



We believe every individual has vision, and that eyesight is not a requirement to achieving a dream.

Our goal is to restore function to the blind and visually impaired. To this end, we dedicate our research to investigating the functional implications of vision loss, early screening and access to treatments, optimizing rehabilitation therapies and developing accessibility technology.

FELLOWSHIP PROGRAM

<http://www.envisionus.com/research>

<http://research.envisionus.com/Fellowship-Program>

The Envision Research Institute (ERI) is excited to announce the opening of an opportunity to apply for a Mental Health & Substance Use Disorder postdoctoral research fellowship!

The purpose of the Envision Research Institute (ERI) is to carry out applied and innovative research in blindness and low vision, with the goal of removing functional barriers for these individuals.

Since 1933, Envision, Inc. has strived to improve the quality of life and provide inspiration for the blind and visually impaired (BVI), through employment programs, outreach, rehabilitation and education. Significant gaps exist, however, in our scientific understanding of vision loss related to everyday life and rehabilitation services. Envision is uniquely positioned to address these needs and gaps in blind and visually impaired (BVI) related research given our longstanding and direct contact with BVI populations.

Visual impairment can have a profound impact on an individual's ability to function in daily life. Impairment can range from mild to severe, including total blindness. Age-related diseases can cause vision loss later in life, leading to decreased independence, isolation and depression. Health conditions can affect vision in children that then lead to a lifetime of anxiety and barriers to education and assimilation in the community. People suffering from vision loss are twice as likely to suffer from depression as the general population. Unfortunately, we don't know the prevalence of substance use disorder in people suffering from vision loss. These concepts are not new, but have never been a research focus of the mental health or vision rehabilitation community. It is critical to understand the consequences of our observations regarding depression and other mental health consequences of vision loss (anxiety, loneliness, helplessness and isolation for example) to begin to understand how to deal with these mental health issues that can encourage existing, or lead to new, addictions.

It is a statistical fact that loss of sight is the disability people fear most. 76% of people would rather lose a limb than their eyesight. For many people as their eyesight deteriorates their horizons shrink; they see only trouble ahead and gradually they become more isolated and lonely as well as many become depressed. Often people are on edge, fearing that something new will crop up that they can't do any longer because of the restriction of their eye sight. The emotional impact of vision loss can be massive. The good news is that most everyone is capable of adapting with the appropriate help, and therefore can come to terms with the challenges they face. However, take this situation as a certainty; having a significant sight problem will be life changing, and for many it will cause huge emotional stress. Vision loss certainly changes a person's life but it is unknown whether these changes include an increased risk of addictive behaviors. The most important thing to understand is that life with visual impairment can be just as fulfilling, joyful, and satisfying as life with vision. Our first responsibility is to help people by developing proper tools and training for rehabilitation. Our second responsibility is to provide the appropriate complete rehabilitative interventions for people with vision loss. These complete rehabilitative interventions might need to include addiction interventions in addition to the physical and mental health interventions to provide the proper tools and training.

This fellowship research program should focus on critically examining to better understand the impact of mental health shifts and addiction trends for individuals who are blind and visually impaired. The fellowship research program would help chart a course on national policy and rehabilitative intervention development for those who are blind or visually impaired. The Mental Health and Addiction Research Program could develop insights into:

- Examining what will influence the addiction habits for BVI individuals, including mental health and BVI issues, social trends, etc.;
- Identifying new interventions for improved mental health conditions in BVI individuals;

- Examining accessibility, cost, quality and usability of mental health and addiction interventions;
- Examining reimbursement trends to determine what might impact the mental health and addiction conditions in the BVI community; and
- Identifying areas for future research by reviewing geographic and socioeconomic information/trends.

