nature chemical biology

Nature Chemical Biology features

n the months preceding the launch of *Nature Chemical Biology*, the editorial team solicited your opinions about how the new journal could best serve the chemical biology community. In addition to your desire for a top-tier chemical biology research journal, many of you highlighted the need for new informational tools to foster communication between chemists and biologists and for content that would help you stay current with the most exciting research developments across the field. We discuss here some of the new features of *Nature Chemical Biology* designed to address these points.

Databases have become essential tools for chemical biologists by providing the means to catalog and retrieve information from an expanding scientific literature. *Nature Chemical Biology* fully supports the deposition and linking of primary research data published in its pages to appropriate databases. Articles that contain structural or sequencing data are linked to data deposited in the Protein Data Bank, Swiss-Prot and GenBank. For the molecular data reported in its pages, *Nature Chemical Biology* features deposition and linking to two additional databases that focus on small molecules and intermolecular interactions: PubChem (http://pubchem.ncbi.nlm.nih.gov/) and the Biomolecular Interaction Network Database (BIND, http://www.bind.ca).

PubChem, an open repository of small molecules and related biological screening data, is the newest addition to the widely used database network of the National Center for Biotechnological Information (NCBI) of the US National Institutes of Health (NIH). This cheminformatics database, which is related to PubMed and GenBank, supports the 'Molecular Libraries' initiative of the recent NIH Roadmap (http://nihroadmap.nih.gov/). Primary research articles published in Nature Chemical Biology include automated PubChem deposition of the article's small-molecule compound data and mutual linking between the online version of the article and PubChem (see, for example, p. 112). Each chemical compound, typically identified by a bold numeral, is linked from the text of the article to a Compound Data page that contains a structural image, the compound name provided by the author, and links to relevant files. The PubChem link allows readers to go, in a single click, from the mention of a molecule in an article to a rich and growing collection of information about chemical structures and properties, as well as biological assay results. As an additional feature, a Compound Data Index page lists the important chemical compounds reported in the article along with images and links.

BIND is a compendium of interactions between biologically relevant molecules ranging from protein-protein to small molecule-protein binding. In 2004, *Nature Cell Biology* pioneered the publication of BIND identifiers and links in its pages. Because of the importance of intermolecular interactions for chemical biology research, *Nature Chemical Biology* articles also include BIND information. The editorial team works with BIND curators to identify biomolecular interactions and report them in the published article (see p. 93). We believe that these database initiatives will greatly expand the utility of *Nature Chemical Biology* articles for our readers.

Several other new features enhance the print and online versions of *Nature Chemical Biology* articles. Our tables of contents include Graphical Abstracts, which summarize each article in an attractive visual way. Online users may set up RSS news feeds to alert them of new issues and updates of the journal's website. Readers will also find a number of useful tools, including PubMed searches for each article's authors and the ability to export references or save them in Nature Publishing Group's new shared online reference management service, called Connotea (http://www.connotea.org).

Nature Chemical Biology also features content designed to inform readers of new developments in chemical biology. The News & Views and Research Highlights sections of each issue discuss, for the general reader, important chemical biology discoveries published in our pages and in other journals (see pp. 67 and 73). This issue also contains two review articles that capture the frontiers of two fields. On page 74, Derek Tan reviews diversity-oriented synthesis and how it contributes to our understanding of chemical and biological systems, and on page 85, Thomas Voets and colleagues discuss how transient receptor potential (TRP) channels help organisms respond to their surroundings. Finally, in this month's issue, we are featuring the first in a series of Commentaries, which will provide views on the achievements and future of chemical biology from a variety of scientific perspectives. Our first contribution, from Stuart Schreiber (turn the page), focuses on the central role of small molecules in chemical biology. Finally, we would be delighted to hear from you! Our Correspondence section offers a venue to comment on articles published in previous issues of the journal or to discuss matters relevant to the chemical biology community. To provide feedback about the journal, please e-mail us at chembio@boston.nature.com.

