

WISEST Summer Research Program

Journal of Student Research 2023



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Introduction

Each summer, WISEST places 40–50 young women and gender diverse, grade 11 students in a six-week paid internship called the Summer Research Program (SRP). Students are paired with research laboratories and gain experience in fields where their genders are considered underrepresented such as Science, Technology, Engineering or Math (STEM). This year, WISEST was able to place 43 students in various research placements.

Since 1984, the SRP program has had participants from across Alberta and Canada! Over 85% of our program alumni pursue STEM education and careers after participating in the SRP. In addition to the UofA, we have seen students attend academic institutions across Canada and internationally. SRP alumni have been co-authors on peer-reviewed papers, presented at conferences, and received significant awards. In recent years, fourteen alumni have received prestigious national awards including six Schulich Leader Scholarships and two TD Scholars Award.

Goals of the SRP for our students

- Broaden awareness about underrepresented fields of study and diverse career options.
- Engage with other participants who share similar interests.
- Learn about the techniques and types of research conducted in different STEM fields.
- Connect with and learn from successful professionals in the STEM fields.
- Develop key professional skills.
- Contribute to trailblazing research (in the lab or in the field).
- Become familiar with academic and university life at the University of Alberta.

Our Volunteers

Our program would not be possible without the Principal Investigators who invite these students into their research, the Supervisors and Research Team Members who provide mentorship and support for the students throughout the program, and the volunteers who support our Professional Development Sessions. In 2023, 288 different people gave 5,800 hours of their time to support this program.

Thank You to Our 2023 Funders:

We are a donor and volunteer-driven Community of Catalysts!

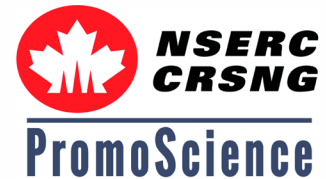
Although based on the U of A campus, WISEST relies almost completely on donations from corporations, foundations, individuals and the public sector to develop and deliver our innovative programs. Contrary to perception, WISEST does not receive any core funding from the U of A, but we are grateful for in-kind contributions such as space and access to campus resources.

Off Campus Supporters

- Andrea Macyk-Davey & Robert Davey
- Margaret-Ann Armour Endowment for SRP Students

Financial support also received from the following researchers

L. Lefsrud, J. Harynuk, E. Bayne, J. Hogan, J. Carey, N. Beier and X.Zhang. Individual and corporate contributors to the WISEST Crowdfunding Campaign.



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The Spirit of Dr. Armour Award

WISEST created the “**Spirit of Dr. Armour Award**” in 2019, to honour individuals whose spirit and enthusiasm for diversity in STEM is genuine, infectious and intentional. Dr. Margaret-Ann Armour dedicated her life and career to diversity and the advancement of women in the sciences. But more fundamentally, she dedicated her spirit and her passion to people. She became a beloved member of numerous groups and networks through her genuine enthusiasm for individuals and sincere belief in the power of community. She loved people and people loved her back.

“I give you my greatest wish - to go meet your dreams”

The Advocate Award

This award is presented to a principal investigator or supervisor, who through their participation in the Summer Research Program has shown advocacy in creating a more diverse STEM community.

SRP Student Award

This award is presented to a grade 11 student, who, through their participation in the Summer Research Program has shown: a genuine interest and passion in pursuing a STEM education, leadership and engaged participation in all the SRP program offers, collaborative interactions with other SRP participants, PIs, graduate students, WISEST staff, and the lab staff, an innovative and creative problem-solving approach and demonstrated resilience in overcoming barriers and obstacles.



Laura Enekegho



Ashlyn Joseph

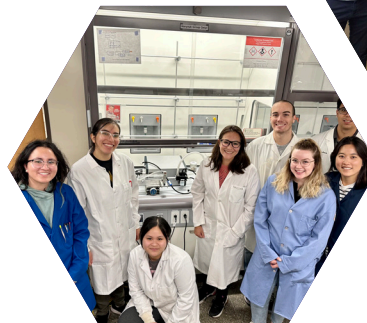
WISEST would like to recognize:
Laura Enekegho (advocate)
& Ashlyn Joseph (student)
with the Dr. Armour Spirit Awards.

We also recognize two lab groups who created an amazing workplace environment for their students.

Dr. Jason Carey's Lab
& Dr. James Harynuk's Lab



Dr. Jason Carey's Lab



Dr James Harynuk's Lab

The Summer Program

The WISEST Summer Research Program is more than just a summer job. The program calendar is full of events, sessions and opportunities that allow the students to grow professionally, meet incredible mentors and build a like-minded community of peers.

Orientation

The program began with a full day of orientation to the program and to campus. This day included introductions from staff, introduction to the University of Alberta Library system, Campus Tours and a panel discussion with WISEST SRP Alums to receive advice and encouragement.

“WISEST orientation was filled with nerves and excitement. It’s a special feeling that I’ll treasure.

Orientation was engaging, and full of new experiences and people!”



Professional Development

Each week, WISEST students meet to develop new skills and learn more about various science, engineering and technology career and/or education fields.

This year's professional development sessions included: The Art of Networking, Let's Talk About EDI, Dream Big, Allyship, Digital Science Communication, How to do a Research Poster, Design Thinking and Dragon's Den Challenge, Strength-Based Success, Skills for Success in University and Scholarship Resources, a Resume, Cover Letter and Interview workshop and Sharing the WISEST Experience. In addition to the professional development sessions, WISEST also ran an optional media club, where a topic was introduced weekly, related media was shared and students were invited to participate in discussions. These discussions were rich, generative and powerful, and topical, relating to many of the challenges and issues that STEM is confronted with in this day and age.

"I really liked how interactive the PD sessions were. We either got to talk to guests, other students, or do a hands-on activity."

"The PD sessions were all about topics that I actually wanted to learn about, and that made these sessions more enjoyable."

"The PD sessions were insightful and educational. My group engaged in deep conversations and it was nice hearing comments from other SRP researchers."



Mentorship and Role Models

The Summer Research Program students have many opportunities to meet and network with a wide variety of STEM students and professionals at all stages of their academic and professional journeys. Students participated in two virtual role model panel sessions, a entrepreneurship focused role model panel, a networking mixer, as well as role model sessions tailored to racialized students in STEM and 2SLGBTQIA+ students in STEM. Additionally, each student was matched with an alum from a previous program for additional mentorship and support.

"It was really nice to meet all the amazing mentors, they were so engaging and so open to answering all of our questions. It was especially nice to see women of color in fields that are male-dominated."

"I have never seen queer and gender diverse people deep into STEM careers and it was the first time I saw a complete future for me in STEM."

"There were so many sessions where we got to meet multiple role models, and we met people from a variety of careers who had their own unique paths."



On Campus and Industry Tours

In addition to their own research labs, students were given opportunities to meet lab teams in other faculties and departments and tour these facilities. Additionally, students were taken to the U of A Innovation Centre, Gilead Sciences, ATCO and Syncrude Research Lab as a way of seeing how STEM can be done in Industry settings.

“Our tour guide was very nice and you could tell he was passionate about what he does!”

“I enjoyed getting to tour the lab and meet Dr. Glover himself, who explained X-Ray Crystallography better than any textbook could!”

“I really liked my lab tour, and I might even apply to join their lab this year! Everything they told us about their lab made me want to see even more. “



Social Events

In an effort to build a cohesive and supportive cohort and community, WISEST hosted several social events over the course of the summer. Beginning with the scavenger hunt designed to acquaint students with campus, to the Alumni Event where they met past participants in a fun and interactive evening, the students were given a chance to unwind after work and meet each other in a more informal and casual setting. Other social events included a paint night, board games, karaoke, an escape room, a bubble tea night with WISEST’s sister network WiSER and a Jeopardy event with WISEST’s other sister network UA-WISE. The six-week program culminated in the See Ya Later banquet, with food, photos, shared memories, and student-led entertainment.

