

Award-winning papers published in *Temperature* in 2014

There are many awards for research. Figure 1 shows the Fields Medal, one of the highest honors a mathematician can receive, which comes with a C\$15,000 prize. In 2006, it was awarded to Grigori Perelman from Steklov Institute of Mathematics in St. Petersburg (Russia). He declined, stating that he was not interested in money or fame. In 2010, Perelman also declined the Clay Millennium Prize of \$1,000,000.

When did you receive your last award for publishing your research paper in a scientific journal? For most of us, it is easy to answer that question. The answer is: “Never.” But in the field of thermoregulation, *Temperature* has recently changed this answer for several colleagues. Here are the 2014 *Temperature* papers that have won awards.

The 2014 *Temperature* Editor-in-Chief Award for the Best Research Paper (\$2,000) has been bestowed upon Michael Farrell, David Trevaks, and Robin McAllen from University of Melbourne (Australia) for their article entitled “Preoptic activation and connectivity during thermal sweating in humans.”¹ Whereas numerous studies in laboratory animals identified the preoptic hypothalamic area as an important thermoregulatory region of the brain a long time ago, the winning paper by Farrell and his colleagues provides the first imaging evidence for a thermoregulatory role of the human preoptic area.

The 2014 *Temperature* Editor-in-Chief Award for the Best Review Article (\$1,000) has been given to Robyn Hetem, Andrea Fuller, Shane Maloney, and Duncan Mitchell from the University of the Witwatersrand in Johannesburg (South Africa) for their paper on “Responses of large mammals to climate change,”² which is also one of the most viewed papers on the *Temperature* website. The authors think that the rate of climate change is too fast for genetic adaptation to occur in mammals with longevities of decades, typical of large mammals, and discuss the anatomical variation within the species and intrinsic physiological and behavioral capacity that can buffer an animal against the effects of climate change. The winners of both awards were determined by the Editorial Board (Associate Editors, Scientific Advisors, and Discovery Editors).

Two Young Investigator prizes (\$700 and \$300) have been awarded to Boris Kingma from Maastricht University Medical Center (Netherlands) and Assaf Yacobi from The Hebrew University in Jerusalem (Israel) for their 2014 *Temperature* papers,^{3,4} as announced in an earlier editorial.⁵ The awardees were determined by the Organizing Committee of the 5th International Symposium on the Physiology and Pharmacology of Temperature Regulation (Skukuza, Kruger National Park, South Africa, September 7–12, 2014).

It is noteworthy that, since the 4 award-winning papers mentioned above were published, at least one author of each paper submitted more work to *Temperature* – a solid quality assurance for future issues! As an interest assurance, *Temperature* publishes “puzzles” proposed by its readers. The last puzzle was suggested by Arpad Szallasi from the Monmouth Medical Center in Long Branch, New Jersey (USA): why do people living in hot climates consume more spicy hot pepper than those living in the North?⁶ This puzzle resulted in a hot (no pun intended) discussion and received 9 different explanations! All of them can be found in this issue of the journal.

The new puzzle is proposed by Chris Madden from the Oregon Health and Sciences University in Portland (USA) and deals with uncoupling protein 1, which is principally responsible for thermogenesis in brown adipose tissue. Upregulating this protein is a novel therapeutic approach to obesity, and one would



Figure 1. A Fields Medal showing a bas-relief of Archimedes with his name written on the right side in Greek. The inscription around the head of Archimedes is a Latin quote attributed to him: *Transire suum pectus mundoque potiri* (Rise above yourself and grasp the world). Photo was made by Stefan Zachow for the International Mathematical Union, public domain.

think that obesity should be associated with decreased expression of this protein. Yet, in rodents with diet-induced obesity, uncoupling protein 1 is not downregulated, but upregulated!⁷ How can this paradox be reconciled? *Temperature* is looking for your replies and perhaps another interesting discussion.

As for the awards, the example of Grigori Perelman – arguably, one of the smartest scientists living today – shows that awards should not be taken too seriously. Besides, even the most prestigious of them are issued by humans and awarded by humans; mistakes are unavoidable. For example the date written in Roman numerals on the left side of the Fields Medal (Fig. 1) contains an error: “MCNXXXIII” instead of “MCMXXXIII.”

Starting in MMXVI, send your good papers to *Temperature*. They undoubtedly will receive the attention of your peers and be read with great interest. Just as an example, the review on psychogenic fevers by Takakazu Oka from Kyushu University in Fukuoka (Japan) published in this journal less than 8 months ago⁸ has already received >3,500 views by unique visitors to the journal’s website! And if, in addition to attracting the attention of your colleagues, your *Temperature* papers happen to be selected for awards – even better!

References

- [1] Farrell MJ, Trevaks D, McAllen RM. Preoptic activation and connectivity during thermal sweating in humans. *Temperature* 2014; 1:135-41; <http://dx.doi.org/10.4161/temp.29667>
- [2] Hetem RS, Fuller A, Maloney SK, Mitchell D. Responses of large mammals to climate change. *Temperature* 2014; 1:115-27; <http://dx.doi.org/10.4161/temp.29651>
- [3] Kingma BRM, Frijns AJH, Schellen L, van Marken Lichtenbelt WD. Beyond the classic thermoneutral zone. *Temperature* 2014; 1:142-9; <http://dx.doi.org/10.4161/temp.29702>
- [4] Yacobi A, Bach YS, Horowitz M. The protective effect of heat acclimation from hypoxic damage in the brain involves changes in the expression of glutamate receptors. *Temperature* 2014; 1:57-65; <http://dx.doi.org/10.4161/temp.29719>
- [5] Romanovsky AA. A Valentine’s Day bouquet for *Temperature* readers: pleasing with prizes, searching for the right words, and keeping things mysterious. *Temperature* 2015; 2:17-21; <http://dx.doi.org/10.1080/23328940.2015.1017089>
- [6] Romanovsky AA. Protecting western redcedar from deer browsing—with a passing reference to TRP channels. *Temperature* 2015; 2:142-9; <http://dx.doi.org/10.1080/23328940.2015.1047078>

- [7] Fromme T, Klingenspor M. Uncoupling protein 1 expression and high-fat diets. *Am J Physiol Regul Integr Comp Physiol* 2011; 300:R1-8; PMID:21048077; <http://dx.doi.org/10.1152/ajpregu.00411.2010>
- [8] Oka T. Psychogenic fever: how psychological stress affects body temperature in the clinical population. *Temperature* 2015; 2:368-78; <http://dx.doi.org/10.1080/23328940.2015.1056907>

Andrej A. Romanovsky

Systemic Inflammation Laboratory (FeverLab)
St. Joseph's Hospital and Medical Center, Phoenix, AZ, USA

 andrej.romanovsky@dignityhealth.org

URL: <https://www.barrowneuro.org/research/research-programs/romanovsky-laboratory/>, <http://www.feverlab.net/>