INCLUSIVITY FOR ALL: HOW TO MAKE YOUR RESEARCH GROUP ACCESSIBLE

Creating an inclusive culture in your research group requires installing mechanisms for your whole team to be successful. And when it comes to accessibility, by ensuring everyone has what they need to be their most creative and productive, you ensure a win for science AND your scientific workforce. By Alaina G. Levine

Mona Minkara, an assistant professor at Northeastern University, Boston, Massachusetts, is a bioengineer, a world traveler and adventurer, writer, and speaker. She also happens to be blind. Her disability provides what she refers to as her “unseen advantage” in science. “I cannot see the data, so I have had to come up with other ways to conduct research,” Minkara says. As a graduate student, she ran a molecular dynamics simulation to observe and analyze the movement of a protein over 500 nanoseconds. The first step in this process is typically to watch a video of the protein’s actions, “but I couldn’t do it. Someone tried to explain it to me, but it meant nothing, and I didn’t know what to ask,” she recalls. But Minkara wasn’t deterred. She devised a way to plot the data, so she could interpret the protein’s movement mathematically, as opposed to visually. This approach turned out to be extremely meaningful to her as a scientist and to the science she was pursuing: “I observed patterns in the data that were missed by sighted people who were just looking at the trajectory.”

As Minkara’s example demonstrates, it is critical for science to collect and examine data in numerous ways and to adopt multiple perspectives when endeavoring to solve a problem. To produce the best science, to tackle the toughest problems, and to create and innovate interventions that advance our understanding of the universe, everyone’s voice, view, and brain needs to be at the table. Institutions, companies, and governments—as well as principal investigators (PIs)—need to ensure that everyone can be successful in science.

Indeed, accessibility should be a part of your lab or group’s core values and actions. “Accessibility is not a one-off,” says Sarah Lewthwaite, United Kingdom Research and Innovation Future Leaders Fellow, Centre for Research in Inclusion, at the University of Southampton, UK. “It should be a thread that will run through all your research planning.” The stakes couldn’t be higher, she notes, given the data: According to the UK’s Office for National Statistics, 19% of working-age adults in the UK have a disability (1). A recent Harvard Business Review article states that in the United States, “30% of the professional workforce fits the current federal definition of having a disability... and only 39% of employees with disabilities have disclosed to their manager. Even fewer have disclosed to their teams (24%) and [human resources] (21%)” (2).

**Asking the right questions**

Inclusivity as it relates to accessibility starts with adopting certain tenets. “100% perfect accessibility is extraordinarily difficult to achieve,” says Jesse Shanahan, an astronomer, data scientist, and freelance accessibility consultant, with clients ranging from individual faculty to university departments, associations, and conferences. “We can’t conceive of every single disability or need someone has, so one of the best approaches to take with that in mind is to share as much information with your lab employees as possible,” she adds.

**Upcoming features**

Postdocs—August 21  ■  Faculty—September 18  ■  Top Employers—October 30
The São Paulo Research Foundation (FAPESP), one of the leading Brazilian agencies dedicated to the support of research, offers opportunities for young researchers of any nationality to work in excellence centers in São Paulo, Brazil:

The Young Investigator Grant support scientists who have had a few years of postdoctoral experience and demonstrated research leadership capabilities to lead the establishment of new research groups in São Paulo, Brazil. The grants, with a duration of 5 years, include a fellowship for the principal investigator plus funds for research equipment, consumables, specialized services, travel and fellowships for undergraduate and graduate students. Candidates of any nationality are welcome and proposals can be submitted in English. FAPESP offers assistance to interested parties in finding a host institution. The selected candidates will start and lead their own research groups working in internationally competitive themes.

