



# AMERICAN FEDERATION FOR AGING RESEARCH

**Professor Steven N Austad**, AFAR's Scientific Director shares his expertise on the trends and opportunities present in the biomedical research on ageing, and highlights the dedicated work that AFAR is advancing to ensure healthy ageing for all

**Since its founding in 1981, the American Federation for Aging Research (AFAR) has been instrumental in building the field of ageing research through its Biology of Aging grant awards and Physician Training programmes. To date, AFAR has supported over 3,000 researchers nationwide who are advancing research that will help extend our years of health. What are some common misperceptions about research in healthy ageing?**

There are two common misperceptions. The first is that research on healthy ageing is only about delaying conditions such as heart disease or cancer. While that is a major part, our research also includes delaying or preventing non-disease aspects of ageing too, such as muscle loss, memory loss and/or declining bone quality. The second misperception is that our research is somehow related to the 'anti-ageing' products one sees on television, which have little to no evidence that they work or even that they are not harmful. In fact, AFAR encourages and supports only evidence-based science.

Another misperception is that our research, to the extent we are successful at enhancing general health, will have an ultimate side effect of burdening society with even older, frailer, debilitated people draining our healthcare support system. This worry should be allayed by simply

looking at people who, by luck, inheritance or superior health habits have managed to reach exceptional ages of 100 years or more, in a state of reasonable good health. We know from extensive study of these people, that they cost the healthcare system very little. As long as they retain their health, they often need no more medical attention than younger people.

**Could you outline AFAR's current mission and goals?**

Our mission is simple: we support efforts to enhance and extend the years of healthy life through biomedical research. Jeanne Calment, the longest-living person we can document to date, rode a bicycle regularly until she was 100 years old. We'd like to make it possible for everyone to ride a bicycle – or climb mountains – for as long as possible. One key part of our mission is to bring together scientists studying the basic biology of the processes of ageing in the laboratory with geriatricians who treat the elderly regularly. These two groups can learn from one another and that interaction stimulates new ideas between the lab and clinic. We also support the training of more physicians who are versed in the care and treatment of older adults. The US, like most other countries, does not have nearly enough medical expertise in treating the elderly. Finally, we want to inform the public about the real, exciting advances taking place in understanding the biology of healthy ageing.

**In our March 2014 issue, *International Innovation* readers enjoyed insights from AFAR's board president Dr Harvey Jay Cohen on the emerging field of geroscience. Why is it important to study the processes of ageing in tandem with the common diseases of ageing like cancer or diabetes?**

It is important to study them in tandem because the underlying causes are similar, or even the same. Treating underlying causes – rather than treating symptoms once a problem has arisen – is what preventative medicine is all about. For instance, we used to think that heart disease was only about the heart and Alzheimer's disease only about the brain; now we know that similar processes, one of which is chronic inflammation, are contributors to both diseases, as well as many cancers, lung disease, and so on. So AFAR supports research that concentrates on understanding and treating the underlying causes of ageing.

**Likewise, AFAR supports research in the basic biology of ageing at leading research institutions across America. How close we are to applying research from the lab to the clinic? What is translational research?**

Translational research is taking experimental results from the laboratory and applying them to human use. We are very close to carrying this out for ageing research. We have a number of very promising drug candidates from animal studies, and hope to begin our first human clinical trial within a year.

**What role do drug trials play in moving ahead discoveries that will extend years of health as we age?**

Ultimately, drug trials will be critical to advancing new therapies to lengthen healthy life into human use. Without

well-run drug trials, you can't tell if the drug is safe or effective. It is a critical step in all legitimate drug development.

