## Contents

### Hypothesis

**TRF2 and the evolution of the bilateria**
Sascha H.C. Duttke, Russell F. Doolittle, Yuan-Liang Wang, and James T. Kadonaga

### Research Papers

**Regulated assembly and disassembly of the yeast telomerase quaternary complex**
Timothy M. Tucey and Victoria Lundblad

**Hoyeraal-Hreidarsson syndrome caused by a germline mutation in the TEL patch of the telomere protein TPP1**
Hande Kocak, Bari J. Ballew, Kamlesh Bisht, Rebecca Eggebeen, Belynda D. Hicks, Shalabh Suman, Adi O'Neil, Neelam Giri, NCI DCEG Cancer Genomics Research Laboratory, NCI DCEG Cancer Sequencing Working Group, Ivan Maillard, Blanche P. Alter, Catherine E. Keegan, Jayakrishnan Nandakumar, and Sharon A. Savage

**Role of Tet proteins in enhancer activity and telomere elongation**
Falong Lu, Yuting Liu, Lan Jiang, Shinpei Yamaguchi, and Yi Zhang

**Network dynamics determine the autocrine and paracrine signaling functions of TNF**
Andrew B. Caldwell, Zhang Cheng, Jesse D. Vargas, Harry A. Birnbaum, and Alexander Hoffmann

**Distinct functions of macrophage-derived and cancer cell-derived cathepsin Z combine to promote tumor malignancy via interactions with the extracellular matrix**

**Distinct structural transitions of chromatin topological domains correlate with coordinated hormone-induced gene regulation**
François Le Dily, Davide Bäu, Andy Pohl, Guillermo P. Vicent, François Serra, Daniel Soronellas, Giancarlo Castellano, Roni H.G. Wright, Cecilia Ballare, Guillaume Filion, Marc A. Marti-Renom, and Miguel Beato

**Drosophila TRF2 is a preferential core promoter regulator**
Adi Kedmi, Yoanathan Zehavi, Yair Glick, Yaron Orenstein, Diana Ideses, Chaim Wachtel, Tirza Doniger, Hiba Waldman Ben-Asher, Nemone Muster, James Thompson, Scott Anderson, Dorit Avrahami, John R. Yates III, Ron Shamir, Doron Gerber, and Tamar Juven-Gershon

(continued)
The Prox1–Vegfr3 feedback loop maintains the identity and the number of lymphatic endothelial cell progenitors
R. Sathish Srinivasan, Noelia Escobedo, Ying Yang, Ashley Interiano, Miriam E. Dillard, David Finkelstein, Suraj Mukatira, Hyea Jin Gil, Harri Nurmi, Kari Alitalo, and Guillermo Oliver

Erratum: Two distinct promoter architectures centered on dynamic nucleosomes control ribosomal protein gene transcription
Britta Knight, Slawomir Kubik, Bhaswar Ghosh, Maria Jessica Bruzzone, Marcel Geertz, Victoria Martin, Nicolas Dénervaud, Philippe Jacquet, Burak Ozkan, Jacques Rougemont, Sebastian J. Maerkl, Félix Naef, and David Shore

Cover Cathepsin Z protease (CtsZ) is expressed by both cancer cells and tumor-associated macrophages in the tumor microenvironment. Shown here is an immunofluorescence analysis of metastatic human pancreatic neuroendocrine tumor (PanNET) tissue that was stained with antibodies directed against CtsZ [red] and the pancreatic tumor cell-specific marker synaptophysin [green] as well as with DAPI [blue] to visualize cell nuclei. CtsZ expression in cancer cells and macrophages increases with progression to more malignant stages of the disease, with the highest levels in metastatic PanNETs as depicted here. (For details, see Akkari et al. p. 2134.)