



**Cover:** This striking image is a scanning electron micrograph of the anterior end of an adult male *Schistosoma mansoni* worm, taken during a study conducted by Pirovich and colleagues, examining a novel function of the worm's glycolytic enzyme activating plasmin in potentially degrading blood clots. The oral and ventral suckers that the parasites use to adhere to the host vasculature can be seen clearly, and the spines that give the tegument (outer surface) of the worms its characteristic bumpy appearance are also plainly visible. Image licensed under a Creative Commons Attribution 4.0 International license.

## EDITORIAL

News from Biology Open in 2020

**Hackett, R. (Managing Editor BiO)**

bio051821

## RESEARCH ARTICLES

Nanomorphological and mechanical reconstruction of mesenchymal stem cells during early apoptosis detected by atomic force microscopy

**Su, X., Zhou, H., Bao, G., Wang, J., Liu, L., Zheng, Q., Guo, M. and Zhang, J.**

bio048108

*Schistosoma mansoni* glyceraldehyde-3-phosphate dehydrogenase enhances formation of the blood-clot lysis protein plasmin

**Pirovich, D. B., Da'dara, A. A. and Skelly, P. J.**

bio050385

Single cell force profiling of human myofibroblasts reveals a biophysical spectrum of cell states

**Layton, T. B., Williams, L., Colin-York, H., McCann, F. E., Cabrita, M., Feldmann, M., Brown, C., Xie, W., Fritzsche, M., Furniss, D. and Nanchahal, J.**

bio049809

The transcription factor Spalt and human homologue SALL4 induce cell invasion via the dMyc-JNK pathway in *Drosophila*

**Sun, J., Zhang, J., Wang, D. and Shen, J.**

bio048850

MACF1 promotes preosteoblast migration by mediating focal adhesion turnover through EB1

**Su, P., Yin, C., Li, D., Yang, C., Wang, X., Pei, J., Tian, Y. and Qian, A.**

bio048173

Suppression of store-operated calcium entry causes dilated cardiomyopathy of the *Drosophila* heart

**Petersen, C. E., Wolf, M. J. and Smyth, J. T.**

bio049999

MicroRNA-96-5p promotes proliferation, invasion and EMT of oral carcinoma cells by directly targeting FOXF2

**Wang, H., Ma, N., Li, W. and Wang, Z.**

bio049478

Parametric generation of three-dimensional gait for robot-assisted rehabilitation

**Shi, D., Zhang, W., Ding, X. and Sun, L.**

bio047332

Long-term sucrose solution consumption causes metabolic alterations and affects hepatic oxidative stress in Wistar rats

**Souza Cruz, E. M., Bitencourt de Morais, J. M., Dalto da Rosa, C. V., da Silva Simões, M., Comar, J. F., de Almeida Chuffa, L. G. and Ferreira Seiva, F. R.**

bio047282

## FIRST PERSON

First person – David Pirovich

bio051631

First person – Jie Sun

bio051144