FAPESP Postdoctoral Fellowships support researchers with a recent doctorate degree and a promising research track record. Candidates from any nationality are welcome. The duration of the fellowship is of up to 3-years (fellowships associated to FAPESP’s 5-year grants and Center grants can have a 4-year duration). FAPESP postdoctoral fellowship holders can request an additional fellowship (travel plus stipend) to work for up to one year in a qualified research laboratory outside Brazil in a project that will enhance the performance of the research they are performing in Brazil. The fellowships are offered through calls for applications issued internationally and announced at http://www.fapesp.br/oportunidades/ and in relevant research journals. Postdoctoral fellowships can also be requested at any time by Principal Investigators in São Paulo who identify promising candidates.
For example, you can offer information about the location of accessible entrances and bathrooms and ensure that food is labeled to correspond with common allergies. If you are conducting a social event offsite, such as at a restaurant, you can call ahead to make sure it has accessible entrances, menus in braille or large-print, and quieter tables—and inform your staff that you have already researched this. You can also write your research group’s manual to include resources on campus, such as the disability resource center.

Furthermore, when crafting a lab policy towards accessibility for all, take a multi-level approach, advises Shanahan. Your priority should be to remove as many barriers to success as possible, which could include something as strategic as policy changes—such as enacting and enforcing anti-harassment policies—or something as simple as supporting your team to have time off for doctor appointments or a dedicated quiet space. According to Shanahan, accessibility is a human right under the UN Declaration of Human Rights, and in the United States, it is a legal requirement. That said, the ability to ask for accommodation is often a privilege. She suggests including the following wording in a lab manual: “I understand that getting a diagnosis or access to accommodation is a privilege, and if this is something you are having challenges with, please come talk to me. We can potentially work out a way for our lab to be accommodating.”

One of Shanahan’s most meaningful professional experiences occurred when she was hired as a data scientist at consulting firm Booz Allen Hamilton. Her supervisor didn’t request her to disclose her disability; rather, he inquired “What do you need to do your best work?” This question showed that the organization wanted to help her be her most successful, and shifted the burden of requesting accommodations from employee to employer, thereby empowering the employee. Shanahan was “taken aback” when this was asked of her, because it had never happened before. But “it instantaneously made me feel comfortable asking for things.” She urges researchers to utilize this language as the framework for their inclusivity practices. “This is an incredible move that a PI or advisor can make in their lab,” she says.

Providing a nurturing culture

Ultimately, individual actions that are taken in a lab, while critical, are not going to lead to a more inclusive community if there is no foundational culture that nurtures that inclusivity. “It is a lot easier to put a ramp in front of a building than to get people to change the culture of a workplace. Yet it is the culture, not the [unbuilt] ramp, that will drive people away,” says Shanahan. Most importantly, and in service to the culture, she says, make all of these opportunities available to everyone, even for people who don’t have an official accommodation. “Whether it’s a lab or a fancy tech company, people need to be empowered to make decisions that support their health and work–life balance, and this could include offers of telecommuting and flexible work schedules,” she says.

Another crucial element of the workplace culture is that of flexibility. “Yes, experiments can be rigid processes, but when creating an environment that is more inclusive, it’s not the ‘what’ that should be different; it’s the ‘how,’” says Meg O’Connell, CEO and founder of Global Disability Inclusion, a consulting firm that helps organizations understand how to be disability inclusive, based in St. Augustine, Florida. “How someone gets there and does the experiment should be built on flexibility. The most important aspect is how to accommodate everyone who comes into your classroom or lab, so they can get the most out of their experience in the learning environment.” This could involve team-members performing the experiment with someone who needs accommodation, and confirming that there is space for people who use mobility aids to maneuver throughout the lab.

“People might not believe they have a disability, but they do have a need,” says Shanahan. Respecting “that needs are fluid and change ... is a way to provide those needs without someone identifying themselves as disabled.” For example, when Shanahan was in graduate school, her grandfather passed away. She notes that while this wasn’t a disability, it’s the kind of situation that has distinct parallels with the idea of creating an inclusive atmosphere for people with disabilities. Because she was in a research group that supported success of the team in all ways, she was able to take a month off from work to grieve. “Having that paradigm shift respects that these people coming into your labs are not robots or automatons. We have life events, families, and illnesses. A flexible, accessible work environment can shift to accommodate people in all phases of their life.”

