



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) announces the opening of an exciting opportunity to apply for a 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.

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. Premature birth and genetic conditions can affect vision in the youngest children, presenting lifetime barriers to education and assimilation in the community.

Since 1933, Envision, Inc. has strived to improve the quality of life and provide inspiration for the blind and visually impaired, through employment programs, outreach, rehabilitation and education. Significant gaps exist, however, in our scientific understanding of vision loss and rehabilitation.

The National Eye Institute (NEI) has identified specific research needs in blindness and visual impairment (BVI):

- Understanding Visual Impairment
- Screening and Testing
- Assistive Device Technology
- Visual Prosthetics
- Rehabilitation and Improving Public Health

The National Industries for the Blind (NIB) reports that more than 70% of individuals with blindness or vision impairment (BVI) are unemployed. Understanding the impact of social trends, population and demographic shifts, and technological advancements will help chart a course on national policy and workforce development for those with visual impairment.

- Identify new areas of professional growth and emerging industries
- Accessibility, cost and usability of new technologies
- Cultural shifts that influence quality of life (e.g. social media)
- Health trends and other medical issues impacting those who are blind
- Legislative trends and their impact on the BVI community
- Social causes and movements that have potential for future impact
- Geographic and socioeconomic trends

Envision is uniquely positioned to address these needs and gaps in BVI-related research given our longstanding and direct contact with blind and low vision populations. Research programs and projects are encouraged to collaborate and integrate with our programs that serve the blind and visually impaired.

Envision Child Development Center

<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

<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*.

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.

ENVISION FELLOWSHIP PROGRAM

Envision Fellows are smart, innovative and out to change the world. They 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 around the world at renowned educational, government, research and medical institutions, Envision Fellows are on the fast track to independent and impactful research careers.

Eligibility

A Fellow must have received, at the start of their Fellowship, a PhD, MD, OD, OTD, JD or equivalent doctoral degree at an accredited institution. Low vision and blindness research is multi- and interdisciplinary, thus the topic of the doctoral degree is less important than the proposed education, training and research to be carried out.

Training and Education Objectives

Envision Fellowships are 2 years in duration, with the second year contingent on sufficient progress in the first. 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 Envision, 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 6 months of off-site training per year at an external institution under a mentor who agrees to be an affiliate scholar with ERI. 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, clinical rotations, as well as establishing residence, etc. (A dual-housing stipend is provided during visits to the mentor's location.)

Specific training objectives include:

- Ethical Conduct of Research
- Scientific or Technical Writing

- Grant Writing
- Oral Presentation
- Project Management
- Fundamentals of Low Vision and Blindness Rehabilitation
- Advances in fellows' topical area of expertise

Specific training objectives can be received at both the external mentor's institution and at the ERI, with approval of the final training plan by the ERI Executive Director. Fellows are expected to attend and present at relevant conferences each year, as well as the annual 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 funds at the beginning of their second year.

ERI Resources

Envision houses an early childhood development center, vision clinic, rehabilitation facility and research institute in a single building. This unique environment fosters communication and collaboration, allowing us 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.

Application and Selection Process

STEP 1 – Letter of Intent

ERI will put out a call for Letters of Intent to apply. After internal review, top candidates will be invited to submit a full application. Initial review criteria are focused on the relevance to Envision's mission.

STEP 2 – Application

Upon invitation, the applicant will develop a training, education and research proposal and secure a memorandum of understanding from proposed external mentor(s). The applications are reviewed by ERI's Scientific 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 research career
- Scientific Merit: Significance of proposed research, feasibility of methods and approach
- Career Development: 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
- Allow opportunities for project management experience
- 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

Fellowship awards are limited to a maximum of 2 years duration. The initial award is for 12 months. Subsequent periods of approved Fellowship training and education are contingent on project progress, efforts to apply for external funding, and availability of funds. Requests for additional time or a break in 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, including efforts to apply for external funds.

1. 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 or the Chair of the Scientific Advisory Panel.
2. Outside employment, during regular Fellowship hours, must be approved by the Mentor and Executive Director of ERI.
3. Publications and presentation of discoveries by awardees are governed by the same policies that apply to employees of ERI. Fellows are required to sign ERI's annual Conflict of Interest statement.
4. Fellows are required to sign ERI's Intellectual Property Agreement.

