

October 31, 2005

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Dear Sir/Madam:

I am very familiar with Allison Mallory's abilities and her performance as a graduate student at the University of South Carolina and with her progress as a postdoc in Dave Bartel's laboratory. I was officially Chairman of her Dissertation Committee and helped direct her research. We interacted on a daily basis and published papers together. I have continued to discuss scientific issues with Allison since she moved to Boston by EMAIL and in person at scientific meetings. She is by all criteria one the top scientists seeking a faculty position in the area of plant biology this year.

By all measures Allison was an outstanding graduate student. She earned all As in her courses except for one B+. In my graduate level cell biology course, not only did she understand the subject material and critically evaluate the current research, but she was also a leader in class discussions. She earned several awards including the Gorden Belser Botany Award, Kathryn Hinnant-Johnson M.D. Award in Genetics, the Batson Outstanding Plant Biology Graduate Student Award and the University of South Carolina, Outstanding Dissertation Award. She competed against an excellent group of molecular, cellular and developmental biology graduate students to earn these awards. These awards reflect her achievements and faculty opinion of her performance as a graduate student.

Allison published four first author papers and two middle author papers as a graduate student. All of these papers represent significant contributions to the field of RNA silencing and are published in rigorously peer reviewed journals. One was published in *The Plant Cell* and shows that suppression of RNA silencing by HC-Pro eliminates the small RNAs but not transgene methylation or the mobile signal. This paper was determined by ISI to be one of the most cited recent papers in the field of Plant & Animal Science. Another first author paper was published in *Nature Biotechnology* and shows that the viral suppressor of silencing, HC-Pro, can be used to facilitate the high level expression of exogenous proteins in plants. This technology

can be used produce proteins of economic or medical importance in tobacco or other plants. A third first author paper was published in the *Proceedings of the National Academy of Sciences* and shows that HC-Pro eliminates siRNAs that mediate RNA silencing and enhances accumulation of microRNAs that regulate expression of regulatory proteins. The editors of the *Proceedings of the National Academy of Science* thought that this paper was so significant that it was featured on the cover of the journal. Finally, her last first author paper was published in *The Plant Journal* and provides important information concerning transmission of the mobile silencing signal. She contributed to all aspects of this research, experimental design, performing experiments, data analysis and the writing the manuscripts. By the time she earned her Ph.D. she was almost ready to function independently.

Allison has also been very productive as a postdoc, publishing four first author papers or co-first paper, one of which is a review and two middle author papers, thus far from her work as a postdoc. This research has made a significant contribution to our understanding of the function and mode of action of microRNAs. However, I will let Dave and Bonnie Bartel describe Allison's research and performance as a postdoc.

Although Allison has not had extensive teaching experience, she has excellent potential in area. I have heard her present her research numerous times, most recently this June at the Post-Transcriptional Regulation of Plant Gene Expression Meeting. Her talks are always clearly presented and well organized. Furthermore, she communicates well with others and can clearly expresses herself in informal conversation.

In the laboratory at South Carolina she was a leader of other students both in words and action. Allison was willing to do more than her share of laboratory chores such as being radiation safety officer. She worked well with others was always willing to offer her ideas and criticisms. She is well organized and her work habits were excellent which set an example for other students. Instead of putting things off as is common among graduate students (and faculty), she will work until a particular experiment or section of a manuscript is complete, even it entails late hours or weekends in the laboratory. She certainly has the leadership and organization skills to succeed as a faculty member.

Allison is genuinely interested in science. She reads the literature extensively. She critically evaluates the scientific literature as well as her own research, identifies the important issues and deciphers how these may or may not be experimentally addressed. She certainly has the intellectual ability to succeed at any level. By her last year of graduate study she had developed into a valued colleague whose views I respected and usually found insightful. I routinely sought her opinion on both theoretical and experimental aspects of RNA silencing and science in general.

In summary, I believe Allison is an excellent scientist who will run a highly successful laboratory. I enthusiastically endorse her application. If there are questions, do not hesitate contact me at 803-777-5157 or [bowman@biol.sc.edu](mailto:bowman@biol.sc.edu).

Sincerely,

Lewis Bowman  
Associate Professor