“My favorite event was hands down the SRP see ya later. It was a very meaningful night that was filled with so many emotions.”

“I loved the paint night, just being able to bond with other like minded people through a different creative, non-work related aspect was amazing”

“UA-WISE’s game night was one of my favorite events. Everyone was so happy, and there was such a strong competitive spirit that made the entire night so fun.”



Research and Celebration of Research

Each student was placed in a STEM research lab. The student's experiences, while unique to each project entailed things like working with lab members, learning specific skills such as coding, gel electrophoresis, data analysis, effective communication of results, among so many others. Each student created a final poster that encapsulated their project, and these were presented to friends, family, dignitaries, research teams, teachers and the general public on the final day of the program.

"The Celebration of Research was a bittersweet moment. Seeing my fellow student researchers shine while presenting their posters was such a proud moment to witness."

"Presenting my work at the Celebration of Research was a really rewarding process, and I was so happy that so many different people wanted to discuss my research with me."

"I was nervous going into the Celebration of Research, but once I started presenting my poster and talking to people about my research, all my worries vanished."



Residence

Students from outside the Edmonton region stayed on campus in the St. Joseph's College dormitory. Students living in residence create a close-knit community through their shared experiences, and together they explore all Edmonton has to offer while participating in numerous fun social activities.

"Residence was truly the best experience and being able to live on campus was so beneficial"

"Living in residence really helped because we were able to form those closer connections."

"One of my favourite memories would be when all of residence went to the Barbie movie and we were all wearing bright pink"





Our SRP Student Researchers

Take a moment to meet our SRP Students and let their enthusiasm and reflections on their experience inspire you. These capable young people are building a strong foundation for their future success, contributing to a stronger STEM community, and preparing to change the world.

Maryam Abdelhamed

High School Queen Elizabeth High School

Town Edmonton, Alberta

Lab Placement Department of Psychology, Faculty of Science

Project Title Sex differences in nest-building ecology and learning in zebra finches

Final Project <https://doi.org/10.7939/r3-b66p-kr61>

Supporter Alberta Government and Canada Summer Jobs



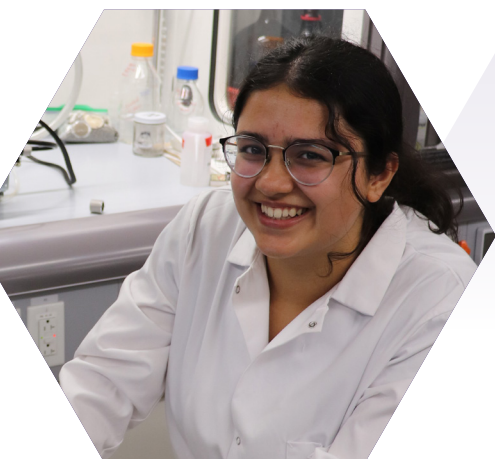
Describe a panel or networking session that had a profound impact on you and your STEM trajectory.

The racialized student networking session was one of my favourite panels because of how validated I felt that day. To see other racialized women pursuing STEM careers not only inspired me, but also showed me the ups and downs of being a STEM student. The overwhelming words of assurance and advice that the panelists shared with me is something that I will never forget.

Tell us something fun, interesting, or impactful about your SRP experience.

It's safe to say the SRP changed my life forever. The lasting friendships I made are like no other. The program

connected me with so many interesting and like-minded individuals who taught me the importance of teamwork and community. I value the lessons I learned from both the amazing 2023 cohort and from WISEST PD sessions. The over-the-top, amazing sessions that our coordinators planned allowed me to get to know so many people in my cohort that I couldn't have guessed would be some of my closest friends. On top of that, the number of opportunities I had to network this summer were phenomenal. The mentors that I had conversations with gave me the most valuable, insightful and inspirational advice. This summer was about gaining real-world experience, life lessons, lasting memories, and enjoying myself.



Anu Adhikari

High School Harry Ainlay High School

Town Edmonton, Alberta

Lab Placement Department of Chemistry, Faculty of Science

Project Title Comparative Analysis of Tobacco and Cannabis Particulate Matter using SPME-GC×GC-TOFMS

Final Project <https://doi.org/10.7939/r3-j799-j096>

Supporter Rotary Glenora, Canada Summer Jobs and Harynuk Lab

What is something you want future SRP students to know?

This program will be the most fun you have ever had during the summer, and the people you meet here will be some of your closest friends. Put a lot of effort into connecting with as many people as you can while in the program, you will not regret it.

Describe your research and project.

My research involved using a smoke machine, 2 dimensional gas chromatography and mass spectrometry to analyze and compare the characterizations of tobacco and cannabis smoke. This research contributes to the area of smoke research that is greatly lacking in terms of cannabis smoke, despite it being legalized and popular. Our work eliminates common misconceptions surrounding smoking weed.

Brielle Airey

High School Barrhead Composite High School

Town Barrhead, Alberta

Lab Placement Department of Physics, Faculty of Science

Project Title Tri-Axis Helmholtz Coils For Magnetic Field Control

Final Project <https://doi.org/10.7939/r3-23ch-h877>

Supporter Motorola and Canada Summer Jobs



What was the Celebration of Research and/or the See Ya Later like for you?

You didn't feel the stress, you felt supported by the people you were presenting to. You feel so confident in yourself which is really empowering.

Say thank you to someone who had an impact on you this summer.

I'd like to thank WISEST for putting all the work into this opportunity and the sponsors for allowing this opportunity to happen. I'd like to thank the Ultracold lab members for guiding, encouraging and making the lab enjoyable. I'd especially like to thank my mom for supporting and encouraging me throughout this opportunity.



Maryam Al-musawi

High School Grande Prairie Composite High School

Town Grande Prairie, Alberta

Lab Placement Department of Biochemistry, Faculty of Medicine and Dentistry

Project Title Genetic Engineering of Probiotic Yeast for Improved Secretion of Antimicrobial Molecules

Final Project <https://doi.org/10.7939/r3-bage-g245>

Supporter Andrea Macyk-Davey & Robert Davey and Canada Summer Jobs

Describe how you felt when you were accepted into the program. How has that changed throughout the program?

I think being accepted started this sense of confidence in me that grew tremendously throughout the program. I knew this program would do great things for me but the amount of support and love the WISEST community has given me is irreplaceable. All of it has certainly instilled a sense of confidence and erased all my self doubt.

Describe the impact finding a like-minded community had for you.

Finding this community gave me a sense of hope. I always grew up questioning why I wasn't like everyone else and why I couldn't relate to many of my peers. This program showed me that I am not alone and that it is possible to find people like me who enjoy learning and STEM.

Fenet Anbesa

High School Lindsay Thurber Comprehensive High School

Town Red Deer, Alberta

Lab Placement Department of Electrical & Computer Engineering, Faculty of Engineering

Project Title Merging videos of mirage and wind speed to train Artificial Intelligence

Final Project <https://doi.org/10.7939/r3-sace-8x18>

Supporter Women & Gender Equality Canada, Canada Summer Jobs and Myatt Lab



Describe how you felt during orientation vs. how you feel now.

Although I was extremely excited to be part of the Summer Research Program, there was definitely some apprehension surrounding orientation day since I had no idea what to expect. However, all of my concerns quickly dissipated as I got to spend time with the other researchers and my supervisor. This program has exceeded my expectations in so many ways. I feel way more confident and all of my worries on orientation seem insignificant when compared to the fond memories about the several passionate, intelligent, and extremely kind people that I met and the fun that I had working in my lab this summer.

Describe a Professional Development session that you gained new insight or learned from. What will you take away from it into the future?

One of the most critical skills that I have been able to develop this summer was networking. The Art of Networking session that I attended provided invaluable advice on how to effectively develop my network so that I can access more opportunities and establish a community. All of the advice and tips that I received from that session were essential for the several chances during the program where I got to meet with mentors from a variety of backgrounds and networking will undoubtedly prove to be an invaluable skill for my future.



