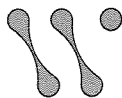


WHITEHEAD INSTITUTE



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Yves Brun
Systems Biology/Microbiology Faculty Search
Department of Biology
Indiana University
Jordan Hall 142
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Bloomington, IN 47405-7005

Dear Dr. Brun,

I am writing to enthusiastically recommend Allison Mallory for the junior faculty position in your department. Allison has been a postdoctoral fellow in my lab for nearly three years.

Before joining my lab, Allison was already making her mark as one of the top young scientists in plant biology, having carried out an excellent Ph.D. dissertation with Vicki Vance (USC), where she made major contributions to the understanding of how the plant viruses inhibit RNA silencing and the nature of the mobile silencing signal in plants.

My lab studies catalytic RNA and microRNAs. MicroRNAs are small, endogenous regulatory RNAs that can direct the repression of protein-coding genes. Much of our work is in animals, but in 2002, collaborating with a plant geneticist, we found microRNAs and their regulatory targets in *Arabidopsis*. Since then, Allison and two other accomplished plant biologists have joined the lab, and together with some students we have explored in much more detail the genomics and regulatory functions of these tiny RNAs.

Allison quickly emerged as a leader in the group. Within two months of joining the lab, she had organized an underground journal club, which unbeknown to me was meeting weekly in a nearby coffee shop to discuss the latest papers related to our research. She is a careful and critical reader of the literature yet also has been very productive at the bench—having accomplished an impressive amount in the past three years, despite the fact that she was the first person in the lab to do in-depth experiments with plants (i.e., experiments extending beyond bioinformatic analyses or beyond extracting RNA for cloning/northern).

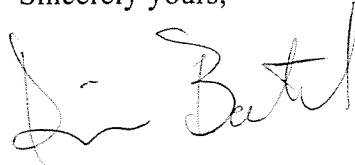
Allison has led our efforts to look at the phenotypic and molecular consequences of disrupting miRNA-mediated regulation in plants. She has beautiful results with *CUC1*, a gene for a transcription factor important for organ separation during plant development, which made a very nice story when combined with the miRNA overexpression studies done in Bonnie Bartel's lab (Mallory/Dugas et al. *Cur. Biol.* **14**:1035-1046). She has a similar story showing the developmental consequences of disrupting the miRNA-mediated regulation of *ARF17*, including a change from the normal bilateral embryonic symmetry to trilateral or quadrilateral symmetry (Mallory et al., *Plant Cell* **17**:1360-1375).

Allison has also answered important mechanistic questions in miRNA targeting and siRNA biogenesis. She used an *in vitro* cleavage assay developed by Phil Zamore's lab to provide the first analysis of miRNA–target pairing requirements (Mallory/Reinhart et al., *EMBO J* **23**:3356-3364). More recently she performed the molecular analyses of single and double mutants of the Dicer-like genes that had been generated in Hervé Vaucheret's lab, showing that DCL4 is the Arabidopsis enzyme predominantly responsible for generating trans-acting siRNAs (Gascioli/Mallory et al., *Cur. Biol.* **15**:1494-1500).

I am very impressed with Allison and excited about what will come from her lab. She has the energy, intelligence, commitment, and expertise to make a large impact on the fields of RNA silencing and plant virology. I also have every reason to think that she would be a great classroom teacher and mentor of students.

In summary, Allison has what it takes to excel in both the research and academic aspects of this position. She is a world expert on RNA silencing in plants and would be great addition for any department wanting to strengthen their presence in this exciting field. I'm certain you will also find her to be an interactive, friendly, and trustworthy colleague—the type of person you will soon want to head up the graduate committee, or assume some other position that matters in the department. I recommend her to you with highest enthusiasm and without reservation.

Sincerely yours,

A handwritten signature in black ink, appearing to read "David Bartel". The signature is fluid and cursive, with a large initial "D" and "B".

David Bartel, Ph.D.
Professor of Biology, MIT
Member, Whitehead Institute
Investigatory, HHMI