Gary S. McDowell

BA, MSci in Natural Sciences (Chemistry); PhD in Oncology

Executive Director of nonprofit organization, The Future of Research, Inc. (FoR)

I assist grassroots advocacy among junior researchers, helping them hold local meetings to discuss solving problems they experience with science, then advocate for these solutions in my policy work.

I always wanted to be an academic, but going through the training I realized how many problems there were in just trying to make science beneficial for society, and in helping young scientists get training. I love thinking and writing about important problems, working with smart people to try to fix them!

There are lots of good places and people to work with after college if you want to keep using your passion for STEM; it's important to research how and where you can do it just as rigorously as you would carry out research for a STEM project.

Jes Sherman

B.S. & Ph.D. Materials Chemistry

Test Engineer

I test tiny lasers, analyze the data, and make recommendations to design and fab engineers.

There's a lot of variety in what I do--I don't think I could get bored. It's a nice challenge and I learn a lot at work.

STEM work is very collaborative, and very international. I have coworkers from 9 different countries, and colleagues from at least 16 more! I've learned so much about life in other parts of the world.

Kelsey Condell

BS in Wildlife and Fisheries Conservation Biology, MS in Biology

Currently working at California Department of Fish and Wildlife

I help monitor predator populations in the Sierra Nevada mountains, and I help conduct surveys for drought monitoring in high montane meadows.

I love that I get to work outside, help wildlife, and I get paid to camp!

When I told people I wanted to work with animals, everyone assumed I wanted to become a veterinarian. I want everyone to know that there are tons of other amazing jobs that help animals.

Loren Cassin Sackett

PhD, Ecology & Evolutionary Biology

Assistant Professor, Integrative Biology

(University of South Florida)

I spend some of my time teaching courses of my choosing, and some of my time conducting research. My research focuses on how wild animals adapt to changing environments, including climate change and introduced diseases. I love the intellectual freedom to study whatever I find interesting, the ability to conduct field work around the world, and the fact that the field is always changing.

Madison S. Cox

B.S. in Biology from the University of Puget Sound

Ph.D. Candidate in the Microbiology Doctoral Training Program at the University of Wisconsin - Madison

I study the bovine rumen microbiota, looking to improve milk production efficiency by capitalizing on natural variability of microbial communities in the dairy cow rumen.

Graduate school is challenging and wonderful. I love how often I am pushed to work harder, and how supportive this environment has been. An I love being surrounded by a tremendous diversity of work, and people who are proud and excited to be doing it!

I don’t think anybody feels qualified for ANYTHING when they are first starting out. The people around you have the same self-doubt. Know that you deserve all the opportunities that come to you, and don’t be afraid to seize them.

Erica Kaufman West

BS in Chemistry and Biology

MD

Infectious Diseases physician

Currently I work as an ID physician in a hospital and clinic setting, as well as teaching medical students, residents and fellows in the field of ID.

I like that every day is different. Even if I'm in the same place, the patients are different, the diseases are different, etc. There's no monotony.

Time is the one thing you lose after undergrad. Use it now to explore things *outside* of STEM so that your contribution within it can be that much stronger.

Ruth Isenberg

Bachelor of Science in Molecular and Cellular Biology

Lab technician in Dr. Kat Milligan-Myhre's lab at the University of Alaska Anchorage

I do a variety of tasks related to studying the impact of a host's genetic background on the relationship between the host and their microbiotia. Tasks include field work, helping other lab members with their research projects, and doing my own research projects.

I like learning more about a field I love, gaining research experience, and interacting with other scientists at a variety of experience levels.

Life after undergrad is full of amazing possibilities in STEM fields; you just have to be diligent and use your connections to find them.

Joanne Kamens
PhD in Genetics

Executive Director of Addgene (addgene.org), a nonprofit biotech that helps scientists all over the world share research reagents and data

Being an Executive Director of a nonprofit is like being a CEO. I oversee a fantastic team with a focus on outreach to the community, personnel and human resources, and removing barriers so the team can reach its goals. I have also worked in Pharma and for-profit biotech.

I love helping scientists and being involved in accelerating research in all areas of science. I also do a lot of science careers coaching and speaking. I enjoy helping science trainees transition to successful careers.

There are a million things you can do with your science degree, not just become an professor in academia (although that is great for some). Start learning about the options by meeting people and exploring career skills very early and keep it up!

Tyler J. Ford

PhD in Biological and Biomedical Sciences

Outreach Scientist at Addgene Inc
(Nonprofit plasmid repository)

Current Job Duties: Write & edit for the Addgene blog, produce educational eBooks, produce protocol videos, host the Addgene podcast (interviews with scientists mostly), help design pages for the Addgene website, coordinate collaborations with outside organizations, promote fun in the work place, and meet with scientists to see how Addgene can help accelerate their research.

Likes: ability to meet & work with scientists from many different fields and learn about their work, maneuverable work environment (can develop many new projects), and the generally fun and collaborative atmosphere at Addgene.