Bailey Anderson

High School Ardrossan Jr Sr High School

Town Ardrossan, Alberta

Lab Placement Department of Chemistry, Faculty of Science

Project Title Nucleoside Analogues: Efficient, Cost Effective, And Flexible Optimization Synthesis

Final Project <https://doi.org/10.7939/r3-rdf3-gr82>

Supporter Alberta Government

Describe how you felt when you were accepted into the program. How has that changed throughout the program?

When I first found out I was accepted into the program I felt a variety of emotions, but pride, joy and relief were the main ones. It was comforting to have all of my hard work and dedication to learning concepts in and out of school be applicable to something I could finally see myself pursuing in the future. Now I would say I still feel the same things, but I also feel more gratitude because I have

been able to be a part of a life changing program that will forever help shape my future.

Say thank you to someone who had an impact on you this summer.

I would like to say thank you to my supervisor Jason Wang for providing me with a summer that I will never forget. His cheerful mood, jokes and attitude provided me with the security to learn and grow in a lab environment. I would also like to thank him for teaching me as many concepts and theories as he could, his time and effort was extraordinary.

Avery Bissell

High School Christ the King Catholic High School

Town Leduc, Alberta

Lab Placement Department of Chemical & Materials Engineering, Faculty of Engineering

Project Title Solar Interfacial Technology and its Effect on Clean Water Evaporation

Final Project <https://doi.org/10.7939/r3-7qx5-0g46>

Supporter Beta Sigma Phi, Canada Summer Jobs and Zhang Lab

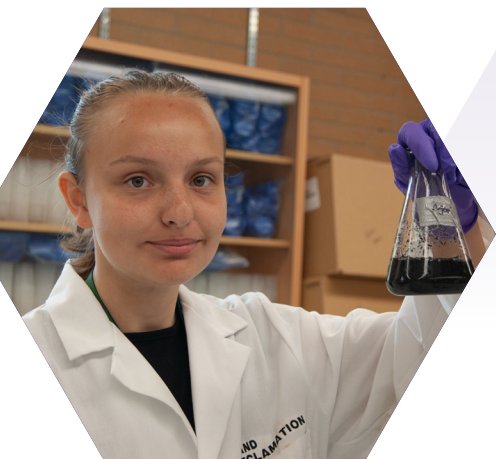


Describe the impact finding a like-minded community had for you.

It has made a world of difference in my life. Finding people who share the same values as me, and who think the same as me has been incredibly validating, and it has changed the way I view the world. It has been by far the best part of this program.

What is something you want future SRP students to know?

Don't be afraid to meet new people, make new friends, and reach out to others! Be as sociable as possible, and ask tons of questions. Savour every moment, because it will go by in the blink of an eye!



Demi Brady-DeMille

High School Delia School

Town Delia, Alberta

Lab Placement Department of Renewable resources, Faculty of Agricultural, Life & Environmental Sciences

Project Title Effectiveness Of Biochar In Adsorbing Heavy Metals In Wastewater

Final Project <https://doi.org/10.7939/r3-ddza-hk53>

Supporter Alberta Government and Syncrude

Josephine Contreras

High School Warner School

Town Warner, Alberta

Lab Placement Department of Biological Sciences, Faculty of Science

Project Title 3D Models of Tyrannosaurid Teeth for Analysis of Denticles

Final Project <https://doi.org/10.7939/r3-5914-sr04>

Supporter Alberta Government



Describe how you felt when you were accepted into the program. How has that changed throughout the program?

When I was accepted into the program I felt overwhelmed. I was scared to go so far away from home, and I was worried that I would not fit in. Throughout the program I learned that I did fit in with everyone and that being accepted was one of the best things that could happen to me. The program helped me to gain confidence and learn more about myself.

What was the best part about residence?

The best part about residence was the people that I met. Everyone in residence was so interesting and living with them allowed me to learn much more about myself. The many adventures that we partook in while in residence was amazing. Our RA's helped us to adjust to living by ourselves and helped us to participate in many fun and amazing opportunities. So overall my favourite part about residence was the people that I interacted with.



Peyton deMoissac

High School St. Paul Regional High School

Town St. Paul, Alberta

Lab Placement Department of Mechanical Engineering, Faculty of Engineering

Project Title The Application of 3D Printing with Recycled Plastics in the Healthcare Industry: The Ankle-Foot Orthoses Case Study

Final Project <https://doi.org/10.7939/r3-ayt5-9803>

Supporter Alberta Government

What was the Celebration of Research and/or the See Ya Later like for you?

The Celebration of Research and See Ya Later were the perfect bittersweet wrap-up to an incredible six-weeks. They allowed me to showcase how I had grown throughout the program, while also giving me a chance to make some last-minute memories with my new friends. These experiences were some of my favourites of the program and allowed for me to reminisce on the memories of the last six weeks, which are memories I'll cherish forever.

Tell us something fun, interesting, or impactful about your SRP experience.

The SRP allowed me to undergo personal growth, which allowed a newfound confidence to emerge from me. I am now confident in my abilities, and I know that I can achieve success both in and out of STEM. The SRP made me confident in my voice, and I know that I can have an impact.

Yadhiera Despeines

High School Archbishop Macdonald High School

Town Edmonton, Alberta

Lab Placement Department of Earth and Atmospheric Sciences, Faculty of Science

Project Title Modeling the geologic processes that occur on Mars

Final Project <https://doi.org/10.7939/r3-xe1f-vt18>

Supporter Beta Sigma Phi and Canada Summer Jobs



Describe a panel or networking session that had a profound impact on you and your STEM trajectory.

The Mission SpaceWalker session was a really transformative hour for me because for the first time in a very long time, I could imagine myself doing a career in the space field. Grade 11 really affected my mental health, and quite honestly, it's really the lowest that I've been in terms of self-esteem and confidence. By the end of the school year, I had practically given up on myself, and decided that this career was not for me, but when I saw this wonderful group of people, participating in such amazing projects, pursuing their own dreams of working in the space field--I felt empowered. This panel, and just the program as a whole, helped me gain that confidence and gain that resilience that I so desperately needed.

Describe a Professional Development session that you gained new insight or learned from. What will you take away from it into the future?

"Justice grows out of recognition of ourselves in each other--that my liberty depends on you being free too." - Barack Obama. This was one of the quotes that was shown during the PD session on Allyship. This quote, alongside the discussion we had on allyship, really encouraged me to be a better advocate for others. The session taught me that a good ally is someone that is humble, someone that is comfortable with being uncomfortable, someone that is patient with themselves and their own journey with allyship, and lastly, someone who listens (like really listens). And I plan on equipping myself with these skills, in order to be a better ally to other communities.



Anaïs Doderai

High School École Maurice-Lavallée

Town Edmonton, Alberta

Lab Placement Department of Mechanical Engineering, Faculty of Engineering

Project Title Analysis and Design of Drone-Based Pollination

Final Project <https://doi.org/10.7939/r3-tm6z-x560>

Supporter Motorola and Canada Summer Job

Describe a Professional Development session that you gained new insight or learned from. What will you take away from it into the future?

I thought I already knew how to study, but the PD session about "study tips and tricks" really opened my eyes to new ways of studying that seem more efficient.

Describe your favourite social event. Why was this your favourite.

The UA-Wise night was a fantastic event full of helpful advice, laughter, and competitive spirit. It showed me that WISEST doesn't end after the SRP, and that there is a community at the University of Alberta that is growing and thriving.