Program Administration

Mentor: The mentor is the individual with whom the Fellow interacts with on a day-to-day basis to design and carry out the research project. A Fellow may have multiple mentors if it benefits their training and a collaboration plan is articulated. Fellow may travel up to 6 months per year to receive training at mentor(s) institute. If issues or concerns arise with a mentor, the Fellow may direct concerns to the Chair of the Scientific Advisory Panel and to ERI's Executive Director.

Scientific Advisory Panel: The ERI Scientific Advisory Panel is composed of internal and 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 maximum development during their training and education experience and ensure that research being conducted is consistent with ERI's goals and functions. The program is constantly under review and the Panel welcomes any input from current Fellows on how to improve the program.

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 quarterly and adjusted as needed. The Fellow will work with the mentor(s) and the Executive Director of ERI to write this plan. The IDP must be approved by the ERI Scientific Advisory Panel.

Financials/Benefits

Stipend: Fellows receive a stipend as a subsistence allowance to defray living expenses during the training and education experience. 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>).

Health Insurance Stipend: A health insurance stipend is provided to allow the Fellow to purchase insurance.

Research Funds/ Travel: Fellows will submit a budget as part of their application to support research costs and any equipment needed. The funds available will be outlined in the award letter. Fellows should include travel costs and housing supplements required to facilitate training at the mentor(s) institution in the proposed budget.

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

Other Benefits: As the Fellow is not an employee, they are not eligible to participate in Envision’s retirement plan. They also do not accrue vacation or sick leave, but may be allowed time off 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 RECIPIENTS

Restoring Functional 3D Vision in Macular Degeneration

In macular degeneration, patients begin to rely on remaining vision from their “good eye” while ignoring their “bad eye”. Doing so disrupts their ability to perceive depth, which has consequences for both eye-hand coordination and navigation. Drawing on rehabilitation research from amblyopia, Dr. Tony Succar developed a training regimen to help patients learn to use both eyes together and improve their overall quality of life.

FELLOW:	Tony Succar, PhD	http://research.envisionus.com/Team/Tony-Succar
MENTORS:	Laura Walker, PhD	Envision Research Institute
	Donald Fletcher, MD	Envision and Smith-Kettlewell Eye Research Institute
SPONSOR:	Envision, Inc.	http://www.envisionus.com/

Tactile Object Understanding and Characterization

Our brains are wired during development to recognize, remember and appreciate the beauty of objects in our world. Does this wiring depend on the senses feeding the brain? Through behavioral and brain imaging studies, Dr. Rezaul Karim examined how the visual experience competes with tactile experience in shaping object

perception. The results of his research will change how we create learning materials and assistive devices for those who are blind or visually impaired.

FELLOW: A.K.M. Rezaul Karim, PhD <http://research.envisionus.com/Team/Rezaul-Karim>
MENTOR: Lora Likova, PhD Smith-Kettlewell Eye Research Institute
SPONSOR: Envision, Inc. <http://www.envisionus.com/>

The Unknown Importance of the Mouth in Visually Impaired Children's Learning of Objects

A pencil and a Lego are more than objects that can be felt and seen, they are tools for cultural goals; a pencil is a means of communication; a Lego is a building block to represent real objects in the world. Blind or visually impaired children lag behind sighted peers in this critical developmental milestone: using objects in conventional ways. Dr. Andrea Urqueta Alfaro will investigate two risk factors that limit BVI children's cultural use of objects: whether/when these children's mouthing of objects needs to be discouraged in favor of hand skills development, and what is the typical development of these children's ability to pay attention to how social partners use objects? Her results will inform practices for assessing BVI children's development, determining when intervention is needed, and designing strategies for promoting these children's healthy development.

FELLOW: Andrea Urqueta Alfaro, PhD <http://research.envisionus.com/Team/Andrea-Urqueta-Alfaro,-PhD>
MENTOR: Laura Walker, PhD Envision Research Institute
Joshua Miele, PhD Smith-Kettlewell Eye Research Institute
SPONSOR: LC Industries <http://www.lcindustries.com/>

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 an increase in the amplitude of involuntary 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.

