adducts and risk of smoking-related disease in never smokers and former smokers in the European Prospective Investigation into Cancer and Nutrition prospective study *Cancer Epidemiol Biomarkers Prev* 2005; 14(9):2118-24

Al-Delaimy WK, Ferrari P, Slimani N, Pala V, Johansson I, Nilsson S, Mattison I, Wirfalt E, Galasso R, Palli D, vineis P, Tumino R, Dorronsoro M, Pera G, Ocke MC, Bueno de Mesquita HB, Overvad K, Chirlaque MD, Trichopoulou A, Naska A, Tjonneland A, Olsen A, Lund E, Alsaker HER, Barricarte A, Kesse E, Boutron-Ruault MC, Clavel-Chapelon F, Key TJ, Spencer E, Bingham S, Welch AA, Sanchez-Perez MJ, Nagel G ; Linseisen J, Quiros JR, Peeters PHM, Gils CH van, Boeing H, Kappel AL van, Steghens JP, Riboli E Plasma carotenoids as biomarkers of intake of fruits and vegetables: individual-level correlations in the European Prospective Investigation into Cancer and Nutrition (EPIC) *Eur J Clin Nutr* 2005; 59(12):1387-96

Al-Delaimy WK, Slimani N, Ferrari P, Key T, Johansson I, Johansson G, Mattison I, Wirfalt E, Sieri S, Agudo A, Celentano E, Palli D, Secerdote C, Tumino R, Dorronsoro M, Ocke M, Bueno de Mesquita HB, Overvad K, Chirlaque MD, Trichopoulou A, Naska A, Tjonneland A, Olsen A, Lund E, Skeie G, Ardanaz E, Kesse E, Boutron-Ruault MC, Clavel-Chapelon F, Bingham S, Welch AA, Martinez-Garcia C, Nagel G, Linseisen J, Quiros JR, Peeters PHM, Gils CH van, Boeing H, Kappel AL van, Steghens JP, Riboli E Plasma carotenoids as biomarkers of intake of fruits and vegetables: ecological-level correlations in the European Prospective Investigation into Cancer and Nutrition (EPIC) *Eur J Clin Nutr* 2005; 59(12):1397-408

Amsterdam J van, Horst-Graat J van der, Bischoff E, Steerenberg P, Opperhuizen A, Schouten E The effect of vitamin E supplementation on serum DHEA and neopterin levels in elderly subjects *Int J Vitam Nutr Res* 2005; 75(5):327-31

Bamia C, Orfanos P, Ferrari P Bueno de Mesquita HB, Ocke MC, et al. Dietary patterns among older Europeans: the EPIC-elderly study *Br J Nutr* 2005; 94(1):100-13

Banus HA, Kranen HJ van, Mooi FR, Hoebee B, Nagelkerke NJ, Demant P, Kimman TG Genetic control of Bordetella pertussis infection: identification of susceptibility loci using recombinant congenic strains of mice *Infect Immun* 2005; 73(2):741-7

Basketter DA, Andersen KE, Liden C, Loveren H van, Boman A, Kimber I, Alanko K, Berggren E Evaluation of the skin sensitizing potency of chemicals by using the existing methods and considerations of relevance for elicitation *Contact Dermatitis* 2005; 52(1):39-43

Becker ML, Kallewaard M, Caspers PWJ, Schalekamp T, Stricker BHC Potential determinants of drug-drug interaction associated dispensing in community pharmacies *Drug Safety* 2005; 28(5):371-8

Berg FA van den, Baken KA, Vermeulen JP, Gremmer ER, Steeg H van, Loveren H van Use of the local lymph node assay in assessment of immune function *Toxicology* 2005; 211(1-2):107-14

Berg HF, Maraha B, Zee A van der, Gielis SK, Roholl PJM, Scheffer GJ, Peeters MF, Kluytmans JAJW Effect of clarithromycin treatment on chlamydia pneumoniae in vascular tissue of patients with coronary artery disease: a randomized, double-blind, placebo-controlled trial *J Clin Microbiol* 2005; 43(3):1325-9

Bezemer ID, Rinaldi S, Dossus L, Gils CH van, Peeters PHM, Noord PAH van, Bueno de Mesquita HB, et.al. C-peptide, IGF-I, sex-steroid hormones and adiposity: a cross-sectional study in healthy women within the European Investigation into Cancer and Nutrition (EPIC) *Cancer Causes Control* 2005; 16(5):561-72

Bingham SA, Norat T, Moskal A, Ferrari P, Slimani N, Bueno de Mesquita HB, Ocke MC, et.al. Is the association with fiber from foods in colorectal cancer confounded by folate intake? *Cancer Epidemiol Biomarkers Prev* 2005; 14(6):1552-6

Blokland MH, Rossum HJ van, Herbold HA, Sterk SS, Stephany RW, Ginkel LA van Metabolism of methyltestosterone, norethandrolone and methylboldenone in a heifer *Anal Chim Acta* 2005; 529:317-23

Bokkers BGH, Slob W A comparison of ratio distributions based on the NOAEL and the benchmark approach for subchronic-to-chronic extrapolation *Toxicol Sci* 2005; 85(2):1033-40

Bos G, Dekker JM, Feskens EJM, Ocke MC, Nijpels G, Stehouwer CDA, Bouter LM, Heine RJ, Jansen H Interactions of dietary fat intake and the hepatic lipase -480C->T polymorphism in determining hepatic lipase activity: the Hoorn Study *Am J Clin Nutr* 2005; 81(4):911-5

Bosgra S, Bos PMJ, Vermeire TG, Luit RJ, Slob W Probabilistic risk characterization: an example with di(2-ethylhexyl) phthalate *Regul Toxicol Pharmacol* 2005; 43(1):104-13

Bosgra S, Mennes W, Seinen W Proceedings in uncovering the mechanism behind peroxisome proliferator-induced hepatocarcinogenesis *Toxicology* 2005; 206(3):309-23

Boyes WK, Simmons JE, Eklund C, Benignus VA, Janssen P, Bushnell PJ Applications of dosimetry modeling to assessment of neurotoxic risk *Environ Toxicol Pharmacol* 2005; 19(3):599-605

Brink CL van den, Picavet HSJ, Bos GAM van den, Giampaoli S, Nissinen A, Kromhout D Duration and intensity of physical activity and disability among European elderly men *Disability & Rehabilitation* 2005; 27(6):341-7

Brink CL van den, Tijhuis M, Bos GAM van den, Giampaoli S, Nissinen A, Kromhout D The contribution of self-rated health and depressive symptoms to disability severity as a predictor of 10-year mortality in European elderly men *Am J Public Health* 2005; 95(11):2029-34

Brouwer C, Abreu RA de, Keizer-Garritsen JJ, Lambooy LHJ, Ament K, Riet PGJH ter, Wering ER van, Trijbels FJM, Veerman AJP, Hoogerbrugge PM, Bokkerink JPM Thiopurine methyltransferase in acute lymphoblastic leukaemia: biochemical and molecular biological aspects *Eur J Cancer* 2005; 41(4):613-23

Brouwer C, Vogels-Mentink TM, Keizer-Garritsen JJ, Trijbels FJM, Bokkerink JPM, Hoogerbrugge PM, Wering ER van, Veerman AJP, Abreu RA de Role of 5'-nucleotidase in thiopurine metabolism: enzyme kinetic profile and association with thio-GMP levels in patients with acute lymphoblastic leukemia during 6-mercaptopurine treatment *Clin Chim Acta* 2005; 361(1-2):95-103

Bruijn ACP de, Drongelen AW van Beurteilung der Leistung von Krankenhaus-Dampfsterilisatoren mit dem europaischen Helixtest *Zentr Steril* 2005; 13(1):17-33

Buijsse B, Feskens EJM, Schlettwein-Gsell D, Ferry M, Kok FJ, Kromhout D, Groot LCPGM de Plasma carotene and alpha-tocopherol in relation to 10-y all-cause and cause-specific mortality in European elderly: the Survey in Europe on Nutrition and the Elderly, a Concerted Action (SENECA) *Am J Clin Nutr* 2005; 82(4):879-86

Canzian F, McKay JD, Cleveland J, Bueno de Mesquita HB, et al. Genetic variation in the growth hormone synthesis pathway in relation to circulating insulin-like growth factor-I, insulin-like growth factor binding protein-3, and breast cancer risk: results from the European prospective investigation into cancer and nutrition study *Cancer Epidemiol Biomarkers Prev* 2005; 14(10):2316-25

Cassee FR, Boere AJF, Fokkens PHB, Leseman DLAC, Sioutas C, Kooter IM, Dormans JAMA  
Inhalation of concentrated particulate matter produces pulmonary inflammation and systemic biological effects in compromised rats  
J Toxicol Environ Health 2005; 68(10):773-96

