FALL 2026
Alternative Careers to Academia!!
NRSC 7102-001; NRSC 2101-001
1 credit; Mondays 5:05-6:20 pm
ENVIRONMENTAL DESIGN 120
NOTE: *the last 20 min or so is for people who would like to hang out and chat further with the speaker!*

NOTE: GRADUATE STUDENTS: If you are interested in registering for this course but do not have the (INCORRECTLY LISTED) pre-requisite of NRSC 5110 – this is no problem! – Please email for assistance in enrolling: linda.watkins@colorado.edu . **You do *not* need NRSC 5110 prerequisite to enroll.**

Organizers: Office Hours by Appointment
Justin Stitzlein, M.S. (CU Boulder Venture Partners/Research & Innovation Office)
~and~
Linda Watkins, PhD (CU Boulder Dept of Psychology & Neuroscience)

Format of the course includes 2 parts:
(1) attendance/participation in the speaker series
(2) you choose 8 (or more if you'd like extra credit) videos, with self-paced quizzes, on topics of most interest to you from the Canvas class site

This course features weekly guest speakers, with degrees ranging from bachelor's through postdoctoral training prior to leaving academia. For many, their career paths have little to do with the degree(s) earned.

The paths they meandered through life to their current positions are equally diverse as are the ways they moved from job to job, and the wisdom/insights gained.

Join us to explore their life stories and advice to people starting out – a great opportunity to ask them everything you want to know about finding and getting the jobs you'll love! In addition, class members will select a series of videos to watch and answer questions about from a list of topics directly relevant to finding and getting the ideal job and career for you.

List of Speakers

Nicole Stone (Licensing Manager- Bioscience Venture Partners at CU Boulder) is a Licensing Manager at Venture Partners at the University of Colorado Boulder, where she focuses on translating academic research into commercial applications. Her work centers on evaluating early-stage technologies, structuring licensing agreements, and working with researchers to move discoveries toward real-world impact. She previously worked at Janssen (Johnson & Johnson) in RNA therapeutics, contributing to siRNA programs advancing toward the clinic. Her experience spans target selection, assay development, and coordination across research and clinical teams, along with exposure to external innovation and partnering efforts. Nicole earned her PhD from the University of California, San Francisco and completed her postdoctoral training at the Gladstone Institutes, where her research focused on cardiac biology, genomics, and transcriptional regulation.

Viswa Colluru (Founder and Chief Executive Officer, Enveda Biosciences, Boulder, CO) received his Bachelor's in Biotechnology (Andra Univ., India), Certificate from Harvard Business School, and PhD in Cellular and Molecular Biology (Univ. Wisconsin), following which he worked in Technology Transfer for Univ. of Wisconsin prior to joining Recursion Pharmaceuticals first as a Research Scientist in Innovation, followed by Product Manager in Innovation and Discovery leveraging automated biology and computational methods to accelerate discovery of therapeutics for patients across thousands of diseases. Here he gained experience in business development, strategy and science to help secure partnerships, management of partnerships, and develop project management processes. He was then promoted to Project Leader at Recusion Pharmaceuticals for their Ataxia Telangiectasia drug discovery program, integrating scientific, commercial and operational considerations to rapidly advance new treatments for this devastating rare disease. Moving to Senior Product Manager, now in Assets and Translation at Recursion, managing the portfolio of 6+ disease indications spanning neurology, oncology, and metabolic diseases. His current position is with Envada Biosciences where their aim is to translate molecules found in medicinal plants into new solutions for human health, combining the power of machine learning, metabolomics and knowledge graphs.

Alexis Northcutt (Senior Regulatory Strategist, Quantum Regulatory Solutions, Boulder). Alexis received her BS in Psychology and her PhD in Neuroscience from the University of Colorado – Boulder. While at UC-Boulder as a Professional Research Assistant, her work ranged from animal models, surgery, and behavioral testing to molecular biology, focused on how early life infection impacts later development and vulnerability, as well as opioid effects on pain and reward. Her graduate and post-doctoral work at UC-Boulder continued her focus on drugs of abuse, including studies of morphine, cocaine and methamphetamine and how these drugs activate glial cells to amplify reward and abuse. Following a second postdoc and adjunct professor position at UC-Denver, she left academia to become a Consultant for Regulatory Affairs and Scientific Affairs with CBR International. Here her work supported client pharmaceutical programs in all stages of product development. Alexis then moved to ArcherDx as a Regulatory Affairs Specialist III and then Senior Regulatory Affairs Specialist. ArcherDx was acquired by Invitae, where she continued her work in this position, leading Food and Drug Administration (FDA) submissions, wrote regulatory documents, facilitated FDA meetings, provided regulatory oversight and strategic input for the development of high-throughput next generation sequencing assays for cancer treatment. She then served as a Regulatory Strategist for Veristat, a scientific-minded global clinical research organization (CRO) which enables clients to solve the unique and complex challenges associated with accelerating therapies through clinical development to regulatory approval. She recently moved to Quantum Regulatory Solutions, serving as Senior Regulatory Strategist.

