



Molecular Genetics
UNIVERSITY OF TORONTO

CAREER DEVELOPMENT RESOURCES

MOLECULARGENETICS.UTORONTO.CA

MOGEN STUDENTS

Your interest in exploring careers is great!

In this booklet, we collected a series of resources for you:

- We gathered information from the 2022 **Career Outcomes Project** to show you what MoGen graduates have gone on to do in the past (pages 3-7). Use the listed job titles and employers to inspire your LinkedIn search when you look for mentors, or to filter and browse through job listings. I think it is fascinating to see how many different possibilities there are!
- We prepared infographics to assist you in your career exploration. The first step we recommend is to create your **IDP** (page 8), an individual development plan. Use our career outcomes data to search for people in roles that you identify that are of interest to you, reach out to them (**Cold Emailing Guide** page 9) and ask them for an **Informational Interview** (page 10) or a **Coffee Chat** (article on page 13) and ask your **Career Exploration Questions** (list on page 16). Polish your **LinkedIn** profile (page 11) and update your **CV/Resume** (page 12). And for more suggestions, read the article about **Exploring your Career Options** (page 17).

It is an honour to support you on this exciting path of career exploration, let's navigate the many opportunities you have together!

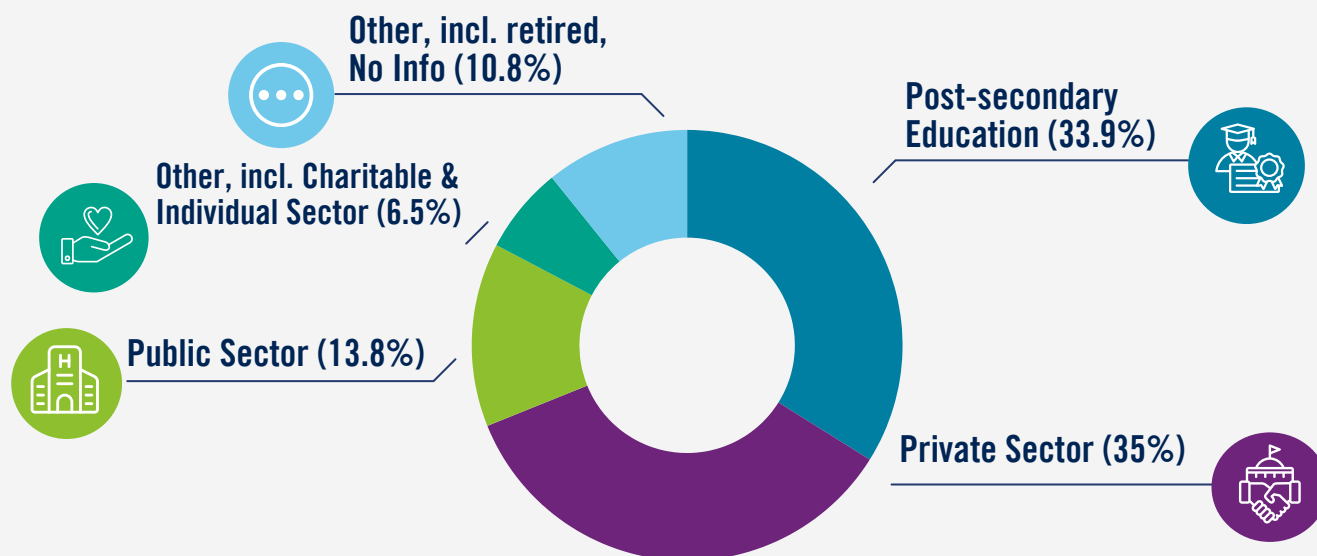
Dr. Martina Steiner,
Coordinator for Communications,
Careers and Alumni Relations at the
Department of Molecular Genetics

