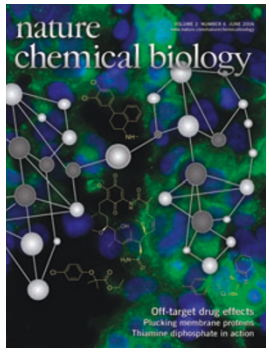
nature chemical biology

Our paper anniversary



As *Nature Chemical Biology* celebrates its first anniversary, we look back on a great year for chemical biologists. In the past 12 months, we have witnessed a steady expansion of academic departments, institutes, scientific societies and journals, all geared toward the promotion of chemical biology. We have been thrilled to be a part of this remarkable period in the evolution and vitalization of the field.

We launched *Nature Chemical Biology* with the goals of publishing the highest-caliber research and commentary at the interface of chemistry and biology, raising the international visibility of the field and fostering the development of a broader community of chemists and biologists. Although this community will be the ultimate judge of our success as a journal, we are gratified by the positive feedback that we have received thus far. We are grateful to our authors, who chanced a contribution to a budding journal, our referees, who volunteered their valuable time, and our readers, who continue to read each issue from cover to cover.

Even though the term 'chemical biology' has existed for over a decade, it continues to mean different things to different people. To some, the term is simply puzzling. But most scientists know chemical biology when they see it. Since *Nature Chemical Biology*'s inception, the editorial team has viewed chemical biology in the broadest possible terms. We have endeavored to connect with the field's roots in bioorganic chemistry and capture the importance of chemical tools and small molecules for understanding biological systems. Yet we have sought to have our pages reflect a defining characteristic of most chemical biologists: a willingness to adopt ideas and techniques from across all areas of chemistry and biology and to apply them to understand or manipulate biological systems at the molecular level. We share the view of one of our early authors that chemical biology cannot exist "without the biology" (*Nature Chemical Biology* **1**, 64–66, 2005), and so we have emphasized new biological insights as an important priority for the field and our journal.

Our editorial scope has been organized around four thematic areas of chemical biology research:

- Chemical synthesis: investigating bond-breaking and bond-making processes that drive metabolism in cells and enable the development of chemical tools.
- Chemical mechanisms in biology: understanding the molecular mechanisms of natural biological systems using chemical and biological techniques.
- Expanding biology through chemistry: applying small molecules, chemical tools and engineered biomolecules to broaden the scope of biological processes.
- Expanding chemistry through biology: taking inspiration from biology to discover and develop new frontiers in chemistry.

To mark our anniversary, the editorial team has compiled some highlights of our first year that we feel represent our editorial scope and the diversity of content featured in *Nature Chemical Biology*. Please visit http://www.nature.com/nchembio/focus/1st_anniversary/ and enjoy a look back at our first year.

This month's content illustrates a breadth of original research at the interface of chemistry and biology. Two papers demonstrate the utility of combining computational and experimental approaches: in the first, this combined approach is used to understand protein aggregation mechanisms (p. 319), and in the second it is used to identify off-target effects of known drugs (p. 329). Chemical tools for protein labeling (p. 312) and the screening of membrane-protein libraries (p. 314) are intermingled with new mechanistic insights into enzymatic catalysis (p. 324) and the cellular effects of small aromatic compounds (p. 338). As with our previous issues, these original research contributions have enhanced online content. We were pleased to become the first scientific journal to feature an online index of the chemical compounds that are described in each paper and to include links to the structures deposited in the PubChem database (http://pubchem.ncbi.nlm.nih.gov) of the US National Library of Medicine.

Our anniversary issue also includes highlights of several frontier areas of chemical biology. In this issue, we feature a Review article on synthetic biology (p. 304) that discusses the challenges facing chemists and biologists who seek to engineer new function into living systems, a Meeting Report covering advances in chemical genetics and drug discovery (p. 288) and a Commentary examining the importance of carbon-nitrogen bonds in chemistry and biology (p. 284).

We are also pleased to announce the addition of a new article type, called 'Elements', to the pages of *Nature Chemical Biology*. Elements, which will appear regularly in print and online, will feature interviews with key people in the chemical biology community and offer insights into places or events that are of general interest to chemists and biologists. In our first Elements piece, we include a recent discussion with Jeremy Knowles, from Harvard University, about his views of chemistry and chemical biology (p. 293). We welcome your ideas for people, places and events to feature in upcoming Elements.

As we embark on our second year, we will continue our efforts to deliver the best of chemical biology research and commentary. In the coming year, readers can look forward to the expansion of *Nature Chemical Biology*, including thematic issues and enhanced involvement with the community. Thanks for sharing our enthusiasm for chemical biology and reading *Nature Chemical Biology*. ■