Joe Dragavon (Director of Core Facilities and Shared Instrumentation; Director of the BioFrontiers Advanced Light Microscopy Core, Univ. Colorado-Boulder). Joe earned his BS in Chemistry and PhD in Analytical Chemistry (Univ. Washington, Seattle). As part of his graduate work, the objective was to measure multiple parameters of single cells in real time, correlating genomic and proteomic events, with his focus being on development and characterization of a system capable of monitoring oxygen consumption rates of single mouse macrophage cells in real time. From there, he held post-doctoral positions in England and France. In all of these academic research positions, his work often bridged the gap between the available technology and the academic investigation. This led to him developing capillary optical waveguides as sensors for industrial purposes, in-line sensors and sensing techniques to allow monitoring of each step in an antibiotic synthesis, a system capable of fluorescence lifetime imaging and spinning disc microscopy, and use of bioluminescent E. coli bacteria as an unconventional light source for in vivo

fluorescence imaging in small animals as a means to increase the production of red photons which are not readily absorbed by hemoglobin. During this time, he greatly expanded his imaging expertise to range from single cell and whole animal bioluminescence imaging to widefield and confocal microscopy to advanced approaches such as 2-photon, fluorescence lifetime imaging, and various super resolution techniques. His imaging experience has led him to his current position as both Director of the BioFrontiers Advanced Light Microscopy Core and Director of Core Facilities and Shared Instrumentation at CU-Boulder.

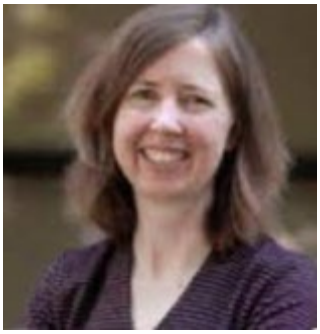
Michael Mestek (Global Head of Clinical Research & Medical Science for Acute Care and Patient Monitoring, Medtronic, Boulder, CO) received his bachelor's in economics from Bradley University's College of Business, and his PhD in Applied/Exercise Physiology from Auburn University with a minor in statistics. After several research and clinical exercise physiology positions, he ended up at the University of Colorado-Boulder with a post-doctoral Research Associate position studying cardiovascular health. He moved from CU-Boulder to Medtronic working in Research & Development, including working on FDA regulatory issues, and patient monitoring including intra-operative brain monitoring as well as hemodynamic monitoring and temperature management technologies. Moving up the ranks, he served as Senior Program Manager for Global Medical Affairs, Director of Global Market Development working on high growth international market development, Director of US Marketing, Senior Director of Global Marketing for perioperative patient monitoring, and now Global Head of Clinical Research & Medical Science for acute care and patient monitoring.

Lisa Marshall (Associate Director Science Storytelling, and Adjunct Journalism Instructor CU-Boulder) received her bachelor's in journalism and political science from CU-Boulder and recently returned to earn her Masters in 2022 in Multimedia Journalism with an Integrative Physiology specialty from CU-Boulder. Her writing career has spanned positions as a Health and Medical Science writer and editor with the Boulder Daily Camera newspaper, as a freelance journalist specializing in health, science, and running publications with articles in Web MD, Men's Journal, Runner's World and an array of consumer publications which focus on health and medical science, examining the interplay between environment, genetics, health, diet, physical activity and stress. Lisa is also the Associate Director of Science Storytelling at CU-Boulder, sharing research news, editing, planning stories and news releases for climate science, engineering and planetary science, health, medical science and the social sciences. Lisa also helps produce research videos and co-hosts a science-based podcast called Brainwaves.

Joel Stanley (Chief Executive Officer [CEO], AJNA BioSciences, Denver, CO) writes: "We come armed with a deep understanding of the science in nature and a strong desire to fearlessly explore uncharted territories. Our field is the healing power of botanics, and our purpose is to serve and better the planet through them." He began in the cannabinoid business joining the family cannabidiol (CBD) company, Charlotte's Web, serving as CEO and Chairman for 11 years, and now remaining as a member of the Board of Directors, writing: "Our mission is predicated on the belief that nature and science are not mutually exclusive for a healthy planet. We believe it is only through a mutual understanding of both that we can reimagine the future of healthcare and correct the faults of a system that has failed us." He now serves as CEO of AJNA BioSciences. AJNA focuses on select plant and fungi species with a well-established history of therapeutic use. They are working to develop the world's first FDA approved

full spectrum cannabinoid drug for Autism Spectrum Disorder, a full spectrum psilocybin novel anti-depressant, and a pipeline of other plant medicines in development.