MOGEN CAREER OUTCOMES

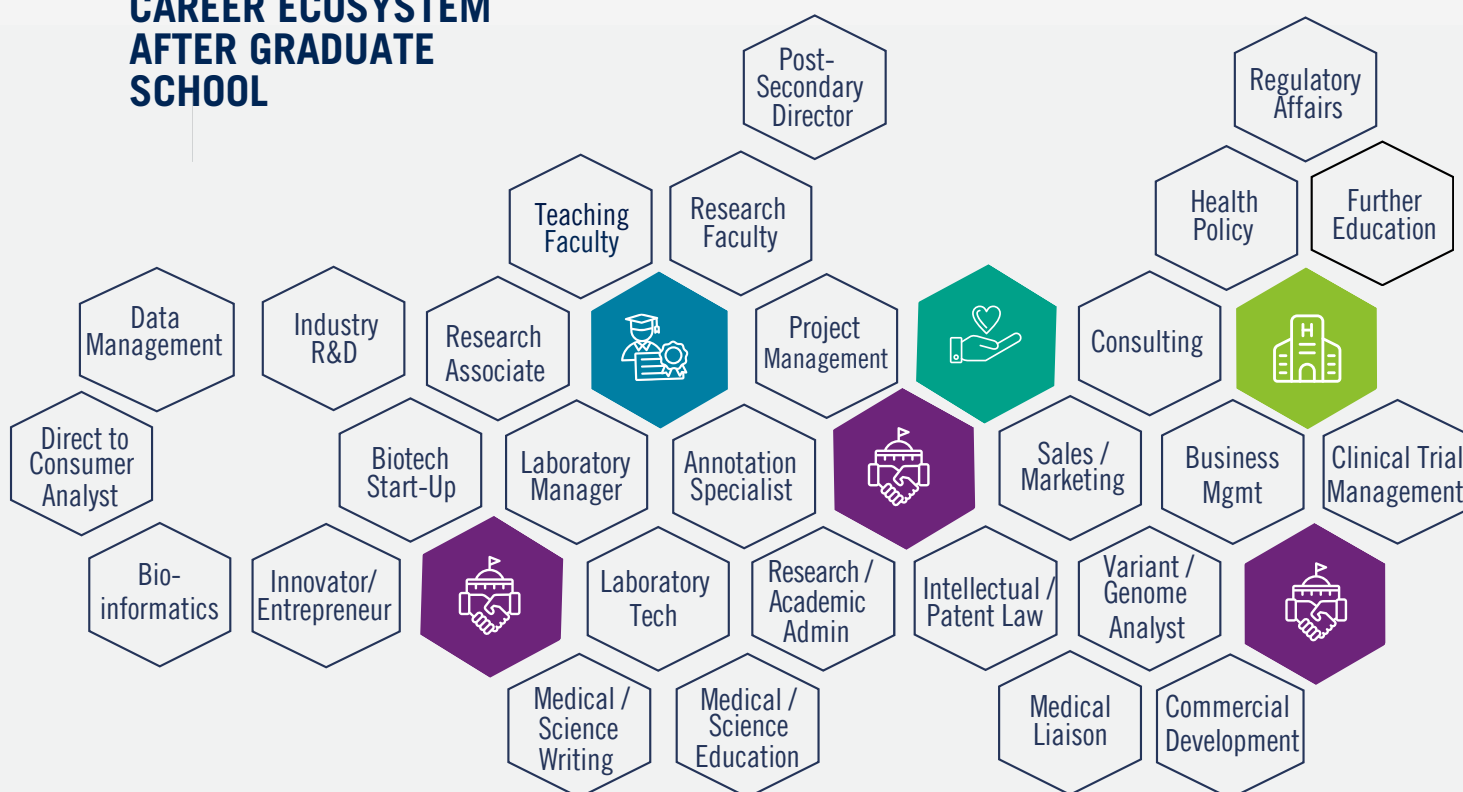
The charts below analyze the employment status of 492 Molecular Genetics PhD graduates from U of T between 2000 and 2021 using open-access data sources collated for the 2022 Career Outcomes Project.

<https://www.sgs.utoronto.ca/about/explore-our-data/career-outcomes/>

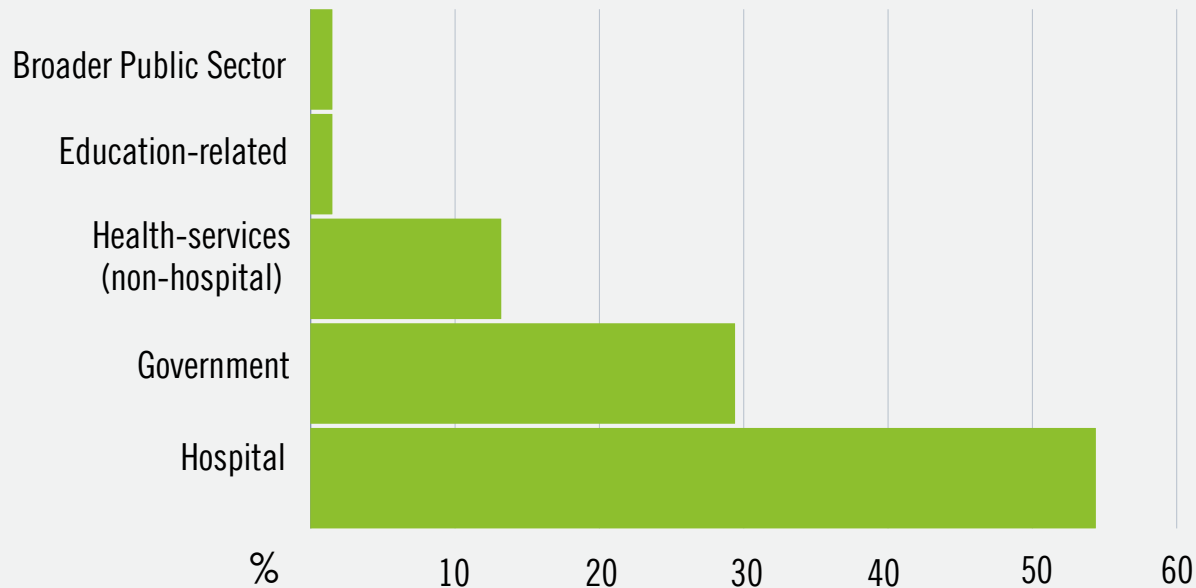
EMPLOYMENT OUTCOMES



CAREER ECOSYSTEM AFTER GRADUATE SCHOOL

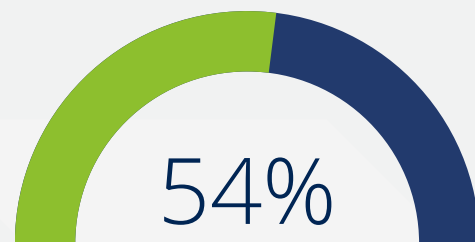


PUBLIC SECTOR



SAMPLE CAREERS

Research Associate, Research Fellow, Family Physician, Research Scientist, Affiliate Scientist, Clinical Biochemist, Clinician Scientist, Director of Research, Internal Medicine Physician, Lab Research Project Manager, Research Program Manager, Research Scientist, Scientific Review Officer, Sector Analyst, Senior Compliance Officer, Senior Policy Advisor, Senior Scientist, Senior Research Fellow