The goals of the Mental Health & Addiction Fellowship should lead the fellow to achieve the following:

- Staying abreast of developments in the field of mental health and addiction policy;
- Acting as a liaison with relevant stakeholders;
- Generating a white paper/policy brief, offering concrete recommendations to advance mental health and addiction interventions at the local and national levels; and
- Generating mental health and addiction research manuscripts that will be submitted to appropriate peer-reviewed academic journals, as relevant.

Please submit your application to research@envisionus.com. Please email any questions to Ronald Schuchard, ERI Executive Director, at the same email address.

ENVISION FELLOWSHIP PROGRAM

ERI Fellows take their diverse educational backgrounds and apply them creatively to improve the quality of life and provide inspiration for the blind and visually impaired through their research endeavors. Partnering with mentors at Envision and nationwide at renowned educational, government, research and medical institutions; ERI Fellows are on the fast track to independent and impactful professional careers.

Eligibility

A Fellow must have received, at the start of their Fellowship, a PhD, PsyD, MD, OD, OTD, JD or equivalent doctoral degree at an accredited institution. BVI research is multi- and interdisciplinary, thus the field of the doctoral degree is less important than the proposed training and research to be carried out during the fellowship. Preference will be given to applicants that are also licensed to provide mental health care (e.g., LP or LCSW) as part of the Envision Vision Rehabilitation Center (EVRC). The fellow will have the opportunity to be part of the EVRC rehabilitative team that provides complete rehabilitative care for BVI individuals in addition to their ERI research activities.

Research and Training Objectives

The main focus of the fellow is to develop and carry out a research project with their mentor(s) that extends their skills and fulfills the mission of ERI, while taking specific advantage of the unique combination of environment and resources available through the ERI. The research and training plan is to be written by the Fellow, and may incorporate up to 3 months of off-site training in the first year at the external mentor's institution. Specific training objectives can be received at both the external mentor's institution and at the ERI. Fellows are expected to attend and present at relevant conferences each year, as well as the Envision Conference. Staying current in relevant topics will include attendance at various symposia and journal clubs, as well as attendance at Envision Grand Rounds. Fellows are expected to develop their grant writing skills by applying for external funding in their second year.

ERI Resources

Envision programs include an early childhood development center, vision rehabilitation clinic, workforce innovation center and the research institute in a single building. This unique environment fosters communication and collaboration, allowing ERI researchers to quickly translate our knowledge into applications that can directly impact the blind and visually impaired. In the other direction, researchers gain inspiration and valuable insight into impactful and meaningful questions by interacting with BVI individuals and the professionals that serve them. Envision programs include:

Envision Child Development Center (ECDC)

<http://www.envisionus.com/Pages/Services/ChildhoodDevelopment.aspx>

The ECDC provides comprehensive early intervention services for children birth through age 5. A state-of-the-art childcare facility and preschool, the ECDC offers a quality education with the goal of maximizing each child's potential. Each classroom is comprised of at least one-third typically developing students to provide appropriate age-related mentoring.

Envision Vision Rehabilitation Center (EVRC)

<http://www.envisionus.com/Rehab/>

The mission of the EVRC is to enhance the independence of and enrich the quality of life for people who are blind or low vision through the delivery of research-based vision rehabilitation. Our staff consists of licensed and certified specialists in ophthalmology, optometry, orientation and mobility, physical therapy and occupational therapy. We work directly with individuals and their families, building independence and inspiring hope.

Envision University

<http://www.envisionuniversity.org/>

Envision University provides continuing education opportunities for vision rehabilitation providers and a forum for research dissemination through the annual Envision Conference and the publication *Visibility*.

Workforce Innovation Center (WIC)

<https://www.envisionus.com/Workforce-Innovation-Center>

The Workforce Innovation Center is dedicated to improving the lives of individuals who are blind or visually impaired by providing experiential training and job placement opportunities in desired career fields. The Center is also focused on providing accessibility expertise to businesses around the United States to guide companies toward a more accessible and inclusive workplace for all.