Emma Doney

High School École Secondaire St. Albert Catholic High School

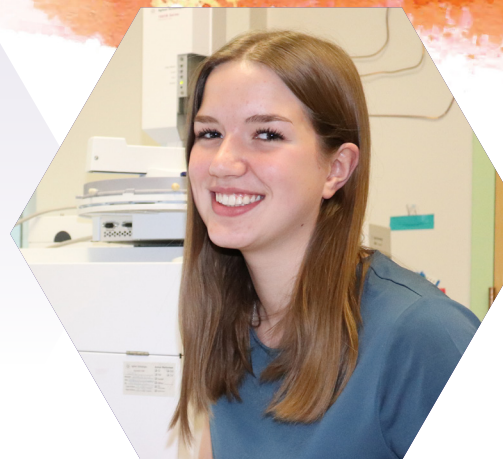
Town Sturgeon County, Alberta

Lab Placement Department of Renewable resources, Faculty of Agricultural, Life & Environmental Sciences

Project Title The Effect of increasing ozone concentration on the pheromone communication of Mountain Pine Beetle (*Dendroctonus ponderosae*)

Final Project <https://doi.org/10.7939/r3-5xnc-ky83>

Supporter Alberta Government

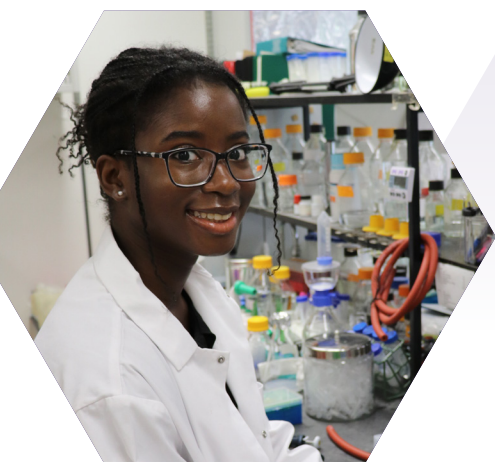


Describe how you felt during orientation vs. how you feel now.

During orientation the weeks ahead me felt daunting, impossible and incredibly intimidating. Now, I feel confident in the tools I have learned, the experience I have gained and the connections I've made.

What is something you want future SRP students to know?

The WISEST SRP is a chance like no other. I was able to work in a university lab while I gained first hand experience and built meaningful relationships that will last for years. I was able to spend six weeks learning from undergrad, masters and PhD students while building skills and tools that will benefit me not only in academia but in everyday life. Genuinely an experience I will never forget.



Edidiong Essienton

High School Sir Winston Churchill High School

Town Calgary, Alberta

Lab Placement Department of Biological Sciences, Faculty of Science

Project Title Creating Point Mutations in Histones

Final Project <https://doi.org/10.7939/r3-yjsq-0585>

Supporter Isomass Scientific and Canada Summer Jobs

Talk about a part of the program that was meaningful to you.

A detail in the program that was meaningful to me was the opportunity to provide feedback as well as the support received from the WISEST team and my residence advisors. From the start to the end of the program, they consistently worked to ensure that as both a researcher and individual I was doing okay. While I had zero issues, it was reassuring to know that my best interests were being looked out for.

Say thank you to someone who had an impact on you this summer.

Firstly, I want to say a huge thank you to my teachers (Ms. Foisy and Ms. Held) for being extremely supportive during the application process and my parents. I would also like to thank the WISEST team, Dr. Rashmi Panigrahi, Professor Mark Glover and my sponsors for their support during the program. Quite literally, your contributions made my participation possible and without all of you, this summer would not have been such an experience.

Khylle Felisilda

High School St. Joseph Catholic High School

Town Edmonton, Alberta

Lab Placement School of Public Health

Project Title Empowering Future Healthcare Leaders to Address Climate-Mental Health Threats: A Narrative Review of Global Post Secondary Programs

Final Project <https://doi.org/10.7939/r3-sace-8x18>

Supporter Women & Gender Equality Canada, Canada Summer Jobs



What was the Celebration of Research and/or the See Ya Later like for you?

It was a night to remember. Truly a magical experience that felt like a movie. I have never been in a room with such a community of people that truly loved and supported one another.

Tell us something fun, interesting, or impactful about your SRP experience.

What makes the SRP so special is being surrounded with a community of people who become an integral part of our journey, despite the limited time we spent together. The people you meet in this program believe in you so much that eventually, you start believing in yourself too. The SRP is truly a once-in-a-lifetime experience all because of the people you collect beautiful memories with.



Diane Fulton

High School Spirit River Regional Academy

Town Gordondale, Alberta

Lab Placement Department of Biological Sciences, Faculty of Science

Project Title Tooth Mark Distribution: An Analysis of Tooth Marks on Edmontosaurus regalis Rib Specimens from the Danek Bonebed

Final Project <https://doi.org/10.7939/r3-nynq-r317>

Supporter Alberta Government

Describe how you felt when you were accepted into the program. How has that changed throughout the program?

When I learned about my acceptance, I was incredibly nervous and I doubted my capabilities to take part in the research. Throughout the program, I learned that I am much more capable than I had realized. The program is aware of your capabilities, and people are there to support you. They wouldn't set you up for failure.

What was the best part about residence?

The best part of residence is the way it quickly became a second home for all of the students. Being out of the nest for more than a month was a new experience for the majority of us, but we quickly got to know each other and created a new web of support for when we couldn't fall back on our parents.

Hiwot Gebremedhin

High School Edmonton Christian High School

Town Edmonton, Alberta

Lab Placement Department of Earth and Atmospheric Sciences, Faculty of Science

Project Title Elements on the move: the effect of weathering on wildfire produced charcoal

Final Project <https://doi.org/10.7939/r3-xrmz-aa49>

Supporter Beta Sigma Phi, Canada Summer Jobs and Konhauser Lab



Describe the impact finding a like-minded community had for you.

I was motivated to apply to the SRP in search of my own role models that I could identify with and aspire to be, as well as to cultivate a STEM community that I could lean on for support and encouragement, and the SRP met and exceeded my expectations! Finding a like-minded community reinforced my place in the STEM field, and turned my feelings of self-doubt into believing that there was room for me in a male-dominated field, as pursuing STEM was no longer a foreign concept. The community I was able to build in the SRP inspires me to Dream Big and to pursue my dreams to the fullest extent, without any restraints, fostering my deep love, enthusiasm and passion for STEM.

What is something you want future SRP students to know?

I think one of the biggest takeaways I've learned this summer is that it's perfectly okay to not have everything figured out - careers paths are often not linear and it is completely valid to take detours, so to future students I would advise them take the time to really explore their interests and take advantage of every opportunity available in the SRP. I would advise future students to embrace all that the SRP has to offer them, to truly make the most out of every second of the six weeks: to try everything, take risks, put yourself out there, be involved with activities, attend as many voluntary/social events as you can, because eventually your SRP journey will come to a end. Everyone wants to see you flourish and thrive in the SRP as well as in your future, so do not be shy or hesitant to ask questions or to ask for help!



Sienna Gin

High School Harry Ainlay High School

Town Edmonton, Alberta

Lab Placement Department of Mechanical Engineering, Faculty of Engineering

Project Title Braided Composite Pointe Shoes

Final Project <https://doi.org/10.7939/r3-b5db-d850>

Supporter Motorola

Describe a panel or networking session that had a profound impact on you and your STEM trajectory.

I really loved the entrepreneurship panel. It was so inspiring sitting in a room with women and gender diverse people who were not only innovating their respective fields, but were so clearly supportive of one another.

Talk about another part of the program that was meaningful to you.

This program opened a door into the world of scientific research and academia, which I had previously thought was inaccessible to me. This experience was so valuable in showing me the many possibilities for my future.

