

THE SOUTH AFRICAN JOURNAL OF SCIENCE ADOPTS ONLINE PUBLISHING

The *South African Journal of Science* is marking the start of the second decade of the millennium by moving over to a web-based publication system. This should have several advantages for authors, editors and reviewers. In the first instance, manuscripts will be submitted directly online, which will allow authors to track the progress of their manuscripts by logging onto the journal's website. But more importantly, as soon as a manuscript has been accepted for publication and the proofs passed, it will be allocated a DOI and be published online on the website before the print issue becomes available.

Another major advantage is that the journal's own website will have direct open access. With effect from April last year, the journal has enjoyed open online access through a common portal for a number of South African journals established by the Academy of Science of South Africa: <http://www.scielo.org.za>. We will continue to use this platform, but it takes up to six weeks for a completed issue to be placed on this website. With effect from March, readers will enjoy free, immediate online access on our own website, <http://www.sajs.co.za>, hosted by OpenJournals Publishing, a division of AOSIS (Pty) Ltd. Interestingly, open access has hardly affected our personal subscriber base and institutional subscriptions have actually increased. Subscribers will continue to receive a printed journal and we would like readers to provide us with feedback on the new format.

Our first year working with a team of associate editors has been a successful one. For the first time in many years, the journal appeared on time in 2009, with the turnaround time for manuscripts improving significantly. Over half of the articles in our last issue of 2009, for example, were submitted less than four months prior to publication. Once the inevitable teething problems with the new system have been sorted out, the processing of manuscripts should be accelerated further.

Our aim remains unchanged: to provide an avenue for the rapid publication of original work of importance in any field, which will interest readers from more than one discipline. In particular, we are keen to publish work that is multidisciplinary and that has a regional focus on Africa.

We continue to seek more submissions in the fields of social science and humanities, and this will be the subject of a marketing campaign later in the year. We have chosen a cover for this issue pertaining to an historical article by Jane Carruthers on the life of Henry Selby Hele-Shaw, which reflects on his time in South Africa between 1904 and 1905, when he worked at the Transvaal Technical Institute, a forerunner of the University of the Witwatersrand. The humanities and social sciences have a different publishing profile to the natural sciences, as discussed in some detail in the introductory chapter of *The State of Science in South Africa* (edited by Roseanne Diab and Wieland Gevers), which is reviewed on page 10 of this volume. Traditionally, this involves greater emphasis on publishing books – also the subject of a recent investigation by the academy. But we hope that when researchers in these fields do choose to publish in journals, they will consider the *South African Journal of Science* as an outlet for their work. ■

GENOME DATA FROM AFRICA REVEALS HUGE DIVERSITY

The recent publication by Schuster et al. (*Nature* 463, 943–447; 2010) regarding the complete genome sequences of Archbishop Emeritus Desmond Tutu and !Gubi, a hunter-gatherer from the western Kalahari, is a major triumph. An analysis of these sequences, together with partial genomes (comprising protein-coding regions) of the oldest members from three disparate hunter-gatherer communities of the Kalahari, has revealed that these communities are genetically more different from one another than Europeans and Asians. It is remarkable that similar communities living so close to one another should be genetically so different, a fact which may explain why they have no sense of collective identity. Linguists have been telling us for nearly a century that their languages are so different that not only are they mutually unintelligible, but are drawn from completely separate language families. Now genetics has confirmed that ancestry and language reflect the same process of population differentiation.

Tutu and !Gubi's genomes each carry more than a million single base-pair changes that they do not share; moreover, these changes have not been recorded in any published genomes. The fact that our continent's genetic diversity is so rich is unsurprising, as it reflects the African origin of humans. The next step will be to use these genomes to screen far larger samples, in order to examine possible bases of adaptation or vulnerability. Three of the hunter-gatherer genomes, for example, have a copy of a gene expressed in muscle, which has been linked to faster sprinting ability. Conversely, some drugs designed to treat Europeans work less well on Africans, as do tests to investigate the genetic basis of diseases such as tuberculosis, to which some African populations appear particularly susceptible. It is regrettable that African scientists played only a minor role in this ground-breaking study because southern Africa not only presents unique opportunities, but has expertise in genomics. Our researchers could play a greater role in the future if they are given the resources to do so. ■

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