Corpeleijn E, Saris WH, Jansen EH, Roekaerts PM, Feskens EJ, Blaak EE  
Postprandial interleukin-6 release from skeletal muscle in men with impaired glucose tolerance can be reduced by weight loss  
J Clin Endocrinol Metab 2005; 90(10):5819-24

Cox DG, Crusius JB, Peeters PH, Bueno de Mesquita HB, Pena AS, Canzian F  
Haplotype of prostaglandin synthase 2/cyclooxygenase 2 is involved in the susceptibility to inflammatory bowel disease  
World J Gastroenterol 2005; 11(38):6003-8

Dam RM van, Hoebee B, Seidell JC, Schaap MM, Bruin TWA de, Feskens EJM  
Common variants in the ATP-sensitive K<sup>+</sup> channel genes KCNJ11 (Kir6.2) and ABCC8 (SUR1) in relation to glucose intolerance: population-based studies and meta-analyses  
Diabetic Med 2005; 22(5):590-8

Dekker RJ, Bruijn JD de, Stigter M, Barrere F, Layrolle P, Blitterswijk CA van  
Bone tissue engineering on amorphous carbonated apatite and crystalline octacalcium phosphate-coated titanium discs  
Biomaterials 2005; 26(25):5321-9

Delft JHM van, Benthem J van  
Introduction to the special issue on genes and environment-bridging the gap  
Mutat Res 2005; 574(1-2):574-5

Diav-Citrin O, Shechtman AJ, Schaefer C, Rost van Tonningen M, Clementi M, Santis M de, Robert-Gnansia E, Valti E, Malm H, Ornoy A  
The safety of proton pump inhibitors in pregnancy: a multicentre prospective controlled study  
Aliment Pharmacol Ther 2005; 21(3):269-75

Diav-Citrin O, Shechtman S, Ornoy S, Arnon J, Schaefer C, Garbis H, Clementi M, Ornoy A  
Safety of haloperidol and penfluridol in pregnancy: a multicenter, prospective, controlled study  
J Clin Psychiatr 2005; 66(3):17-22

Donk M van den, Buijsse B, Berg SW van den, Ocke MC, Harryvan JL, Nagengast FM, Kok FJ, Kampman E  
Dietary intake of folate and riboflavin, MTHFR C677T genotype, and colorectal adenoma risk: a Dutch case-control study  
Cancer Epidemiol Biomark Prev 2005; 14(6):1562-6

Drongelen AW van, Roszek B van, Tienhoven EA, Geertsma RE, Boumans RT, Kraus JJ  
Annex II technical documentation assessed  
Med Device Technol 2005; 16(10):21-3

Ehling G, Hecht M, Heusener A, Huesler J, Gamer AO, Loveren H van, Maurer T, Riecke K, Ullman L Ulrich P, Vandebriel R, Vohr HW  
An European inter-laboratory validation of alternative endpoints of the murine local lymph node assay: First round  
Toxicology 2005; 212(1):60-8

Ehling G, Hecht M, Heusener A, Huesler J, Gamer AO, Loveren H van, Maurer T, Riecke K, Ullman L Ulrich P, Vandebriel R, Vohr HW  
An European inter-laboratory validation of alternative endpoints of the murine local lymph node assay: 2nd round  
Toxicology 2005; 212(1):69-79

Ezendam J, Kosterman K, Spijkerboer H, Bleumink R, Hassing I, Rooijen N van, Vos JG, Pieters R  
Macrophages are involved in hexachlorobenzene-induced adverse immune effects  
Tox Appl Pharm 2005; 209(1):19-27

Ezendam J, Vos JG, Pieters R  
Mechanisms of hexachlorobenzene-induced adverse immune effects in brown norway rats  
J Immunotoxicol 2005; 1(3-4):167-75

Fels-Klerx HJ van der, Cooke RM, Nauta MN, Goossens LH, Havelaar AH  
A structured expert judgment study for a model of Campylobacter transmission during broiler-chicken processing  
Risk Analysis 2005; 25(1):109-24

Garbis H, Elefant E, Diav-Citrin O, Mastroiacovo P, Schaefer C, Vial T, Clementi M, Valti E, McElhatton P, Smorlesi C, Pinilla Rodriguez E, Robert-Gnansia E, Merlob P, Peiker G, Pexieder T, Schueler L, Ritvanen A, Mathieu-Nolf M  
Pregnancy outcome after exposure to ranitidine and other H2-blockers. A collaborative study of the European Network of Teratology Information Services  
Reprod Toxicol 2005; 19(4):453-8

Gennari A, Ban M, Braun A, Casati S, Corsini E, Vandebriel R, et al.  
The use of in vitro systems for evaluating immunotoxicity: the report and recommendations of an ECVAM workshop  
J Immunotoxicol 2005; 2(1):61-83

Gerez L, Haan A de, Hol EM, Fischer DF, Leeuwen FW van, Steeg H van, Benne R  
Molecular misreading: the frequency of dinucleotide deletions in neuronal mRNAs for beta-amyloid precursor protein and ubiquitin B  
Neurobiol Aging 2005; 26(2):145-55

Gerlofs-Nijland ME, Boere AJ, Leseman DL, Dormans JA, Sandstrom T, Salonen RO, Bree L van, Cassee FR  
Effect of particulate matter on the pulmonary and vascular system: time course in spontaneously hypertensive rats  
Part Fibre Toxicol 2005; 2(1):2

Gils CH van, Peeters PHM, Bueno de Mesquita HB, Boshuizen HC, Lahmann PH, Clavel-Chapelon F  
Consumption of vegetables and fruits and risk of breast cancer  
J Am Med Assoc 2005; 293(2):183-93

Graaff PM de, Jong EC de, Capel TM van, Dijk ME van, Roholl PJ, Boes J, Luytjes W, Kimpen JL, Bleek GM van  
Respiratory syncytial virus infection of monocyte-derived dendritic cells decreases their capacity to activate CD4 T cells  
J Immunol 2005; 175(9):5904-11

Gruijl FR de, Kranen HJ van, Schanke A van  
UV exposure, genetic targets in melanocytic tumors and transgenic mouse models  
Photochem Photobiol 2005; 81(1):52-64

Hel OL van der, Bueno-de Mesquita HB, Gils CH van, Roest M, Slothouber B, Grobbee DE, Peeters PHM  
Cumulative genetic defects in carcinogen metabolism may increase breast cancer risk (The Netherlands)  
Cancer Causes Control 2005; 16(6):675-81

Herias MV, Koninkx JFJG, Vos JG, Huis in 't Veld JHJ, Dijk JE van  
Probiotic effects of Lactobacillus casei on DSS-induced ulcerative colitis in mice  
Int J Food Microbiol 2005; 103(12):143-55

Himbergen TM van, Roest M, Graaf J de, Jansen EHJM, Hattori H, Kastelein JJP, Voorbij HAM, Stalenhoef AFH, Tits LJH van  
Indications that paraoxonase-1 contributes to plasma high density lipoprotein levels in familial hypercholesterolem  
J Lipid Res 2005; 46(3):445-51

Hoegberg P, Schmidt CK, Fletcher N, Nilsson CB, Trossvik C, Schuur AG, Brouwer A, Nau H, Ghyselinck NB, Chambon P, Hakansson H  
Retinoid status and responsiveness to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in mice lacking retinoid binding protein or retinoid receptor forms  
Chemico-Biol Interactions 2005; 156(1):25-39

Hoffmann S, Peterbauer A, Schindler S, Fennrich S, Poole S, Mistry Y, Montag-Lessing T, Spreitzer I, Loschner B, van Aalderen M, Bos R, Gommer M, Nibbeling R, Werner-Felmayer G, Loitzl P, Jungi T, Brcic M, Brugger P, Frey E, Bowe G, Casado J, Coecke S, de Lange J, Mogster B, Naess LM, Aaberge IS, Wendel A, Hartung T  
International validation of novel pyrogen tests based on human monocytoic cells  
J Immunol Methods 2005; 298:161-73

Hommerson P, Nedeljkovic SI, Klungel OH, Boer A de, Ostojic MC, Grujic MZ, Vojodic NM, Bloemberg BPM, Kromhout D  
Cardiovascular drug use and differences in the incidence of cardiovascular mortality in elderly Serbian men  
Pharm World Sci 2005; 27(2):124-8

Hoogervorst EM, Bruins W, Zwart E, Oostrom CTM van, Aardweg GJ van den, Beems RB, Berg J van den, Jacks T, Steeg H van, Vries A de  
Lack of p53 Ser389 phosphorylation predisposes mice to develop 2-acetylaminofluorene-induced bladder tumors but not ionizing  
Cancer Res 2005; 65(9):3610-6