TIP BOX

- “Nothing about us, without us.”
- Don’t assume.
- Know you won’t be able to have a catch-all solution.
- Ask your team: “What do you need to be successful?”
- Share information from resources, such as your institution’s disability resource center.
- Recognize that not everyone wants to or has the privilege to disclose their disability.
- Remove as many obstacles as possible without requiring disclosure.
- Read articles on accessibility written by people with disabilities.
Laboratory Based Investigator in Oncology

The Department of Medical Oncology at the Dana-Farber Cancer Institute is seeking a wet laboratory investigator focused on basic and translational approaches to cancer. Candidates with training in medical oncology or an interest in translational science in solid or liquid tumors are welcome. The candidate must have an MD or MD/PhD and a proven track record of outstanding laboratory research in cancer. The investigator is expected to participate in courses/workshops for medical students and fellows taught in the School of Medicine and supervise postdoctoral fellows and graduate students.

The academic appointment will be at the Assistant Professor level at Harvard Medical School and determined by the applicant’s credentials. A highly competitive start-up package is available to support research and salary. Salary and benefits will be competitive with other institutions.

Applicants should submit a CV and three references to: Anthony Letai, MD, PhD, Chair, Medical Oncology Search Committee, Dana-Farber Cancer Institute, 450 Brookline Ave. M540, Boston, MA 02215. E-mail: Kim_Bremner@dfci.harvard.edu

Dana-Farber Cancer Institute
Dedicated to Discovery ... Committed to Care

Established in 1910, the National Museum of Natural History (NMNH) is the Smithsonian’s largest museum and research unit. NMNH is one of the world’s premier scientific institutions, as well as one of the most visited museums in the world—attracting nearly 5 million visitors a year, with millions more visiting online. The Museum’s mission is to increase knowledge and inspire learning about nature and culture in support of a sustainable future through outstanding research, collections, exhibitions, and education. As steward of the largest natural history collections in the world, NMNH holds more than 146 million specimens and cultural objects that document the history and formation of Earth, the diversity and evolution of life on the planet, and our shared human heritage. These collections are an unparalleled resource for the study and understanding of the natural world and our place in it.

We will have career and staff positions opening in the coming months, including: the National Anthropological Archives Director; researchers in Archaeology, Botany, Entomology, and Invertebrate Zoology; collections management staff, including Botany Collections Manager and Anthropology Conservator; and unit registrars as well as program specialists and administrative and technical positions. Watch USA Jobs for upcoming listings or contact us directly at NMNH-ADS@si.edu to receive notice for specific postings.

By continuing to grow, encourage and support a vibrant, diverse and all-encompassing academic community, we will build scientific capacity to deepen our understanding of Earth processes, biodiversity and evolution, as well as our origins and cultural diversity that help us to make more informed decisions about the future of our planet.

The National Museum of Natural History has a strong commitment to diversity and inclusion and actively encourages applications from candidates from diverse backgrounds.

Join us at the Smithsonian

A remarkable array of museums, research centers, libraries, archives, education centers, and research laboratories combined with our vast collection of historical artifacts and specimens make the scope of the Smithsonian unrivaled. Our most precious resource, however, is our people.
FOCUS ON CAREERS

diversity/inclusion

Featured participants

The Bendy Biologist
bendybiologist.com

Booz Allen Hamilton
www.boozallen.com

Global Disability Inclusion
www.globaldisabilityinclusion.com

Jesse Shanahan
enceladasaur.us

Northeastern University
www.northeastern.edu

University of Michigan
umich.edu

University of Southampton
www.southampton.ac.uk

Amy-Charlotte Devitz, a Master’s student at the University of Michigan, Ann Arbor, conducts field work and views her disability as a “superpower.”