Madison Isabelle Guinto

High School Lacombe Composite High School

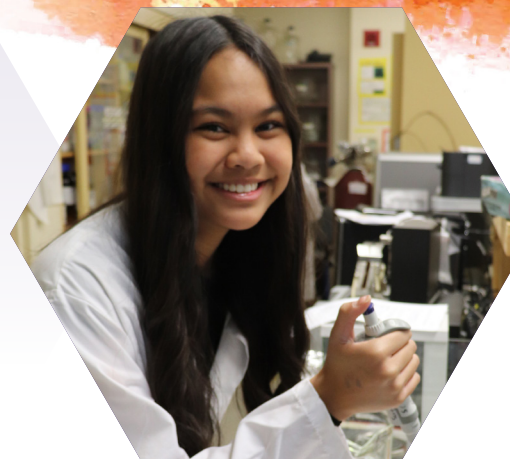
Town Lacombe, Alberta

Lab Placement Department of Renewable Resources, Faculty of Agricultural, Life & Environmental Sciences

Project Title Effects of Woodchip Biochar on Soil Greenhouse Gas Emissions

Final Project <https://doi.org/10.7939/r3-kgds-wq27>

Supporter Women & Gender Equality Canada, Canada Summer Jobs



Describe the impact finding a like-minded community had for you.

Coming from a small town, it's difficult to find students who are passionate about STEM. Walking into this program and meeting all the great minds made me excited for the relationships I was about to make. I am forever grateful to WISEST for giving us the opportunity to create a community where everyone feels seen and supported.

Tell us about your favourite tour (lab or industry) and why it stood out for you.

My favorite lab tour was the Lindsay Westover Lab for Biomedical Engineering. Biomedical Engineering is a field of STEM that I have always wanted to explore more, and this lab gave me the opportunity to speak to students in this field and see what they were researching. We got to see some really interesting stuff (like human brain matter!) and ask many questions about this specific field.



Hafsa Hafsa

High School J. Percy Page High School

Town Edmonton, Alberta

Lab Placement Department of Computing Science, Faculty of Science

Project Title Human-AI Model: Working Together to Make Handover Situations Safer

Final Project <https://doi.org/10.7939/r3-fqre-9t91>

Supporter Motorola, Canada Summer Jobs and Taylor Lab

Describe how you felt during orientation vs. how you feel now.

During the orientation I was nervous and doubtful if I would be able to do my project and live up to my lab's expectations. However after the six weeks, I feel so much confidence in myself, my project and the skills I developed. The people in my lab were so kind and supportive and helped me clear my doubts.

What is something you want future SRP students to know?

For the future SRP students, try to go to as many social events as you can. You can really get close to the people in your cohort and have fun while making friends. The social events will be one of your most memorable moments after the program.

Kate Harrison

High School Frank Maddock High School

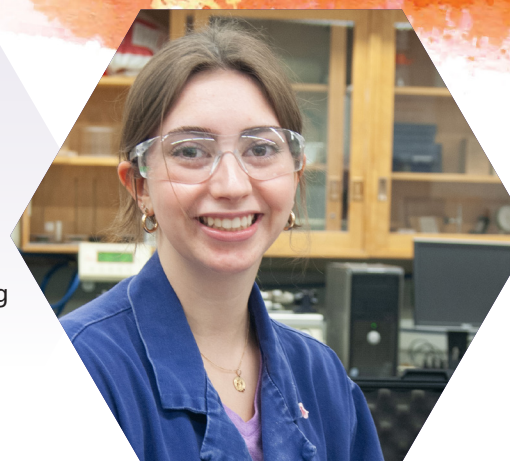
Town Drayton Valley, Alberta

Lab Placement Department of Civil & Environmental Engineering, Faculty of Engineering

Project Title Kaolin Clay as an Analogue for Oil Sands Tailings Ponds Reclamation

Final Project <https://doi.org/10.7939/r3-5914-sr04>

Supporter Syncrude, Canada Summer Jobs and Beier Lab

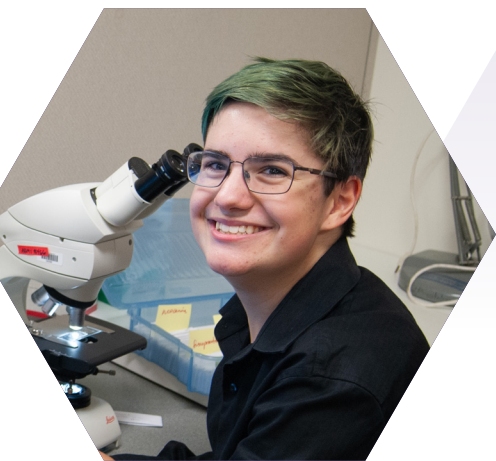


Describe your favourite social event. Why was this your favourite?

There were so many fantastic social events and I had a blast at all of them, but I think the karaoke and games night was hilarious. I loved watching everyone loosen up and step outside of their comfort zone to have fun, I spent half the night laughing.

What was the Celebration of Research and/or the See Ya Later like for you?

The COR was indescribable. I felt so responsible, proud of myself and my journey, but also sad to leave my community I'd spent so long building. I felt really grateful to have found a support system, and it was difficult to let it go. The COR overall taught me so much about myself, what I can accomplish, and the true capacity of others to be genuine and happy for one another.



Teren Hazzard

High School Salisbury Composite High School

Town Sherwood Park, Alberta

Lab Placement Alberta Biodiversity Monitoring Institute, Faculty of Science

Project Title Spot the difference: Can physical traits replace DNA to identify Peltigera lichens?

Final Project <https://doi.org/10.7939/r3-yfkd-mz19>

Supporter Beta Sigma Phi and Canada Summer Jobs

Describe a panel or networking session that had a profound impact on you and your STEM trajectory.

The 2SLGBTQIA+ panel was the most impactful panel for me. For the first time I saw queer people as an important and active part of STEM. I saw an environment that I could thrive in as myself.

What is something you want future SRP students to know?

Just do it. Apply to the Summer Research Program even if you don't think you're good enough. I promise you that you are and everyone is going to love you.

Michelle Jiang

High School Lillian Osborne High School/UWC Pearson College

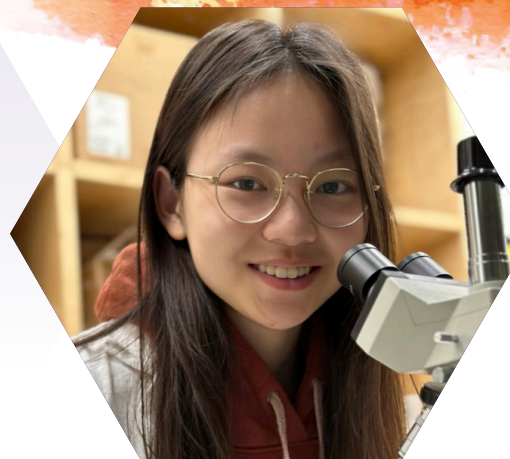
Town Edmonton, Alberta

Lab Placement Department of Renewable Resources, Faculty of Science

Project Title Assessing Toxicity Test Protocol of *Folsomia Candida* (Springtail) on Reclamation Soil

Final Project <https://doi.org/10.7939/r3-mheh-3w64>

Supporter Syncrude and Canada Summer Jobs



Describe how you felt during orientation vs. how you feel now.

To be honest, during orientation my mind was plagued with crazy amounts of self-doubt: “What am I doing here when my other smarter, cooler, more-talented friends aren’t?” But now, I’ve learned to prove my doubts wrong. I am meant to be here and everyone at WISEST has helped me get rid of those doubts.

Describe the impact finding a like-minded community had for you.

The amount of support and encouragement that all of us have for each other is truly transcendent. Our cohort has so many different people together, but we’re all united in our curiosity and our love for STEM. I made some unforgettable memories and I’ve loved every second of it.



Ashlyn Joseph

High School Centre For Learning @ Home

Town Edmonton, Alberta

Lab Placement Department of Biological Sciences, Faculty of Science

Project Title The Shape of Beetles: Analyzing Sexual Dimorphisms in Mountain Pine Beetle Using Geometric Morphometrics

Final Project <https://doi.org/10.7939/r3-b6ca-yg36>

Supporter Rotary Glenora and Canada Summer Jobs

Describe how you felt when you were accepted into the program. How has that changed throughout the program?

