

Re: Julia Callender

Dear Madam/Sir:

It is a pleasure to write in behalf of Julia Callender's application for your PhD program. Julia is an outstanding scholar and person who deeply loves doing scientific research. She will be extraordinarily effective and creative contributor to at least one science and probably make interdisciplinary contributions.

I have known Julia for about two years, and I am very impressed with her as a person, student and scholar. Julia has excelled in her undergraduate work here at the University of California Santa Barbara, while working a minimum of 15 to 18 hours a week to help support herself financially for the past four years. She entered UCSB as a Regents Scholar, which is a very high honor, and she has retained this distinction all four years, due to the amazing research she has been doing while carrying a heavy course load in some of our most difficult biology classes. She has also been a member of the College of Letters and Science Honors Program all four years, for similar reasons. She has been on the Dean's Honor list and received the Kirby-Jones Honors Scholarship for the best local Santa Barbara student. She has received the Santa Barbara Scholarship Foundations Honors Scholarship for all four of her years at UCSB. On top of all that, Julia is an amazing person: Her voice and face sparkle with enthusiasm, and you soon learn that she has done research on a large range of topics.

I first met Julia when she earned one of the highest A+ grades in my very large Soc 152A course (the Sociology of Human Sexuality). Next I invited her to be in the small honors class (Soc 152B) that I offered the following quarter for the best 18 students from the large 152A class (which has about 600 students each quarter of the year). In the small class I came to know Julia quite well. She always made intelligent and thoughtful contributions, and she was one of the central leaders of many important discussions. She has very high standards for her own work and a great eye for detail.

Julia first fell in love with research while in high school here in Santa Barbara. She was offered a High School Research Internship by the UCSB Department of Electrical and Computer Engineering while she was in high school. She evaluated the university's camera-based tracking and motion capture system, with an interesting twist. The Department of Electrical and Computer Engineering had lost the instruction manuals that came with the device and they asked Julia to figure out how the equipment worked and then write an instruction manual so engineers could figure out how to use it. It took a couple of months – with no guidance from the UCSB staff or researchers – and she succeeded nicely, giving talks and programs to the faculty as she made her progress.

Julia loves biology and has done research on various biological topics each year she has been at UCSB. She is especially fascinated with bio-mimicry as a way to approach both biological and engineering problems. Recently she has been studying bivalves and the bio-materials they generate to produce adhesiveness in under-water environments.

She was invited to spend part of last summer in Germany at the Leibniz-Institut für Neue Materialien in Saarbrücken studying biomineralization. Her love of both biology and engineering are helping her bring her ideas together in ways that should benefit both disciplines, with an eye toward practical applications.

Julia has teaching experience as an undergraduate mentor for local high school students who want to work in UCSB laboratories focused on engineering, nanosystems, biology, chemistry and physics. She helps the students see how exciting these research areas are and how our university's laboratories approach topics in all these fields. She is the Vice President of the UCSB Interaxon organization that gives educational talks in local high schools and some grade schools about brain processes, along with the ways in which drugs and alcohol affect neural structures and functions. She is a mentor in the College of Letters and Science Honors Program, helping incoming UCSB honors students learn to take the best advantage of the honors opportunities here on our campus.

Julia is a sensitive person, with a wonderful sense of humor and an enthusiasm for life that everyone enjoys—traits that will make her very effective on any kind of research team and in various professional groups. She has outstanding communication skills: She speaks clearly and dynamically, capturing your attention by the clarity of the direction in which she develops her logic. She is creative in solving problems and helping people work together cooperatively. She is a team player who is exceptionally well organized and makes sure that her work and the work of others are done professionally, carefully, and with attention to detail. She is well liked by her peers—and by the faculty with whom she works. Julia is one of the most hard-working, honest people you could hope to know. She always does her work on time and is very reliable. It is a pleasure to work with her and you will find her work to be of the highest quality.

In summary, Julia is a truly amazing person who will make many valuable contributions as a research scientist. She knows that her chosen profession will involve many challenging jobs, but she looks forward to doing a stellar job. Julia is forward looking, with the ability to plan her time and activities to attain long-term goals. In addition to having a keen mind, she is serious, conscientious, hard working and very responsible. She is both an excellent student and a happy, well-adjusted person with whom it is a pleasure to work. Julia earns my highest level of recommendation. If I can be of any further help to you, please do not hesitate to phone me at (805) 967-4995.

Sincerely,

John D. Baldwin
Professor
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