From the Editor

A Practical Perspective on Methods

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This month, we are introducing a slightly new article format at *BioTechniques*, something that we will be calling a *Practical Guide*. The genesis of this article type was born out of discussions amongst the editorial staff on new ways to provide readers with additional insights and information on the latest techniques and methods, given the explosion of methods articles and new technology developments in recent years.

The reason I say this is a “slightly” new article format is that *Practical Guide* articles are intended to be part review, part analysis, and part personal research experience with case study examples, all blended together to provide readers with a unique perspective on a specific area of methods development. For me, it is this last part, the personal research experience/case study discussion, that makes this *Practical Guide* format so important for the scientific community at this moment in time.

Today, publishing “negative” results, reporting unsuccessful experiments, or documenting the challenges in implementing new techniques in the lab is not a common practice. It is well known that most journal articles report only the success stories. This leaving researchers with important cautionary tales on the limitations and potential drawbacks of a particular technique or protocol without an outlet to share their findings in a meaningful way. And what about all the trial-and-error effort that is invested in obtaining those new results? Shouldn't it be communicated to other researchers? Surely there is value to be gained from informing the scientific community of the steps that did not work in addition to those steps that produced a successful experiment.

What the editors at *BioTechniques* came to realize was that by bringing some of that trial-and-error information to the readers, new solutions to experimental problems can be found, accelerating the speed of scientific discovery. Clearly, there is no need to repeat optimizations if another lab has gone through the process already. The *Practical Guide* format is designed to provide that extra guidance and insight into a particular methodology—from highly experienced and

qualified methods developers who have used a variety of approaches in their own research—to hopefully prevent unnecessary repetition.

The month, we are excited to launch our very first *Practical Guide* article. Authored by Steven Head and colleagues at The Scripps Research Institute, this article explores the latest methods and techniques in next-generation sequencing (NGS) library construction. Interest in NGS has expanded greatly in recent years, creating a truly important area for methods development. Focusing on sample preparation, an essential part of the NGS workflow, Head et al. discuss a wide array of techniques, protocols, and applications involved in optimal NGS library preparation. The article also documents the possible pitfalls and challenges one can encounter when constructing an optimized library for NGS from either DNA or RNA, based on the authors' own experiences working with a variety of sample types and sequencing applications.

Our challenge when it comes to publishing *Practical Guide* articles is identifying authors who have extensive experience with different techniques and can provide unique insights into methodology. Fortunately, many developers have responded enthusiastically to this new format, so in the coming months you will see other *Practical Guide* articles in these pages focusing on NGS bioinformatics tools, super-resolution imaging, qPCR, and other important research methods. In addition, we would like to encourage potential authors who might be interested in writing a *Practical Guide* in the future to contact the editorial team to discuss suitable topics and how to submit an article proposal.

It is our expectation that the *Practical Guide* format will provide a unique mechanism for researchers to discuss best practices in the lab and assist others interested in using a new technique or choosing the best technical approaches to meet their research goals.

As always, we welcome your feedback, comments and opinions on this new article format at bioeditor@biotechniques.com.

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