Recognizing that disability is a different ability

Since Minkara began her faculty job at Northeastern in August 2019, she has been mindful of building a culture that allows everyone to be successful—in any scholarly endeavor, whether it involves research, management, team building, or communication. For example, when her protégés are going to give a talk, she requires them to provide their slides to her in advance. “When giving a presentation they must be very verbally explicit and describe everything,” she explains. “I want to make sure I understand what they are saying—but this also helps them be better presenters and communicators.” This task extends beyond just improving one’s ability to efficiently articulate ideas. “It’s a skill,” Minkara says. “We are propagating a change in the field—they are learning how to give a presentation that is inherently more inclusive.”

Amy-Charlotte Devitz, a Master’s student in the University of Michigan Department of Ecology and Evolutionary Biology, Ann Arbor, has learned to see the advantages in her disability, which requires the use of a wheelchair. Her blog, “The Bendy Biologist,” profiles all of her research in animal behavior in urban ecosystems, and has covered a broad range of topics at the intersection of disability, science, chronic illness, and academia, such as accessibility tips for those planning scientific conferences and how to approach writing an accessibility statement for a course syllabus. When she started using a wheelchair six years ago due to a previously undiagnosed genetic connective tissue disorder, she was told that science would not be for her. “It’s become a personal mission, especially for young and upcoming scientists, to make them realize that disability doesn’t have to be a barrier in a STEM field, and in a lot of ways, it can be really beneficial,” she says. “You have to problem solve and adapt and figure out new ways to do things. The world is inherently inassessable, so adapting to the challenges this presents is a skill you need in science—because nothing goes according to plan. In research, this skill translates well.”

In fact, Devitz views her disability as a “superpower” that has made her a stronger scientist. “Experiencing the world through the eyes of someone with a disability, you are forced to look at things in [greater] detail and with different perspectives that an able-bodied person wouldn’t see,” she says. “[My disability] has sharpened my ability to pick out these finer details, and when issues arise in doing fieldwork, to work around challenges with greater ease than when I first started.” Her decision to pursue research in urban environments is a direct result of her mobility concerns. “I don’t think I would have ever discovered my passion for mixing animal behavior and urban ecology had I not been forced to question what kinds of field work would be compatible with my wheelchair,” she explains.

For PIs who have not provided accommodations before, launching a research group with inclusive accessibility in mind is new territory. “Be open to those conversations,” advises O’Connell. “Get comfortable with that uncomfortable feeling that you’re not an expert and that you have to find something you may not be familiar with to make this work for the student.”

She adds, “It is so important to ask the person with the disability what works best for them and not make assumptions. They have encountered things. They know what the workarounds are.” And always consider the guiding principle in the disability community, “nothing about us, without us,” says O’Connell. “This means you should not make decisions for people with disabilities without including them in the process. No one should assume what accommodations will work for a person with a disability without asking them first what would be most useful.”

Inclusive accessibility is about giving everyone not just a voice in science, but the tools and methods to be successful in using that voice. “Make sure you don’t have a very narrow concept of what success looks like,” says Shanahan. “Some students might take longer or need a break, and this doesn’t mean they are not successful. Support them and reassure them that they can be successful.” Adds Minkara, “We get so caught up in the whole competition and ambition, and might think of someone who is different as slowing us down... This is such a negative value that is hindering us in all areas of science. My advice is to work with students of all abilities because it will pay off on the end, even if it takes a little more time.”