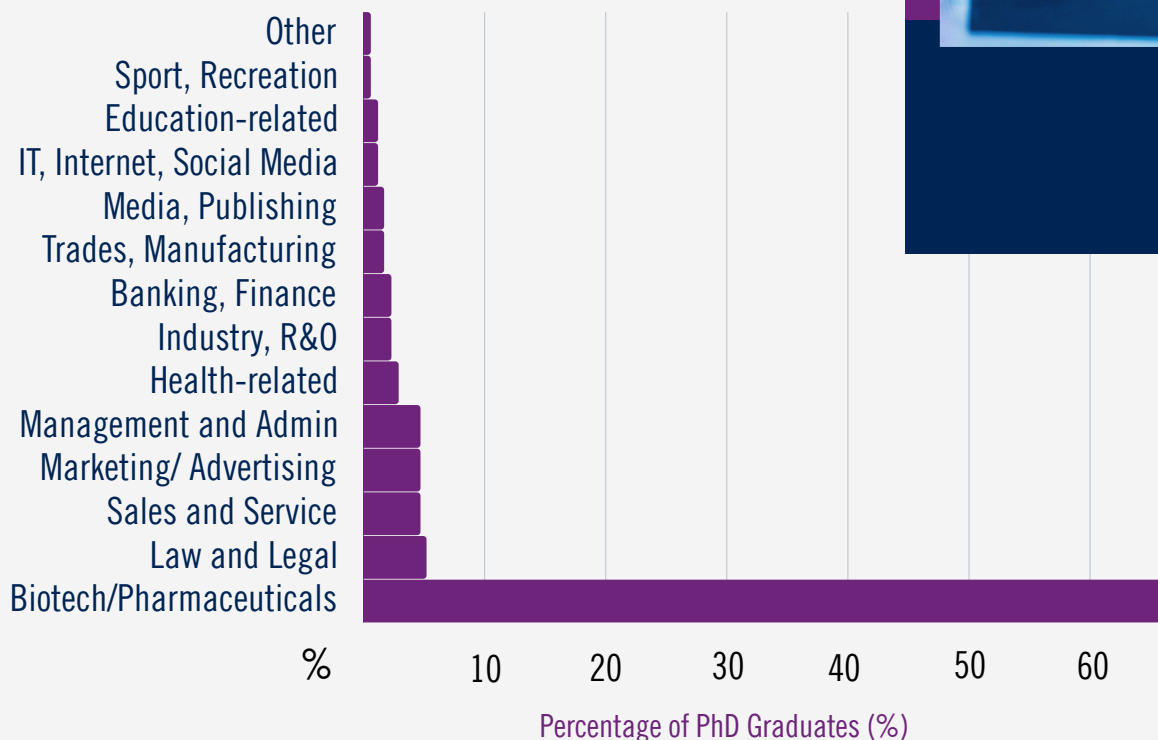


In the Public Sector, 54% of MoGen graduates are working in hospitals.

SAMPLE EMPLOYERS

UHN, Hospital for Sick Children, TDSB, CAMH, St. Michael's Hospital, Government of Ontario, Health Canada, Sunnybrook Health Sciences Centre, Mount Sinai Hospital, National Research Council Canada

PRIVATE INDUSTRY

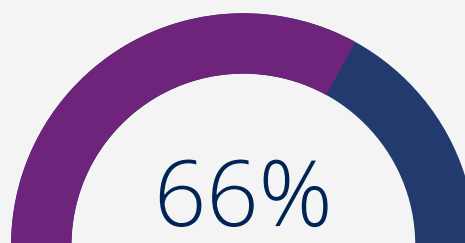


SAMPLE CAREERS

Senior Scientist, Research Scientist, Scientist, Associate, Consultant, Senior Medical Writer, Staff Scientist, Analyst, Application Specialist, Associate Attorney, Associate Director, Associate Manager, Business Development Manager, Director Marketing and Education, Data Scientist, Lead Medical Editor, Medical Advisor, Medical Writer, Patent Scientist, Product Development Scientist, Project Manager, Regulatory Affairs Associate, Science Writer, Scientific Account Manager, Senior Development Scientist, Technical Advisor, VP Operations

