PRESS RELEASE

London, UK – October 5, 2011

Faculty of 1000 (F1000) introduces a unique opinion-based journal metric

Enabling researchers to look beyond the Impact Factor, F1000's new Journal Rankings (Beta version) use expert ratings of individual research articles to provide a continuously updating picture of journals ranked by excellence within biology and medicine.

Based on the expert opinion of over 10,000 internationally renowned scientists and clinicians, the F1000 Journal Factor (FFj) is a new way of looking at the research literature. A measure of how scientists actually rate journals, the FFj is derived from our familiar rating system of articles, where named F1000 members score research articles as ‘Recommended’, ‘Must Read’ or ‘Exceptional’. We now use these to generate a score for each journal that has had research articles evaluated by F1000.

The F1000 Journal Rankings enable researchers to see where the best research is being published, as judged by the F1000 Faculty. In general, the more papers that get selected by our Faculty, the higher will be that journal’s FFj. Specialist journals with a low volume overall but a high proportion of research articles evaluated in F1000 will do particularly well.

Journals are ranked across all disciplines, but also within each F1000 Faculty and Section. Individual journals may be ranked relatively low overall but come out on top within a Section, showcasing their importance within a specialized field. This enables researchers to find out which journals have the most evaluated papers in their own specialty.

Each month F1000 will publish ‘current’ rankings based on evaluations of research papers received in the previous 12 months. Each year we will make available historical rankings, based on a calendar year’s worth of articles, for easy comparison with the Journal Impact Factor. These will take into account F1000 evaluations received during that year, and up to six (‘provisional’) or eighteen (‘final’) months after the end of the year (see technical appendix for more information).

The FFj is:

**Qualitative**—calculated based on the opinions of active scientists and clinicians, experts in their fields. This avoids inherent problems with assessing journals based on citations or download metrics.

**Transparent**—we make it easy to see exactly which articles count towards a journal’s ranking, who selected each article, and why.

**Essential**—based only on positive reviews of the literature, the FFj enables researchers to discover which journals they need to read, as well as the best places to publish in each discipline and specialty.
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Robust—the metric cannot be gamed by self-citation or manipulation of download counts. Our peer-selected Faculty agree to a strict code of conduct. It ignores reviews and other non-primary research articles.

Rapid—most evaluations are received within three weeks of an article being published, and rankings are updated each month.

Commenting on the new F1000 Journal Rankings, F1000’s founder Vitek Tracz said:

“All systems of ranking have some problems, but we feel it is important to have a new way of ranking journals that is transparent and ‘auditable’ – you can trace each ranking all the way to the specific judgments of named F1000 Faculty Members. When authors want to decide where to publish, this new ranking service will provide F1000 subscribers with a significant additional tool to make an informed decision.”

For Journal Factor technical queries please contact Dr Richard P. Grant on +44 (0)20 7079 4848 or email richard.grant@f1000.com.

To find out more about Faculty of 1000 please contact Eleanor Howell on +44 (0)20 7631 9129 or email press@f1000.com. For more information, visit http://f1000.com.

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Notes to Editors

• **About Faculty of 1000**: Faculty of 1000 is a unique online service bringing together an international network of experts who select research articles from over 3,500 peer-reviewed journals in biology and medicine. More than 110,000 evaluations have been published on the F1000 site to date. Biological and medical research papers are organized into 40 disciplines (Faculties). Faculty Members, who are nominated for membership by their peers, select and evaluate the best articles in their chosen specialties, writing brief, accessible comments that highlight the key findings and put the work into context.

• If you are writing for the web, please link to the website http://f1000.com.
**Technical appendix**

1. **F1000 Article Factor (FFa)**

This is calculated from the highest score awarded by an F1000 Member (FM), plus an increment for each additional score from other FMs (see [http://f1000.com/about/whatis/factors](http://f1000.com/about/whatis/factors)).