References


Alaina G. Levine is a science writer, science careers consultant, professional speaker, and author of Networking for Nerds (Wiley, 2015).
The Institute for Systems Genomics (ISG) at the University of Connecticut (UConn) invites applications for an open-rank (Assistant, Associate or Full Professor) tenure-track faculty position at the Storrs campus. The successful candidate is expected to bring a transformational, innovative, cross-disciplinary, and high-impact research program in genomics to UConn while complementing existing strengths across the departments within the College of Liberal Arts and Sciences participating in this search, Ecology and Evolutionary Biology, Marine Sciences, Molecular and Cell Biology, and Physiology and Neurobiology. The ISG, https://isg.uconn.edu/, draws upon the research strength of 10 schools and colleges at UConn and the nearby Jackson Laboratory for Genomic Medicine (https://jax.org/about-us/locations/farmington) and currently is comprised of 148 members with a collective grant portfolio of over $235 million. Located at one of the nation’s premier public research universities, UConn’s ISG offers world class core facilities, including several centers established in support of genomics research such as the Center for Genome Innovation (https://cgl.uconn.edu/) and the Computational Biology Core (https://bioinformatics.uconn.edu/).

The successful candidate is expected to develop and sustain an externally-funded research program through collaboration and engagement with the ISG research community, broaden participation among under-represented groups, and contribute to an inclusive culture on campus and in the laboratory. The candidate will advise and mentor students and postdoctoral fellows in research, outreach, and professional development and offer innovative course content in genomics. Minimum qualifications include a Ph.D. in a relevant subject, postdoctoral experience, a track record of research publications in their field, and background that provides preparation for teaching excellence at the undergraduate or graduate levels. Candidates that will establish or bring a research program incorporating innovative and interdisciplinary approaches in genomics complementing the existing strengths of the ISG and contribute to the diversity and excellence of the learning experience and academic community through research, teaching, and service, are preferred. At higher ranks, a successful candidate should demonstrate successes in conducting and leading collaborative research, obtaining extramural support to maintain and grow an independent, dynamic research program, and an outstanding publication record.

This is a full-time, 9-month, tenure-track position with an anticipated earliest start date of August 23, 2020. Salary, rank and start-up packages are highly competitive and will be commensurate with qualifications and experience. To apply please see minimum and preferred qualifications for Applicants seeking Assistant Professor, Associate Professor or Full Professor rank: https://academicjobsonline.org/ajo/jobs/15839

Applications are required to upload the following material: (1) Cover Letter describing your interest the position; (2) Full Curriculum Vitae; (3) Research Statement (2-3 pages) describing your scientific contributions and future research program; (4) Teaching Statement (1 page) including a description of previous teaching and mentoring experience; (5) Diversity, Equity and Inclusion Statement (1 page) including your perspective on barriers to success for underrepresented groups in STEM, your past efforts to address these issues, and your future plans to foster a diverse, equitable, and inclusive research community at UConn; (6) PDFs of your 1-2 most significant publications; and (7) Name and contact information for three professional references. Review of applications will begin immediately and continue until the position is filled. For inquiries about the position, please contact Jessica Williamson, ISG Program Assistant, with any questions (Jessica.Williamson@uconn.edu).

The University of Connecticut is an EEO/AA Employer.

The Ecosystems Center of the Marine Biological Laboratory (MBL) is hiring faculty at all levels to expand our program in coastal ecosystems ecology. Scientists with an interest in collaborative, interdisciplinary studies on coastal estuaries, bays, marshes, and/or coastal watersheds across the globe will be considered. Applicants from communities underrepresented in science, or with a strong history of service to these communities, are particularly encouraged. Candidates applying at the Associate or Senior level should demonstrate the potential to take a leadership role in the Plum Island Ecosystems Long-Term Ecological Research program (pie-lter.ecosystems.mbl.edu) or the Semester in Environmental Science (mbl.edu/ses). We seek candidates with diverse areas of research expertise, including, but not limited to, biogeochemistry and its controls, trophic interactions, ecological modeling, and community and ecosystem ecology. Top priority will be given to candidates demonstrating interest in conducting research within the broad context of global climate change and other anthropogenic influences on the coastal zone.