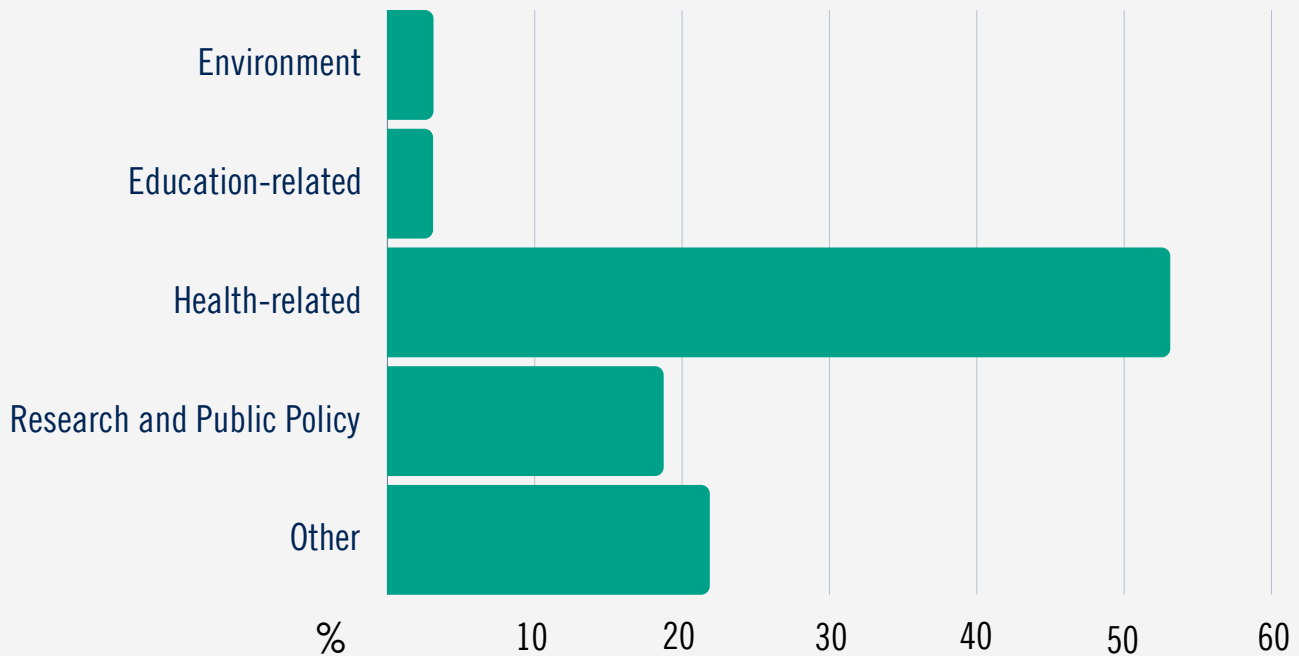
SAMPLE EMPLOYERS

Sanofi Pasteur, Eli Lilly and Company, Bereskin & Parr LLP, Elsevier, Janssen, Klick Inc, Luminex Corporation, The Boston Consulting Group, Affinergy LLC, Alexion Pharmaceuticals Inc, Apobiologix, AstraZeneca, ATCO Group, Aviv Innovation, Aviva Canada, Cipher Pharmaceuticals Inc, Genedata, Genentech, GlaxoSmithKline



66% of MoGen graduates in private industry are employed by a pharmaceutical company.

INDIVIDUAL AND CHARITABLE SECTOR



SAMPLE CAREERS IN INDIVIDUAL & CHARITABLE SECTOR

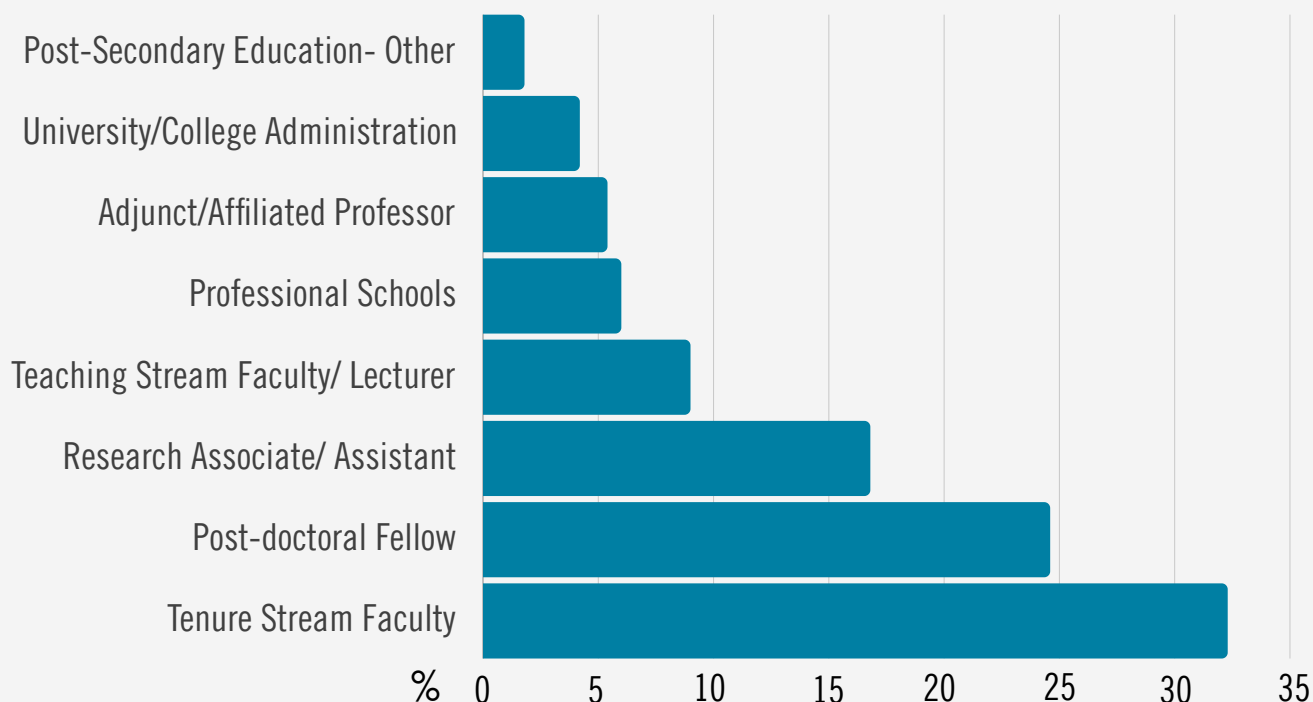
Assistant Director Science, Associate Director, Communications Officer, Fellow, Principal Investigator, Intellectual Property Manager, Research Programs Lead, Manager of Research and Business Development, Scientific Associate, Staff Scientist, Senior Manager of Research Communications, Vice-President, Independent Consultant, Independent Scientific Editor

SAMPLE EMPLOYERS IN CHARITABLE SECTOR

MaRS, Ontario Institute for Cancer Research, Ontario Brain Institute, Centre for Commercialization of Regenerative Medicine, Mayo Clinic, Canadian Cancer Society, Institute for Work & Health, Max Planck Institutes, Ontario Genomics Institute, Royal Ontario Museum, Buck Institute for Research on Aging, Canadian Cancer Society, Canadian Institute for Advanced Research, Cold Spring Harbor Laboratory, Masomo for Children, RTI International, Zebrafish Resource Centre



POST-SECONDARY SECTOR



SAMPLE CAREERS

Post-Doctoral Fellow, Assistant Professor, Associate Professor, Research Associate, Medical Resident, Research Scientist, Senior Research Associate, Clinical Biochemist, Clinical Biochemical Geneticist, Clinical Ethicist, Life Science Teaching Fellow, Medical Scientist

SAMPLE EMPLOYERS

University of Toronto, Stanford University, University of California, McMaster University, Hospital for Sick Children, Mount Sinai Hospital, University of British Columbia, University of Ottawa, Broad Institute, University Health Network, University of Florida, University of Guelph, University of Michigan, University of Washington, Cornell University, Harvard University, Massachusetts General Hospital



INDIVIDUAL DEVELOPMENTAL PLAN (IDP)

WHY DO AN IDP?