<table>
<thead>
<tr>
<th>Rating</th>
<th>Value</th>
<th>Increment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceptional</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Must Read</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Recommended</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

For example, a single article that has been evaluated by three FMs, who scored it ‘Recommended’, ‘Must Read’ and ‘Must Read’, will have an FFa of 11:

8 (highest score ‘Must Read’) + 2 (increment for ‘Must Read’) + 1 (increment for ‘Recommended’) = 11.

2. **F1000 Journal Factor (FFj)**

We can use the FFa to calculate a Journal Factor for a given time period. We sum the individual FFas for a journal’s articles (overall, at Biology or Medicine levels, and by Faculty and Section), which we can represent by:

\[ \sum_{FFa(k)} \]

*Sum of article factors*

We then calculate the percentage of research articles published in that journal that have been evaluated by F1000 Members, using figures obtained from PubMed:

\[ \left( \frac{\text{articles}(F1000)}{\text{articles}(Pubmed)} \times 100 \right) \]

*Normalization Factor*
We repeat this at each level (i.e. overall; Biology or Medicine; Faculty; Section) so that we can normalize the journals against the number of articles they publish each year:

\[
\left( \sum FF_a(k) \right) \times \left( \frac{\text{articles}(F1000)}{\text{articles(Pubmed)} \times 100} \right)
\]

We find that this yields values spanning several orders of magnitude. So for the sake of ease of use and display, we apply a log scale:

\[
\log_{10} \left\{ \left( \sum ff_A(k) \right) \times \left( \frac{\text{articles}(F1000)}{\text{articles(Pubmed)} \times 100} + 1 \right) \right\}
\]

(note that the “+1” is simply to ensure that low-scoring journals yield a positive value after taking the \(\log_{10}\)). And finally, we move the decimal point one place to the right (i.e. multiply by 10), again just to make the final FFj a readable number:

\[
FF_j = \log_{10} \left\{ \left( \sum ff_A(k) \right) \times \left( \frac{\text{articles}(F1000)}{\text{articles(Pubmed)} \times 100} + 1 \right) \right\} \times 10
\]

Figure 1: Journal Factor (FFj) equation

More simply, we can represent the full equation thus:

\[
FF_j = \log_{10} \{(\text{Sum of article factors}) \times (\text{Normalization Factor}) + 1\} \times 10
\]

Figure 2: Simplified Journal Factor equation

Only articles with a PubMed classification of “Research Article” are included, and we exclude Reviews and News items among others (for a full list of exclusions, please see the F1000 website). Due to our normalization procedure, we can currently only rank journals that are indexed in PubMed and that publish a minimum of 24 eligible articles annually.
3. Rankings

There are three levels of rankings: current, provisional annual and final annual:

- **Current F1000 Journal Rankings**
  
  are calculated on the first day of each month. They take into account all evaluations published on F1000 over the preceding 12 months, regardless of the publication date of the article.

- **Provisional Annual Journal Rankings**
  
  are calculated at the beginning of July each year. They are based on every evaluated article that was published in the previous full calendar year. Although we receive 85% of evaluations within three months of publication of an article, this gives an extra three months for evaluations to accrue, reducing the disadvantage to articles published later in a year.

- **Final Annual Journal Rankings**
  
  are also calculated at the beginning of July each year. They are based on articles that were published in the last but one full calendar year, and take into account late evaluations. Doing this enables us to include 99% of potential evaluations for an article, even of those published towards the end of a calendar year.

For example, on 1st July 2012 we will publish:

- **2010 Annual Rankings Final**
  
  - Articles published in 2010 with the FFa calculated from evaluations on F1000 in 2010, 2011 and the first 6 months of 2012

- **2011 Annual Rankings Provisional**
  
  - Articles published in 2011 with the FFa calculated from evaluations on F1000 in 2011 and the first 6 months of 2012

- **Current Journal Rankings**
  
  - All articles, regardless of publication date, that received an evaluation between 1st July 2011 and 30th June 2012.