Hoogervorst EM, Oostrom CT van, Beems RB, Benthem J van, Berg J van den, Kreijl CF van, Vos JG, Vries A de, Steeg H van  
2-AAF-induced tumor development in nucleotide excision repair-deficient mice is associated with a defect in global genome repair but not with transcription coupled repair  
DNA Repair 2005; 4(1):3-9

**H** Hoogervorst EM, Steeg H van, Vries A de  
Nucleotide excision repair- and p53-deficient mouse models in cancer research  
*Mutat Res* 2005; 574(1-2):3-21

**I** Iestra JA, Kromhout D, Schouw YT van der, Grobbee DE, Boshuizen HC, Staveren WA van  
Effect size estimates of lifestyle and dietary changes on all-cause mortality in coronary artery disease patients: a systematic review  
*Circulation* 2005; 112(6):924-34

**J** Jacobs EMG, Hendriks JCM, Tits BLJH van, Evans PJ, Breuer W, Liu DY, Jansen EHJM, Jauhiainen K, Sturm B, Porter JB, Scheiber-Mojdehkar B, Bonsdorff L von, Cabantchik ZI, Hider RC, Swinkels DW  
Results of an international round robin for the quantification of serum non-transferrin-bound iron: need for defining standardization and a clinically relevant isoform  
*Anal Biochem* 2005; 341(2):241-50

Jans J, Schul W, Gul Sert Y, Rijksen Y, Rebel H, Eker APM, Nakajima S, Steeg H van, Gruijl FR de, Yasul A, Hoijmakers JHJ, Horst GTJ van der  
Powerful skin cancer protection by a CPD-photolyase transgene  
*Current Biology* 2005; 15(2):105-15

Jenab M, Ferrari P, Mazuir M, Tjonneland A, Bueno de Mesquita HB, et al.  
Variations in lycopene blood levels and tomato consumption across European Countries based on the European Prospective Investigation into Cancer and Nutrition (EPIC) Study  
*J Nutr* 2005; 135(8):S2032-6

Jong WH de, Bergsma JE, Robinson JE, Bos RRM  
Tissue response to partially in vitro predegraded poly-L-lactide implants  
*Biomaterials* 2005; 26(14):1781-91

Josephs RD, Ulberth F, Egmond HP van, Emons H  
Aflatoxin M1 in milk powders: processing, homogeneity and stability testing of certified reference materials  
*Food Addit Contam* 2005; 22(9):864-74

**K** Kaaks R, Berrino F, Key, Bueno de Mesquita HB, et al.  
Serum sex steroids in premenopausal women and breast cancer risk within the European Prospective Investigation into Cancer and Nutrition (EPIC)  
*J Nat Cancer Inst* 2005; 97(10):755-65

Kaaks R, Rinaldi S, Key TJ, Bueno de Mesquita HB, et al.  
Postmenopausal serum androgens, oestrogens and breast cancer risk: the European prospective investigation into cancer and nutrition  
*Endocr Relat Cancer* 2005; 12(4):1071-82

Kok JB de, Roelofs RW, Giesendorf BA, Pennings JL, Waas ET, Feuth T, Swinkels DW, Span PN  
Normalization of gene expression measurements in tumor tissues: comparison of 13 endogenous control genes  
*Lab Invest* 2005; 85(1):154-9

Kooter IM, Pennings JLA, Opperhuizen A, Cassee FR  
Gene expression pattern in spontaneously hypertensive rats exposed to urban particulate matter (EHC-93)  
*Inhal Toxicol* 2005; 17:53-65

Kootstra PR, Kuijpers CJPF, Wubs KL, Doorn D van, Sterk SS, Ginkel LA van, Stephany RW  
The analysis of beta-agonists in bovine muscle using molecular imprinted polymers with ion trap LCMS screening  
*Anal Chim Acta* 2005; 529:75-81

Kortajarvi H, Yliperttula M, Dressman JB, Junginger HE, Midha KK, Shah VP, Barends DM  
Biowaiver monographs for immediate release solid oral dosage forms: Ranitidine hydrochloride  
*J Pharm Sci* 2005; 94(8):1617-25

Kraft P, Pharaoh P, Chanock SJ, Bueno de Mesquita HB, et al.  
Genetic variation of the HSD17B1 gene and risk of prostate cancer  
*PLoS Genetics* 2005; 1(5):e68

Kranen HJ van, Westerman A, Berg RJW, Kram N, Kreijl CF van, Wester PW, Gruijl FR de  
Dose-dependent effects of UVB-induced skin carcinogenesis in hairless p53 knockout mice  
*Mutat Res* 2005; 571(1-2):81-90

Kraneveld AD, Kool M, Houwelingen AH van, Roholl P, Solomon A, Postma DS, Nijkamp FB, Redegeld FA  
Elicitation of allergic asthma by immunoglobulin free light chains  
*Proc Nat Acad Sci* 2005; 102(5):1578-83

Krska R, Schothorst RC, Egmond HP van, Josephs RD, Lepschy J, Pettersen H, Chan D, Berthiller F, Schuhmacher R, Kandler W, Parich A, Welzig E  
Processing and purity assessment of standards for the analysis of type-B trichothecene mycotoxins  
*Anal Bioanal Chem* 2005; 382(8):1848-58

**L** Laan JW van der  
Adjuvants enhancing an integral immune response to antigens  
*Expert Rev Vaccines* 2005; 4(1):15-8

Laan JW van der, Loveren H van  
Immune function testing of human pharmaceuticals: regulatory overshoot?  
*Expert Opin Drug Saf* 2005; 4(1):1-5

Laan JW van der, Loveren H van  
Assessing immunotoxicity: guidelines  
*Fundam Clin Pharmacol* 2005; 19(3):329-30

Laan JW van der, Loveren H van  
Current status and burning issues in immunotoxicity testing of drugs  
*Toxicol Appl Pharmacol* 2005; 207(Supp 2):435-40

Lanti M, Menotti A, Nedeljkovic S, Nissinen A, Kafatos A, Kromhout D  
Long-term trends in major cardiovascular risk factors in cohorts of aging men in the European cohorts of the Seven Countries Study  
*Aging Clin Exper Res* 2005; 17(4):306-15

Luykx DM, Dingemans PJ, Goerdal SS, Jongen PM  
High-performance anion-exchange chromatography combined with intrinsic fluorescence detection to determine erythropoietin in pharmaceutical products  
*J Chromatogr A* 2005; 1078(1-2):113-9

Luykx DMAM, Goerdal SS, Dingemans PJ, Jiskoot W, Jongen PMJM  
HPLC and tandem detection to monitor conformational properties of biopharmaceuticals  
*J Chromatogr B* 2005; 821(1):45-52

**M** Meer G de, Amsterdam JG van, Janssen NA, Meijer E, Steerenberg PA, Brunekreef B  
Exhaled nitric oxide predicts airway hyper-responsiveness to hypertonic saline in children that wheeze  
*Allergy* 2005; 60(12):1499-504

Meijler FL, Billette J, Jalife J, Kik MJL, Reiber JHC, Stokhof AA, Westenberg JJM, Wassenaar C, Strackee J  
Atrioventricular conduction in mammalian species: hemodynamic and electrical scaling  
*Heart Rhythm* 2005; 2(2):188-96

Menotti A, Lanti M, Kromhout D, Kafatos A, Nedeljkovic S, Nissinen A  
Short and long term association of a single serum cholesterol measurement in middle-aged men in prediction of fatal coronary and other cardiovascular events: a cross-cultural comparison through Europe  
*Eur J Epidemiol* 2005; 20:597-604

Menotti A, Lanti M, Maiani G, Kromhout D  
Forty-year mortality from cardiovascular diseases and their risk factors in men of the Italian rural areas of the Seven Countries Study  
*Acta Cardiol* 2005; 60(5):521-31

Mensinga TT, Sips AJAM, Rompelberg CJM, Twillert K van, Meulenbelt J, Top HJ van den, Egmond HP van  
Potato glycoalkaloids and adverse effects in humans: an ascending dose study  
*Regul Toxicol Pharmacol* 2005; 41(1):66-72

Milder IEJ, Arts ICW, Putte B van de, Venema DP, Hollman PCH  
Lignan contents of Dutch plant foods: a database including lariciresinol, pinoresinol, secoisolariciresinol and matairesinol  
*Br J Nutr* 2005; 93(3):393-402

Milder IEJ, Feskens EJM, Arts ICW, Bueno de Mesquita HB, Hollman PCH, Kromhout D  
Intake of the plant lignans secoisolariciresinol, matairesinol, lariciresinol, and pinoresinol in Dutch men and women  
*J Nutr* 2005; 135(5):1202-7

