

Trends in Parasitology

April 2019, Volume 35, Number 4, pp. 267–328

Science & Society

- 267 **Global Vector Control Guidelines – The Need For Co-Creation** *Gregor J. Devine, Hans J. Overgaard, and Richard E. Paul*
- 270 **Adaptive e-Learning: Emerging Digital Tools for Teaching Parasitology** *Caitlin N. Pfeiffer and Abdul Jabbar*

Forum

- 274 **Sensing What’s Out There – Kinetoplastid Parasites** *Scott M. Landfear and Dan Zilberstein*
- 277 **Biostatistics for Parasitologists – A Primer to Quantitative Parasitology** *Jenő Reiczigel, Marco Marozzi, Ibolya Fábíán, and Lajos Rózsa*

Opinions

- 282 **Twenty Years on: Metabolomics in Helminth Research** *Daria Kokova and Oleg A. Mayboroda*
- 289 **Genome-wide Approaches to Investigate Anthelmintic Resistance** *Stephen R. Doyle and James A. Cotton*

Reviews

- 302 **Mechanistic Similarities between Antigenic Variation and Antibody Diversification during *Trypanosoma brucei* Infection** *Francisco Aresta-Branco, Esteban Erben, F. Nina Papavasiliou, and C. Erec Stebbins*
- 316 **Tick–Pathogen Interactions: The Metabolic Perspective** *Alejandro Cabezas-Cruz, Pedro Espinosa, Pilar Alberdi, and José de la Fuente*

Editor

Pengfei Kong

Trends Publisher

Paige Shaklee

Journal Manager

Margriet ten Napel

Journal Administrator

Patrick Scheffmann

Advisory Editorial Board

John H. Adams
María-Gloria Basáñez
Paul A. Bates
Jane M. Carlton
Flaminia Catteruccia
Anne Cooke
Brian M. Cooke
Frank E.G. Cox
Christian Doerig
Dirk Engels
Robin B. Gasser
Ian M. Hastings
Lars Hviid
Elisabeth A. Innes
Marcelo Jacobs-Lorena
Francois Nosten
Eric A. Ottesen
Julian C. Rayner
Lucy J. Robertson
Carol Hopkins Sibley
Robert W. Snow
Boris Striepen
R.C. Andrew Thompson
Joanne P. Webster
Xing-Quan Zhu



On The Cover: The image shows the “arms race” in the blood stream between the African trypanosome and the host immune system. On the parasite membrane surface, IgM molecules are binding one version of the Variable Surface Glycoprotein (VSG) coat (green) but are unable to recognize a new VSG coat (red) that is replacing it, a process called antigenic variation. In this issue of *Trends in Parasitology*, Aresta-Branco *et al.* discuss the parallels between parasite antigenic variation and host immune adaptation. The cover image was created by Audra Geras (<http://www.audrageras.com>).

Editorial Inquiries

Trends in Parasitology
Cell Press
50 Hampshire St. 5th Floor
Cambridge, MA 02139, USA
Tel: 617 397 2800
E-mail: parasites@cell.com

CellPress
REVIEWS