When I first found out I was accepted into the program, I felt overwhelming excitement and joy, but lingering behind my initial feelings were doubts that I wasn’t smart or capable enough. While my excitement only grew throughout the program, my initial worries all disappeared.

What is something you want future SRP students to know?

Something I would like future SRP students to know is that you should not feel afraid or embarrassed to ask questions. Your lab team and the WISEST staff are here to help you on this once-in-a-lifetime experience. Don’t waste this incredible opportunity feeling like you aren’t good enough to be here, because you are!

Abigail Karbonik

High School Archbishop Macdonald

Town Sherwood Park, Alberta

Lab Placement Department of Chemical & Materials Engineering, Faculty of Engineering

Project Title Using statistical analysis and literature review to identify temporal patterns of incident occurrence and trades in the construction industry

Final Project <https://doi.org/10.7939/r3-mgya-2514>

Supporter Canada Summer Jobs and Lefsrud Lab

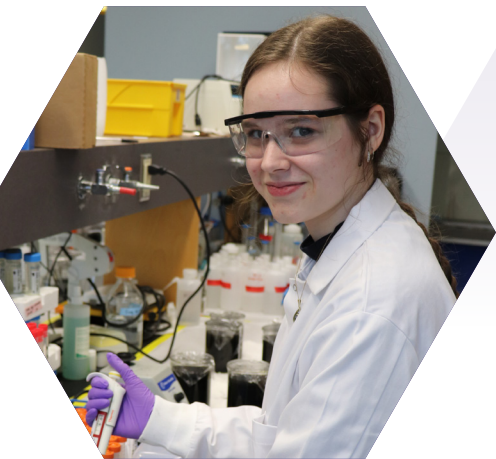


Describe your favourite social event. Why was this your favourite?

By far the SRP Paint Night! Put a bunch of science loving people in a room with some paint, and what do you get? Some pretty alright paintings, but more importantly, friendships that are much stronger than when you started, all because of an amazing time spent together.

Talk about another part of the program that was meaningful to you.

I was able to connect with so many different people in fields that I'm interested in, and hear first hand what their experiences have been like, which is something that I haven't found anywhere else. WISEST gave us the opportunity to find out what our future might look like, and never failed in encouraging us to keep exploring that.



Amy Kingston

High School HJ Cody High School

Town Sylvan Lake, Alberta

Lab Placement Department of Earth and Atmospheric Sciences, Faculty of Science

Project Title Analyzing the Composition and Nitrogen Isotope Concentrations of a Paleoproterozoic Era Banded Iron Formation

Final Project <https://doi.org/10.7939/r3-x6cq-3t18>

Supporter Beta Sigma Phi and Canada Summer Jobs

Tell us about your favourite tour (lab or industry) and why it stood out for you.

My favourite tour was to the Animal Cognition Research Group. I have always been interested in animal cognition, so getting to speak to people doing that kind of work was really valuable.

What was the best part about residence?

Getting to walk out your door and see a bunch of people who are friendly and want to get to know you and hang out everytime you come back from work.

Paulene Jam Mendoza

High School Dr. Anne Anderson High School

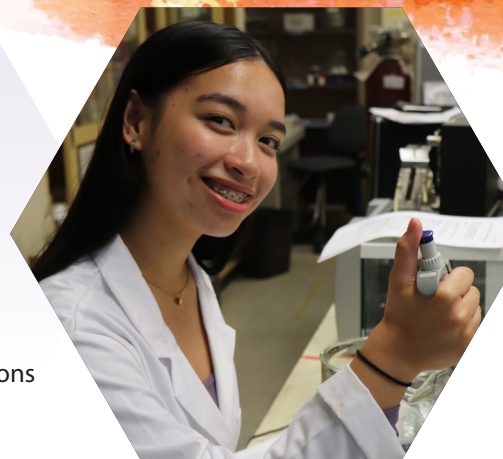
Town Edmonton, Alberta

Lab Placement Department of Renewable Resources, Faculty of Agricultural, Life & Environmental Sciences

Project Title The Effects of Struvite Fertilizer on Wheat Growth & Greenhouse Gas Emissions

Final Project <https://doi.org/10.7939/r3-nqtk-fk34>

Supporter Women & Gender Equality Canada, Canada Summer Jobs



Describe the impact finding a like-minded community had for you.

Finding a like-minded community during the summer of my last high school year was so impactful as it helped me establish long lasting relationships with my peers. Knowing that I am accepted in a place where I can speak about my passion for STEM is something that I had always yearned for! This community is so supportive and encouraging of my academic pursuits, and I am so thankful to have found companions like them.

What is something you want future SRP students to know?

One piece of advice I would give to next year's SRP students is to come into the program with confidence and an open mind. You will come across numerous inspiring role models in STEM and it is okay to be interested in a field that you may have not even heard of prior to the program. Ask a lot of questions and do not be afraid of not knowing what everything is as your lab team, PI and supervisor understand that you are still a high school student.



Char Mikes

High School Strathcona High School

Town Edmonton, Alberta

Lab Placement Department of Civil & Environmental Engineering, Faculty of Engineering

Project Title Cementing Our Understanding of Concrete: Using Machine Learning Methods to Predict the Uniaxial Compressive Strength of Cement-Based Mixtures for Mining Applications

Final Project <https://doi.org/10.7939/r3-br1r-w679>

Supporter Motorola and Canada Summer Jobs

Describe how you felt during orientation vs. how you feel now.

During the orientation, the university campus seemed so big and the amount of people was frankly overwhelming. But after six weeks, I know most people in the program and I also know my way around the campus. I feel so much more comfortable and confident than I ever thought I could at orientation.

What was the Celebration of Research and/or the See Ya Later like for you?

At the COR, I heard so many people saying "I didn't know anything about this 6 weeks ago" and yet they had managed to create posters and teach so many people something new. Obviously the ending is sad, but it was also a reminder of how amazing everyone is and how exciting moving on and starting new things will be.

Ayah Mohieldein

High School TEMPO School

Town Edmonton, Alberta

Lab Placement Department of Chemical & Materials Engineering, Faculty of Engineering

Project Title Nickel for Your Thoughts: Nickel Nanowire Ink Synthesis

Final Project <https://doi.org/10.7939/r3-xkez-g627>

Supporter Motorola



Describe your favourite social event. Why was this your favourite?

My favourite social event was paint night for a variety of reasons. It was towards the beginning of the program which made it the perfect opportunity to get to know my peers through chatting, playing games, and giving each other feedback on our paintings. All in all, it was an excellent destresser, and a good time!

Tell us about your favourite tour (lab or industry) and why it stood out for you.

The Gilead Tour was by far my favourite because it reflected my interests exactly. In university, I want to study both chemistry and pharmacology, and this tour provided the perfect exposure to both these fields, truly solidifying my interests. I had the opportunity to ask many questions, and the entire time my peers were telling me "Ayah, this tour was made for you"!



Amira Noseir

High School Edmonton Islamic Academy

Town Edmonton, Alberta

Lab Placement School of Public Health

Project Title Investigating Associations between PM 2.5 Exposure and Adverse Birth Outcomes within Alberta's Pregnant Population

Final Project <https://doi.org/10.7939/r3-e7rk-1021>

Supporter Alberta Government

Describe how you felt when you were accepted into the program. How has that changed throughout the program?

I was thrilled and felt accomplished when I learned that I had been accepted into the WISEST summer research program. As the program went on, my initial enthusiasm changed into a deeper feeling of interest and tenacity as I worked with mentors, conducted practical research, and dug into challenging scientific ideas. The experience has enriched my knowledge and encouraged my love of STEM, making me a more confident and determined individual.

Say thank you to someone who had an impact on you this summer.

