

(see above) and I fully agree with her preference for gerontechnology being the word that encompasses all the relevant activities and therefore can serve as an umbrella for all the other ones.

It is my sincere hope that in the near future we do not have to use the Google search engine to find our work in the field but that gerontechnology will become a scientific key-word in bibliographic databases. We do have the society and the journal with this name so this promotion of the term would only be a logical next step.

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## BEST PRACTICE

### Bicycle transport for elderly

In the Netherlands car and bike are the two most important short-range transport vehicles. Cars' perceived advantages include comfort, safety and security, and rapidity, although in urban Netherlands environments biking is best time-efficient for transport between living, shopping, and recreational environments, since distances are short. By itself the bicycle is safe. Casualties among cyclists are normally collisions with cars<sup>1</sup>.

As a group, elderly are becoming more mobile. At the same time they are the least mobile part of the population. Therefore, next to road safety, experience and quality of the living environment should be taken into account. Currently the private car is still the main means of transport for elderly in the Netherlands<sup>2</sup>. Only 3 out of every 10 person's of 75 years or older cycle at least 1 hour per week. However, a doubling of this time seems possible.



*Bicycle transport on market day in the town of Culemborg, The Netherlands (Photo by J.E.M.H. van Bronswijk)*

### *Community and Environment*

As to environmental and community effects, cars cause more inconveniences than bikes. Accidents –when occurring- have a more severe outcome in case of cars. In addition cars produce noise and vibrations, and take up more space both during transport (20-30 times as much) and parking (12 times as much); and roads for cars are mono-functional, while bike-roads can also be used for walking.

Space is limited in cities. Its use needs to be optimised. This is especially the case for shopping centres and places of social gathering that profit from a good accessibility for older persons. Unfortunately, the success of the car has diminished the car-accessibility of city-centres, where most Netherlands shopping centres and cultural activities are located. Bike accessibility of city centres has remained high. So how, do we get older persons out of their car and on their bikes?

### *Urban Planning & Technology*

Good accessibility, completeness and coherence of cycling-networks and a high level of perceived safety and security should help. In addition, modern bike design evolves towards car-related comfort. The urban bike rider is assisted with light (electric) motors and comfortable seating.

Future Dutch traffic regulations are expected to further limit car speed in the city, thus improving bike safety and increasing the time-efficiency gap in favour of bikes. To further enhance older persons' use of bicycles, Netherlands urban planners will make the bike leading in designing traffic systems, instead of

the car. Future bicycle-networks will then become more coherent, connecting schools, shops, sporting facilities, outdoor and indoor recreational, and residential areas.

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## In Memoriam

Max Josef von Pettenkofer (1818-1901)<sup>1,2</sup>

Max Josef von Pettenkofer is considered a founder of epidemiology and is known for his researches on (i) the ventilation of dwellings, hospitals and maternity facilities, (ii) sewage disposal, (iii) the spread of cholera, (iv) clinical chemistry, and (v) improvement of minting of gold coins. Among others he developed a reaction for the detection of bile acids and a method for the quantitative determination of carbon dioxide. We could call him one of the earlier gerontechnologists who searched for the technologies to stimulate a long and happy life, an early building physicist who studied indoor air quality, or a civil engineer designing healthy plumbing, but in fact he was a chemist and hygienist, as well as a businessman and an adventurer. In the end, after having received all praise and honours possible, he got depressed and ended his own life with a gunshot.

Max Josef, 5<sup>th</sup> child of Barbara Hermann and Johann Baptist Pettenkofer (1786-1825) was born on December 3, 1818 in a farmer family at Lichtenheim. His father was a descendent of a dynasty of rich wine merchants from nearby Berching that had lost their fortune. The 2<sup>nd</sup> name Josef might point at one of these rich ancestors Josef Pettenkofer whose coat of arms can still be viewed in the townhall of Berching.



*Max von Pettenkofer was honored in 1968 in the former DDR with a 40-pfennig post stamp<sup>3</sup>.*

Young Max Josef got support from his wealthy but childless uncle Franz Xavier Pettenkofer, who was from 1823 surgeon and apothecary to

the Bavarian court. Max Josef was the help of his uncle during his years at the gymnasium, from which he graduated in 1837. After two years of study in philosophy and natural science he tested his talents in the theatre, but for lack of talent, he started his study in Medicine and Pharmacy in 1841 at the Munich University, from which he graduated as Medical Doctor in 1843. After a study with the chemist Justus von Liebig he became a chemist at the Munich mint in 1845. Subsequently he wrote Chemical Sonnets but, again, his artistic life was not prolonged since in 1847 he was chosen to become an extraordinary professor of chemistry at the medical faculty. In 1853 he received an ordinary professorship and in 1865 he also became professor of hygiene and director of the Institut für Medizinische Chemie at Munich University.

In his book "Über den Luftwechsel in Wohngebäuden"<sup>4</sup> Von Pettenkofer suggested in 1858 a hygienic level for indoor air quality as measured with the concentration of CO<sub>2</sub> of 1000 ppm. He observed that maintaining this maximum level would be difficult, mainly because of political reasons. We know today, almost 150 year later, that his indoor-air-quality observations are still valid.

The improvements of the sewage situation in Munich, as instigated by Max von Pettenkofer, led to a great contribution to lowering the mortality rate and to extended life expectancy. His effect on successful aging can still be felt today, since sewage transportation systems are not much different from the ones he devised in the seventies of the 19<sup>th</sup> century<sup>5,6</sup>.

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