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REVIEWS

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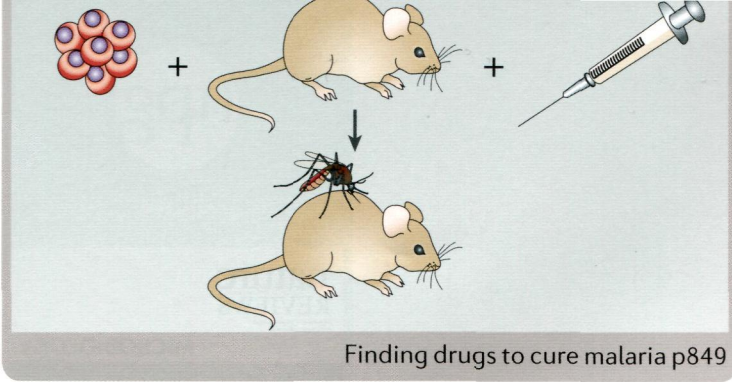
MICROBIOLOGY



TIME TRAVEL

Milestones in HIV and SARS-CoV research

Lipid metabolism in
apicomplexan parasites
Synthesize or scavenge



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REVIEWS

823 Targeting lipid biosynthesis and salvage in apicomplexan parasites for improved chemotherapies

Isabelle Coppens

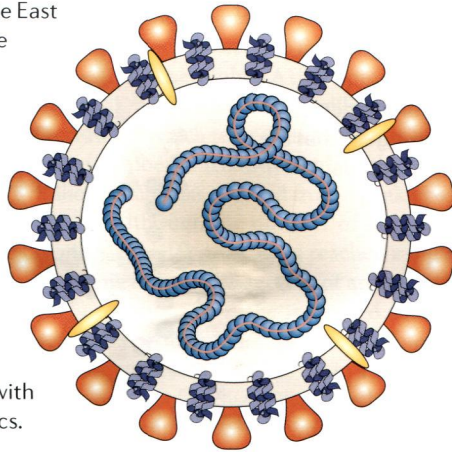
Apicomplexan parasites have unique lipid-scavenging and -synthesis pathways that are not found in their mammalian hosts. Coppens gives an overview of these pathways in *Plasmodium* spp., *Toxoplasma gondii* and *Cryptosporidium* spp. and highlights promising drug targets to interfere with the parasites' high demand for isoprenoids, sphingolipids and cholesterol.

836 A decade after SARS: strategies for controlling emerging coronaviruses

FEATURED ARTICLE

Rachel L. Graham, Eric F. Donaldson and Ralph S. Baric

The emergence of severe acute respiratory syndrome (SARS) coronavirus and, more recently, Middle East respiratory syndrome (MERS) coronavirus has highlighted the pathogenic and epidemic potential of this virus family. Here, Graham, Donaldson and Baric review key biological properties of coronaviruses and how to target them with potential therapeutics.



849 Antimalarial drug discovery — approaches and progress towards new medicines



Erika L. Flannery, Arnab K. Chatterjee and Elizabeth A. Winzeler

Current antimalarial therapy heavily relies on artemisinins, a drug class that only targets the blood stages of the parasite and which is increasingly feared to elicit drug resistance. Flannery, Chatterjee and Winzeler discuss the approaches used to develop novel drugs that are active against different life cycle stages with the ultimate aim of eliminating malaria.

863 Keeping it quiet: chromatin control of gammaherpesvirus latency

Paul M. Lieberman

Epstein-Barr virus (EBV) and Kaposi's sarcoma-associated herpesvirus (KSHV) establish latent infections, during which the viral genomes are maintained in the host cell as viral episomes. As discussed by Lieberman, latency depends on numerous factors, including viral genome chromatinization and epigenetic modification, as well as tight control of the latency transcription programme.

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Tanner S. Miest and Roberto Cattaneo

Exploring bacterial cell biology with single-molecule tracking and super-resolution imaging

Andreas Gahlmann and William E. Moerner

Ribosome-targeting antibiotics and mechanisms of bacterial resistance

Daniel N. Wilson

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In this article series, *Nature Reviews Microbiology* highlights the distinct features of a range of vector-borne pathogens and the diseases they cause, as well as how the host responds to these infections. All articles in the series can be found at <http://www.nature.com/nrmicro/series/vectorbornediseases/index.html>

Links to further information

The full text of articles includes author biographies, links to glossary terms and links to websites and databases with relevant information.

Key points provides a bullet-pointed summary of the main topics covered in each article.

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**nature
REVIEWS**

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MICROBIOLOGY



TIME TRAVEL
Microbes in HIV and SARS-CoV research

Lipid metabolism in apicomplexan parasites
Synthesis of cholesterol

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877 **Past, present and future: 30 years of HIV research**

Françoise Barré-Sinoussi, Anna Laura Ross and Jean-François Delraissy

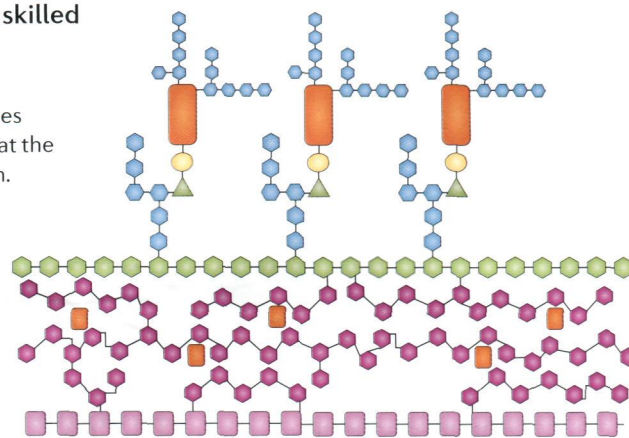
The isolation of HIV-1 was a fundamental step for understanding HIV and the disease it causes. Here, Françoise Barré-Sinoussi, Anna Laura Ross and Jean-François Delraissy look back on three decades of research that have changed the lives of people infected with HIV and have inspired hope for a cure.

OPINION

884 **Developing vaccines for *Candida albicans*: fighting a skilled transformer**

Antonio Cassone

Antonio Cassone outlines why he thinks univalent subunit vaccines targeting *Candida albicans* are unlikely to succeed and argues that the development of a multivalent vaccine could be a better approach.



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