The Ecosystems Center (mbl.edu/ecosystems) was founded four decades ago to investigate the structure and functioning of ecological systems and predict their responses to changing environmental conditions. The current faculty is highly collaborative, with strength in biogeochemistry, ecological modeling, microbial ecology, microbial dynamics, plant-soil interactions, coastal processes, and adaptation to life on land (mbl.edu/ecosystems/faculty/). Ecosystems faculty also collaborate with other groups at MBL with expertise in molecular evolution, functional genomics, microbial diversity, developmental and regenerative biology, bioinformatics, and advanced imaging techniques. MBL’s initiative in coastal ecosystems ecology complements other strategic initiatives at MBL involving microbiome research, the development of aquatic organisms as new research tools, and advanced imaging and image analysis.

**Qualifications:** Applicants must hold a Ph.D. (or equivalent advanced degree) in a relevant field. The successful candidate will demonstrate an interest in collaborative, interdisciplinary work, as well as a strong potential for establishing a vigorous extramurally supported research program that can complement existing areas of strength.

The MBL is an affiliate of the University of Chicago and an Equal Opportunity/Affirmative Action employer committed to diversity. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, gender identity, sexual orientation or protected veteran status.

**Applications should be submitted at go.mbl.edu/Eco-jobs by March 15.**

Applications received by March 15 will receive full consideration; however, applications will be accepted until the position is filled. Inquiries about the position should be directed to Dr. Anne Giblin, Chair of the Search Committee (agiblin@mbl.edu).
Join the Winthrop P. Rockefeller team and help us fight the battle against cancer

The Winthrop P. Rockefeller Cancer Institute is leading the recruitment of multiple investigators (up to 25) for a major strategic increase in its portfolio across basic, translational, population science and clinical research efforts. Recruitment is for tenured, tenure-track, and non-tenure-earning faculty at all ranks and includes academic appointment in one or more academic departments across the University. All applications will be considered, but priority will be given to those applicants with research focused in the following areas: molecular biology, proteomics, cancer and mechanism of disease; cancer cell metabolism, epigenetics, oncolytic viruses, cancer outcomes and survivorship, role of the microbiome in cancer, cancer imaging, chemoprevention and informatics. Likewise, we are interested in research involving the following organ systems: ovary, breast, lung, and hematologic malignancies including multiple myeloma. This large-scale recruiting effort is made possible through significant institutional support and a $10M annual commitment from the state of Arkansas to support the Cancer Institute’s efforts to attain NCI Designation.

Successful applicants will join one of the most prestigious cancer centers in the country. The Winthrop P. Rockefeller Cancer Institute has been one of the nation’s premier cancer centers for more than three decades, and it is the only cancer center in the state of Arkansas with a robust cancer research portfolio and a mission to improve cancer outcomes for all Arkansans. The Cancer Institute treats over 2,500 new cancer patients annually and has an extensive effort focused on delivering cancer care and conducting research in underserved populations. Its 135 members conduct outstanding cancer research in multiple scientific programs. Cancer Institute members receive approximately $10 million in extramural cancer research funds annually, including multiple “team science” grants. The Cancer Institute has 5 institutional shared resource facilities. A robust clinical trial infrastructure currently supports nearly 270 cancer clinical trials. The University of Arkansas for Medical Sciences is one of 57 institutions with an NIH Clinical and Translational Science Award, which supports translational research and creates a supportive environment that synergizes with the Cancer Institute to promote junior investigators and transdisciplinary research.

Applicants should send their Curriculum Vitae, a one page letter of interest, and 3 professional references directly to Cancer Institute director, Michael J. Birrer, MD, PhD at mjbirrer@uams.edu. Application deadline is June 1, 2020. Review of applications will continue until all positions are filled. Applicants must have an MD, PhD, MD/PhD or equivalent. Selected applicants will join a diverse and vibrant academic community that values its researchers and is committed to diversity, equity and inclusion. Applicants must be able to work in a team environment.

UAMS is an inclusive Affirmative Action and Equal Opportunity Employer of individuals with disabilities and protected veterans and is committed to excellence.
Who’s the Top Employer for 2019?

Science Careers’ annual survey reveals the top companies in biotech & pharma voted on by Science readers.

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