

FALL 2025 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

(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.

Class Schedule

Aug 25 – Justin Stitzlein - Introduction to the course; Why it is so hard to leave academia

Sept 1 - LABOR DAY HOLIDAY - NO CLASS

Sept 8 – 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 Med-



tronic 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.

Sept 15 - Molly Nickerson (Medical Director, SpringWorks Therapeutics, Boulder, CO) received her PhD in Integrative Physiology and Neuroscience from CU-Boulder. She then joined Questcor Pharmaceuticals, going up the ladder from Medical Science Liaison (MSL) for the Mountain Region for Multiple Sclerosis, to Senior Medical Science Liaison for Multiple Sclerosis mentoring team members, authoring publications in medical journals, engaging with thought leaders in new therapeutic areas, and developing strategy for team projects. Taking on the role as Associate Director of Neurology Medical Science Liaisons, she led Multiple Sclero-



sis and Infantile Spasms teams, published on key initiatives, developed and maintained relationships with key opinion leaders (KOLs), and developed medical strategy, marking, sales leadership and training. Moving to Mallinckrodt Pharmaceuticals, she became the Director of Neurology MSLs in the Autoimmune and Rare Diseases Divisions, managing teams in multiple sclerosis, Infantile Spasms, Intrathecal Spasticity and Pain. Transitioning to Mitsubishi Tanabe Pharma, she served first as Regional Medical Affairs Director and then Associate Director for Translational Research and Medical Sciences, supporting new product development, biomarker evaluation, clinical trials, and medical affairs. In her current position with SpringWorks Therapeutics, she began as a Senior Medical Science Liaison, then Principal Medical Science Liaison, and now Medical Director.

Sept 22 - Brooke Harrison (Vice President, Medical Writing at Edgewise Therapeutics, Boulder CO). Following a bachelor's in biology at Johns Hopkins U. and both a masters in exercise physiology and a PhD in Integrative Physiology from CU-Boulder, Brooke was a postdoctoral fellow at Myogen, Boulder, focused on developing therapeutics for cardiovascular disease. This was followed, after acquisition of Myogen by Gilead) by a Clinical Research Scientist position at Gilead Sciences. He then took on a research associate posi-

tion at Biofrontiers as well as founded Boulder Medical Writing, a medical writing and consulting startup. Joining Clinipace (a contract clinical research organization) in Boulder, Brooke went up the ranks from medical writer to senior medical writer to senior medical and regulatory writer to Associate Director for Regulatory and Strategic Development. Moving to Forma Therapeutics (therapeutics company focused on sickle cell disease, leukemia, glioma, acquired by Norvo Nordisk) he served as Director and then Senior Director of Medical Writing. He now serves as Vice President of Medical Writing at Edgewise Therapeutics in Boulder, which focuses on serious muscle disorders including muscular dystrophies and serious cardiac conditions. Brooke additionally continues to serve as Medical Coordi-

nator for Boulder Mountain Authority; a position held since 2012.

Sept 29 - 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 newspa-

per, 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.

Oct 6 - 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 un-

charted 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.

Oct 13 - Joe Dragavon (Director of the BioFrontiers Advanced Light Microscopy Core, Univ. Colorado-Boulder). Joe earned his BS in Chemistry and PhD in Analytical Chemistry (Univ. Washington, Seat-

tle). 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 (University of Hull, 2007-2008) and France (Institut Pasteur, 2009-2014). 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 Director of the BioFrontiers Advanced Light Microscopy Core at CU-Boulder.

Oct 20 - Jayson Ball (Member of the microfabrication team, NeuraLink,

Bay Area, CA). Jayson grew up in the Pacific Northwest, earning his Bachelor's from Evergreen State College in Psychology at Olympia, Washington. From there he came to Boulder and first became a volunteer in CU Boulder Neuroscience Lab, then Postgraduate Research Assistant and a Graduate Research Assistant upon entering the Psychology and Neuroscience graduate program. In parallel, he continued his loves of strength training (owner of Feral Fitness; strength coach for Barbell Logic Online Coaching; owner



Front Range Gains) and rock climbing. He became enamored with Elon Musk's NeuraLink company which was striving to use beyond-state-of-the-art methods to meld the mind to the outside world, allowing people with no voice to speak in real time with "their" own voice through AI, allowing people with no motor control to reconnect with their world by translating what their neurons willed to happen into actions in real time, and so on. Knowing that he was aiming at Neuralink allowed him to focus post-PhD on gaining the skills to maximize his chances of being hired, which happened in Fall 2025. He'll be sharing these experiences and the amazing work NeuraLink has ongoing.