Envision Industries

<http://www.envisionus.com/Pages/Manufacturing/Industries.aspx>

Almost 50 percent of the nearly 400 Envision employees are blind or vision impaired, making Envision the nation's second largest employer of individuals who are blind or vision impaired. Employees with vision impairments work in manufacturing, retail, print, customer service and administrative careers.

APPLICATION AND SELECTION PROCESS

The applicant should develop a research and training plan and secure a letter of commitment from any proposed mentors (local and external; as appropriate). The applications are reviewed by ERI's Advisory Panel as well as external ad-hoc reviewers with expertise in the relevant topic areas. The review criteria are as follows:

- Applicant: Qualifications of applicant and potential for a professional (emphasis on research) career
- Scientific Merit: Significance of proposed research plan; feasibility of methods and approach
- Career Development: Significance of proposed training plan and support of applicant's future goals
- Institutional Benefit: Potential impact and alignment with Envision mission

External mentor(s) will agree to support the Fellow in the following:

- Support Fellow in writing an Individual Development Plan (IDP)
- Day-to-day interaction to design and carry out research project
- Fellow access to resources in mentor's laboratory
- Promote training in oral and written presentation of research
- Ensure Fellow integration and participation in research community activities
- Acknowledgement of ERI affiliation and support when disseminating Fellow's research

Period of Support: Envision Fellowships are 2 years in duration, with the second year contingent on sufficient progress in the first. Requests for additional time or a delayed start time must be strongly justified. Such events include sudden loss of an external mentor's services, accident, illness, or other personal situations which prevent the Fellow from pursuing research training and education in an effective manner for a significant period of time.

Terms and Conditions: All awards are made with the proviso that the second year of continued support is contingent upon appropriate progress. In the unlikely event of a difficulty that may arise during the Fellowship period, the matter should be promptly discussed with the Mentor. If the problem involves the Mentor the matter should be discussed with the Executive Director of ERI. Outside employment, during regular Fellowship hours, must be approved by the Mentor and Executive Director of ERI. Publications and presentation of discoveries by awardees are governed by Envision policies including: 1) Fellows are required to sign ERI's annual Conflict of Interest statement; and 2) Fellows are required to sign ERI's Intellectual Property Agreement.

Mentors: The mentor is the individual with whom the Fellow interacts with on a regular basis to design and carry out the research project. A Fellow may have multiple mentors if it benefits their research and training as long as a collaboration plan is clearly articulated. A Fellow may travel up to 3 months in the first year to receive training at an external mentor's institute. However, fellows are required to spend at least the first few months of their fellowship at Envision for the purpose of getting immersed into the Envision and BVI community as well as establishing residence, etc.

Advisory Panel: The ERI Advisory Panel is composed of external scientists who review the Fellowship Program and all applications for admission, and ensure that the program is consistent with helping the Fellows achieve their optimal development during their research and training experience as well as ensure that research being conducted is consistent with ERI's goals and functions.

Individual Development Plan (IDP): Upon entry into the program, the Fellow will develop an IDP for tracking progress throughout the training program. The IDP addresses professional development needs in light of career objectives. The IDP is reviewed semi-annually and adjusted as needed. The Fellow will work with the mentor(s) and the Executive Director of ERI to write this plan.

Stipends: Fellows receive a stipend as a subsistence allowance to defray living expenses during the research and training experiences. Stipend levels are similar to congressionally decided rates (e.g. NIH NRSA stipend levels –

<https://grants.nih.gov/grants/guide/notice-files/NOT-OD-18-175.html>) based on the qualifications of the fellow. Fellows also receive a health insurance stipend to allow the Fellow to purchase individual insurance.

Research and Training Funds: Fellows will submit a budget as part of their application to support research and training costs including any equipment needed. Fellows should include travel costs and housing supplements required to facilitate training at the external mentor's institution in the proposed budget if desired.

Visa: International Fellows will be issued a J-1 visa as a Research Scholar.