Moschandreas J, Kafatos A, Aravanis C, Dontas A, Menotti A, Kromhout D  
Long-term predictors of survival for the Seven Countries Study cohort from Crete: from 1960 to 2000  
*Int J Cardiol* 2005; 100(1):85-91

**N** Narbutt J, Lesiak A, Skibinska M, Wozniacka A, Loveren H van, Sysa-Jedrzejowska A, Lewy-Trenda I, Omulecka A, Norval M  
Suppression of contact hypersensitivity after repeated exposures of humans to low doses of solar simulated radiation  
*Photochem Photobiol Sci* 2005; 4(7):517-22

Narbutt J, Lesiak A, Skibinska M, Wozniacka A, Sysa-Jedrzejowska A, Lukamowicz J, Loveren H van  
Repeated doses of UVR cause minor alteration in cytokine serum levels in humans  
*Mediators Inflamm* 2005; 2005(5):298-303

Nauta M, Fels-Klerx I van der, Havelaar A  
A poultry-processing model for quantitative microbiological risk assessment  
*Risk Analysis* 2005; 25(1):85-98

Nooyens AC, Visscher TL, Schuit AJ, Rossum CT van, Verschuren WM van, Mechelen W, Seidell JC  
Effects of retirement on lifestyle in relation to changes in weight and waist circumference in Dutch men: a prospective study  
*Public Health Nutr* 2005; 8(8):1266-74

Norat T, Bingham S, Ferrari P, Slimani N, Bueno de Mesquita HB, et al.  
Meat, fish, and colorectal cancer risk: The European prospective investigation into cancer and nutrition  
*J Nat Cancer Inst* 2005; 97(12):906-16

**O** Och FMM van, Loveren H van, Wolfswinkel JC van, Machielsen AJC, Vandebriel RJ  
Assessment of potency of allergenic activity of low molecular weight compounds based on IL-1alpha and IL-18 production by a murine and human keratinocyte cell line  
*Toxicology* 2005; 210(2-3):95-109

Onland-Moret NC, Peeters PHM, Gils CH van, Bueno de Mesquita HB, et al.  
Age at menarche in relation to adult height: the EPIC study  
*Am J Epidemiol* 2005; 162(7):623-32

Oomen JM, Rossum CT van, Hoebee B, Saris WH, Baak MA van  
Beta2-adrenergic receptor polymorphisms and salbutamol-stimulated energy expenditure  
*J Clin Endocrinol Metab* 2005; 90(4):2301-7

Oomen JM, Waijers PM, Rossum C van, Hoebee B, Saris WH, Baak MA van  
Influence of beta(2)-adrenoceptor gene polymorphisms on diet-induced thermogenesis  
*Br J Nutr* 2005; 94(5):647-54

Oosten M van, Stout GJ, Backendorf C, Rebel H, Wind N de, Darroudi F, Kranen HJ van, Gruijl FR de, Mullenders LH  
Mismatch repair protein Msh2 contributes to UVB-induced cell cycle arrest in epidermal and cultured mouse keratinocytes  
*DNA Repair* 2005; 4(1):81-9

**P** Panagiotakos DB, Kromhout D, Menotti A, Chrysohoou C, Dontas A, Pitsavos C, Adachi H, Blackburn H, Nedeljkovic S, Nissinen A  
The relation between pulse pressure and cardiovascular mortality in 12763 middle-aged men from various parts of the world : a 25 year follow-up of the Seven Countries Study  
*Arch Intern Med* 2005; 165(18):2142-7

Peluso M, Munnia A, Hoek G, Bueno de Mesquita HB, et al.  
DNA adducts and lung cancer risk: a prospective study  
*Cancer Res* 2005; 65(17):8042-8

Pinelli E, Withagen C, Fonville M, Verlaan A, Dormans J, Loveren H van, Maizels RM, Giessen J van der  
Persistent airway hyper-responsiveness and inflammation in *Toxocara canis*-infected BALB/c mice  
*Clin Exp Allergy* 2005; 35(6):826-32

Poelmans S, Wasch K de, Noppe H, Hoof N van, Cruchten S van, Bizec B le, DeCeuninck Y, Sterk S, Rossum HJ van, Hoffman MK, Brabander HF de  
Endogenous occurrence of some anabolic steroids in swine matrices  
*Food Addit Contam* 2005; 22(9):808-15

Pohl HR, Engelen JGM van, Wilson J, Sips AJAM  
Risk assessment of chemicals and pharmaceuticals in the pediatric population: a workshop report  
*Regul Toxicol Pharmacol* 2005; 42(1):83-95

Potthast H, Dressman JB, Junginger HE, Midha KK, Oeser H, Shah VP, Vogelpoel H, Barends DM  
Biowaiver monographs for immediate release solid oral dosage forms: ibuprofen  
*J Pharm Sci* 2005; 94(10):2121-31

**R** Rebel H, Kram N, Westerman A, Banus S, Kranen HJ v, Gruijl FR de  
Relationship between UV-induced mutant p53 patches and skin tumours, analysed by mutation spectra and by induction kinetics in various DNA-repair-deficient mice  
*Carcinogenesis* 2005; 26(12):2123-30

Ringerike T, Ulleras E, Volker R, Verlaan B, Eikeset A, Trzaska D, Adamczewska V, Olszewski M, Walczak-Drzewiecka A, Arkusz J, Loveren H van, Nilsson G, Lovik M, Dastyh J, Vandebriel J  
Detection of immunotoxicity using T-cell based cytokine reporter cell lines ("Cell Chip")  
*Toxicology* 2005; 206(2):257-72

**S** Sarrif A, Delft JHM van, Gant TW, Elliott BM, Ravenzwaay B van, Steeg H van, Vrijhof H  
Toxicogenomics in genetic toxicology and hazard determination: introduction and overview  
*Mutat Res* 2005; 575(1-2):1-3

Schalk JAC, Vries CGJCA de, Jongen PMJM  
Potency estimation of measles, mumps and rubella trivalent vaccines with quantitative PCR infectivity assay  
*Biologicals* 2005; 33(2):71-9

Schijven J, Rijs GBJ, Roda Husman AM de  
Quantitative risk assessment of FMD virus transmission via water  
*Risk Analysis* 2005; 25(1):13-21

Schothorst EM van, Franssen-van Hal N, Schaap MM, Pennings J, Hoebee B, Keijer J  
Adipose gene expression patterns of weight gain suggest counteracting steroid hormone synthesis  
*Obes Res* 2005; 13(6):1031-41

Schothorst RC, Jekel AA, Egmond HP van, Mul A de, Boon PE, Klaveren JD van  
Determination of trichothecenes in duplicate diets of young children by capillary gas chromatography with mass spectrometric detection  
*Food Addit Contam* 2005; 22(1):48-55

Schothorst RC, Somers HHJ  
Determination of N-nitrosodiethanolamine in cosmetic products by LC-MS-MS  
*Anal Bioanal Chem* 2005; 381(3):681-5

Schulz M, Lahmann PH, Boeing H, Hoffmann K, Allen N, Key TJA, Bingham S, Bueno de Mesquita HB, et.al.  
Fruit and vegetable consumption and risk of epithelial ovarian cancer: the European prospective investigation into cancer and nutrition  
*Cancer Epidemiol Biomarkers Prev* 2005; 14(11):2531-5

Schwarz A, Maeda A, Kernebeck K, Steeg H van, Beissert S, Schwarz T  
Prevention of UV radiation-induced immunosuppression by IL-12 is dependent on DNA repair  
*J Exp Med* 2005; 201(2):173-9

Siezen CLE, Leeuwen AIM van, Kram NR, Luken MEM, Kranen HJ van, Kampman E  
Colorectal adenoma risk is modified by the interplay between polymorphisms in arachidonic acid pathway genes and fish consumption  
*Carcinogenesis* 2005; 26(2):449-57

Sizoo EA, Egmond HP van  
Analysis of duplicate 24-hour diet samples for aflatoxin B1, aflatoxin M1 and ochratoxin A  
*Food Addit Contam* 2005; 22(2):163-72

Slob W, Moerbeek M, Rauniomaa E, Piersma AH  
A statistical evaluation of toxicity study designs for the estimation of the benchmark dose in continuous endpoints  
*Toxicol Sci* 2005; 84(1):167-85

Solecki R, Davies L, Dellarco V, Dewhurst I, Raaij M van, Tritscher A  
Guidance on setting of acute reference dose (ARfD) for pesticides  
*Food Chem Toxicol* 2005; 43(11):1569-93

Steerenberg PA, Withagen CET, Dalen WJ van, Dormans JAMA, Heisterkamp SH, Loveren H van, Cassee FR  
Dose dependency of adjuvant activity of particulate matter from five European sites in three seasons in an ovalbumin-mouse model  
*Inhal Toxicol* 2005; 17(3):133-45