Oct 27 - Eric Furfine (Entrepreneur, Chief Executive Officer [CEO] and Chief Scientific Officer [CSO] of Mosiac Biosciences. Boulder CO). Following a bachelor's degree in chemistry (Wash. Univ.), PhD in

biochemistry (Brandeis) and postdoc in molecular parasitology (UC San Fran), he was a Scientist at Burroughs Wellcome, followed by positions at GSK going from Scientist and Director of Biochemical Analytical Pharmacology. After GSK, he served as Vice President of Preclinical Development of Regeneron, Senior Vice President of Research and Preclinical Development of Adnexus. Moving to Eleven Biotherapeutics, he held positions of President of Research and Development, and Chief Scientific Officer. This was followed by Chief Scientific Officer of ImmuneXcite and then Ohana Biosciences, founded Furfine Biotech consulting and now CEO and CSO of Mosaic Biosciences, a biotech that is developing protein and antibody therapeutics.



Nov 3 - David Cohen (Co-Founder and Chief Executive Officer (CEO) at TechStars, Boulder and international). After receiving an AA (Associate of Arts) degree in Computer Science (U. Central Florida), he first worked as a software engineer doing engineering and economics research, followed by Director of Development at Automated Dispatch Services. He then founded and served as Vice President (VP) of

Research & Development (R&D) at ZOLL Data Systems, working on budgeting and management of software engineering, testing, and documentation. He founded and served as VP R&D of Pinpoint Technologies, building technology, managing engineering teams, and managing budgets. Next he founded iCentric Corp and served as its Chief Technology Officer (CTO) and founded earFeeder, serving as Chief Executive Officer (CEO). He has served as an adviser on company boards including SendGrid, Chowbotics, Wunder Capital, LevelTen Energy, Entrepreneurship Initiative, and Endeavor Colorado. He then founded and served as CEO and Chairman of the Board for TechStars. TechStars helps found-



ers of startup companies succeed. It helps founders scale up their startup into world-changing businesses through startup funding, training and development. TechStars is now multi-national (15 in the U.S. including in Denver) having established TechStars Accelerators which offers 3-month programs designed to help entrepreneurs find product-market fit, get traction, and access capital and mentorship. In addition, TechStars Foundation has worked to make innovation and entrepreneurship more accessible and inclusive by training of, and investing in, non-profits, providing powerful and scalable path to economic equity for marginalized communities. Based on TechStars Foundation investment, they have trained

more than 10,000 entrepreneurs around the world and mentored a new generation of venture capital (VC) investors.

Nov 10 - Teisha Rowland (Staff Fellow, Office of Gene Therapy, Office of Therapeutic Products, Center for Biologics Evaluation and Research, Food and Drug Administration). 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 now serves as a Staff Fellow with the FDA. In addition, Teisha has served as a Scientist for Science Buddies, producing science projects for K-12 students, a medical writer/editor, columnist for Biology Bytes for the Santa Barbara Independent, and author of "Making the Leap from Academia to Industry".

Nov 17 - 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.

Nov 24 - FALL BREAK HOLIDAY

Dec 1 - Amy Tindell (Intellectual Property law, Partner at Holland and Hart law firm, Boulder, CO) received her bachelor's degree in Cognitive Science from Dartmouth and her PhD in Biopsychology and Neuroscience from the University of Michigan. Following that she entered law school and received her J.D. in Intellectual Property from Boston College Law School. She was worked with MassChallenge, a not-for-profit group that supports entrepreneurship to help launch and grow new ventures. She was then a Senior Associate with Tapestry Networks in Boston, a professional services firm that brings together leaders to



solve complex problems, such as healthcare issues, and a Bar Manager at Venture Café in Boston, which provides networking opportunities to entrepreneurs, investors, developers, and other members of the startup community. After an Associate position with McCarter & English law firm in Boston focused on intellectual property, she moved to Hollard and Hart law firm in Boulder specializing in intellectual property legal practice, first as an Attorney and now as Partner.

Dec 5 (Friday) – 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 non-profits 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.

