Preface

The year 2020 was one of many unexpected challenges, disappointments and, unfortunately for some, tragedies. In the light of this difficult and demanding year for everyone, the editorial board and staff of the journal *Current Aging Science* wishes to thank scientists (and their supporting staff) for their hard work and inspiring adaptability in maintaining a continuity of research throughout the current COVID-19 pandemic, and for accumulating, analyzing and reporting new scientific findings. Indeed, 2020 has been a year that has truly tested us both intellectually and as morally. At the forefront, a new pandemic (which started in 2019) swept the world and dramatically changed everything. Above all, the elderly were particularly vulnerable to infection by and progression of COVID-19. The world also became a laboratory to compare public health paradigms. These paradigms ranged from robust implementation of isolations and general quarantines to essentially pretending the disease did not exist and either ignoring or squabbling with one’s own public health experts. The resulting infection rates, associated suffering, and numbers of deaths provide outcome measures of the various approaches, particularly for the disastrous effects of simply dismissing the risk and refusing to perform necessary countermeasures.

Dismissing risk and refusing to take appropriate proactive measures can, likewise, have disastrous consequences in the processes that underpin healthy aging. Fortunately, the field of aging science is prone to doing neither. This year, *Current Aging Science* releases Volume 14, to continue our fight against complacency, denialism and know-nothings about aging; thereby, reinvigorating our original founding principles [1, 2]. We reinforce that aging exists and that tested scientific principles ought to determine our response to it. Our upcoming Volume 14 will provide new experimental work and present summaries and conceptual reviews on a wide variety of aging-related topics, including dementia, musculoskeletal function, vascular disorders, social aspects of aging, and others.

Our first issue of Volume 14 encompasses a broad survey of multiple aspects of aging, from effects of bacterial infection and vitamin deficiency to salutary actions of coenzyme supplementation, plant extracts as a defense against UV skin damage, consequences of activity levels, and other aspects of aging and compensatory responses to aging effects.

*Helicobacter pylori* is most commonly associated with causing stomach ulcers. Sokhn *et al.* [3] determined that *Helicobacter pylori* infection and vitamin D deficiency could predict hypertension (HTN). Paradoxically, the odds of HTN development were double when the participants were negative for *H. pylori* infection and had vitamin D deficiency.

Andreis *et al.* [4] found that insufficiently active older adults present lower motor aptitude than the active elderly, especially in the domains of global coordination, balance, body scheme and general motor aptitude, and that these domains could diagnose whether older adults had insufficient activity. In agreement with and expanding on this experimental finding, Abdul [5] provides a review of the benefits of resistance training in older adults, confirming the consensus of the field that resistance training reduces the risk of injury due to improved bone mass and muscular tissue strength, to help maintain normal blood glucose, lipid, and cholesterol levels, and support sleep and psychological health.

A common stereotype in the youth-obsessed culture of the USA, at least in some, is the “bitter old person”, left only with sad memories. The reality may be different. Lombard *et al.* [6] found that older participants in a study of self-defining memories (SDM) reported memories that were more positive, on average, than did middle-aged participants. Accordingly, aging may not alter “memory” in a general sense but, specifically, may alter types and details of memory beyond accuracy and completeness of recall, and thus have a significant influence on self-identity. Aging is a worldwide phenomenon, do such findings from “Western” populations hold true globally? Ruchwit *et al.* [7] describe holistic health factors among Thai elders. They note that, in addition to increasing age, the elements of stress, gender, and social participation are predictive of physical, mental, and emotional holistic health; thereby, indicating that these factors are not restricted to a single culture.

*Salvia officinalis* is primarily a culinary herb (sage) in developed countries. In parts of Asia and Latin America, it is also regarded as medicinal. Khare *et al.* [8] explore the actions of a methanolic extract of *Salvia officinalis* to mitigate the adverse effects of ultraviolet (UV) light exposure on the skin. They determined extracts to have high levels of glycosides, alkaloids, flavonoids, triterpenoids, saponins, and phenolic compounds. The extracts had inhibitory activity on aging-related enzymes such as Col-I, Ela-I, and Hya-I. They notably found that the wrinkle score of extract-treated skin was significantly lower than controls after exposure to UV light. Indeed, medical acceptance of dietary supplementation to pharmaceutical treatments has become more prevalent. Coenzyme Q10 (CQ10) is a popular over-the-counter supplement. Onaolapo *et al.* [9] investigate possible anti-Parkinson’s activity for CQ10 alone or as a supplement to levodopa-carbidopa in mice. CQ10 supplementation is associated with reduced mortality and protection against chlorpromazine-induction of open-field behavior abnormality. The CQ10 effect was also noticeable above levodopa-carbidopa treatment effects without CQ10.

Rodichkina *et al.* [10] survey the literature on inflammaging (inflammatory aging), an age-related, chronic and systemic inflammatory condition associated with cells possessing a senescence-associated secretory phenotype (SASP) in the female reproductive system. They point out that SASPs have both positive and negative effects, depending on the biological context and distinguish between “cellular senescence” as the processes of cells’ irreversible growth inhibition during their viable state vs. “aging” as the deterioration of tissues due to loss of function. One of many inflammatory conditions is Behçet’s disease, a rare circulatory system inflammatory disorder that is particularly frequent in Tunisia. Sandouli *et al.* [11] describe ocular
manifestations in a late-onset form of the disorder. They found that ocular involvement is rare within the condition but can be severe. Most manifestations were dominated by uveal involvement, with further macular participation.

The effects of aging and potential compensatory responses to maintain homeostasis that we present are widely varied, as is always the case. It is noteworthy that, despite a global disruption, progress continues to be made across numerous aspects of aging research. Current Aging Science will continue to play a role in this effort, and the adaptations that not only aging but also new worldwide conditions impose on us all.

Despite the ups-and-downs of the past year, we hope that you and your organization will continue to succeed in 2021 and beyond. Thank you for letting us be a part of your scientific journey. We are grateful for your continued support, which has helped us endure as the world has changed around us. Finally, the journal's editorial board and the management team extend our best wishes to you and your family for a more joyous, peaceful, prosperous and, in particular, healthy New Year!

REFERENCES


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