**T** Takumi K, Garssen J, Jonge R de, Jong W de, Havelaar W  
Release kinetics and cell trafficking in relation to bacterial growth explain the time course of blood neutrophils and monocytes during primary *Salmonella* infection  
*Int Immunol* 2005; 17(1):85-93

Treijtel N, Helvoort H van, Barendregt A, Blaauboer BJ, Eijkelen JC van  
The use of sandwich-cultured rat hepatocytes to determine the intrinsic clearance of compounds with different extraction ratios: 7-ethoxycoumarin and warfarin  
*Drug Metab Dispos* 2005; 33(9):1325-32

Trichopoulou A, Orfanos P, Norat T, Bueno de Mesquita B, Ocke M, Peeters PH, et.al.  
Modified mediterranean diet and survival: EPIC-elderly prospective cohort study  
*Brit Med J* 2005; 330(7498):991-5

Ulleras E, Trzaska D, Arkusz J, Ringerike T, Adamczewska V, Olszewski M, Wyczolkowska J, Walczak-Drzewiecka A, Al-Nedawi K, Nilsson G, Bialek-Wyrzykowska U, Stepnik M, Loveren H van, Vandebriel RJ, Lovik M, Rydzynski K, Dastych J  
Development of the "Cell Chip": a new in vitro alternative technique for immunotoxicity testing  
*Toxicology* 2005; 206(2):245-56

Vandebriel RJ, Och FMM van, Loveren H van  
In vitro assessment of sensitizing activity of low molecular weight compounds  
*Toxicol Appl Pharmacol* 2005; 207(Supp 2):142-8

Verbeeck RK, Junginger HE, Midha KK, Shah VP, Barends DM  
Biowaiver monographs for immediate release solid oral dosage forms based on biopharmaceutics classification system (BCS) literature data: chloroquine phosphate, chloroquine sulfate, and chloroquine hydrochloride  
*J Pharm Sci* 2005; 94(7):1389-95

Versantvoort CHM, Oomen AG, Kamp E van der, Rempelberg CJM, sips AJAM  
Applicability of an in vitro digestion model in assessing the bioaccessibility of mycotoxins from food  
*Food Chem Toxicol* 2005; 43(1):31-40

Verschuur M, Jellema A, Bladbjerg EM, Feskens EJM, Mensink RP, Moller L, Vos HL, Maat MPM de  
The plasminogen activator inhibitor-1 (PAI-1) promoter haplotype is related to PAI-1 plasma concentrations in lean individuals  
*Atherosclerosis* 2005; 181(2):275-84

Vineis P, Airolidi L, Veglia F, Olgiati L, Pastorelli R, Bueno de Mesquita B, et.al.  
Environmental tobacco smoke and risk of respiratory cancer and chronic obstructive pulmonary disease in former smokers and never smokers in the EPC prospective study  
*Brit Med J* 2005; 330(7486):277-81

Vries FAT de, Zonneveld JBM, Duijn-Goedhart A van, Roodbergen M, Boei J, Buul PPW van, Essers J, Steeg H van, Zeeland AA van, Benthem J van, Pastink A  
Inactivation of RAD52 aggravates RAD54 defects in mice but not in *Schizosaccharomyces pombe*  
*DNA Repair* 2005; 4(10):1121-8

Weaver J, Tsutsui N, Hisada S, Vidal JM, Spanhaak S, Sawada JI, Hastings KL, Laan JW van der, Loveren H van, Kawabata TT, Sims J, Durham SK, Fueki O, Matula T, Kusunoki H, Ulrich P, Nakamura K  
Development of the ICH guidelines on immunotoxicology. Evaluation of pharmaceuticals using a survey of industry practices  
*J Immunotoxicol* 2005; 2:171-80

Wijnhoven SWP, Beems RB, Roodbergen M, Berg J van den, Lohman PHM, Diderich K, Horst GTJ van der, Vijg J, Hoeijmakers JHJ, Steeg H van  
Accelerated aging pathology in ad libitum fed Xpd-TTD mice is accompanied by features suggestive of caloric restriction  
*DNA Repair* 2005; 4(11):1314-24

Wijnhoven SWP, Zwart E, Speksnijder EN, Beems RB, Olive KP, Tuveson DA, Jonkers J, Schaap MM, Berg J van den, Jacks T, Steeg H van, Vries A de  
Mice expressing a mammary gland-specific R270H mutation in the p53 tumor suppressor gene mimic human breast cancer development  
*Cancer Res* 2005; 65(18):8166-73

Wisselink HW, Moers APHA, Mars AE, Hoefnagel MHN, Vos WM de, Hugenholtz J  
Overproduction of heterologous mannitol 1-phosphatase: a key factor for engineering mannitol production by *Lactococcus lactis*  
*Appl Environ Microbiol* 2005; 71(3):1507-14

Wolterink A, Kim S, Muusse M, Kim IS, Roholl PJM, Ginkel CG van, Stams AJM, Kengen SWM  
*Dechloromonas hortensis* sp. nov. and strain ASK-1, two novel (per)chlorate-reducing bacteria, and taxonomic description of strain GR-1  
*Int J Syst Evol Microbiol* 2005; 55:2063-8

Woodside JV, Kromhout D  
Fatty acids and CHD  
*Proc Nutr Soc* 2005; 64(4):554-64

Woude H van der, Alink GM, Rossum BEJ van, Walle K, Steeg H van, Walle T, Rietjens IMCM  
Formation of transient covalent protein and DNA adducts by quercetin in cells with and without oxidative enzyme activity  
*Chem Res Toxicol* 2005; 18(12):1907-16

### Research Papers (Dutch, 8)

Barbier-Schenk A, Egmond HP van  
Mycotoxinen blijven een bron van zorg  
*Voedingsmiddelentechnologie* 2005; 38(26):40-1

Geertsma RE, Hilbers-Modderman ESM  
Toepassing weekmakers geïnventariseerd  
*Pharm Weekbl* 2005; 140(3):86-90

Ginkel LA van, Ruiters A  
Van veilige voeding tot gezonde voeding. Twintig jaar chemisch residuonderzoek binnen het RIVM  
*Voeding Nu* 2005; 7(9):25-7

Kubbinga ME, Riet-Nales DA van, Welink J, Lekkerkerker JFF  
Het gelijk van de patient  
*Pharm Weekbl* 2005; 140(30-31):935

### Books, Chapters & Reports

Egmond HP van, Jonger MA  
Worldwide regulations for mycotoxins in food and feed in 2003 (FAO Food and Nutrition Paper 81)  
Rome: Food and Agriculture Organization of the United Nations, 2005

Egmond HP van, Jonker MA  
Worldwide regulations on aflatoxins  
In: Abbas HK, ed. *Aflatoxin and food safety*.  
New York: Taylor & Francis, 2005; 77:94

Zeeland AA van, Vreeswijk MPG, Gruijl FR de, Kranen HJ van, Vrieling H, Mullenders LFH  
Transcription-coupled repair: impact on UV-induced mutagenesis in cultured rodent cells and mouse skin tumors  
*Mutat Res* 2005; 577(1-2):170-8

Nouwen M, Riet-Nales DA van, Norder JA, Lekkerkerker JFF  
Een gas als geneesmiddel (1)  
*Pharm Weekbl* 2005; 140(20):674-7

Nouwen M, Riet-Nales DA van, Norder JA, Lekkerkerker JFF  
Een gas als geneesmiddel (2)  
*Pharm Weekbl* 2005; 140(28-29):925-7

Tienhoven EAE van, Boer S de  
Resultaten RIVM enquête 'Infuuspompen'  
*VIT Journaal* 2005; 3(1):5-7

Winkel B te  
Geneesmiddelen tijdens de zwangerschap: vragen en antwoorden  
*Pharm Weekbl* 2005; 140(13):443-5

Jong N de, Meynen E, Brug J, Blekker JG, Ocke MC  
Psychological determinants of functional food use: results of a qualitative study  
In: Kinger LV, ed. *Trends in lifestyle and health research*.  
Nova Science Publishers, 2005

Jong WH de, Jonge R de, Garssen J, Takumi K, Havelaar AH  
Salmonella assessment of infection risk  
In: Vohr HW, ed. *Encyclopedic reference of immunotoxicology*.  
Berlin: Springer, 2005;573-8

Kimman TG, Hoebee B

Relevance of genetic background in respiratory tract infections

In: Kimpen J, Ramilo O, eds. The microbe-host interface in respiratory tract infections.

Norfolk: Horizon Bioscience, 2005;1-30

Vandebriel RJ

Toxicogenomics (microarray technology)

In: Vohr HW, ed. Encyclopedic reference of immunotoxicology.

