



RECCS RESEARCH SKILLS MENTOR CHECKLIST

RESEARCH SKILL	OBSERVED	NOT OBSERVED	NOTE
Conduct a literature review	X		Noah searched the literature, beyond provided papers, for <u>relevant information</u>
Develop a research question	X		Project had several potential questions. Noah helped decide <u>which direction to take</u>
Develop a research methodology	X		Decided which cultures to use, which comparisons to make for <u>summer project</u> .
Conduct observations in the lab or field	X		Noah took the initiative to take observations and photos of the <u>cultures and experimental plates</u>
Figure out the next steps in a research project	X		We had a few setbacks (ie. co-cultures). Helped make decisions <u>to move the project forward</u>
Use statistics to analyze data	X		Analysis to identify temperature optima and desiccation <u>tolerance</u>
Calibrate instruments needed for measurement	X		Learned how to operate laboratory PCR machines, autoclaves, incubators, pipettes
Read and understand journal articles	X		See "conduct a literature review" section
Conduct database or internet searches	X		Used NCBI BLASTn to re-identify microorganisms from 16S rRNA <u>gene sequences</u>
Identify assumptions and limitations of research methods and designs	X		Identified appropriate "next steps and limitations" for poster and <u>presentation</u>
Understand the theory and concepts guiding the research project	X		Project would not have been possible without this
Keep a detailed lab notebook	X		Detailed laboratory notebook kept. included information that was <u>essential to later analysis</u> .
Defend an argument when asked questions	X		Noah presented to the full Fierer Lab and thoroughly answered ~30 <u>minutes of questions</u>
Problem-solving	X		Our summer research project was complicated. Noah did an amazing <u>job solving problems and moving the project forward</u>

I, Nicholas Dragone, hereby certify that RECCS student Noah Mendez,

performed the skills checked above during the 2023 RECCS summer research experience.

Signature  Title Postdoctoral- Associate Date 8/1/24