Other Benefits: As the Fellow is not an Envision employee, they are not eligible to participate in Envision's retirement plan and other benefits. For example, they do not accrue vacation or sick leave, but time off is allowed at the discretion of their mentor(s) and the Executive Director of ERI.

Taxes: Since Fellowships are considered awards for training and education, stipends are not subject to Social Security, Medicare deductions, nor can IRA or other tax-related deductions be taken. Section 117 of the Internal Revenue Code applies to the tax treatment of scholarships and fellowships. Non-degree candidates are required to report as gross income any monies paid on their behalf for stipends or any course tuition and fees required for attendance. The taxability of stipends in no way alters the relationship between Fellows and Envision. Stipends are not considered salaries. In addition, recipients of individual Fellowships are not considered to be in an employee-employer relationship with Envision solely as a result of the Fellowship award. The interpretation and implementation of the tax laws are the domain of the IRS and the courts. Envision takes no position on what the status may be for a particular taxpayer, and it does not have the authority to dispense tax advice. Individuals should consult their local IRS office about the applicability of the law to their situation and for information on their tax obligations. Although stipends are not considered salaries, this income is still subject to Federal and, sometimes, State income tax. Envision is not required to issue a Form 1099, but does provide an annual letter of documentation of stipend received. This will function as a reminder to the fellow that some tax liability may exist. Fellows are reminded that, even though Envision does not issue a Form 1099, they still are required to report stipends as income.

PREVIOUS AND CURRENT RECIPIENTS

Visual Fixation and Function in Central Vision Loss

Intact central vision is critical for activities of daily living including reading, driving, face recognition, etc. With central vision loss, several changes in the visual system ensue including the use of an eccentric preferred location in the retina for performing various visual tasks and fixational eye movements. Dr. Arun Krishnan aims to understand the eye movement pattern and residual visual function in people with central vision loss. His findings will help vision scientists better understand the central visual impairment that is pivotal for devising rehabilitation strategies in the future.

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| FELLOW: | Arun Krishnan, PhD | http://research.envisionus.com/Team/Arun-Kumar-Krishnan,-PhD |
| EXTERNAL MENTOR: | Susana Chung, OD, PhD | University of California, Berkeley |
| SPONSOR: | Bosma Enterprises | http://www.bosma.org/ |

Improving Public Transportation Accessibility: Using Cognitive Task Analysis Techniques to Generate Design Recommendations and Create Prototypes of Design Concepts

The primary aim of this project is to improve public transit accessibility for blind and visually impaired passengers by creating design recommendations for effective mobility and orientation training procedures, and sociotechnical systems; and developing prototypes of design concepts.

FELLOW: Güler Aarsal, PhD <https://research.envisionus.com/Team/Guler-Arsal,-PhD>
 EXTERNAL MENTORS: Alex Chaparro, PhD Embry-Riddle Aeronautical University
 Paul Ward, PhD University of Northern Colorado
 SPONSOR: ibvi <http://www.ibmilwaukee.com/>

Transcranial Brain Stimulation and Visual Rehabilitation

The overall goal of this project is to better characterize activity in the visual cortex and plastic changes in retinotopic reorganization as a function of visual impairments. Transcranial brain stimulation is a potential tool for triggering plasticity and may be viable in low vision rehabilitation for enhancing residual vision.

FELLOW: Rajkumar Raveendran, PhD <https://research.envisionus.com/Team/Rajkumar-Raveendran>
 EXTERNAL MENTOR: Ben Thompson, OD, PhD University of Waterloo, Ontario Canada
 SPONSOR: LC Industries <http://www.lcindustries.com/>

Developing Rehabilitation for Interactions Between Visual Impairment, Voice Recognition, Social Impairment and Depression.

The overall goal of this project is to investigate whether visual impairments that impair face identification abilities are more likely to result in improved voice recognition, to assess whether impaired visual face recognition abilities are associated with social anxiety and depression, and to investigate whether training on voice discrimination abilities can improve metrics associated with the quality of social life and depression.

