SUMMARY PAPER GUIDELINES FOR ATTENDING
Annual Meeting of the American Junior Academy of Science (AJAS) 2021/2022

DEADLINE - AUGUST 31, 2021

Prior to submitting a research paper for Peer Review to the NHAS, ALL submissions must receive prior approval from the “advisor” scientist(s) who directed, or mentored their research or who are available for students from non-NHAS institutions. These scientists are: Kelly Salmon, Alyson Michael, Markus Testorf and Peter Faletra. Please make sure to include the name and contact information (email and research institution) of your advisor scientist(s). For those who might be submitting papers from non-NHAS institutions, in the event that no advisor scientist was involved, please make sure to make this clear in your submittal and an NHAS scientist will accept or reject the submission prior to moving forward to a Peer Review.

The Annual Meeting of the American Junior Academy of Science (AJAS) provides a platform for young scientists and engineers to experience the excitement of a scientific conference. Coinciding with the Annual Meeting of the American Association for the Advancement of Science (AAAS), it allows student scientists to witness their professional counterparts at their best. The annual meeting will be held in February 2022 in Philadelphia.

The New Hampshire Academy of Science (NHAS) is proud to facilitate the submission of papers to the AAAS. While we encourage broad participation, the quality of submitted work will inevitably reflect on the student researcher, the school, and on the NHAS. The submission to the AAAS should reflect a high standard of research quality. The submitting authors assume full responsibility with respect to the quality and the integrity of the submission. The NHAS conference committee expects authors to conform to all standards customary in science. In particular, the conference committee will take any form of plagiarism extremely seriously.

The review process is set up to help improve the quality of the submission, as well as to select those papers which will ultimately be accepted by the NHAS. While the conference committee reserves the right to reject papers, students and teachers should consider the review process as a chance to raise the quality of the work. The conference committee is committed to work with students toward this goal.
Preparing the Submission

Abstract:

The submission should contain an abstract of the work to be presented at the AJAS. The abstract is the part of the submitted material which will be submitted to the AJAS and which will be published to an international audience.

The abstract should be a concisely written summary of the project, similar to abstracts written for other publications. It should convey the following information:

1) Title
2) List of Authors (all authors should have contributed to the presented work; the first author should be responsible for the bulk of the research; the last author should be the senior scientist on the team, e.g. teacher, person who contributed the main idea …)
3) The body of the abstract should contain information about why this research was conducted
4) The hypothesis or project goal - the basic definition of the project
5) A brief review of the method(s) used
6) Results
7) Conclusions - briefly, how the results are related to the project goal, and how they may be applied

Sample AJAS abstracts can be found here:
NHAS website: https://www.nhacadsci.org/deadlines (click on “Sample AJAS abstracts)
AJAS 2019: https://aaas.confex.com/aaas/2019/meetingapp.cgi/Program/1218 or
AJAS 2021: https://aaas.confex.com/aaas/2021/meetingapp.cgi/Session/27887

In general, it is not expected that the abstract will provide a complete description of the research which is being reported. Rather the abstract is an ‘eye-catcher’ meant to generate attention and interest. By default, it is far too short to allow anyone to assess and judge the reported work, not even those who are experts in the field. For this reason, and to help our NHAS scientists evaluate your work, we request the submission of an additional “Summary Paper”.

MAIN BODY OF SUMMARY PAPER

The summary provides the opportunity to supply the peer reviewers with greater depth in comprehending how the project was actually carried out, the results, and conclusions. The summary may also provide some insight into how the findings will be applied, or into future avenues of research. For the reviewers of the submission it should provide the basis to identify weaknesses and logical flaws of the investigation that would not otherwise come to light before the AJAS meeting.
The summary should not create any unbearable burden on the authors, but rather provide an opportunity to compile and organize the good work which was already done. The summary should be a 3-4 page document. Exceptions are only made if additional material (e.g. pictures) is deemed necessary to convey the essence of the conducted project. The summary should resemble the form of a short scientific paper. It might be best thought of as the framework of, or a building block to, a paper which may ultimately be submitted for publication.

The Summary Paper will give the opportunity for greater explanation of the Materials and Methods, as well as results and how they were applied to form conclusions.

The basic format should resemble that of a typical scientific paper (but with the abstract separated, as above):

1) **Abstract** - outlined above.
2) **Introduction.** This will provide a description of this field of research and why it is of interest to scientists. It should reference previous scientific publications and why their work is relevant to your intended investigation. This should also present the purpose and hypothesis of the research/experiment, and a proper statement of the problem or question to be addressed. This may include the concept, “The intention of this investigation was to-----”. The introduction will often be about 250-500 words in length.
3) **Materials and Methods.** This will be an important part of the Summary Paper, in that it allows a more comprehensive explanation of the general procedures of the work, which could not be included in the abstract. These procedures are very important in the assessment of the quality and reliability of the scientific work by readers and reviewers.
4) **Results.** A thorough description of the results is necessary to assess whether the conclusions are supported by the work and, ultimately, the validity of the project.
5) **Discussion/Conclusions.** This section should discuss how the results can be applied to form conclusions, and how these address the original intention of the investigation. How these conclusions are relevant and, perhaps, what new questions or avenues for future research are opened might also be addressed.

Please include a list of “Cited References”.

A ‘Summary Paper Example’ can be accessed here:
[https://www.nhacadsci.org/deadlines](https://www.nhacadsci.org/deadlines) (click on Summary Paper Example)

**How to submit?**

AFTER, you have been cleared by your advising scientists, submissions must be sent to the chair of the Peer Review Committee, Dr. Markus Testorf
(email: markus.e.testorf@dartmouth.edu and nhacadsci@gmail.com) who will distribute papers to the members of the committee for review. If possible, each paper will be assigned to
at least two reviewers. Authors will receive a decision letter and/or suggestions for possible improvement as soon as the review is completed in September.

Once approved by the Peer Review Committee, the authors may progress and your advising scientists will submit your abstract to the AAAS.

**Review process:**

The Peer Review Committee will make every effort to return the reviews in a timely manner. The review will distinguish between four categories:

1. Accepted submissions. The abstract can be submitted to the AAAS without change.
2. Accepted with optional revision. The submission is permitted to go ahead. However, at least one of the reviewers offered suggestions on how to improve the submission.
3. Provisionally accepted pending mandatory revision. The reviewers found significant shortcomings either in the abstract or the accompanying summary. The authors need to work with the Program Committee to address these shortcomings before the abstract can go the AAAS for publication.
4. Rejection. The Review Committee reserves the right to reject submissions. This will happen if the submission is below the NHAS standards and cannot be revised without altering the project entirely, or if the reviewers find a case of plagiarism. Submissions may also be rejected if the NHAS receives more submissions than can be promoted by the NH delegation to the AAAS. In this case, the Review Committee will rank submissions in terms of their scientific excellence and allow only the best papers to go ahead with the abstract submission. Authors have the right to appeal the decision; however, the invitation to submit an abstract to the AAAS should be considered an honor rather than an entitlement.

The Review Committee will make every effort to make the review as fair and pleasant as possible. However, it not uncommon (even for seasoned scientist) to feel intimidated if the results of their own most pressure work are scrutinized. This is why authors are urged to consider the Review Committee a resource for improving the submission rather than an obstacle on the path to glory. The Reviewers will do everything in their power to help make the submission acceptable even if the initial review turns out to be unfavorable.