Teisha Rowland (Director of Science and STEM Content for Science Buddies Non-Profit; Chemistry, Manufacturing and Controls (CMC) Regulatory Consultant; Author). Teisha received her PhD at UC Santa Barbara in molecular biology where her research focused on human pluripotent stem cells and retinal biology. After postdoc training at CU- Anschutz medical campus, focused on high-throughput screening of compound libraries of patient iPSC-derived cardiomyocytes followed by postdoc training at CU-Boulder on epigenetic mechanisms of immortality of cancer cells, Teisha became the Director of Stem Cell Research and Technology Resource Center for the MCDB department of CU-Boulder. From there, she joined Umoja Biopharma as a Principal Scientist, iPSC Team Leader for engineered allogeneic therapies. She then served as a Staff Fellow with the FDA. In addition, Teisha has served as a Scientist for Science Buddies and recently promoted there to Director of Science and STEM Content, producing science projects for K-12 students. She is additionally a medical writer/editor, columnist for Biology Bytes for the Santa Barbara Independent, and author of "Making the Leap from Academia to Industry".



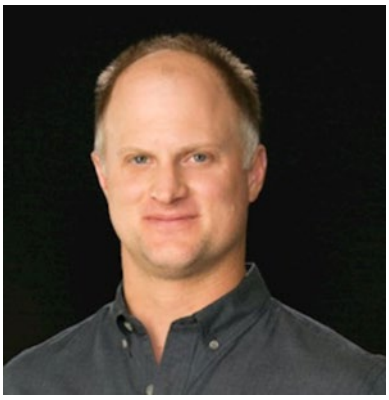
Joey Azofeiffa (founder and Chief Executive Officer [CEO] of Arpeggio Bio, Boulder CO). After receiving a bachelor's degree in biochemistry and molecular biology (Vassar), he received a PhD in computer science from CU-Boulder. His doctoral dissertation focused on the relationship between medicine, transcription factors, and enhancer RNAs using a unified mathematical theory and novel numerical algorithms. From there, he worked as a data scientist first with Forma Therapeutics gaining expertise with next generation sequencing analysis, state of the art machine learning, probabilistic modeling, data visualization and database management. From there he moved to Merck as a data scientist, building novel models for multi-omics data integration applied to high throughput flow cytometry, new models of meta-genomics data and novel extensions of ATAC-seq pipelines. He then founded and served as CEO of Arpeggio Bio, a therapeutics company focused on using Artificial Intelligence (AI) and laboratory robotics to develop drugs to fight drug resistance in cancer using the analysis tools he developed at Merck and Forma Therapeutics. He and his team have raised over $20 million in venture capital funding from Y Combinator and other venture funds. He was chosen in 2023 as one of the 40 emerging business leaders under 40 yr of age in Boulder Valley and Northern Colorado.

Jana Watson-Capps (founder of Jana Watson-Capps and Associates, LLC, a consulting firm for academia and biosciences), received her Bachelor's in Biological Sciences from Stanford University and her PhD in Biology from Georgetown University. After teaching in the Biology Department of Metro State College in Denver and working as a project/development consultant in Denver, she served for over 7 years as the Associate Director, Chief of Staff and Head of Strategy for Biofrontiers at the University of Colorado-Boulder to develop and implement the institute's interdisciplinary programs and industrial partnerships. After forming her consulting firm, she now helps companies, universities and nonprofits with strategic planning and coalition building within the interdisciplinary life sciences. She has experience and strengths in interdisciplinary science and education , academic-industry partnerships, strategic planning, large-team management, multi-stakeholder project leadership, communicating science, grant writing, fundraising, and building research communities.

Sam Dolzani (Executive Medical Science Liaison at Vertex, MBA, and Elite Athlete, Pro Mountain Bike Racer, Denver) received his Bachelors from MCDB and his PhD in Neuroscience, both from the University of Colorado - Boulder. Upon completing his degree, he served as a Clinical Specialist in Neuromodulation for chronic pain therapies at Abbott, then transitioned to Senior Medical Science Liaison (MSL) in Neuroscience/Psychiatry for Syneos Health for mood disorder and schizophrenia therapeutics. He then moved to Biohaven Pharmaceuticals, which focuses on epilepsy, mood disorders, immunological diseases, migraine, neuropathic pain, obsessive compulsive disorder, metabolic diseases, obesity, and cancer. Here he held the position of Associate Director of Neurology Medical Science Liaison (MSL). He then worked for Pfizer, initially as a Senior Manager for Migraine then Director for Migraine in the Internal Medicine field Medical Group. Currently, he is at Vertex, first as a Senior Medical Science Liaison and now Executive Medical Science Liaison specializing in. pain therapeutics.