- Compare your skills and interests to career paths most commonly followed by life sciences graduates.
- Results are calculated based on responses provided by numerous experts working in different careers.

WHEN TO TAKE THE IDP?

- During grad school and beyond.
- Assess if your undergrad skills excite you.
- Identify the next step after grad school.
- Discover your preferred career path.

Research stream grad students complete a paper version of the IDP and discuss it with their supervisor every year in association with committee meetings. Completing a web-based IDP is highly recommended for a deeper exploration and for tailored career suggestions.



(for MSc and PhD graduates)



(for MHSc MedGen graduates)

CREATE AN IDP

1. Create your IDP at myidp.sciencecareers.org
2. Fill out the assessment and continue to the next step.
3. Under the assessment tab, click on skills assessment.
4. Then click on the next step in the top right corner.
5. Click on interests and values under the assessment tab and fill out the assessment.

Reserve around 30 mins to complete the IDP process.

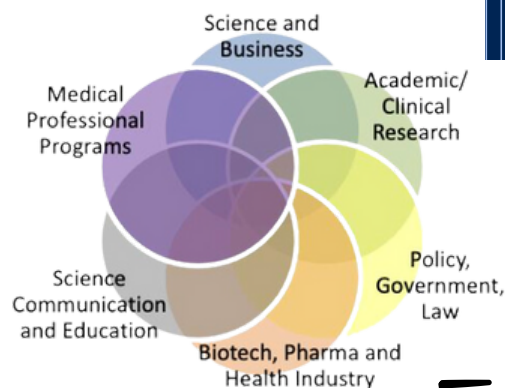
WHAT IS AN IDP?

Exercises to assess your skills, values and interests and match to career paths.

Skills: what you know, what you need

Interest: know what you like and what you don't like

Values: what you care about



RESULTS

- Top 5 suggested career paths
- List of career paths and resources for all different options and beyond!



COLD EMAILING GUIDE

Thinking of contacting and making a new connection with an organization or individual? Send a "cold email"—a crucial step in networking, partnerships, and job opportunities. Here's your guide to crafting an email to ask for an informational interview:

Sample email:

[Exploring Potential Career Path]

Be concise and clear in the subject line.

Dear [recipient],

If you are unsure of who to send this email to, the site directory is often the place to check. Otherwise, you may send an email to an administrator to ask for the correct contact.

I hope this email finds you well. My name is [Name], and I am a student at the Department of Molecular Genetics [add details]. I'm writing to you to [discuss questions I have about your role and career / schedule a meeting to discuss a topic].

Start the body of the email by explaining who you are and why you are writing.

I have [read about the work your company does/ been impressed about this recent project / read an article you wrote that was fascinating]. Because I am interested in a career in [add field], I was hoping to talk with you about [specify]. Let me know if you are available to schedule a brief call to go over a few questions, or if you'd be willing to connect me with someone else who might be able to talk with me. Looking forward to hearing back from you!

Demonstrate that you are both familiar and appreciative of the work done by the recipient. Showing a bit of insight here may set you apart from others.

Tailor this as much as possible to the person you are addressing.

Best,

[Your name]

[Affiliation]

[Contact info]

GENERAL TIPS

- Provide clear follow-up preferences, like interviews or in-person discussions.
- Don't hesitate to follow up as people may forget.
- If the current approach isn't effective, consider changing the next email.

INFORMATIONAL INTERVIEWS

An informational interview is a short conversation with someone working in a field or company that interests you, to investigate whether that position, organization, or career matches your goals.

BEFORE REACHING OUT

The success of your interview lies in preparing beforehand.

Arrange a mutually agreed time, day, and method of communication. Explore their career journey by reviewing their LinkedIn profile, personal website, resume, and other available resources to understand their career trajectory. Research their employer to gain insight into their current role and the company's mission or products. Create a list of various questions.

PREPARING FOR THE INTERVIEW

Determine what your goals will be for the conversation and tailor your questions to these goals.

Consider: Are you looking to learn about a specific career? Company? This person's career journey? Are you looking to broadly learn about a field to gauge your interest or do you want to learn specifics about their role? Are you looking to see if the skills or interests you have are compatible with a certain career path?

EXAMPLE QUESTIONS

While you should tailor your questions to each interview, you should also have a collection of standard questions you can ask.

Is your job typical of others in this field? What do you like the most and the least about your current career? What is a typical day like in your job? Are there related fields I might want to look into? What other careers did you consider pursuing? What makes a resume or CV impressive in your field? What would you recommend I do at this point to get into this field? Is there anybody else you would recommend I talk to in this field?



RESUME AND CV

TIPS FOR RESUME

Your resume is an overview of your experiences and qualifications and can help you get an interview.

- Include contact information (telephone, email, LinkedIn), and aim for 1-2 pages.
- Focus on the most relevant experiences and skills and customize them to the position and job requirements. Present as statements of context, actions, and results. Quantify accomplishments if appropriate. Include transferable skills from paid and unpaid experiences.
- Education in reverse chronological order. Include expected degree, dates of completion, previous education.
- Institution and organization names spelled out (instead of acronyms).
- Consistent formatting with headings and bullet points.