I want to thank all the incredible people who made this summer truly unforgettable. To my PI Dr. Shelby Yamamoto and my supervisor Sammy Lowe, your guidance and expertise have been instrumental in shaping my research journey and broadening my horizons. To my fellow SRP students, we have been together from day 1 figuring it all out and our shared enthusiasm has created a supportive community that I am honored to be a part of. To the organizers and staff, your hard work and dedication has created a nurturing environment where learning and growth thrive. Thank you everyone for your knowledge, friendship and memories that will forever hold a special place in my heart.

Onyinyechi Okoro

High School Westwood Community High School

Town Fort McMurray, Alberta

Lab Placement Department of Physics, Faculty of Science

Project Title Probing the origin of RNase resistance in viral xrRNAs

Final Project <https://doi.org/10.7939/r3-ks4f-tx09>

Supporter Women & Gender Equality Canada and Syncrude



Describe your research and project in 5 sentences or less.

My project was on the unique RNA structure of flaviviruses, and their resistance to exoribonuclease, an enzyme in your body responsible for digesting viral RNA. Because of this resistance, the exoribonuclease cannot fully break down these viruses in your body and instead digest them into small fragments that can spread easier and accumulate throughout your body which will cause cell death. To prevent this, my research was on studying the regions in the exoribonuclease-resistant RNA(xrRNA) structures that

are responsible for the resistance and how to disrupt these regions when developing potential drugs for these viruses

What was the best part about residence?

The best part of living in residence was the ability to experience the big city with other people from rural areas while having a sense of independence. Being from Fort McMurray, living in Edmonton was a big change and I loved it. It was a huge part of the program for me and is definitely something I will miss.



Olivia Paauw

High School Western Canada High School

Town Calgary, Alberta

Lab Placement Department of Civil & Environmental Engineering, Faculty of Engineering

Project Title Using System Modelling to Forecast Housing Demand in Egypt and Assess Sustainability

Final Project <https://doi.org/10.7939/r3-mfcp-j251>

Supporter Motorola and Canada Summer Jobs

Describe a panel or networking session that had a profound impact on you and your STEM trajectory.

I walked into the networking event unsure about my future and whether I was good enough to pursue STEM. One of the WISEST alumni was just like me and had gone into mechanical engineering, so she told me all about the incredible things she's done with Alberta SAT in aerospace. She affirmed my aspirations by telling me how she overcame her own self doubt and how I could too, showing me that I was capable of taking on engineering.

What is something you want future SRP students to know?

To all you future SRP students, I know it will sound redundant, but this truly is the experience of a lifetime. I didn't understand what that meant until the end of the program, when I could see how much both myself and my sense of self had evolved, but it really is true. The friendships you make will be like no other, the connections you make are priceless and the research you conduct will lead you with an incredible sense of worth and accomplishment.

Elizabeth Pawliuk

High School South Kamloops Secondary School

Town Kamloops, British Columbia

Lab Placement Department of Mechanical Engineering, Faculty of Engineering

Project Title Braided Composite Music Stand

Final Project <https://doi.org/10.7939/r3-c7wy-q114>

Supporter Process Solutions and Canada Summer Jobs and Carey Lab



Tell us about your favourite tour (lab or industry) and why it stood out for you

I really enjoyed the Syncrude tour because I learned a lot about topics I had never really heard about before. I learned a lot about land reclamation and geotechnical engineering.

Say thank you to someone who had an impact on you this summer.

I would like to thank all my supervisors for all of their help over the summer. I would not have been able to do this without them and they made the whole experience so fun! I hope my team in the future has the great dynamic that they do.



Maddalena Rodriguez Signorini

High School Glenmary

Town Grimshaw, Alberta

Lab Placement Department of Agriculture, Food and Nutritional Science. Faculty of Agricultural, Life & Environmental Sciences

Project Title The effects of humalite on water infiltration and SPAD

Final Project <https://doi.org/10.7939/r3-hdhj-7594>

Supporter International Paper and Canada Summer Jobs

Describe a Professional Development session that you gained new insight or learned from. What will you take away from it into the future?

I found the Group Norms and Communication Styles PD session to be very helpful. My takeaway was to better understand how I work personally and my core values. If I know how I work and my values, I will be better suited to communicate to others.

Describe the impact finding a like-minded community had for you.

The only time I felt sad was when I was saying goodbye. Before this I had not realized how much these people would matter to me. This community was so easy to welcome me and make me feel heard. They helped me realize parts of myself and made me feel like I really mattered. They were some of the kindest people I've ever met.

Cinta Maria Shaji

High School Holy Trinity Catholic High School

Town Edmonton, Alberta

Lab Placement Department of Psychology, Faculty of Science

Project Title Sex differences in the visual lateralization of black-capped chickadees in a rescue paradigm

Final Project <https://doi.org/10.7939/r3-6rkg-6r10>

Supporter Women & Gender Equality Canada, Canada Summer Jobs



Describe how you felt when you were accepted into the program. How has that changed throughout the program?

Throughout the program, my feelings evolved from initial excitement and nervousness to a more nuanced mix of emotions. The challenges and learning experiences shaped me to be a more resilient and adaptable person. I gained confidence in my abilities, developed a growth mindset, and formed meaningful relationships with mentors and peers. The program has been a transformative journey, and I am grateful for the opportunities it has given me to learn, grow and contribute.

Describe your favourite social event. Why was this your favourite?

My favourite social event was board games and karaoke night. That night was my favourite because it filled me with laughter, and the comforting presence of peers helped it become an unforgettable night. With our favourite games, we embraced friendly competition and teased each other with good-natured banter. As the night progressed, the makeshift stage became a centre of musical expression as people took turns belting out their favourite tunes, backed by the cheers and applause of an enthusiastic audience. The atmosphere was filled with joy, friendship and memories as this unforgettable evening strengthened bonds of friendship and created a collection of stories to cherish for years to come.



Bayan Shayeb

High School Old Scona Academic

Town Edmonton, Alberta

Lab Placement Department of Computing Science, Faculty of Science

Project Title Creating a Tier 3 Word List for Computer Science

Final Project <https://doi.org/10.7939/r3-640x-c323>

Supporter Motorola and Canada Summer Jobs

Describe how you felt during orientation vs. how you feel now.

During Orientation, I was scared. I didn't think I would be capable of actually conducting research well, and I was worried that I wouldn't be able to actually make any connections with my peers. Now that I have completed the program, those fears have been proven wrong. I now feel much more confident in my research abilities, especially

considering that I have finished a poster, and I have forged friendships that I know will last a very long time.

Talk about a part of the program that was meaningful to you.

Although this may seem very minuscule, a meaningful part of the program for me was sitting by the CCIS Starbucks with other students before PDs. I always found myself sitting with someone new, and I've found that most of my friendships with other students began there.

Anya Smillie

High School Ecole Sir John Franklin High School

Town Yellowknife, Northwest Territories

Lab Placement Department of Biological Sciences, Faculty of Science

Project Title Variation in bird song over a 24- hour period

Final Project <https://doi.org/10.7939/r3-w8dx-h605>

Supporter Syncrude and Bayne Lab and Canada Summer Jobs



Describe the impact finding a like-minded community had for you.

It really gave me a sense of hope for our future, I often felt alone and like I was one of the only people who felt a sense of joy at every fun STEM fact. Through meeting all these different people I really saw how much passion people really have for their fields, and how much they care about the future of STEM. I learned that there are others who love STEM and who care as much as I do, I learned I'm not alone.

What was the Celebration of Research and/or the See Ya Later like for you?

The celebration of research was absolutely incredible, it gave me a chance to really demonstrate how much work I've put in. Looking around at all my peers that I had grown close to standing proud next to their poster, it really hit me how much we had all grown and how much we had learned. I realized that I did actually know what I was talking about and that I could answer most questions with ease.



Jaime Smith

High School Strathmore High School

Town Strathmore, Alberta

Lab Placement Department of Agriculture, Food and Nutritional Science, Faculty of Agricultural, Life & Environmental Sciences

Project Title Variations in Leaf Characteristics Among Different Genetic Lines of Canola Plants

Final Project <https://doi.org/10.7939/r3-01pk-pn89>

Supporter Alberta Government

Talk about a part of the program that was meaningful to you.

