of stress.

During the aging process, senescent cells are not efficiently cleared and therefore accumulate. The accumulation of senescent cells is associated with many age-related human pathologies. It has been reported that the removal of senescent cells in model animals would extend the lifespan and delay age-related diseases, including stroke and diabetes. The finding that reducing serpinB2 levels can decrease the number of senescent cells suggests that serpinB2 might have the potential for further development as a drug target candidate for treating age-related degenerative diseases.

References

Hsieh, H., Chen, Y., Jhan, J., & Lin, J. (2017). The serine protease inhibitor serpinB2 binds and stabilizes p21 in senescent cells. *Journal of Cell Science*, *130*(19), 3272-3281. doi:10.1242/jcs.204974.

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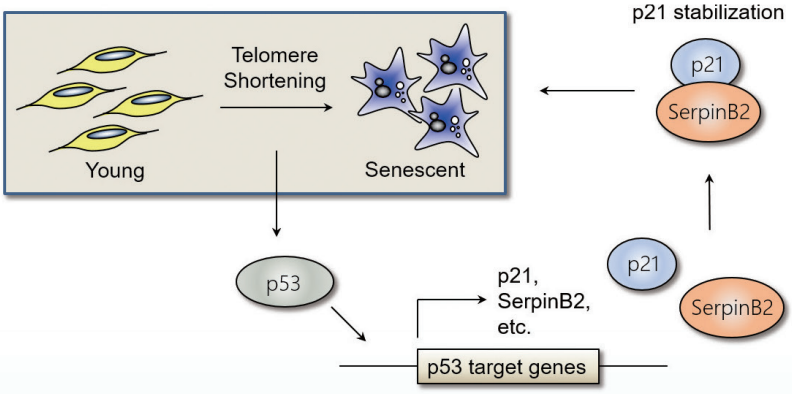

Figure 1. Schematic of serpinB2 involvement in senescence

Chinese dietary patterns associated with cognitive decline in the elderly

There are substantial differences in cooking styles, dietary habits, food items, and nutrients in foods across geographical regions, and dietary patterns (DPs) identified in Western countries (e.g., the Mediterranean diet) are inapplicable to Asian populations. No study has explored the association between DPs and cognitive impairment in the Chinese population. In addition, studies relating specific cognitive domains to DPs are limited. This study was led by Professor Yen-Ching Karen Chen at the Institute of Epidemiology and Preventive Medicine, National Taiwan University, in collaboration with Dr. Meei-Hsuan Lee at National Defense College. Three DPs were identified in the elderly Chinese population, and the article detailing these findings was published online by the *Journal of the American Geriatrics Society* on January 16, 2017 (http://onlinelibrary.wiley.com/doi/10.1111/jgs.14741/full).

This was a cohort study, in which 475 participants aged ≥ 65 years were recruited from the elderly health checkup program at National Taiwan University Hospital, Taiwan, from 2011 to 2013. For each participant, global and domain-specific cognitive function data were collected at

the baseline as well as during follow-up visits (2013-2015). Dietary data from the previous year were collected via a food frequency questionnaire.

This study identified three DPs, namely, vegetables, meat and traditional (fermented food and pickles) DPs, in the elderly Chinese population. The intake of vegetables or fermented foods protects against a decline in logical memory. However, vegetable intake is associated with a decline in executive function. Meat consumption was related to a decline in verbal fluency but protected against a decline in attention. Finally, a "traditional" DP protected against a decline in logical memory.

This study, for the first time, identified the associations between the intake of vegetables, meat, and traditional foods and cognitive function in the elderly Chinese population. Among these DPs, the "traditional" DP, which includes fermented food and pickles, is different from the Western diet. Because fermented foods and pickles tend to have higher levels of salt or sugar, the intake of an appropriate amount of these foods may protect against a decline in logical memory. Further research is warranted to assess the efficacy of dietary interventions for preventing cognitive decline in the elderly.

The content of this article was adapted with permission from the Association of Schools and Programs of Public Health, ASPPH (https://www.aspph.org/taiwanese-researcher-finds-different-dietary-patterns-associated-with-the-change-of-domain-specific-and-global-cognitive-functions-in-chinese-elderly/).

Figure 1. Daily dietary guidelines from the Health Promotion Administration, Ministry of Health and Welfare, Taiwan.
This figure was adapted and translated into English with permission from the Health Promotion Administration, Ministry of Health and Welfare, Taiwan (https://www.hpa.gov.tw/Pages/EBook.aspx?nodeid=1208).

References

Yen-Ching Chen*, Chien-Cheng Jung, Jen-Hau Chen, Jeng-Min Chiou, Ta-Fu Chen, Ya-Fang Chen, Sung-Chun Tang, Shin-Joe Yeh, Meei-Shyuan Lee. (2017). Association of dietary patterns with global and domain-specific cognitive decline in Chinese elderly. *Journal of the American Geriatrics Society 65*(6): 1159-1167. DOI: 10.1111/jgs.14741

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