Berlin: Springer, 2005;651

#### Doctoral Theses

Brouwer C

Purine enzymes and thiopurine methyltransferase in childhood acute lymphoblastic leukemia

Nijmegen: Radboud Universiteit, 2005

Meijeren CE van

Development of an in vitro assay to assess pertussis toxin in acellular pertussis vaccines

Utrecht: Universiteit Utrecht, 2005

#### Professorial Chairs

Kromhout D

Professor of Public health research

Wageningen University and Research Centre

Loveren H van

Professor of Immuno-toxicology

University of Maastricht

Slob W

Professor of Toxicology

Utrecht University

Vleeming W, Schenk E, Opperhuizen A

Van tabakszaad naar tabaksrook

In: Knol K, Hilvering C, Wagener DJT, Willsemsen MC, eds. Tabaksgebruik: gevolgen en bestrijding.

Utrecht: Lemma, 2005;27-42

Vos JG, Laan JW van der, Loveren H van, Albers R, Pieters R

Immunotoxicology

In: Nijkamp FP, Parnham MJ, eds. Principles of immunopharmacology, 2nd ed.

Basel: Birkhauser Verlag, 2005

Stolker AAM

Determination of veterinary drugs and growth-promoting agents in food-producing animals

Amsterdam: University of Amsterdam, 2005

Steeg H van

Professor of Toxicogenetics

Leiden University

Stephany R

Professor of Food of animal origin

Utrecht University

Vos J

Professor of Toxicological pathology

Utrecht University

# Research output

## Environmental Risk and Safety

### MEV

#### Research Papers (International, 79)

Bais AF, Kazadzis S, Garane K, Kouremeti N, Grobner J,

Blumthaler M, Seckmeyer G, Webb AR, Koskela T, Gorts P, Schreder J

Portable device for characterizing the angular response of UV spectroradiometers

Appl Opt 2005; 44(33):7136-43

Beck L, Rombke J, Breure AM, Mulder C

Considerations for the use of soil ecological classification and assessment concepts in soil protection

Ecotoxicol Environ Saf 2005; 62(2):189-200

Berg B van de, Grievink L, Stellato RK, Ijzermans CJ, Lebret E

Symptoms and related functioning in a traumatized community Arch Intern Med 2005; 165(20):2402-7

Berg B van den, Grievink L, Yzermans J, Lebret E

Medically unexplained physical symptoms in the aftermath of disasters Epidemiol Rev 2005; 27:92-106

Bijwaard H, Brugmans MJP, Rispens SM

Comment on "Studies of radon-exposed miner cohorts using a biologically based model: comparison of current Czech and French data with historic data from China and Colorado" by WF. Heidenreich, L. Tomasek, A. Rogel, D. Laurier and M. Tirmarche (2004) Radiat Environ Biophys 43:247-56

Radiat Environ Biophys 2005; 44(2):149-51

Bodar CWM, Pronk MEJ, Sijm DTHM

The European Union Risk Assessment on zinc and zinc compounds: the process and the facts

Integr Environ Assessment Manag 2005; 1(4):301-19

Boivin MEY, Massieux B, Breure AM, Ende FP van den, Greve

GD, Rutgers M, Admiraal W

Effects of copper and temperature on aquatic bacterial communities Aquatic Toxicol 2005; 71(4):345-56

Bos R, Huijbregts M, Peijnenburg W

Soil type-specific environmental quality standards for zinc in Dutch soil

Integr Environ Assessment Manag 2005; 1(3):252-8

Boumans LJM, Fraters D, Drecht G van

Nitrate leaching in agriculture to upper groundwater in the sandy regions of the Netherlands during the 1992-1995 period

Environ Monitoring Assessment 2005; 102(1-3):225-41

Bouwman AF, Drecht G van, Hoek KW van der

Global and regional surface nitrogen balances in intensive agricultural production systems for the period 1970-2030

Pedosphere 2005; 15(2):137-55

Bouwman AF, Drecht G van, Hoek KW van der

Surface N balances and reactive N loss to the environment from global intensive agricultural production systems for the periode 1970-2030

Science in China Ser C Life Sciences 2005; 48(Suppl):1-13

Bouwman AF, Hoek KW van der, Eickhout B, Soenario I

Exploring changes in world ruminant production systems

Agricultural Systems 2005; 84(2):121-53

Brack W, Bakker J, Deckere E de, Deerenberg C, Zwart D de, et.al.

MODELKEY. Models for assessing and forecasting the impact of environmental key pollutants on freshwater and marine ecosystems and biodiversity

Environ Sci Pollut Res 2005; 12(5):252-6

Breure AM

Soil biodiversity: measurements, indicators, threats and soil functions

SoilACE 2005; 83-96

Breure AM, Mulder C, Rombke J, Ruf A

Ecological classification and assessment concepts in soil protection  
*Ecotoxicol Environ Saf* 2005; 62(2):211-29

Brinksma EJ, Bracher A, Lolkema DE, Segers AJ, Boyd IS, Bramstedt K, Claude H, Godin-Beekmann S, Hansen G, Kopp G, Leblanc T, McDermid IS, Meijer YJ, Nakane H, Parrish A, Savigny C von, Stebel K, Swart DPJ, Taha G, Piters AJM

Geophysical validation of SCIAMACHY Limb Ozone Profiles  
*Atmos Chem Phys Discuss* 2005; 5:4893-928

Cassee FR, Boere AJF, Fokkens PHB, Leseman DLAC, Sioutas C, Kooter IM, Dormans JAMA

Inhalation of concentrated particulate matter produces pulmonary inflammation and systemic biological effects in compromised rats  
*J Toxicol Environ Health* 2005; 68(10):773-96

Cleven R, Nur Y, Krystek P, Berg G van den

Monitoring metal speciation in the rivers Meuse and Rhine using DGT  
*Water Air Soil Pollut* 2005; 165(1-4):249-63

Dijkema MBA, Grievink L, Stellato RK, Roorda J, Velden PG van der

Determinants of response in a longitudinal health study following the firework-disaster in Enschede, the Netherlands  
*Eur J Epidemiol* 2005; 20(10):839-47

Fenner K, Scheringer M, Macleod M, Matthies M, McKone T, Strobe M ; Beyer A, Bonnell M, Gall AC le, Klasmeier J, Mackay D, Meent D van de, Pennington D, Scharenberg B, Suzuki N, Wania F

Comparing estimates of persistence and long-range transport potential among multimedia models  
*Environ Sci Technol* 2005; 39(7):1932-42

Fraters D, Boumans LJM, Leeuwen TC van, Hoop WD de

Results of 10 years of monitoring nitrogen in the sandy regions in the Netherlands  
*Water Sci Techn* 2005; 51(3-4):239-47

Gerlofs-Nijland ME, Boere AJF, Leseman DLAC, Dormans JAMA, Sandstrom T, Salonen RO, Bree L van, Cassee FR

Effects of particulate matter on the pulmonary and vascular system: time course in spontaneously hypertensive rats  
*Particle Fibre Toxicol* 2005; 2(2)

Gils CH van, Peeters PHM, Bueno de Mesquita HB, Boshuizen HC, Lahmann PH, Clavel-Chapelon F

Consumption of vegetables and fruits and risk of breast cancer  
*J Am Med Assoc* 2005; 293(2):183-93

Grobner J, Schreder J, Kazadzis S, Bais AF, Blumthaler M, Gorts P ; Tax R, Koskela T, Seckmeyer G, Webb AR, Rembges D

Traveling reference spectroradiometer for routine quality assurance of spectral solar ultraviolet irradiance measurements  
*Appl Opt* 2005; 44(25):5321-31

Hanninen OO, Tuomisto JT, Jantunen MJ, Lebet E

Characterization of model error in a simulation of fine particulate matter exposure distributions of the working age population in Helsinki, Finland  
*J Air Waste Manag Assoc* 2005; 55(4):446-57

Heikens A, Sumarti S, Bergen M van, Widianarko B, Fokkert L, Leeuwen K van, Seinen W

The impact of the hyperacid Ijen Crater Lake: risks of excess fluoride to human health  
*Sci Total Environ* 2005; 346(1-3):56-69

Heikens A, Widianarko B, Dewi IC, Boer JLM de, Seinen W, Leeuwen K van

The impact of the hyperacid Ijen Crater Lake. Part I: concentrations of elements in crops and soil  
*Environ Geochem Health* 2005; 27(5-6):409-18

Heikens A, Widianarko B, Dewi IC, Boer JLM de, Seinen W, Leeuwen K van

The impact of the hyperacid Ijen Crater Lake. Part II: a total diet study  
*Environ Geochem Health* 2005; 27(5-6):475-83

Heinrich J, Gehring U, Cyryns J, Hoek G, Fischer P, bellander T ; Brunekreef B

Exposure to traffic related air pollutants: self reported traffic intensity versus GIS modelled exposure  
*Occup Environ Med* 2005; 62(8):517-23