<u>Grading</u>: 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 (I 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
- o Overqualified or Underqualified: Which is it, and what to do about it
- o Climb to the Top of the Heap: Essential Job Application Best Practices
- o 3 Mistakes PhDs Make When Starting Their Job Search
- o Building Professional Relationships Online Focus on Non-Academic Job Search
- o What Every STEM PhD Needs to Know About Going into Industry
- o Common Mistakes PhDs Make in Their Resume and How to Avoid Them
- o 3 Skills Every PhD Should Have When They Graduate
- o Networking and Why Every PhD Should Do It
- How to Pitch Yourself to Employers
- o What Every PHD Should Know About Using LinkedIn
- o Tales from the Dark Side: How to Find Rewarding Industry Careers and Relationships
- o How I Decided to Leave Academia
- o Developing an Innovation and Starting a Company -- Student to Faculty
- o 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 points. 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 <u>YOU</u> 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 <u>not</u> available after the last day of classes (for Fall 2025, that is **December 5th**), 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.

ADD/DROP POLICIES

University deadlines and policies for adding and dropping classes are clearly indicated on the Office of the Registrar's website: https://www.colorado.edu/registrar/media/1878

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Our goal is to create an inclusive and supportive learning environment. If you qualify for accommodations because of a disability, please submit to the Instructor a letter from Disability Services in a timely manner (first 2 weeks of classes) so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations: http://www.colorado.edu/disabilityservices. Contact Disability Services at 303-492-8671 or by email dsinfo@colorado.edu. If you have a temporary medical condition or injury: https://www.colorado.edu/disabilityservices/students/temporary-medical-conditions

STUDENT NAMES AND PRONOUNS

We recognize that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on the class rosters provided to the Instructor and Teaching Assistant. In the absence of such updates, the name that appears on the class roster is the student's legal name. We will gladly honor your request to address you by an alternate name or gender pronoun.

CLASSROOM BEHAVIOR

Both students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote or online. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. For more information, see the policies on classroom behavior (https://www.colorado.edu/compliance/policies/student-classroom-course-related-behavior) and Student Conduct and Conflict (https://www.colorado.edu/sccr/)...

THE HONOR CODE

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the policy include plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, and aiding academic dishonesty. All incidents of academic misconduct must be reported to the Honor Code (honor@colorado.edu; 303-492-5550). Students found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the Instructor. Additional information regarding the Honor Code academic integrity policy can be found at https://www.colorado.edu/sccr/students/honor-code-and-student-code-conduct

SEXUAL MISCONDUCT, DISCRIMINATION, HARASSMENT, AND/OR RELATED RETALIATION

The University of Colorado Boulder is committed to fostering a positive learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct, intimate partner abuse, stalking, or protected-class discrimination or harassment by members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or cureport@colorado.edu. Information about the OIEC, university policies, anonymous reporting, and campus resources can be found at https://www.colorado.edu/oiec/.

Please know that faculty and graduate instructors have a responsibility to inform OIEC when they are made aware of incidents of sexual misconduct, dating and domestic violence, stalking, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about their rights, support resources, and reporting options. To learn more about reporting and support options for a variety of concerns, visit <u>Don't Ignore It</u>.

RELIGIOUS OBSERVANCE

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. See https://www.colorado.edu/oiec/religious-accommoda-tions#:~:text=Our%20university%20protects%20religious%20freedom,penal-ized%20for%20their%20religious%20practice for full details.

MENTAL HEALTH AND WELLNESS

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health or substance use concerns that are impacting academic or daily life, please contact Counseling and Psychiatric Services (CAPS) https://www.colorado.edu/counseling/located in C4C or call (303) 492-2277, 24/7.

Free and unlimited telehealth is also available through AcademicLiveCare. The AcademicLiveCare site (https://www.colorado.edu/health/academiclivecare) also provides information about additional wellness services on campus that are available to students.

MUTUAL RESPECT

In this course, we will not tolerate hateful behavior of any kind and will make every effort to speak with language that is inclusive and accommodating. This being said, we will cover some topics that are sensitive. Examples include evolutionary theory, the use of animals in experimentation, sexual function and dysfunction, descriptions of diseases/disorders of the brain, and drug abuse. Our intent will never be to offend, but if we inadvertently manage to do so, we ask that you bring it to our attention. You can reach out to us either personally or anonymously. We ask only that you deliver feedback in a manner that is mature and professional. Concerns communicated in this way will be considered seriously, delicately, and

with respect to the individual and all members of the course. Thank you in advance for helping us to promote a safe and intellectually receptive environment for everyone.

TECHNICAL SUPPORT

Should you experience technical issues with Canvas (or Zoom if we need to move to that during the semester), please contact the support team on campus by email at <a href="https://needical.org/needical.needical