FELLOW: Susanne Klauke, PhD
 EXTERNAL MENTOR: Ione Fine, PhD University of Washington
 SPONSOR: Pitt Plastics <http://www.pittplastics.com/>

Effect of Revised Section 503 of the Rehabilitation Act of 1973 Regulations on Employer HR Policies and Procedures

Using statistical analysis of responses from employers and BVI individuals, the overall goal of this policy and employment-related project is to measure the progress that has been made to improve employment outcomes for the BVI community since the Section 503 of the Rehabilitation Act of 1973 regulations update. Results will inform HR professionals and BVI advocates on how to proceed in developing effective HR policies and procedures.

FELLOW: Marco Tarantino, JD <https://research.envisionus.com/Team/Marco-Tarantino,-JD>
 EXTERNAL MENTOR: Michael Stein, JD PhD Harvard University
 SPONSOR: NIB <http://www.nib.org/>

Driver Assistance Technology to Support Hazard Detection and Avoidance for Older Drivers with Central Vision Loss

Technology exists to support driving safety with assistance and automation technologies that may help to reduce road fatalities by minimizing human error and have great potential to improve driving safety of people with vision impairments. The fellowship research aims to investigate and evaluate the potential benefits and risks of Advanced Driving Assistance Systems (ADAS) to help older drivers with AMD.

FELLOW: Jing Xu, PhD <https://research.envisionus.com/Team/Jing-Xu,-PhD>
 LOCAL MENTOR: Rui Ni, PhD Wichita State University
 EXTERNAL MENTOR: Alex Bowers, PHD Harvard University
 SPONSOR: Bosma Industries <https://www.bosma.org/>

Evaluating Orientation and Localization Abilities in Individuals with Sensory Loss

Dual sensory loss (DSL; both vision and hearing loss) is a condition that is prevalent among active and retired military personnel as well as a significant portion of the civilian population. The goal of the research is to investigate localization of objects in everyday life to improve how people with vision and hearing loss manage a wide range of everyday tasks; from safely confronting approaching vehicles as well as improvements in social environments such as identifying people in a group conversation. The aim is to develop outcome measures to predict real-life object localization performance and investigating sound-light combinations to localize objects in public space to increase the accessibility of the environment.

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| FELLOW: | Yingzi Xiong, PhD | https://research.envisionus.com/Team/Yingzi-Xiong,-PhD |
| LOCAL MENTOR: | Donald Fletcher, MD | Envision Vision Rehabilitation Center |
| EXTERNAL MENTOR: | Gordon Legge, PhD | University of Minnesota |
| EXTERNAL MENTOR: | Peggy Nelson | University of Minnesota |
| SPONSOR: | ADS | https://adsinc.com/ |

FELLOWSHIP APPLICATION

Applicant Name:

Citizenship:

Mailing Address:

E-mail Address:

Current Affiliation:

Local Mentor(s):

Local Mentor(s) Affiliation:

External Mentor(s):

External Mentor(s) Affiliation:

Title of Project:

Proposed Dates of Fellowship: From: _____ To: _____

Project Space Requirements:

How did you learn about this ERI Fellowship opportunity?

APPLICANT SIGNATURE

DATE

OPTIONAL:

- RACE:** American Indian / Alaska Native
 Asian
 Native Hawaiian or Other Pacific Islander
 Black or African American
 White

- ETHNICITY:** Hispanic or Latino
 Not Hispanic or Latino

The application should include the following sections, in the order as noted below with the pages numbered. Application text should be single spaced with Calibri or Arial 12 point font size. Letters of Commitment and Support should be sent separate from the application.