Hendriks AJ, Traas TP, Huijbregts MAJ

Critical body residues linked to octanol - water partitioning, organism composition, and LC50 QSARs: meta-analysis and model  
*Environ Sci Technol* 2005; 39(9):3226-36

Huijbregts MAJ, Geelen LMJ, Hertwich EG, McKone TE, Meent D van de

A comparison between the multimedia fate and exposure models CalTOX and uniform system for evaluation of substances adapted for life-cycle assessment based on the population intake fraction of toxic pollutants  
*Environ Toxicol Chem* 2005; 24(2):486-93

Huijbregts MAJ, Rombouts LJA, Ragas AMJ, Meent D van de

Human-toxicological effect and damage factors of carcinogenic and noncarcinogenic chemicals for Life Cycle Impact Assessment  
*Integr Environ Assessment Management* 2005; 1(3):181-244

Huijbregts MAJ, Struijs J, Goedkoop M, Heijungs R, Hendriks AJ ; Meent D van de

Human population intake fractions and environmental fate factors of toxic pollutants in life cycle impact assessment  
*Chemosphere* 2005; 59(10):1495-504

Hulzebos E, Sijm D, Traas T, Posthumus R, Maslankiewicz L

Validity and validation of expert (Q)SAR systems  
*SAR and QSAR Environ Res* 2005; 16(4):385-401

Hulzebos E, Walker JD, Gerner I, Schlegel K

Use of structural alerts to develop rules for indentifying chemicals substances with skin irritation or skin corrosion potential  
*QSAR Comb Sci* 2005; 24(3):332-42

Jager T, Wal L van der, Fleuren RHLJ, Barendregt A, Hermens JLM

Bioaccumulation of organic chemicals in contaminated soils: evaluation of bioassays with earthworms  
*Environ Sci Technol* 2005; 39(1):293-8

Janssen NAH, Lanki T, Hoek G, Vallius M, Hartog JJ de, Grieken R van, Pekkanen J, Brunekreef B

Associations between ambient, personal, and indoor exposure to fine particulate matter constituents in Dutch and Finnish panels of cardiovascular patients  
*Occup Environ Med* 2005; 62(12):868-77

Jarup L, Dudley ML, Babisch W, Houthuijs D, Swart W, Pershagen G ; Bluhm G, Katsouyanni K, Velonakis M, Cadum E, Vigna-Taglianti F

Hypertension and Exposure to Noise near Airports (HYENA): study design and noise exposure assessment  
*Environm Health Perspect* 2005; 113(1):1473-8

Jaworska J, Nikolova-Jeliakova N, Aldenberg T

QSAR applicability domain estimation by projection of the training set descriptor space: a review  
*Altern Lab Anim* 2005; 33(5):445-59

Jong FMW de, Mensink BJWG, Smit EC, Montforts MHMM

Evaluation of ecotoxicological field studies for authorization of plant protection products in Europe  
*Human Ecol Risk Assessm* 2005; 11(6):1157-76

Knacker T, Duis K, Ternes T, Fenner K, Escher B, Schmitt H,

Rombke J, Garric J, Hutchinson T, Boxall ABA  
 The EU-project ERApharm: incentives for the further development of guidance documents?  
*Environ Sci Pollut Res* 2005; 12(2):62-5

Kok YS, Eleveld H, Schnadt H, Gering F, Gregor J, Bottger H ;

Salfeld C, Twenhofel CJW, Reinen HAJM  
 Comparative study of Dutch and German emergency-management models for near border nuclear accidents  
*Radiat Prot Dosim* 2005; 113(4):381-91

Kooter IM, Pennings JLA, Opperhuizen A, Cassee FR

Gene expression pattern in spontaneously hypertensive rats exposed to urban particulate matter (EHC-93)  
*Inhal Toxicol* 2005; 17:53-65

Koster M, Reijnders L, Oost NR van, Peijnenburg WJGM

Comparison of the method of diffusive gels in thin films with conventional extraction techniques for evaluating zinc accumulation in plants and isopods  
*Environ Pollution* 2005; 133:103-16

Krystek P, Ritsema R

Mercury speciation in thawed out and refrozen fish samples by gas chromatography coupled to inductively coupled plasma mass spectrometry and atomic fluorescence spectroscopy  
*Anal Bioanal Chem* 2005; 381(2):354-9

Laak TL ter, Durjava M, Struijs J, Hermens JLM

Solid phase dosing and sampling technique to determine partition coefficients of hydrophobic chemicals in complex matrixes  
*Environ Sci Technol* 2005; 39(10):3736-42

Leeuwen HJ van, Tol M van der, Strijp JAG van, Verhoef J,

Kessel KPM van  
 The role of tumour necrosis factor in the kinetics of lipopolysaccharide-mediated neutrophil priming in whole blood  
*Clin Exp Immunol* 2005; 140(1):65-72

**L** Leeuwen HP van, Town RM, Buffle J, Cleven RFMJ, Davison W, Puy J ; Riemsdijk WH van, Sigg L  
Dynamic speciation analysis and bioavailability of metals in aquatic systems  
*Environ Sci Technol* 2005; 39(22):8545-56

Louz D, Bergmans HE, Loos BP, Hoeben RC  
Cross-species transfer of viruses: implications for the use of viral vectors in biomedical research, gene therapy and as live-virus vaccines  
*J Gene Med* 2005; 7(10):1263-74

Luttik R, Mineau P, Roelofs W  
A review of interspecies toxicity extrapolation in birds and mammals and a proposal for long-term toxicity data  
*Ecotoxicology* 2005; 14(8):817-32

**M** Meent D van de, Huijbregts MAJ  
Calculating life-cycle assessment effect factors from potential affected fraction-based ecotoxicological response functions  
*Environ Toxicol Chem* 2005; 24(6):1573-8

Mensinga TT, Sips AJAM, Rompelberg CJM, Twillert K van, Meulenbelt J, Top HJ van den, Egmond HP van  
Potato glycoalkaloids and adverse effects in humans: an ascending dose study  
*Regul Toxicol Pharmacol* 2005; 41(1):66-72

Meulenbelt J, Vries I de, Leenders MEC  
Prospectives of poisons information supply in emergency response planning and service  
*Medical Review (Przegląd Lekarski)* 2005; 62(6):533-7

Mulder C, Aldenberg T, Zwart D de, Wijnen HJ van, Breure AM  
Evaluating the impact of pollution on plant-Lepidoptera relationships  
*Environmetrics* 2005; 16(4):357-73

Mulder C, Cohen JE, Setala H, Bloem J, Breure AM  
Bacterial traits, organism mass, and numerical abundance in the detrital soil food web of Dutch agricultural grasslands  
*Ecol Lett* 2005; 8:80-90

Mulder C, Dijkstra JB, Setala H  
Nonparasitic nematoda provide evidence for a linear response of functionally important soil biota to increasing livestock density  
*Naturwissenschaften* 2005; 92:314-8

Mulder C, Schouten AJ, Hund-Rinke K, Breure AM  
The use of nematodes in ecological soil classification and assessment concepts  
*Ecotoxicol Environ Saf* 2005; 62(2):278-89

Mulder C, Wezel AP van, Wijnen HJ van  
Embedding soil quality in the planning and management of land use  
*Int J Biodiv Sci Manag* 2005; 1(1):1-8

Mulder C, Wijnen HJ van, Wezel AP van  
Numerical abundance and biodiversity of below-ground taxocenes along a pH gradient across the Netherlands  
*J Biogeogr* 2005; 32:1775-90

**N** Netzeva TI, worth AP, Aldenberg T, Benigni R, Cronin MTI, Gramatica P, Jaworska JS, Kahn S, Klopman G, Marchant CA, Myatt G ; Nikolova-Jeliazkova N, Patlewicz GY, Perkins R, Roberts DW, Schultz TW, Stanton DT, Sandt JJM van de, Tong WD, Veith G, Yang CH  
Current status of methods for defining the applicability domain of (quantitative) structure-activity relationships - the report and recommendations of ECVAM Workshop 52  
*ATLA* 2005; 33(2):155-73

Nieuwlaar E, Waaringa G, Brink C, Vermeulen W  
Supply curves for eco-efficient environmental improvements using different weighting methods  
*J Ind Ecol* 2005; 9(4):85-96

**O** Outer PN de, Slaper H, Tax RB  
UV radiation in the Netherlands: assessing long-term variability and trends in relation to ozone and clouds  
*J Geophys Res* 2005; 110:art.no. D02203

**P** Peijnenburg W, Groot A de, Jager T, Posthuma L  
Short-term ecological risks of depositing contaminated sediment on arable soil  
*Ecotoxicol Environ Saf* 2005; 60(1):1-14