Specifically, the mentorship that I received from my PI was incredibly meaningful to me as well as all the mentorship and advice I got from the other brilliant minds that were surrounding me. I was able to be around and talk to so many brilliant people that I knew had my best interests at heart and that alone was so encouraging and made me increasingly positive towards my future in STEM as well as the future of the world.

What is something you want future SRP students to know?

Although this might seem daunting, you just have to throw yourself into it. Whether that be the social events, the PD sessions, or the research, experience the program to the fullest that you can. Enjoy the opportunity and have fun.

Alena Wang

High School Hunting Hills High School

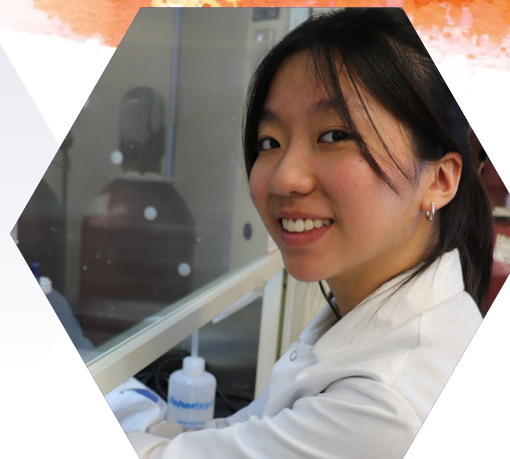
Town Red Deer, Alberta

Lab Placement Department of Renewable Resources, Faculty of Agricultural, Life & Environmental Sciences

Project Title Investigating the Stability of Carbon in Soils to Observe the Effect of No Tillage Over a Period of Twenty Years

Final Project <https://doi.org/10.7939/r3-g222-we25>

Supporter Alberta Government



Tell us about your favourite tour (lab or industry) and why it stood out for you.

My favourite tour was the Lindsey Leblanc lab tour, because I am actually quite interested in quantum physics. I thought all the equipment was so cool and it was crazy to me how there were actual people right here in Alberta studying quantum science! The person who gave us the tour was also very nice and answered all our questions diligently.

What was the best part about residence?

The best part about residence was the way in which we formed a family. I came home every day to these people and, because of that, my love for them was so deep. The memories we made were genuine and cherished. I'm so grateful to have gone through that experience..



Hannah Wiens

High School Peace Wapiti Academy

Town Bezanson, Alberta

Lab Placement Department of Mechanical Engineering, Faculty of Engineering

Project Title A Day in the Demographics of Mechanical Engineering: Analyzing Data with MatLab

Final Project <https://doi.org/10.7939/r3-smgx-an75>

Supporter International Paper and Canada Summer Jobs

Describe your favourite social event. Why was this your favourite?

Overall, my favourite social event was the Computer Science Mixer. The mixer was a panel featuring computer science university students where we could ask them anything about the software field. This event was irreplaceable because it gave me the chance to ask questions about my dream job. The testament of those students allowed me to picture what life was like in that career and create a plan as to how I would pursue these aspirations.

Tell us something fun, interesting, or impactful about your SRP experience.

The SRP has an experience and answer for everything. Throughout the program, we got to meet and ask questions to many professionals in STEM. No matter how specific, you can get an answer from someone experienced in what you dream of being.

Danica Worries

High School Sexsmith Secondary School

Town Sexsmith, Alberta

Lab Placement Department of Biochemistry, Faculty of Medicine and Dentistry

Project Title Evaluating the acquisition of antibodies against a VAR2CSA peptide in malarial-exposed populations

Final Project <https://doi.org/10.7939/r3-6jza-cm10>

Supporter Alberta Government

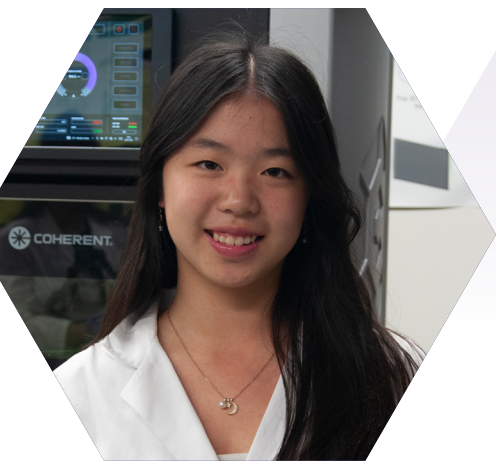


Describe how you felt when you were accepted into the program. How has that changed throughout the program?

While acceptance into the program was exciting, I primarily felt nervous and anxious about my ability to perform the roles and responsibilities I would have. This dissipated over the summer. I've grown in my confidence, in my understanding of my capabilities, in my ability to conquer my fears, and in my ability to take on daunting tasks

Describe the impact finding a like-minded community had for you.

I had never grasped the full impact that growing up in a rural, trade focused, and small community had on me before the SRP. From lack of resources to opinion differences, I have often felt unsupported. The program was an opportunity for me to take in the passion that my peers have for STEM and have meaningful discussions on their unique perspectives.



Jady Xu

High School Old Scona Academic

Town Edmonton, Alberta

Lab Placement Department of Mechanical Engineering, Faculty of Engineering

Project Title Efficient Water Filtration through Laser Powder Bed Fusion Fabricated Porous Filters

Final Project <https://doi.org/10.7939/r3-w78h-px81>

Supporter Motorola and Canada Summer Jobs

Describe your favourite social event. Why was this your favourite?

Without a doubt, my favorite social event would be the "See Ya Later" which was the farewell night before our Celebration of Research. From heartfelt speeches that moved us to tears to recalling the chaotic jeopardy night, that night encapsulated the rollercoaster of emotions experienced in the past 6 weeks. The sense of community that was fostered could be felt, making it an unforgettable night.

What is something you want future SRP students to know?

Remember, this summer is bound to be unforgettable, so make each moment count. Be yourself, enjoy every event, and create lasting connections with the cohort. The road ahead is uniquely yours and it's up to you to make this experience truly remarkable.

Hannah Yu

High School M.E LaZerte

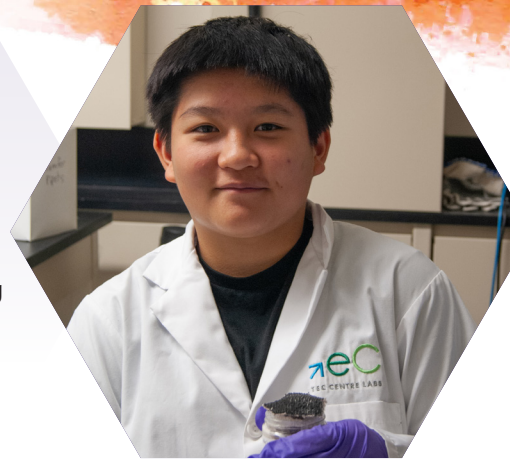
Town Edmonton, Alberta

Lab Placement Department of Chemical & Materials Engineering, Faculty of Engineering

Project Title Interfacial evaporation of waste water under solar irradiation

Final Project <https://doi.org/10.7939/r3-g5e2-sh25>

Supporter Beta Sigma Phi, Canada Summer Jobs and Zhang Lab



Tell us about your favourite tour (lab or industry) and why it stood out for you.

My favorite lab tour was when I went to PCL Construction Fabrication Shop in Nisku. It stood out to me because it is by far the biggest shop I have seen in person. This also made me realize even if you decide that you are not sure about STEM, the WISEST staff will do their best to help you build connections with people that can help you do whatever you are interested in.

Describe your research and project.

I researched solar inter facial evaporation. There has always been a shortage of clean water, and this technology is more effective along with using clean energy. It is more effective because the evaporation happens on the surface by focusing the heat instead of letting it be spread out through the whole volume.