Advice to Stem Undergrads for Life after College: We need more scientists who are also great communicators and great managers. Spend as much time learning about how to talk/work with people as you do learning science.

Sarah McAnulty

B.A. in Marine Science, minor: Biology

Ph.D. Student at UConn

I study how the squid immune system distinguishes between "good bacteria" and all the rest. Day-to-day I raise squid, and take videos of their immune cells on a confocal microscope.

I love working with squid, and the microscopy I get to do is beautiful and fun in a very different way than squid care is. I also like that I get to travel for my job.

If you want a short-term job after college, live somewhere you've never lived before, especially in another country if you didn't study abroad. You'll likely meet people that will connect you all over the world later on. Also when looking for jobs, look in places you might not expect (e.g. museums), and don't hesitate to cold e-mail people. Many jobs, especially in science, are not advertised (or may not exist before you ask)!

Emily Lescak

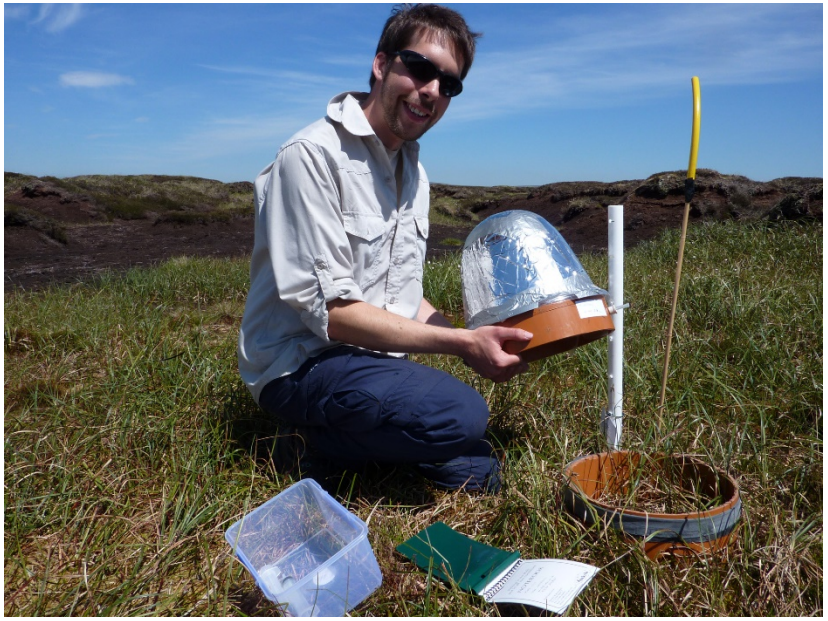
PhD Fisheries

Postdoctoral Fellow, Department of Biological Sciences, University of Alaska Anchorage

I study host-microbe interactions using threespine stickleback fish as a model organism. My research focuses on how gut microbial community composition and diversity influence morphological, behavioral, and immune system development. I write papers and grant proposals, analyze data, run experiments, and mentor early career trainees. I also get to travel around the world to attend conferences and trainings.

I like that I get to do a variety of things on any given day and that I am fairly free to set my own schedule. I enjoy training students and being the first to discover something new.

Start preparing now for life after college, if you haven't already! Think about how you can turn your strengths and interests into a career and talk to people about their career paths. Don't be afraid to take risks and try new things.



Dr Mike Whitfield

Twitter: @mgwhitfield

Geography BSc (Hons)
Biological sciences PhD

Development Coordinator,
New Phytologist

I help to promote the plant science that *New Phytologist* publishes by coordinating press releases and developing the journal's website. I also help to organise and promote events that engage and support the plant science community.

One of my favourite things about my current job is the variety of tasks involved; whether I'm writing for the blog or interviewing a scientist about their work, every day is different!

My advice would be to keep your options open – a career in academia isn't for everyone, and by getting involved with, for example, learned societies, you'll develop important science communication and engagement skills. Helping to run the British Ecological Society's Plants-Soils-Ecosystems special interest group has been really valuable for me.

Alycia Mosley Austin

BS, Neuroscience, Brown University
PhD, Neuroscience, University of California, San Diego

Associate Director, Interdisciplinary Neuroscience Program
Assistant Dean, Graduate Recruitment and Diversity Initiatives
University of Rhode Island

In my current job I manage the day-to-day operations of the graduate program in neuroscience, including admissions, curriculum, advising, student financial support, and event planning. I also oversee admissions for all graduate programs, create programs to educate our graduate students and faculty on diversity, and support students from underrepresented backgrounds.

What I like most about my job is that I work with people across campus in all disciplines and from a variety of backgrounds. I have to opportunity create new programs and shape policies related to graduate education that will change the culture of the university to benefit students.

My advice to undergraduates in STEM fields is to remain open to possibilities. The job you have in ten years **may not exist yet**, so don't get hung up on trying to plan for a specific job. Instead **focus on building skills** that can be applied to solving lots of different problems.

