nature immunology

Immunology. All of it.

Five years ago this month, *Nature Immunology* was launched. To mark this anniversary, we have compiled a collection of landmark papers we have published in the past 5 years that illustrate the scope of *Nature Immunology* (http://www.nature.com/ni/focus/birthday/index.html). These papers cover a wide range of subject areas in immunology, from immune receptor signaling to microbial immunopathology. Each article has fuelled discussion and helped propel immunology research forward by providing fundamental insights into the workings of the immune system. To help celebrate our anniversary, we have made these articles freely accessible to our readers for 1 month. We hope you will agree that *Nature Immunology* lives up to its slogan: "Immunology. All of it."

Throughout the past 5 years *Nature Immunology* has constantly evolved to better serve our readers. Past changes have included online submission and advance online publication. More recently, we have extended our exclusive license-to-publish policy that allows authors to post their contributions on their personal web sites rather than requiring authors to transfer copyright (http://www.nature.com/ni/about/ed_policies/index.html#license). We now encourage authors to post their accepted research manuscripts on their institutional and funding body archives 6 months after publication. This is consistent with the policy of the National Institutes of Health (NIH), which asks scientists to voluntarily deposit copies of their final, peer-reviewed manuscripts with the NIH PubMed Central database 12 months after publication.

All scientific data should be reproducible so others can build on published results. Although this has always been a basic tenet of scientific publishing, we have now tightened our guidelines (http://www.nature.com/ni/about/ed_policies/index.html#materials). Any restrictions on the availability of materials or information must be declared at submission, and in the event of publication, the Methods section should include details of how to obtain materials and information, including any restrictions that may apply. This means that information on cell lines and genetically modified organisms must be deposited in an appropriate repository and manuscripts reporting protein or DNA sequences and crystallographic structures must have an accession number in a publicly available database. Even small epitope sequences should be deposited with sufficient surrounding sequence to provide context.

Last year some Nature research journals were criticized for the accuracy of statistical results reported in a few research articles. A common mistake was a failure to report sufficient detail. For example, authors often reported *P* values but failed to state which statistical tests were used to obtain them. Statistical errors were also common, such as using one-tailed instead of two-tailed tests. In response to those findings, Nature Publishing Group, with the help of statisticians, issued a set of guidelines discussing statistical tests, descriptive statistics and common errors made (http://www.nature.com/ni/authors/submit/index.html#statistical). All Nature research journals now require that manuscripts include a subsection on statistics in the Methods section that provides sufficient detail for readers to determine how the statistical data were derived. To aid authors, a checklist for statistical analysis is available.

The contribution of the first and senior authors on papers is usually obvious. Less clear is the role of the other coauthors, which can include providing reagents, scientific advice or data sets. To help clarify this, *Nature Immunology* now encourages authors to specify the individual contributions of each coauthor. This will appear under a separate subheading, Authors' contributions, after the acknowledgements.

Along with these policy changes, Nature Publication Group has introduced many new services to our readers. Sometimes manuscripts are rejected by Nature research journals simply because they fall outside the scope of the journal. Because these papers may be more appropriate for another Nature research journal, and to avoid resubmission 'from scratch', we have developed a system of cross-referral between journals. A link to the NPG Manuscript Transfer System is now included at the bottom of all rejection letters. Authors can automatically transfer their paper and its reviews to any other NPG journal. Of course, because all Nature research journals are editorially independent, transfer of a manuscript is no guarantee that another journal will pursue publication. When referee reports are available that the author does not want to have transferred to another journal, authors should submit the manuscript '*de novo*'.

Research articles in Nature research journals now have a 'save this link' feature that connects the article directly to Connotea, a free online reference management service. Connotea allows readers to instantly capture and store citation information on papers and websites. References and web links saved with Connotea are on the web and thus are accessible from any computer. Users' links are visible to other users (unless they choose to mark it as 'private'), and different users' libraries are linked together. This feature allows users to find new 'leads' through the tagging of bookmarks with key words. Another future enhancement planned for all Nature research journals is the provision of BIND identifiers in articles with biomolecular interaction data. BIND is a public, freely accessible network database that will help integrate our ever-increasing, and often overwhelming, knowledge of molecular interactions.

In the past 5 years, *Nature Immunology* has established itself as the premier journal for all types of basic immunology research. Where will the next 5 years take *Nature Immunology* and immunology in general? As demonstrated above, *Nature Immunology* will continually review its editorial policies and services to meet the needs of our readers. In terms of immunology research, it is difficult to accurately predict where immunology will head. However, with greater emphasis on translational research, we anticipate more basic research on disease models, autoimmunity and human immunology. Along these lines, greater emphasis will probably be placed on the integration of *in vivo* models with cell biology using, for example, *in vivo* imaging, genetic manipulation and newer 'systems biology' approaches. But wherever immunology research heads, *Nature Immunology* will continue to strive to publish solid articles that provide a detailed understanding of the immune system. And as always, all areas of immunology, including human studies, will be welcome.