Neurodegeneration in the ageing society

Why do we get old? What factors are involved in "healthy" ageing and what goes wrong in age-related diseases? Ageing has been long considered a stochastic deterioration process shaped by environmental and stressful conditions. However, recent work has highlighted the role of complex genetic traits in the determination of the life span in different organisms. This suggests the possibility to steer the ageing process and control the unwanted consequences of a long life span: age-related diseases. An increase in age-related diseases including neurodegenerative disorders has paralleled the extended life span over the past century. This will soon have profound economical and social implications and it is already becoming a burden for health-care systems. Paradoxically, although it is well-recognized that age is a risk factor for neurodegeneration, the mechanisms involved are practically unknown.

DZNE scientists are investigating the missing link between age and neurodegenerative diseases. The implications of these studies can be anticipated to shed more light on both healthy and unhealthy ageing and help developing life-long strategies to prevent the onset of neurodegenerative disorders.

While research on disease mechanisms will lead to long-term benefits for society. The creation of a national registry for neurodegenerative diseases will allow better epidemiological and demographic studies aimed to link age and age-related diseases. A direct telephone line to link experts (scientists and clinicians) with the public is being implemented in collaboration with academic (KNDD) and non-academic (Alzheimer's Gesellschaft) organizations. Ultimately, links between scientists, clinicians, nursing homes and families will lead to improved health care in the upcoming few years.