FELLOW: Arun Krishnan, PhD <http://research.envisionus.com/Team/Arun-Kumar-Krishnan,-PhD>
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>
MENTOR: Alex Chaparro, PhD Embry-Riddle Aeronautical University
Paul Ward, PhD University of Northern Colorado
SPONSOR: ibMilwaukee <http://www.ibmilwaukee.com/>

Transcranial Brain Stimulation and Visual Rehabilitation

The overall goal of this project is to better characterize activity in the brain and plastic changes in retinotopic reorganization as a function of visual disease. 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>
MENTOR: Ben Thompson, OD, PhD University of Waterloo, Ontario Canada
SPONSOR: LC Industries <http://www.lcindustries.com/>

Developing rehabilitation for interactions between visual impairment, voicerecognition, 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 than other types of visual impairment, 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
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>
SPONSOR: National Industries for the Blind <http://www.nib.org/>

HOW TO APPLY

STEP 1 – LETTER OF INTENT

The applicant will submit a Letter of Intent that contains a brief description of the following:

- Description of the applicant and his/her background
- Brief description of the intended research project and how it addresses the mission of Envision
- Proposed external mentor(s) and what new training they would support for the Fellow
- List of topical areas relevant to the research (for guiding appointment of selection committee)
- Applicant's CV

Letters should not be more than 2 pages in length (excluding CV). After internal review, top candidates will be invited to submit a full application.

STEP 2 – APPLICATION

Upon invitation, the applicant will develop a training, education and research proposal and secure a Memorandum of Understanding from proposed external mentor(s) (template will be provided by ERI). The application and instructions are on the following pages.



ADMINISTRATIVE USE ONLY
SAP RECOMMENDATION:
TOTAL AMOUNT:
APPROVED BY / DATE:

FELLOWSHIP APPLICATION

Applicant Name:

Citizenship:

Mailing Address:

E-mail Address:

Current Affiliation:

Mentor:

Mentor Affiliation:

Title of Project:

Dates of Fellowship: From: _____ To: _____

Space Requirements and Availability:

ERI:

Mentor's Laboratory:

Will human subjects be involved in this project?

Will vertebrate animals be involved in this project?

How did you learn about this ERI Fellowship opportunity?

APPLICANT SIGNATURE **DATE**

MENTOR 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. Please number pages and **upload as a single PDF** document to the Dropbox indicated in your invitation. Font should be no larger than Arial 12 point. Letters of Support should be sent separate from the application.

1. Table of Contents (1 page) – including page numbers

2. Abstract (250 words)

3. Research Proposal (5 pages)

The proposal should outline the research question to be answered, relevant background, design and methods, and anticipated scientific impact. Specifically address how the proposed research supports Envision’s mission. Include a collaboration section that outlines a plan for interacting with the mentor(s). Because fellows in the Envision Fellowship program work both in Kansas and at the site of their postdoctoral mentor, it is imperative that this fellow demonstrate the ability for research independence. Competitive applications will include a strong remote communication plan to maintain laboratory and mentor participation when the applicant is working in Kansas (e.g. Skype conferences are preferred over email and phone calls).

4. 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.). Refer to program guidelines for training objectives, and address how each will be accomplished. If awarded, the training plan will be translated into an individual development plan (IDP) for the Fellow. 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, clinical rotations, as well as establishing residence, etc. (A dual-housing stipend is provided during visits to the mentor’s location.)

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. Your budget is not to exceed \$20,000 in each year. Please prepare a budget for each year using the cost categories illustrated below, including a list of equipment (and costs) needed onsite at Envision. Provide a separate justification of costs. Required equipment exceeding \$5,000 should be listed separately.

6. Career Development Statement (1 page)

Describe applicant’s research background and career goals. Address how the skills and training acquired through this Fellowship will advance their career.

7. Supporting Documentation

- Applicant Curriculum Vitae
 - Include validation of doctoral degree date (required to set stipend level).
 - Reprints of up to 2 relevant publications.
- Mentor Curriculum Vitae
 - Highlight projects/publications relevant to the proposed research and training plan.
 - Highlight previous postdocs and mentoring experience.
- Support Statement

- List fellowship or 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.
- List equipment/resources available in the mentor's laboratory/institution.
- List equipment/resources required to conduct research at ERI.
- Include a letter of support from the mentor(s)' institution.
- List expected reference letters

Letters of Reference

- Referees should submit letters directly to ERI via e-mail at research@envisionus.com.

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), e.g. laptop</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>
Lab Expense		<i>lab consumables, e.g. 3D printer filament</i>
Office Expense		<i>office supplies, Dropbox</i>
Postage		<i>mailings</i>
TOTAL:		

CAPITAL EXPENSE BUDGET:	
ABC Equipment	
XYZ Equipment	
TOTAL:	

Email applications and queries to:

research@envisionus.com

Subject: Fellowship