TIPS FOR CV

A curriculum vitae (CV) also provides an overview but it is a comprehensive summary of your education and experience, which is more commonly used in academic and research settings.

- Include contact information (telephone, email, LinkedIn); there is no page limit.
- Use a template for organization and emphasize your skills within the categories.
- Education listed in reverse chronological order, including expected degree, other degrees, certifications, relevant coursework, dates of completion, and institutions.
- Research experience, teaching experience, industry experience, professional experience.
- Professional memberships (include the positions you held).
- Presentations and publications you authored.
- Title and a short description of your dissertation.
- Fellowships, awards, etc. (include the date and monetary amount if relevant).
- Triple-check the spelling.
- Get feedback from others.

Coffee Chats Aren't Scary (Or Hard!)

Written by May Nguyen, Molecular Genetics MSc Candidate

I went from trembling at the thought of asking a coworker for a coffee chat to speaking with a company's vice president. It wasn't an overnight transformation. With over 100 coffee chats, I learned invaluable lessons that could help anyone become a better networker.

What are coffee chats and informational interviews?

'Coffee chats' and 'informational interviews' are often used interchangeably to describe networking conversations for gathering career information. Coffee chats are typically more casual and geared towards networking, whereas informational interviews are generally more structured and focused on answering questions about a role, industry, or company. Although slightly different, I've found that it's less intimidating to approach professionals for informational interviews by thinking of them as coffee chats and the tips in this article are applicable to both.

Why should you conduct coffee chats?

1) It leads to opportunities

Coffee chats are an easy way to network and can lead to job offers, collaborations, mentorships, or important connections. These connections can be leveraged in the future for referrals, advice, or insights. My intention with most coffee chats was only to hear about the person's experiences, but surprisingly, these chats have led to various offers of help with my job applications, mentorship opportunities, and even the occasional job offer.

2) You will gain insights and expand your perspectives

Coffee chats are a great way to learn about the jobs that you're interested in. They can help you gain insights into whether a particular role is a good fit for you, and how you could get there. I've found that how much I connect with someone's responses is quite useful in providing me with a sense of whether a role might suit me. Additionally, talking to people from different backgrounds and experiences can broaden your perspective and provide insights you might not have considered otherwise. I've had multiple conversations that have challenged my preconceived assumptions about various roles and industries!

3) You will build confidence

Regular networking can build your confidence in communicating with those that you don't know well in a professional setting. This can help in better performance in interviews, presentations, and meetings. As someone who gets quite nervous in these situations, I found that the more I networked, the more at ease I felt during these situations.

How do you set-up coffee chats?

1) Ask anyone who you are interested in talking to (it never hurts to ask!)

Many people are open to sharing their experiences and offering advice to others. Most enjoy talking about themselves and are empathetic to helping others, as they have been similarly helped in the past. I've been surprised by how many yeses I have received, even from very busy people! And if they say no, there will always be someone else with similar experiences/perspectives to talk to.

2) Make it easy for them to say yes

When asking someone for their time, be succinct but specific. Show that you have done your research and are reaching out specifically because you value their unique perspective. Mention the amount of time you need, let them choose a convenient time and location, and express gratitude. I typically ask for 30 minutes (or less if they're busy), and I've found that online video calls tend to be the most convenient.

3) Sign up for mentorship programs and networking events

Expand your network and secure your first coffee chats by signing up for mentorship programs and attending networking events. Signing up for some of the many mentorship programs offered by universities and other professional organizations is how I first started to build my network. This is a great way to start since mentors are excited to introduce you to their network! Furthermore, any participant in a networking event is eager to share their experiences with others, so take advantage of those opportunities.

4) Leverage existing connections

Start with people you already know, which can make networking less intimidating. Your existing connections can then introduce you to their contacts. LinkedIn is a great tool for finding second-degree connections and identifying people who can facilitate introductions. Also, don't be afraid to ask someone at the end of a coffee chat if they can connect you with anyone else! If you do not have someone to introduce you, I have found that leveraging a connection with someone through a shared experience (e.g. if you went to the same school or worked at the same company) makes them more likely to agree to speak with you.

5) Preparation is key to a good coffee chat

Research the person and come up with some questions beforehand, as this will allow the conversation to flow more smoothly. I mainly use LinkedIn to read their profile in depth, research their company/position, and glance at their papers if they are relevant. Also, I usually send a few questions and topics to the person before the chat, so that they know what topics I'm most eager to learn about.

What should you do **during** a coffee chat?

1) Introduce yourself

Start with a brief introduction to yourself. This provides them with some context and allows them to better understand what you want to learn.

2) Show genuine interest and curiosity

Showing a sincere interest in learning about the other person's experiences and perspectives will make them feel valued and eager to speak with you. Eye contact, body language, and thoughtful responses can show that you're listening.

3) Make it feel like a conversation

To make it feel less like an interview, ask open-ended questions whenever you can. Be flexible and sequence your questions based on connections to the previous answer.

4) Be prepared to take notes

Bring a notepad to jot down quick notes. It will show that you are engaged and help you keep track of important insights.

5) Be cognizant of time

Keep a close eye on the time, and when it's close to the allotted time, make sure to wrap things up. If the conversation is going well, they will let you know if they can keep talking or reschedule for later.

What should you do **after** a coffee chat?

1) Follow up and maintain connections

Send a quick thank-you note or follow up with something discussed during the chat to solidify the connection. Ask to connect on LinkedIn via a personalized message. Try to keep in touch with your connections, even if it's as little as interacting with their LinkedIn posts.

2) Stay organized

Keep track of your contacts by noting down their contact details, job title, when you spoke with them, and the key insights from your conversation. This will be very helpful if you need to contact them again.

