Tips for Successful Nomination and Support Letters

Notes from the SPA Fellows Selection Committee

Nominee Eligibility
AGU provides guidelines as to who is eligible to be nominated. While these often do not change it is always worth double-checking. As of 2019, nominees should meet the following criteria:

1. Be a middle or senior career scientist.
2. Be a current AGU member and have had an active membership for the past three years.
3. Be in compliance with AGU’s Honors conflict of interest policy. Selected nominees will need to sign a self-disclosure form.
4. Demonstrate scientific eminence in:
   a. breakthrough or discovery
   b. innovation in disciplinary or cross-disciplinary science, instrument or methods development and/or
   c. sustained scientific impact.

One line/sentence citation:
The one-line citation is perhaps one of the most overlooked aspects of the package, but plays an incredibly important role. It’s the first thing that the committee reads, and thus sets the stage. It is also the filter through which the committee interprets the supporting evidence provided in the package. Make sure the citation is well aligned with the categories for acceptance. If the citation does not match what is provided in the rest of the package or with one of the evaluation criteria, the committee will spend time discussing the mismatch instead of the ways the nominee’s work does match the evaluation criteria. The guidelines and notes for improvement as of 2019 for the citation are:

- 150 characters
- Should describe the primary point(s)
- Good to use adjectives that define what criteria the nominee is being nominated for, e.g. sustained impact, innovative discovery ect.
- Is typically the first thing that the committee sees
- Is frequently referenced by the committee - so make sure the claim in the citation is backed up in the cv, bibliography, and nomination letters.

Potential Biases
We have seen within the SPA division of AGU that many underrepresented groups and minorities are proportionally underrepresented as SPA Fellows. Below is the list of biases that we have identified and try to mitigate against during the committee meetings. However, we encourage nominators to also consider these. Are there deserving applicants that you have not considered? Who perhaps do you not think of first, but on second thought would be obvious choices for AGU Fellow? Some of these potential biases are:

- Gender
Career level (retired/senior/expert vs mid or even mid/expert/senior)
Nationality
Race
Extrovert vs introvert (speaks more at conferences vs doesn’t speak up at conferences)
Well funded institute/country vs not (e.g. able to be seen at conferences and visit other scientists vs can’t afford to travel as much)
Academic institution vs government/corporate research institution
Large Mission participation vs smaller projects such as CubeSats, rockets, balloons etc.
Experimentalists vs theorist
Depending on short cut metrics (e.g. h-index which moves away from discussing the substance of the publication things like indices or data sets aren’t always cited properly once they become standards and are “always there” and “owned by the community”.
Bias towards our own subfields
People who publish/work in a small group and/or often the first author vs those who work more in large collaborative groups and/or mentor others to be first authors/PIs.
The Matthew Effect (A paper or result being attributed to the largest name, not the person who necessarily did the work or the first author. e.g. http://www.garfield.library.upenn.edu/merton/matthew1.pdf)
The Matthew/Matilda effect (Where men tend to get the credit or more credit than women who did just as much or more of the work. E.g. https://journals.sagepub.com/doi/10.1177/030631293023002004)

**Evaluation Criteria**
The nomination committee looks to the following criteria:
1. Breakthrough and/or discovery,
2. Innovation in disciplinary science, cross-disciplinary science, instrument development, or methods development and,
3. Sustained scientific impact.

We do not prioritize one category over another nor do we take into account systematically if a candidate met criteria in more than one category. Below we’ve gone through how the SPA committee has previously defined the different evaluation criteria (Note: This may change from committee to committee).

What constitutes making a breakthrough and/or discovery:
- Breakthrough: an idea that once accepted, allows others to frame ideas/approach problems differently and more effectively than before.

Suggestions from the committee:
● Make sure that it is a clear breakthrough/discovery. This is one of the harder ones to show so be wary of overstating accomplishments
● Ideally, nomination and supporting letters showing this would highlight specific papers from the bibliography. Sections in the letters discussing breakthroughs and discoveries could also reference papers from other groups showing how this discovery/breakthrough changed thinking across the field.
● When putting forward a breakthrough it is important to include what was learned from that paper/discovery and how it changed the thinking/understanding in the field. This is especially important, because committee members from inside and outside the nominee’s subfield will be evaluating whether these conditions have been met and so the nominators should not assume the committee will necessarily know about the nominee’s impact.