Laura Sanchez

PhD in Chemistry
Assistant Professor of Medicinal Chemistry and Pharmacognosy at the University of Illinois at Chicago

At my current job, I get to train my awesome graduate students to be science all stars. We study how bacteria and cells use chemicals to talk to one another on surfaces (like cheese) and in things (like zebrafish and squids).

I love my job because I get to spend all day thinking about really cool science problems and different ways we can study the problem. I also enjoy training graduate students and undergraduates to think scientifically.

Don’t be afraid to fail, that is the nature of discovery in STEM, as Wayne Gretzky once said, ‘You miss 100% of the shots you don’t take.”

Lily Ting

Bachelor of Science, University of New South Wales, Sydney Australia

PhD (microbiology & biochemistry), University of New South Wales, Sydney Australia

Current job: Associate at PureTech Health

What I do: PureTech is a biopharma venture creation company. We find emerging technology in academia and bring the technology to life and to the market to address unmet needs in healthcare. My daily work involves juggling venture creation with helping launch startups.

What I like about it: I was on the academic path but am no longer on it. I was looking for my work to be more translational than the research being done at the academic bench. I love the immediacy of our work in helping patients.. I love the fast pace and the focused problem solving to build something that can benefit and improve people's lives.

Life after college: Don't be pressured to "make the right decision quickly" and therefore rush a decision about your career. Collect wide-ranging different experiences to inform your choices. It's ok if you decide that something isn't for you, and often it's easier to figure out what you don't like on the path to figuring out what is right for you. Take your time in finding your career path.

Courtney Horvath, PhD

PhD in Toxicology from Dartmouth Medical School

Current Job: Toxicologist at Novartis Pharmaceuticals

At my job, I support the preclinical development of various biopharmaceuticals. We identify the safety profile of therapeutics to identify any potential risks in humans. Our data support first in human studies and the labeling of marketed products.

I love working at a global healthcare company that is providing new ways to improve and extend people's lives.

My advice for STEM students: Make the most of the opportunities presented to you and seek out mentors that can help guide you through your career.

Ari Boltax

B.S. Chemical Biology

Student!
Soon-to-be Veterinarian

What will I do: With my degree I'll have a ton of career options ranging from helping the government with global zoonotic disease outbreak investigations, to vaccine development in industry, and of course treating sick animals as a general practitioner or specialist. My goal right now is to become a professor at a veterinary school one day!

What do I like about it: Veterinary medicine isn't just about cute animals (even though that's definitely a plus). I've been able to contribute valuable knowledge to seemingly unrelated fields like engineering, economics, and even current political affairs!

Life after college: I guess I'm not a fully real person yet because I'm still a student, but I've been told that the whole "done with work when you leave the building" thing is pretty crazy. Imagine getting home and NOT having work! A lot of my friends with jobs say that they've taken up new hobbies and learned to socialize more to fill that time.

Heather Bock

B.S. Biology

Project Director, Community College Undergraduate Research Initiative

What I do: Facilitate the development, implementation and management of undergraduate research at community colleges across the United States.

The best part of my job is spending every day helping students find their passion in STEM through exposure to research. Many students don't know what it means to be a researcher until graduate school, we are changing the culture so that students have research experiences the first semester of the first year and the difference in student success and completion of STEM degrees is amazing.

My advice for after college: Get as much experience as you can. Set up email alerts for topics you are interested in. Never let a failed experiment define you, it is only through failure that we learn.

Danna Zeiger

Ph.D. in Molecular & Cell Biology

Program Director, Biology
Assistant Professor, Biology
Fisher College, Boston

I develop and teach courses in the biology program. I advise students on program completion and career options. I work with students on applications for all kinds of opportunities. I apply for educational grants and plan independent study projects and small, undergrad-scale research and papers. I foster partnerships with other colleges and universities. I help make decisions on college-wide educational needs and outcomes.

I love that there are many opportunities for creativity, and being at a small college, I have opportunities to pursue any that I select. I love teaching small classes, having personal interactions with students on a daily basis, and knowing everyone's name. My colleagues are friendly, helpful, and collaborative, and I enjoy great flexibility to balance my creativity, career aspirations, and family life.

Life after college is **just the beginning** - it is a fun and exciting time! For me, it keeps getting better and better! Keep all possible doors open while you continue to figure out what you enjoy – and this too may change.

Mallary Hoidal

Master of Science – Cell and Molecular Biology
Brandeis University

Manager, Cell Culture and Molecular Biology Core Facility
Dept of Biomedical Engineering, Florida International University

My job includes everything from purchasing equipment and supplies, to training new users on equipment, performing experiments, and consulting on projects with clients.

I like the variety of things I get to do – my day may consist of performing a qPCR experiment, teaching a workshop, then ordering supplies to keep the lab fully stocked. Every day is different!

There are many different routes you can take after obtaining your degree. Take some time to explore your options and really figure out what YOU want to do.