

#### Application Related Information

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Application: Application Not Verified  
Grad Program Applying To: MES

Iteration Name: 202610\_GR\_G  
Program Name: MES

#### Recommendation Information

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Recommended By:	Julie Roden	Recommenders Title:	Senior Instructor in Biological Sciences Laboratory
Recommenders Institution:	Wellesley College	Contact Name:	Alexandra Chua
Waive Access to Recommendation Ltrs:	I choose to waive my right to review this recommendation.	Recommendation Waiver Choice:	
Recommendation Form Submitted:	✓	Recommendation Status:	Received
Received Date:	11/27/2024 06:46 AM	Recommender Assessment:	I recommend this applicant.
Recommendation Type:	General	Recommender Form:	Letter of Recommendation
Recommendation Entity ID:	1024000121262849	Recommendation Owner:	Josephine Bernier

#### Recommender Form Questions

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How long have you known applicant:	Applicant ability as self-directed learner:
Time since last contact with applicant:	Applicant as productive member of group:
Relationship with Applicant:	Applicant most significant strengths:
Ability to complete rigorous grad program:	Responsibility/reliability:
Communication Skills - Oral:	Communication skills - written:
Service Orientation-sensitivity/empathy:	Ability to work independently:
Ability to handle stress:	Ability to think critically:
Ability to analyze/problem solve:	Ability to think creatively:
Openness to feedback:	Potential for leadership:
Ability to work in a team:	Personal/professional reflection:

#### Description Information

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Description: Form URL: <https://evergreenstatecollege.radius>

#### Other Information

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Created Time:	11/24/2024 11:42 PM	Created By:	Josephine Bernier
Modified Time:	11/27/2024 06:46 AM	Modified By:	Josephine Bernier

# WELLESLEY COLLEGE

## DEPARTMENT OF BIOLOGICAL SCIENCES

Julie Roden  
Senior Instructor in Biological Sciences Laboratory  
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November 27, 2024

To Whom It May Concern:

It is my pleasure to provide this letter in support of Ms. Alexandra (Alex) Chua, an applicant for the Master's program in Environmental Sciences, Studies and Policy at the Evergreen State College in Fall 2025. I had Alex as a student in general microbiology lab in Spring 2022, and served as her advisor for her Biological Sciences major until her graduation in May 2024. Alex completed her undergraduate degree with a double major in Biological Sciences and Environmental Studies. My position at Wellesley College, Senior Instructor in Science Laboratory, is a long-term non-tenure track faculty position. I have extensive teaching and research experience, have represented the college at professional meetings, and have significant service commitments in student advising and College level committees.

I first got to know Alex during the spring of her sophomore as she was enrolled as a student in the microbiology laboratory course I was teaching. Alex came to lab on time each week, worked well with a variety of different lab partners, and was always prepared and excited to be in the lab. Notably, we incorporate several weeks of independent work on microbes that students have isolated at the end of the course. Alex had some preliminary evidence that her microbes might be producing antibiotics, and therefore modified and completed a complex protocol where she grew bacteria for differing lengths of time, created cell free extracts, and tested the extracts against relatives of pathogenic bacteria to look for growth inhibition. Alex challenged herself with this experiment, taking on significantly more work than her peers, and worked independently to successfully execute the experiment. She asked me lots of great follow-up questions after her first trial of the experiment, and presented a clear and interesting poster on the results to her labmates. As part of the microbiology laboratory curriculum, she demonstrated her ability to communicate her findings, through a scientific grant proposal assignment and a poster presentation. This curiosity, excitement, and drive to be in charge of her own experiment impressed me. Alex was co-enrolled in a cell biology course that semester, and frequently connected skills and concepts she was learning in across both courses, which showed that she was synthesizing her learning across both classes. Alex demonstrated organization and focus in her plans for her undergraduate coursework, and she completed extensive coursework in Biological Sciences and Environmental Studies including many courses with associated laboratories, such as a 300-level ecosystem ecology course, that merged these varied interests.

Alex and I had several conversations about her academic interests during advising meetings throughout her undergraduate career. She is interested in the intersection of biology with sustainability, ecology, and environmental science and had several short independent research experiences in college. Alex participated in the Wellesley Summer Research Program in Summer 2022 with my colleague Steven Biller, working on characterizing DNA exchange among marine microbes. While she learned a great deal from this experience, the research in the Biller lab was not quite the right fit for her, as they approach ecological topics from a molecular perspective. In order to explore more environmental topics over the past two years, she has participated in several different term-time and summer research experiences through the MIT Undergraduate Research Opportunities Program (UROP) and Climate and Sustainability Consortium. Alex can be very excited and focused on a project when she is intellectually engaged. However, in her independent research opportunities in college, she tried out several different shorter



research experiences but did not find a long-term research question she was passionate about, and did not gain the benefit of a deep, long-standing research project. After graduation, Alex sought out employment opportunities that allowed her to participate in a long-term research project focused on biodiversity, particularly one involving significant fieldwork. She is currently employed as a research technician with the East Foundation in southern Texas, doing research on quail density and learning about GPS mapping and field research. It sounds like Alex's current research position may be providing that depth of independent research experience for her and has solidified Alex's desire to pursue this general area of research for her graduate education, and as well as for her future career.

In conclusion, Alex is interested in the intersection of biology, sustainability, and environmental questions, and is a dedicated and passionate researcher when excited by a project. I support her application for graduate study. Please feel free to contact me with any additional questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Julie A. Roden". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Julie A. Roden, Ph.D.