Within the German-speaking area, about 300,000 persons annually develop dementia [1]. Most of them pass through a stage of mild cognitive impairment (MCI). 10-20% of all patients suffering especially from the amnestic form of MCI finally contract dementia within one year [2]. Currently, 5.4% of the Western European population >60 years is affected by Alzheimer’s disease (AD), the most common form of dementia. However, due to rapid aging this prevalence is estimated to double every 20 years until 2040 [3]. Thus, occupational medicine must face the challenge of sustaining each worker’s working ability as long as possible [4]. For this, preservation of cognitive functions might be an essential factor [5]. A possible effect of physical exercise on cognitive functions has been postulated in cross-sectional [6] as well as in longitudinal studies [7-9].

Moreover, little is known about the effect of longstanding strenuous exercise on mood and feelings, since only a few controversial findings have been so far published. Hassmén et al. [10] concluded as early as in 1991 that marathon running reflects negative acute effects on mood. In contrast, Morgan and coworkers [11] reported that psychological variables representing depressive symptoms are decreased in their cohort of aging male marathon runners. However, their sample size was comparatively modest (n=15) and the study population relatively heterogeneous. Interestingly, initial findings using cross-sectional data derived from the present cohort dovetail with Morgan’s
results [12].

We thus aim to investigate, whether and to what extent strenuous exercising affects markers for psychological and physiological health in a prospective, longitudinal cohort study enrolling elderly Austrian marathon runners/bicyclists. Special attention will be paid to growth factors and mediators/effectors of the immune system.

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References