Posthumus R, Traas TP, Peijnenburg WJGM, Hulzebos EM  
External validation of epiwin biodegradation models  
*SAR & QSAR in Env Res* 2005; 16(1-2):135-48

**R** Rombke J, Breure AM  
The ecological classification and assessment of soils  
*Ecotoxicol Environ Saf* 2005; 62(2):185-6

Rombke J, Breure AM  
Status and outlook of ecological soil classification and assessment concepts  
*Ecotoxicol Environ Saf* 2005; 62(2):300-8

Rombke J, Breure AM, Mulder C, Rutgers M  
Legislation and ecological quality assessment of soil: implementation of ecological indication systems in Europe  
*Ecotoxicol Environ Saf* 2005; 62(2):201-10

**S** Schmitt H, Haapakangas H, Beelen P van  
Effects of antibiotics on soil microorganisms: time and nutrients influence pollution-induced community tolerance  
*Soil Biol Biochem* 2005; 37:1882-92

Stansfeld SA, Berglund B, Clark C, Lopez-Barrio I, Fischer P ; Ohrstrom E, Haines MM, Head J, Hygge S, Kamp I van, Berry BF  
Aircraft and road traffic noise and children's cognition and health: a cross-national study  
*Lancet* 2005; 365(9475):1942-9

Stansfeld SA, Head J, Clark C, Kamp I van, Lopez Barrio I  
Author's reply to: Aircraft and road traffic noise and children's cognition [Letter to the editor]  
*Lancet* 2005; 266:716

Steenbergen NTTM, Iaccino F, Winkel M de, Reijnders L, Peijnenburg WJGM  
Development of a biotic ligand model and a regression model predicting acute copper toxicity to the earthworm *Apporectodea caliginosa*  
*Environ Sci Technol* 2005; 39:5694-702

Steenbergen PA, Withagen CET, Dalen WJ van, Dormans JAMA, Heisterkamp SH, Loveren H van, Cassee FR  
Dose dependency of adjuvant activity of particulate matter from five European sites in three seasons in an ovalbumin-mouse model  
*Inhal Toxicol* 2005; 17(3):133-45

**T** Treijtel N, Helvoort H van, Barendregt A, Blaauboer BJ, Eijkelen JC van  
The use of sandwich-cultured rat hepatocytes to determine the intrinsic clearance of compounds with different extraction ratios: 7-ethoxycoumarin and warfarin  
*Drug Metab Dispos* 2005; 33(9):1325-32

**V** Vermeire A, Rikken M, Attias L, Boccardi P, Boeije G, Brooke D ; Bruijn J de, Comber M, Dolan B, Fischer S, Heinemeyer G, Koch V ; Lijzen J, Muller B, Murray-Smith R, Tadeo J  
European union system for the evaluation of substances: the second version  
*Chemosphere* 2005; 59(4):473-85

Vethaak AD, Lahr J, Schrap SM, Belfroid AC, Rijs GBJ, Gerritsen A ; Boer J de, Bulder AS, Grinwis GCM, Kuiper RV, Legler J, Murk TAJ ; Peijnenburg W, Verhaar HJM, Voogt P de  
An integrated assessment of estrogenic contamination and biological effects in the aquatic environment of The Netherlands  
*Chemosphere* 2005; 59(4):511-24

**W** Walker JD, Gerner I, Hulzebos E, Schlegel K  
The Skin Irritation Corrosion Rules Estimation Tool (SECRET)  
*QSAR Comb Sci* 2005; 24(3):378-84

Winding A, Hund-Rinke K, Rutgers M  
The use of microorganisms in ecological soil classification and assessment concepts  
*Ecotoxicol Environ Saf* 2005; 62(2):230-48

**Y** Yoshida S, Muramatsu Y, Peijnenburg WJGM  
Multi-element analyses of earthworms for radioecology and ecotoxicology  
*Radioprotection* 2005; 40(Suppl 1):491-5

**Z** Zwart D de  
Ecological effects of pesticide use in the Netherlands: modeled and observed effects in the Field Ditch  
*Integr Environ Assessment Manag* 2005; 1(2):123-34

Zwart D de, Posthuma L  
Complex mixture toxicity for single and multiple species: proposed methodologies  
*Environ Toxicol Chem* 2005; 24(10):2665-76



## Research Papers (Dutch, 9)

Breure AM

Het nut van biodiversiteit in de diepere ondergrond  
Bodem 2005; (4):152-4

Breure AM

Bodemecologie in het beleid  
Bodem: 2005; 15(6):219-20

Meulenbelt J, Vries I de

Toxiciteit van dioxinen door de mens  
Ned Tijdschr Geneesk 2005; 149(4):168-71

Pauw RT, Tijssen TAG, Velde L te, Ponssen H, Fijen JW

Een veilig alternatief  
Pharm Weekbl 2005; 45(11):1421-2

Riedstra D

Windturbines op veilige afstand?  
Milieu Magazine 2005; (okt):36-9

Rutgers M, Mesman M, Otte PF

TRIAD: instrumentarium voor geïntegreerde  
ecotoxicologische beoordeling van bodemverontreiniging  
Leidraad Bodembescherming 2005; afl 62:1170/1-26

Smetsers RCM

Inschatting van de radiologische situatie na een ongeval  
NVS Nieuws 2005; 30(2):6-14

Vries I, Zoelen GA van, Riel AJHP van, Meulenbelt J

Absorptieverminderende maatregelen bij de behandeling  
van vergiftigingen  
Ned Tijdschr Geneesk 2005; 149(53):2964-8

Vries I de, Riel AJHP van, Leenders MEC, Meulenbelt J

Actief beleid bij een kind dat een knoopbatterij heeft  
ingeslikt [Letter to the editor]  
Ned Tijdschr Geneesk 2005; 149(39):2196-7

## Books, Chapters &amp; Reports

Groenestein CM, Hoek KW van der, Monteny GJ, Oenema O

Actualisering forfaitaire waarden voor gasvormige  
N-verliezen uit stallen en mestopslagen van varkens,  
pluimvee en overige dieren  
Wageningen: Agrotechnology & Food Innovation, 2005.  
Rapport 465

Kuikman PJ, Oudendag DA, Smit A, Hoek KW van der

ROB maatregelen in de landbouw en vermindering van  
emissies van broeikasgassen. Zichtbaarheid van effecten in  
de nationale berekening en suggesties ter verbetering van  
de berekeningssystematiek  
Wageningen: Alterra; Bilthoven: RIVM, 2005 (Alterra  
rapport 994; RIVM rapport 680125004)

Meulenbelt J

Cadmium  
In: Brent J, Wallace KL, Burkhardt KK, Phillips SD, Donovan  
JW, eds.  
Critical care toxicology. Philadelphia: Mosby, 2005;817-20

Meulenbelt J

Vergiftigingen  
In: Keeman JN, Schade E, red. Spoedeisende hulp in de  
huisartspraktijk.  
Houten: Bohn Stafleu van Loghum, 2005;473-518

Meulenbelt J, Vries I de

Vergiftigingen  
In: Feenstra L, Meinders AE, Schil PEY van, Vandenbroucke  
JP, eds. Codex  
Medicus. 12e dr. Arnhem: Elsevier, 2005;1231-47

Romkens PFAM, Schuur GW, Lijzen JPA, Rietra RPJJ, Dirven-

van Breemen EM  
Risico's van cadmium en lood in moestuinen in de  
Kempen  
Wageningen: Alterra, 2005 (Alterra report 1129)

Rutgers M, Besten P den

Approach to legislation in a global context, the  
Netherlands perspective-soils and sediments  
In: Thompson KC, Wadhia K, Loibner A, eds.  
Environmental toxicity testing.  
Oxford: Blackwell Publishing, 2005;269-89

S

Smink W, Hoek KW van der, Bannink A, Dijkstra J  
Calculation of methane production from enteric  
fermentation in dairy cows  
Wageningen: Feed Innovation Services, 2005

## Doctoral Theses

Boivin ME

Diversity of microbial communities in metal-polluted  
heterogenous environments  
Amsterdam: Vrije Universiteit, 2005.

Meijer YJ

Characterization of ozone profile retrieved from satellite  
measurements  
Eindhoven: Technische Universiteit, 2005.

V

Vries I de

Mercury  
In: Brent J, Wallace KL, Burkhardt KK, Phillips SD, Donovan  
JW, eds.  
Critical care toxicology. Philadelphia: Mosby, 2005;837-43

Montforts MHMM

Validation of the EU environmental risk assessment for  
veterinary medicines  
Leiden: Universiteit, 2005.

Zwart D de

Impact of toxicants on species composition of aquatic  
communities: concordance of prediction and field  
observations  
Amsterdam: Universiteit van Amsterdam, 2005.

## Professorial Chairs

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