Mariam Crow(Director of Entrepreneurship & Ecosystem Development at Activation Capital) leads execution across large-scale federal and state programs supporting biotech and advanced manufacturing. Her work focuses on aligning startups, research institutions, and government partners to build regional life sciences capacity. She previously served as Director of Operations at early-stage biotech companies, where she worked closely with founders to build and scale organizations from research through regulatory readiness. Her experience includes leading FDA INTERACT submissions, developing IP strategy, and building operational infrastructure across scientific an d corporate functions. Mariam holds an M.S. in Biomedical Engineering from the University of Akron and a B.S. in Biology from Youngstown State University.

Michael Nelson (Venture Capital/Emerging Company Law; Partner- Cooley LLC; Denver, CO) received his BS in Kinesiology and Exercise Science (Willamette U.), MS in Anatomy & Physiology (Boston U.), PhD in Neuroscience (UVa), and law degree (JD, Univ. of Denver). He began his law career as a Corporate Attorney for Foley Hoag LLP (Boston) before moving to Colorado to pursue a law career with a practice in Venture Capital/Emerging Companies with Cooley LLP (Denver). He works with life sciences startup companies, guiding them in corporate governance, legal research, intellectual property, corporate law, and mergers and acquisitions.



Grading: **CLASS PARTICIPATION IS EXPECTED AND VERY STRONGLY ENCOURAGED!!** Please bring questions for the speakers - this is a unique opportunity to explore non-academic careers. Please take full advantage!!

There are **2 paths to success** in this course – both are easy but require your participation.

The total number of points (where 100 is considered a perfect score) is broken down as follows:

(A) There are **14 class sessions**. Attendance (**SIGN IN is REQUIRED at the time the class meets** – don't miss signing in!!!!) gains you **5 points** for each session for a total of **70 points.** *If you miss the first class due to not yet registering – contact linda.watkins@colorado.edu for a link to the recording to make up for this so you don't lose points.*

********Be SURE to sign in so your attendance is recorded!!!********
THIS IS **ESSENTIAL**: your signature **is** your record of attendance
*ATTENDANCE for the ENTIRE CLASS IS **REQUIRED** for receiving attendance points*
NOTE THAT FACULTY FOR OTHER COURSES THAT SCHEDULE THEIR EXAMS or REVIEW SESSIONS ATOP OUR CLASS are aware of this class – see them for accommodations they have agreed to make for you to take your exams at an adjusted time – their exam/review session is not accepted as missing this class in whole or part

(B) There are (at least) 15 videos on our class Canvas site (we continue to work on adding more as appropriate become available, so may be more than 15 to choose from during the course).

Important note: while various of these are framed as aimed for people with PhDs, the information being relayed is just as important for people with bachelors or masters or no degrees.

Current listing:

- Why Leaving Academia is Harder Than It Seems
- Overqualified or Underqualified: Which is it, and what to do about it
- Climb to the Top of the Heap: Essential Job Application Best Practices
- 3 Mistakes PhDs Make When Starting Their Job Search
- Building Professional Relationships Online – Focus on Non-Academic Job Search
- What Every STEM PhD Needs to Know About Going into Industry
- Common Mistakes PhDs Make in Their Resume and How to Avoid Them
- 3 Skills Every PhD Should Have When They Graduate
- Networking and Why Every PhD Should Do It
- How to Pitch Yourself to Employers
- What Every PHD Should Know About Using LinkedIn
- Tales from the Dark Side: How to Find Rewarding Industry Careers and Relationships
- How I Decided to Leave Academia
- Developing an Innovation and Starting a Company -- Student to Faculty
- 4 Things to Consider if You Want to Start a Business

At **minimum, watch 8** of the videos that most match your interests, and **take the associated quiz**. This is an **open-video quiz** (that is, have the quiz open and available as you watch the video so to be able to watch for and answer as you go). **Each quiz is worth 4 points**. So, for the expected minimum of 8 quizzes **= 32 points**. You can watch an **additional 3 videos with quizzes for Extra Credit** (**max 12 points of extra credit**), so a **max possible quiz total of 44 point**s. This will help you if you are sick or otherwise cannot attend all of the class sessions. **NOTE** that taking extra video quizzes is the **ONLY extra credit available**. While this is Open Video (equivalent of open book), this is YOUR work on the quiz – it is **not legal or acceptable to copy someone else's answers to quizzes**. The point is that *YOU* watched the videos and learned from them.

This video assignment is SELF-PACED. The videos and quizzes are available from the first day of classes for the semester through the end of the last day of classes for the semester. Quizzes are not available after the last day of classes (for Fall 2025, that is **December 4th**), so be sure to have all of your quizzes completed by this date.

(C) The final grade is the grand total of your total attendance scores and your total quiz scores, as above. Standard 90 and above=A, 80-89=B, with +/- breakdowns etc. applied as standard.