What constitutes innovation in disciplinary science, cross-disciplinary science, instrument development, or methods development:
● Enabling collaborations across many subfields
● Development of new instruments that have been successful in the field and lead to new* understandings
● Development of new* methods that other scientists have adopted and have lead to new* understandings within the field.
● Produced a data product or a method that is used on a routine basis even if not correctly cited. (Has become so routine, people have forgotten that this is either produced by someone or was not a standard product previously. E.g. Omni data)

*New: something that deviates enough from ‘standard understandings’ in any one field in the presented form, even if the process to arrive at ‘new’ happened through a series of gradual improvements/advancements

Notes from the committee:
● This criterion is perhaps the common (but not least important) seen in the packages
● Make sure to cite the bibliography and CV as well as showing how it has impacted the field in the nomination and/or supporting letters
● Be wary of overstating accomplishments

What constitutes sustained scientific impact:
● Something that has changed the way other scientists approach a problem, perhaps on a smaller scope but cumulatively changes people’s perceptions over time.
● Enabled long-lasting collaborations leading to significant impact within the field
● Mentor a significant number of collaborators/scientists/students, enabling their development as researchers.
● Produced continued excellent research over the course of their career.
Notes from the committee:

- Where possible cite the CV and bibliography
- Highlight stories about the nominees sustained impact (e.g. started something that people don’t remember or regularly think about, such as starting the SPA newsletter)
- When talking about mentorship, be careful of bias and how it reads to someone from a different background. A common mistake is to “show support for women and minorities” by saying something like, “Nominee ensured his former student, Dr. Woman, obtained a tenure-track position at his university”. Another common mistake is giving credit for work done by past/current student/postdocs to the nominee. When talking about mentorship, advocacy, and other efforts towards diversity, equity, and inclusion, it is important that the statements made do not remove the agency or understate the ability of the people for who the nominee advocated or mentored.
- Testimonials from students/postdocs/collaborators have been met with mixed reactions by the committee. It is important to present supporting evidence that can not be interpreted to someone outside the nominee’s circle as cronyism.

Summary of general guidance and suggestions for nominators from this year’s committee:

1. Make use of the entire two pages for each section, CV, Bibliography, and each letter.
2. Be careful of overhyping - “iconic”, “brilliant”, “First ever”, “Father of this field” - When using these sorts of phrases, citations for the work are needed. These types of phrases have often brought a lot of discussion - not always good, but not always bad. In general, when discussing achievements, they need to be backed up by facts (point to papers, state-specific findings/discoveries/innovation, talk about things done to advance diversity, not just that they did that).
3. The entire package should be spell checked and proofread.

Nomination Letters:

After the one line citation, this is the next thing the committee reads. While not necessarily always true, often the best nomination packages have a nomination letter that gives the broader picture/perspective and the supporting letters then focus on specific details to highlight the accomplishments.

From the AGU website:

- Letterhead stationery is preferred.
- Nominator’s name, title, institution, and contact information are required.

The nomination letter should summarize who the nominee is and why they are being nominated. It is beneficial for the nomination letter to state what will be said in the letters of support - and who the nominators are, why are they someone who would be able to speak to the qualifications
of the nominee. It is useful to reference the CV and bibliography when discussing the evaluation criteria. Use non-gendered words - try to remove bias from the letters. While this may seem obvious or perhaps unimportant, please use a 12pt font and a professional-looking font like Times or Arial. Using a font like Comic Sans consistently brings up a discussion about the typeface used and distracts from the nomination package and nominee. For an official letterhead, try to minimize the space used for the logos and signature to maximize the space for the letter. Do not add excess titles/roles/awards to the nominator or supporting letter writer signatures. These at times take upwards of 2 - 3 inches that could have been used to provide more discussion about the nominee. Typically, very little time, to no time, is spent discussing the qualifications of the nominator.

Nomination letters can be improved by:
1. Referencing the Bibliography or CV.
2. Making sure to point to the relevant papers, especially highly cited ones. In the nomination letter, perhaps only point these out and refer to the supporting letters that are used to provide more details.
3. It cannot be repeated enough: be careful of overhyping. When discussing achievements, everything needs to be backed up by supporting evidence such as references to papers. In the nomination letter, do this by referencing the Bibliography, the CV, and pointing to the supporting letters that will discuss each claim in more detail.
4. Ensuring the PDF (and all PDFs in the package) allows text to be copied and pasted onto a different document.

**Curriculum Vitae:**
The CV is the third part of the packages. Please make sure to use the full 2 pages, and make sure that the CV is up to date with the correct title and information. Feel free to ask the nominee for an updated CV if you do not have one. Don’t assume that a NASA or NSF proposal CV is sufficient or up to date.

Include the following info as per the AGU website from 2019
- name
- mailing and email address
- history of employment
- degrees
- research experience
- honours
- memberships
- service to the community through committee work, advisory boards, etc.
The CV should highlight many of the aspects that will be covered in the rest of the package. For example, showing service to AGU and the research community. It is also a great place to show why a nominee may have fewer students/mentees (not in their job description) or perhaps had a period in the career with fewer research papers (e.g. worked at NASA HQ, NSF, was department chair, or in an industry where peer-reviewed papers are either not prioritized or necessarily a part of their work).