**How does AFAR strive to bring this research and the insights of its network of experts to the general public?**

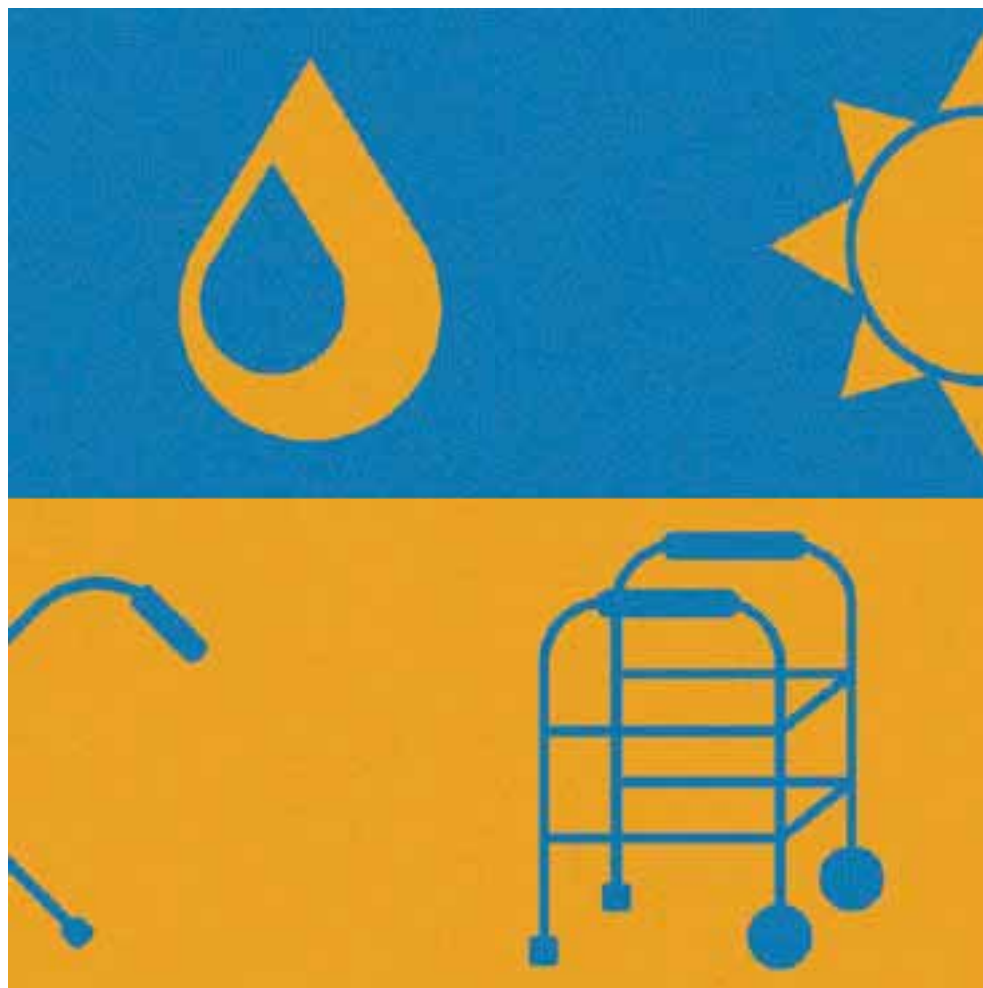
We work very hard at bringing the legitimate science of ageing research to the public. Our team of experts gives dozens of public talks each year, we issue press releases and provide informational sessions for selected members of the press.

AFAR regularly hosts webinars and media briefings to bring research to the public. AFAR also maintains an online resource called Infoaging.org, which features downloadable guides on a range of age-related topics as well as 'ask the expert' interviews on themes including cancer, pain management, biomarkers of ageing and more.

I also encourage everyone to see our video, 'Live Longer, Live Well'. The Federation created this with the Glenn Foundation for medical research and the acclaimed data journalist David McCandless. The clip discusses ageing research and its impact on individual health and society at large, and is free to download and share on AFAR's website.

#### AFAR'S KEY INITIATIVES

- Identifying and funding a broad range of cutting-edge research to increase knowledge about healthy ageing
- Attracting more physicians to specialise in geriatric medicine to meet the demands of an ageing population with expert healthcare
- Creating opportunities for scientists and clinicians to share knowledge and exchange ideas to drive innovation in ageing research
- Providing information to the public on new medical findings that can help people live longer lives, less susceptible to disease and disability





**As Scientific Director of AFAR, you are joined by a board of over 40 scientists and geriatricians and over 300 experts on scientific committees. How do your own areas of research relate to AFAR's mission?**

My own research fits very precisely into AFAR's mission. I study several animal species that seem much better than humans at resisting ageing processes. Our premise is that nature has already provided some answers about methods of extending healthy life and we just need to understand how they do it. One of my research projects, for instance, involves clams that live more than 500 years. These clams have a beating heart like we do. How do clams make a heart that lasts 500 years?

**Does AFAR have any initiatives in place to award prominent scientists who have excelled in the field of healthy ageing research?**