I recommend using a Notion database, Excel sheet, or something similar for this.

3) Remember that it gets easier with time and practice

Initial conversations might be a bit awkward, but with each coffee chat, you'll become more confident and comfortable. Practice makes perfect, and networking is no different!

Happy Chatting!



CAREER EXPLORATION QUESTIONS

Here are example questions that you could ask a mentor during a coffee chat, an informational interview, or during the symposium round-table discussions.

PREPARING FOR YOUR CAREER

1. How do most people get into this field? What are some common career paths in this field?
2. What are the skills/ attributes/ qualifications that are most important to have success in a position in this field?
3. How do you see your role/career field changing in the next 10 years?
4. What's the best advice you'd give to someone interested in this field? What's the most important thing someone considering this field should know?
5. Can you recommend any resources (books, websites, courses, etc.) for someone interested in this role/field?
6. What degree of education is best for this job (MSc vs PhD preference, additional certification)?
7. What are some steps to succeed in getting to your current position?
8. What was the job-hunting experience for you?
9. What type of experiences do you feel best prepared you for your job?
10. How did you approach networking to help you in the field?

DESCRIBING YOUR WORK

1. What does a typical day look like in your role?
2. What are the most rewarding aspects of your job?
3. What are the challenges associated with this role/field?
4. What is the work-life balance for this job?
5. What skill set is most important to succeed in your job?

CAREER CHOICES

1. Can you tell me about your career path and what led you to the role you're in today?
2. What drew you to this field/role/specific company?
3. What didn't you know before you got into this field that you wish someone had told you? What's something surprising about this field?
4. What are some career pathways that you can go to after this role?
5. What motivated you to take this career path?
6. What career path would you have taken if you were not doing what you do now for your job?
7. How do you negotiate job offers?
8. Where was the best place to look for job openings?

How to Explore Your Career Options

Written by May Nguyen, Molecular Genetics MSc Candidate

Maybe you've always known what you wanted to do. But if you're not entirely sure (like the majority of us!), there are plenty of ways to explore your options.

1) Attend career-focused events

You're already on the right track by attending this event! There are many career-focused events in which you can gain exposure to different types of careers. These include career panels and networking events where you can learn about various roles and gain insights into different career paths. Keep an eye out for these events from departmental emails, the Folio (previously CLNx) schedule, association mailing lists (e.g. LSCDS), and LinkedIn!

2) Try out career counselling

An objective career counsellor can provide personalized guidance and help you identify your strengths, interests, and potential career paths. They will help clarify your career goals and provide you with resources and strategies for exploring career options. I've found that through only a few meetings with a career counsellor, I gained much more clarity on what I was looking for in a career. Molecular Genetics has our own career advisor, so do schedule an appointment for individualized guidance!

3) Sign up for an internship!

Programs like Mitacs and company-specific internship programs offer opportunities to gain hands-on experience in a company. Not only are these a great way to trial-run a certain role/industry, these experiences will expose you to other roles within the organization and expand your network! Personally, my internships gave me many valuable insights into my career preferences, so I highly recommend applying for one if you can.

4) Set up coffee chats

These conversations will help you gain insights into various roles and industries. Gaining firsthand information from someone working within the role will often offer a more realistic view of the day-to-day, challenges, career outlook, and more, compared to generic online research. Another benefit of these chats is that they allow you to envision what it would be like to work in that role without the commitment of setting up an internship.

5) Take career assessment tests:

Tools like the MyIDP, Strong Interest Inventory, and My Next Move's O*NET Interest Profiler (and many more!) can help identify careers that match your personality and interests. These tests will give you a structured way to reflect on your preferences and strengths and are often a good way to start if unstructured self-reflection is intimidating.

6) Do some self-reflection:

Allocate time to spend reflecting on your values, interests, and strengths to help provide clarity on what you truly want in a career. Think about what activities excite you (what gives you energy, what makes you lose track of time), what your natural talents are (what comes easily to you that doesn't for others, what you get compliments on), and what experiences made you feel most motivated or fulfilled. You can reflect on past work/volunteer experiences, projects, courses, extracurriculars, and what you do in your free time.

7) Browse career-related resources:

There are a variety of career-related resources online that can provide information about the different jobs that you could pursue post-graduation. These can be in the form of websites, blog posts, seminars, books, and more.

A good place to start is the career development resources on the Molecular Genetics website. Some local organizations that frequently share useful resources include the UHN Office of Research Trainees, the Science to Business Network (S2BN), and the Life Sciences Career Development Syndicate (LSCDS).

There are also online resources that provide lists of descriptions of potential careers such as VersatilePhD, biotech-careers.org, and the ScienceLatte Ph.D. to Industry/Non-Ac Jobs Ultimate Resource List. Additionally, there are a variety of books on the topic, one of which recommended by UofT is Kevin Kelly's "Going Alt-Ac: A Guide to Alternative Academic Careers".



8) Browse LinkedIn, job boards, and career fairs:

Browsing LinkedIn/job boards or attending career fairs can give you an idea of the types of jobs available and the qualifications needed for each job. For example, on LinkedIn you could search for a specific degree, e.g. "PhD in Molecular Genetics", click the "people" tab, and scroll through the profiles to see what type of jobs those who graduated with that degree have. You could also click a specific company's profile in your field of interest and look through the job titles of those who work there.

9) Attend workshops and online courses:

UofT provides workshops to support you with career exploration, many of which are offered through Folio (previously CLNx). Additionally, you can participate in workshops or online courses on topics that interest you to get a feel for different fields and test your enthusiasm for them. A variety of workshops and courses are hosted on websites such as LinkedInLearning, Coursera, edX, and Udemy.

