

EUKARYOTIC CELL

Volume 7

April 2008

No. 4

MINIREVIEW

- Nitrate Assimilation in *Chlamydomonas* Emilio Fernandez and Aurora Galvan 555–559

ARTICLES

- Histone H1 of *Trypanosoma cruzi* Is Concentrated in the Nucleolus Region and Disperses upon Phosphorylation during Progression to Mitosis Luciana M. Gutiyama, Julia P. Chagas da Cunha, and Sergio Schenkman 560–568
- Cell Cycle Synchrony in *Giardia intestinalis* Cultures Achieved by Using Nocodazole and Aphidicolin Marianne K. Poxleitner, Scott C. Dawson, and W. Zacheus Cande 569–574
- Impaired Ribosome Biogenesis Disrupts the Integration between Morphogenesis and Nuclear Duplication during the Germination of *Aspergillus fumigatus* Ruchi Bhabhra, Daryl L. Richie, H. Stanley Kim, William C. Nierman, Jarrod Fortwendel, John P. Aris, Judith C. Rhodes, and David S. Askew 575–583
- Calcineurin-Responsive Zinc Finger Transcription Factor CRZ1 of *Botrytis cinerea* Is Required for Growth, Development, and Full Virulence on Bean Plants Julia Schumacher, Inigo F. de Larrinoa, and Bettina Tudzynski 584–601
- Binding of the Wheat Germ Lectin to *Cryptococcus neoformans* Suggests an Association of Chitinlike Structures with Yeast Budding and Capsular Glucuronoxylomannan Marcio L. Rodrigues, Mauricio Alvarez, Fernanda L. Fonseca, and Arturo Casadevall 602–609
- Carnitine-Dependent Transport of Acetyl Coenzyme A in *Candida albicans* Is Essential for Growth on Nonfermentable Carbon Sources and Contributes to Biofilm Formation Karin Strijbis, Carlo W. T. van Roermund, Wouter F. Visser, Els C. Mol, Janny van den Burg, Donna M. MacCallum, Frank C. Odds, Ekaterina Paramonova, Bastiaan P. Krom, and Ben Distel 610–618
- Bot1p Is Required for Mitochondrial Translation, Respiratory Function, and Normal Cell Morphology in the Fission Yeast *Schizosaccharomyces pombe* David J. Wiley, Paola Catanuto, Flavia Fontanesi, Carmen Rios, Natalie Sanchez, Antoni Barrientos, and Fulvia Verde 619–629
- Aspergillus calidoustus* sp. nov., Causative Agent of Human Infections Previously Assigned to *Aspergillus ustus* János Varga, Jos Houbraken, Henrich A. L. Van Der Lee, Paul E. Verweij, and Robert A. Samson 630–638
- Creation of a Chloroplast Microsatellite Reporter for Detection of Replication Slippage in *Chlamydomonas reinhardtii* Monica GuhaMajumdar, Ethan Dawson-Baglien, and Barbara B. Sears 639–646
- Phenotype of a Mechanosensitive Channel Mutant, *mid-1*, in a Filamentous Fungus, *Neurospora crassa* Roger R. Lew, Zohaib Abbas, Marinela I. Anderca, and Stephen J. Free 647–655
- Nucleosome Positioning and Histone H3 Acetylation Are Independent Processes in the *Aspergillus nidulans prnD-prnB* Bidirectional Promoter Yazmid Reyes-Dominguez, Frank Narendja, Harald Berger, Andreas Gallmetzer, Rafael Fernandez-Martin, Irene Garcia, Claudio Scazzocchio, and Joseph Strauss 656–663
- Microneme Rhomboid Protease TgROM1 Is Required for Efficient Intracellular Growth of *Toxoplasma gondii* Fabien Brossier, G. Lucas Starnes, Wandy L. Beatty, and L. David Sibley 664–674
- Anastomosis Is Required for Virulence of the Fungal Necrotroph *Alternaria brassicicola* Kelly D. Craven, Heriberto Véléz, Yangrae Cho, Christopher B. Lawrence, and Thomas K. Mitchell 675–683

Continued on following page

Molecular and Biochemical Characterization of a Cathepsin B-Like Protease Family Unique to <i>Trypanosoma congolense</i>	Carlos Mendoza-Palomares, Nicolas Biteau, Christiane Giroud, Virginie Coustou, Theresa Coetzer, Edith Authié, Alain Boulangé, and Théo Baltz	684–697
MORN1 Has a Conserved Role in Asexual and Sexual Development across the Apicomplexa	David J. P. Ferguson, Nivedita Sahoo, Robert A. Pinches, Janene M. Bumstead, Fiona M. Tomley, and Marc-Jan Gubbels	698–711
An Internal Polarity Landmark Is Important for Externally Induced Hyphal Behaviors in <i>Candida albicans</i>	Alexandra Brand, Anjalee Vacharaksa, Catherine Bendel, Jennifer Norton, Paula Haynes, Michelle Henry-Stanley, Carol Wells, Karen Ross, Neil A. R. Gow, and Cheryl A. Gale	712–720
High-Frequency Intragenomic Heterogeneity of the Ribosomal DNA Intergenic Spacer Region in <i>Trichophyton violaceum</i>	Jen-Chyi Chang, Mark Ming-Long Hsu, Richard C. Barton, and Colin J. Jackson	721–726
Evidence of Recombination in Mixed-Mating-Type and α-Only Populations of <i>Cryptococcus gattii</i> Sourced from Single <i>Eucalyptus</i> Tree Hollows	Nathan Saul, Mark Krockenberger, and Dee Carter	727–734
Identification of Hexose Transporter-Like Sensor <i>HXS1</i> and Functional Hexose Transporter <i>HXT1</i> in the Methylophilic Yeast <i>Hansenula polymorpha</i>	Olena G. Stasyk, Mykola M. Maidan, Oleh V. Stasyk, Patrick Van Dijk, Johan M. Thevelein, and Andriy A. Sibirny	735–746

Cover photograph (Copyright © 2008, American Society for Microbiology. All Rights Reserved.): Chitinlike oligomers connect cell wall and capsular components of *Cryptococcus neoformans*. Staining of capsular structures with a monoclonal antibody (green), cell wall chitin with calcofluor white (blue), and chitin-derived oligomers with the wheat germ lectin (wheat germ agglutinin [WGA]) (red) followed by confocal analysis reveals that round or hook-like projections recognized by WGA connect the cell wall and the capsule. This analysis reveals a new molecular mechanism by which capsular components interact with cell wall elements in *C. neoformans*. (See related article on page 602.)