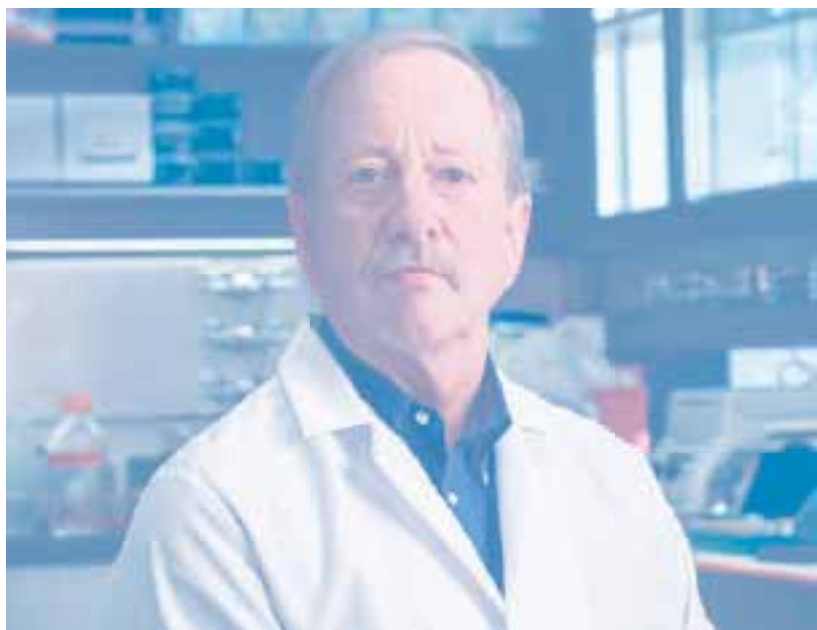
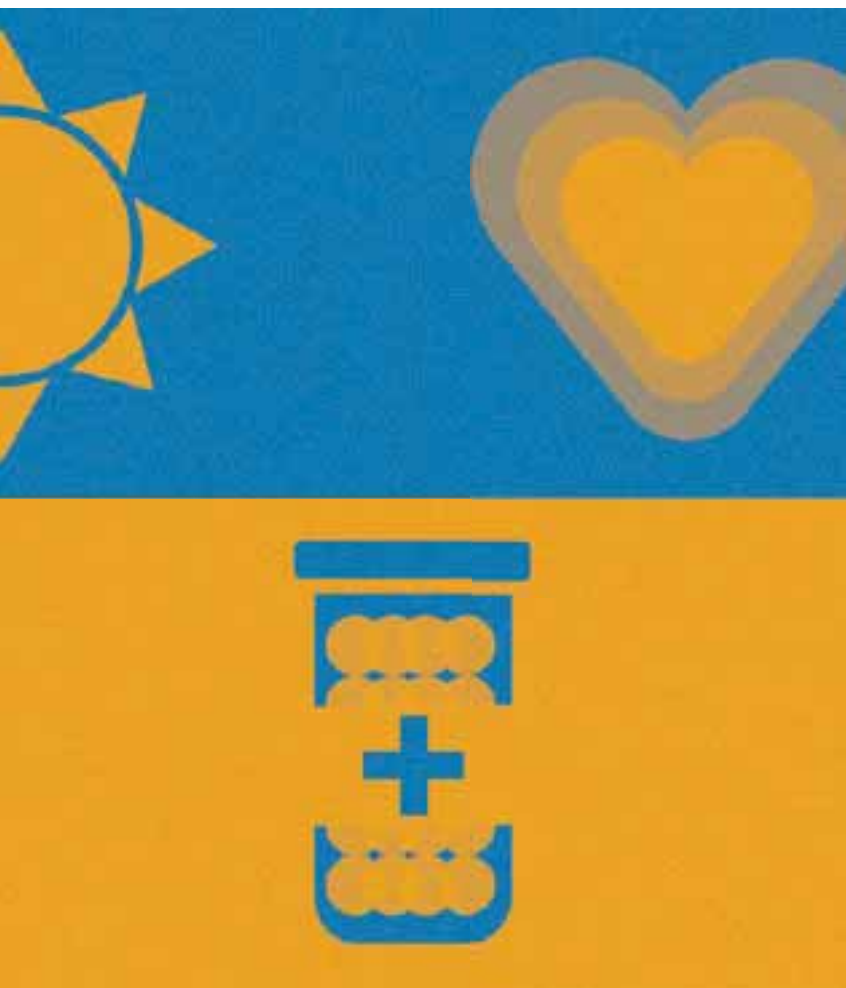
The annual Irving J Wright Award of Distinction – named in honour of AFAR's founder – is given for exceptional contributions to basic or clinical ageing research. I was fortunate enough to receive this award a number of years ago, long before I became Scientific Director of AFAR.

We also annually present the Vincent Cristafalo Rising Star Award in Aging Research. This award is given to the most respected researchers

and mentors of young scientists in the history of our field. The award goes to researchers early in their careers that in the opinion of the judges show exceptional promise for future contributions to the field.

**With an eye towards the future, where do you foresee AFAR developing? Do you have any long-term plans for conducting scientific research on ageing?**

It's ironic that just as we are discovering so many promising approaches to lengthen healthy life, the US National Institutes of Health (NIH) is undergoing a budgetary crisis that threatens to cripple further ageing research. This makes it doubly important that AFAR, one of the chief private funders of this type of research, doubles and redoubles its fundraising efforts. Discovering treatments that delay and reduce many of the diseases and maladies of ageing as a group should be a national priority. We at AFAR have to make sure this message gets out. As for my personal research, I intend to keep doing what I'm doing, looking for new compounds that enhance and extend health.



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