10) Follow career-related podcasts and accounts on social media:

You can listen to conversations with a wide range of scientists sharing their post-graduate experiences on podcasts such as "Once A Scientist" and "PhD Career Stories". There are also a variety of social media accounts in which people share their experiences working in certain roles, career tips, and various career options. Some Instagram accounts that I recommend include: @phdonewn (PhDone, What Next?), @phd_and_then_what, @denny.the.scientist (industry-focused), @labskillsacademy (industry-focused), and @chloe.the.scientist ("Non-traditional Science Careers series").



Things to remember during the career exploration process

1) Many people don't have a linear career path:

Career journeys are often non-linear, and it's common to switch roles and industries. Knowing this reality can alleviate the pressure to find the perfect fit right away. Each role will help you understand your interests and strengths better, making it easier to find a better-fitting role next time.

2) Have patience with yourself:

Finding the right career takes time and effort. Be patient with yourself and understand that it's a process of exploration that may involve trial and error, much like our own graduate school projects!

3) Be open-minded:

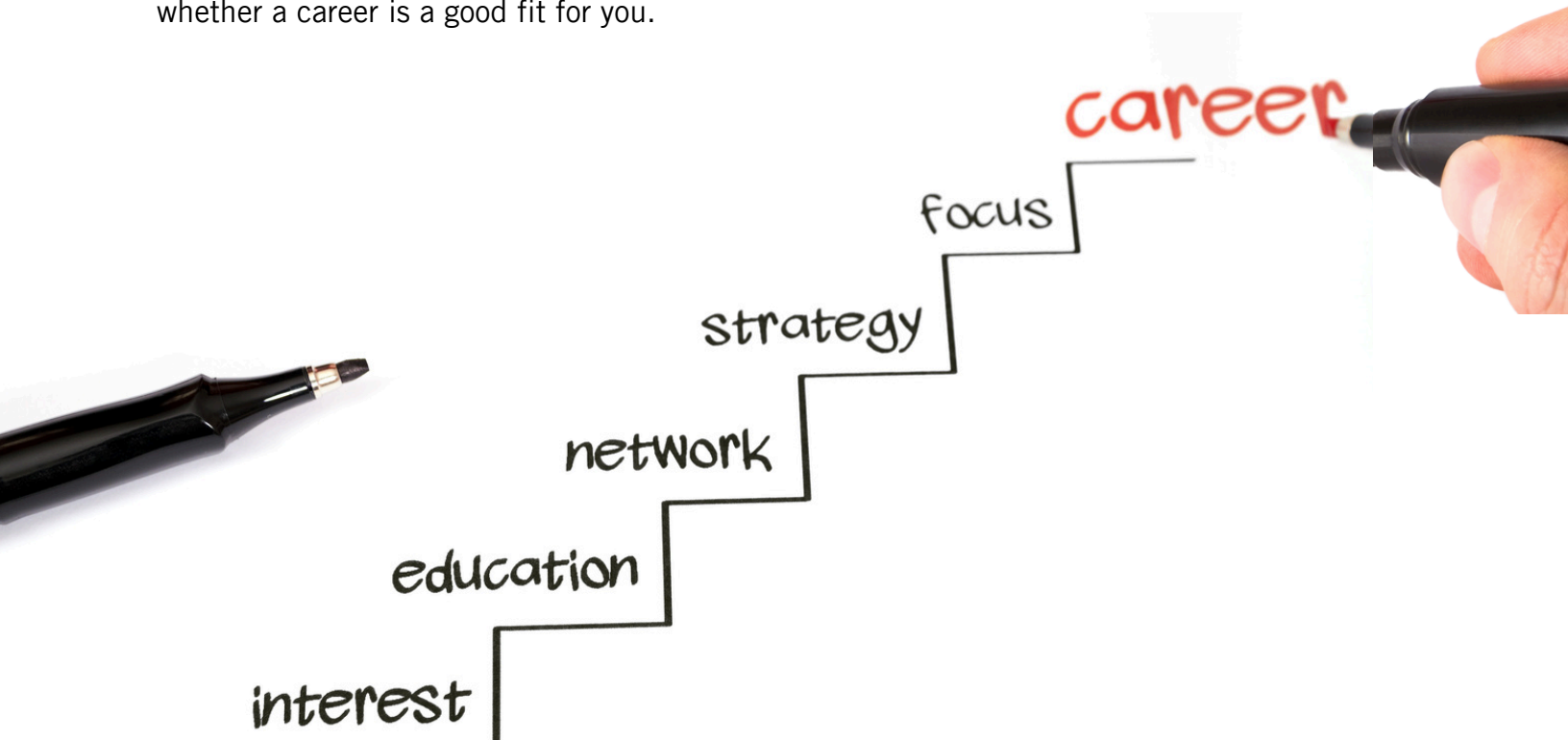
Explore broadly and don't limit yourself to a single industry or role. Being open-minded allows you to discover unexpected opportunities and paths that you might not have considered initially. The skills that we gain as scientists can be applied to many more careers and industries than you think!

4) Remain flexible:

You may find that your interests and goals evolve as you gain more experience and insights. It's important to recognize that what you want from your career may accordingly change, so be prepared to adapt if needed.

5) Assess lifestyle fit too:

It's essential to consider how a job would fit into your lifestyle. Factors such as work-life balance, environment, location, stability, and more will play a significant role in determining whether a career is a good fit for you.



NEXT STEPS

KEEP UP EXPLORING CAREERS

- <https://moleculargenetics.utoronto.ca/career-development-resources>
- Career Advisor: schedule a meeting for individual guidance
- Join the annual departmental Career Development Alumni Symposium
- Participate in GSA career events
- Join MoGen Career Connections
- Find alumni and mentors on <https://www.linkedin.com/in/mogen-news/>

KEE

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