The CV can be improved by ensuring that the information provided here helps build the case for their citation. It also helps with bolstering claims in the nomination and supporting letters. Well structured CVs act like a Cliff Notes version of the package.

**Bibliography:**
The bibliography is one of the most important aspects of the nomination package, as it provides much of the evidence for claims of breakthroughs and discoveries, sustained impacts, and innovation. Again, please use the full two pages. If you don’t, the committee notices and talks about missed opportunities.

From AGU guidance:
- Briefly state the total number and types of publications;
- specify the number published in AGU publications. For example, Jane Doe is the author of 92 publications, 86 in peer-reviewed scientific journals, 14 of which have been published in AGU journals and books. The following selected list best supports Jane’s nomination for AGU Fellow.
- Ensure that all papers included are accessible to the committee, or provide an explanation as to why they are not.

Some bibliographies include the h-index as AGU states that this is optional. Including the H-index has had mixed results in committee discussions.

Please number the references and refer to them in the nomination and supporting letters. The bibliography should make sure to include the papers that the nominee is most known for/most cited. The SPA and the Union committees have to judge based on the package and these committees are diverse. Don’t assume they will know about the most impactful papers (or why they are impactful). For those on the committees who are aware of the nominee’s work, when these are left out, it is noted and discussed. On the other end of this, reconsider including papers where the nominee’s name is not visible in the author list. If the nominee did provide a significant contribution while being a co-author, make sure it is discussed in one of the supporting letters.
Use the bibliography to highlight the papers showing discovery, breakthroughs, innovation, cross-collaboration, and sustained impact. Format choices can help link supporting evidence to the nominators’ claims. For example, if showing discovery, bold the reference(s) that relate to that discovery and possibly include a short sentence or two about that paper and how it impacted the field. If showing cross-collaboration, bold the reference(s) which include these cross collaborations and include a discussion in one of the supporting letters about the paper(s) and how it impacted the different fields. If showing sustained impact, highlight important papers from across an extended period of time.

**Letters of support:**

From the AGU website:

- Letterhead stationery is preferred.
- Supporter’s name, title, institution, and contact information are required.
- Diverse supporters (i.e. individuals who are not currently/recently associated with the nominee’s institution) are strongly encouraged.

The majority of the discussions during the committee meetings are about the letters of support. The first thing to note, if someone provides a less than strong supporting letter it is okay to get someone else to provide a different letter. The supporting letters should each focus on one overarching reason as to why the nominee is being nominated. For example, if the nominee is being nominated for sustained impact, perhaps supporter 1 focuses on the body of research throughout the nominee’s career. Supporter 2’s letter can then focus on the extensive service to the nominee’s institute, to the research community, etc. Support 3’s letter then could highlight the role of mentor, collaborator, and how they helped enable the science of others within the research community. An approach such as this keeps each letter focused and ensures that each evaluation criteria and supporting evidence for the nominee is included and clearly communicated.

As with the nomination letter, it is useful to reference the CV and bibliography when discussing the evaluation criteria. Use non-gendered words to help reduce bias from the letters. Again, please use a 12pt, professional-looking font such as Times or Arial. Also, try to minimize the space used for the logos and letter writer signatures. The use of large logos or signatures has been discussed as to whether or not it was a tactic to fill space because the letter writer couldn’t think of anything more to say about the nominee.

While important for all aspects of the nomination package, it is vital in the supporting letters to accurately present the nominee’s accomplishments. Phrases like “First ever” frequently lead to an independent literature search and sustained discussion that does not often go well for the nominee. When using these sorts of phrases, citations for the work are necessary, and should keep in mind that the committee will do their own literature search to ensure that this claim is
valid. In general, when discussing achievements, they must be backed up by references and clear statements of specific findings/discoveries/innovation. With respect to mentorship, advocacy, and outreach supporting evidence is equally important, though often harder to support. It helps to talk about clear, measurable actions that were taken instead of just stating that they are considered a “great advocate for diversity”.

When talking about mentorship be careful of bias and how the statement sounds when read aloud. For example, a questionable way to show support of women and minorities is to say something like, “without the nominee, these people wouldn’t be where they are today”. This reads as if the letter writer is giving the credit of the women, minority, or mentee’s accomplishments to the nominee. This is also true when discussing the accomplishments of the nominee’s students/postdocs/mentees. While it is useful to show that the nominee has had many successful mentee’s, avoid giving the credit for the mentee’s accomplishments to the nominee.

Recently we have also seen how the Matthew effect has been relied on within the nomination and supporting letters. The Matthew effect is where the larger name on the paper is presumed to be entitled to all of the credit. This plays a particularly important role when discussing breakthroughs and discoveries, but also comes up in the other evaluation criteria. If the nominee is never the first author on these papers, or consistently writes these papers with a specific co-author, it is important to discuss what the unique contribution the nominee brought.