1. Abstract (300 words)

2. Research Proposal (4 pages)

The proposal should outline the research questions to be answered or research aims to be addressed, relevant background, study design and methods, and anticipated scientific impact. Specifically address how the proposed research supports ERI's mission. Include a collaboration section that outlines a plan for interacting with the mentor(s). Competitive applications will include a strong remote communication plan to maintain ERI (while the fellow is not at ERI) and external mentor participation (e.g. Skype/Team/Zoom conferences are preferred over email and phone calls).

3. Training and Education Plan (2 pages)

Describe research methodologies in which the Fellow will receive training. Include non-project activities as relevant (coursework, symposia, conferences, etc.). If awarded, the training plan will be translated into an individual development plan (IDP) for the Fellow. Specific training objectives include:

- Ethical Conduct of Research
- Scientific or Technical Writing
- Grant Writing
- Oral Presentations
- Project Management
- Fundamentals of BVI Rehabilitation
- Advances in fellows' research area of expertise

4. Career Development Statement (1 page)

Describe applicant's current research background and professional career goals. Address how the skills and training acquired through this Fellowship will advance applicant's career beyond the two year ERI fellowship.

5. Budget and Justification (1 page)

The Fellowship includes a stipend to defray living costs and a healthcare stipend for purchasing insurance on the open market. Applicant's research budget is not to exceed \$20,000 in each year excluding major equipment purchases (IT and equipment exceeding \$5000). Please prepare a budget for each year using the cost categories illustrated in the table below, including a list of equipment (and costs) needed. Provide a separate justification of costs. Required IT equipment (office laptop will be provided) and other equipment exceeding \$5,000 should be listed separately. A dual-housing stipend (not to exceed \$3000 without permission from the ERI Executive Director) can be requested during the visit to the external mentor's location.

6. Supporting Documentation

- Applicant Curriculum Vitae (maximum of 5 pages with selected relevant material)
 - Include specific doctoral degree date (required to set stipend level).
 - Include reprints of up to 2 relevant publications.

- Mentor Curriculum Vitae (maximum of 5 pages with selected relevant material)
 - Highlight projects/publications relevant to the proposed research and training plan.
 - Highlight previous postdocs and mentoring experience.
- Support Statement
 - List grant applications that have been submitted or that you plan to submit. Include funding agency, title of project, amount and dates of support.
 - List current and/or previous fellowship or grant support. Include funding agency, title of project, amount and dates of support.
 - Include a letter of support from all external mentor institutions that indicates administrative support for the external mentor and onsite training of the fellow at the mentor’s location (if appropriate).
 - List professional references

FELLOWSHIP BUDGET

| BUDGET CATEGORY | AMOUNT | DESCRIPTION |
|-----------------------|--------|--|
| Remote Housing | | <i>additional housing costs when visiting mentor institution</i> |
| Legal | | <i>fellow visa, when applicable</i> |
| Consulting Services | | <i>student researchers, interns</i> |
| Seminar Training | | <i>conference fees, coursework</i> |
| Hotel & Airfare | | <i>fellow/(mentor) - hotel, airfare, taxi, tips</i> |
| Vehicle Expense | | <i>fellow/(mentor) - rental car, mileage/gas, parking, tolls</i> |
| Meals & Entertainment | | <i>fellow/(mentor) - per diem</i> |
| Research Equipment | | <i>equipment (<\$5,000) that is not IT equipment</i> |
| Research Participants | | <i>IRB, recruitment, subject payments</i> |
| Maintenance Contracts | | <i>software licensing</i> |
| Publications | | <i>publications submitted, poster printing</i> |
| Dues & Subscriptions | | <i>association memberships, journals</i> |
| Research Expenses | | <i>Research consumables</i> |
| TOTAL: | | |

| CAPITAL EXPENSE BUDGET | AMOUNT AND DESCRIPTION |
|------------------------|------------------------|
| IT Equipment | |
| Equipment > \$5000 | |
| TOTAL: | |

Email applications and queries to:
research@envisionus.com
 Subject: Fellowship