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WHERE CAN ARTS INTEGRATION GO? HOPE, CHESS, AND ANCIENT VIRUSES

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The HOPE Collaboratory

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The HIV Obstruction by Programmed Epigenetics Collaboratory includes a Community Arts Integrated Research (CAIR) team working with scientific teams seeking to cure HIV by permanently disabling the virus using advanced genetic and epigenetic strategies.

Abstract: This article draws attention to the evolution of arts integrated research from the academic margins to broader acceptance by documenting the use of arts integrated research within The HOPE Collaboratory, a global initiative pursuing an HIV cure through the block-lock-stop (BLS) strategy. It highlights the HOPE Community Arts Integrated Research (CAIR) program's role in fostering community engagement, empathy, inclusion, and hope; enhancing scientific communication and public education; and promoting collaborative knowledge creation for reparative and residual research possibilities. Using the Parallaxic Praxis framework, the project demonstrates how art—through poetry, visual installations, social media, and participatory events—makes complex scientific concepts accessible, amplifies the voices of those affected by HIV, and bridges connections among researchers, communities, and the public. As an

example, the article also documents the pedagogical and research significance of the *Ecosystem* chessboard artwork, a permanent exhibit at four international research sites.

Keywords: arts integrated research; community arts integrated research; arts-based research; HIV cure research; Parallaxic Praxis; HOPE Collaboratory

In 2014, as the new journal *Art/Research International: A Transdisciplinary Journal* (ARI) was being conceptualized, co-editors-in-chief Diane Conrad and Patricia Leavy invited me to design the journal's logo (Figure 1).

Figure 1
Logo for Art/Research International (ARI)

Serving as an emblem, the logo embodies the journal's promise and reflects its core values and identity. The turning wheel symbolizes the perpetual motion of a dynamic, forward-thinking team, and represents ARI's commitment to interdisciplinary, unconventional, and global research. The peace sign within the logo highlights the journal's dedication to social justice, while the Venus symbol—depicted with a triangle dress instead of a circle—evokes feminist philosophies and sociological perspectives. The logo references Leonardo da Vinci's *Vitruvian Man*, with outstretched arms and legs, to convey inclusion, harmony, and an appreciation for aesthetics as central to the journal's brand. The logo is an example of how art can be used to express and communicate identity, values, and ideas, convey concepts that shape and create trajectory, and support outcomes and goals.

ARI's logo symbolizes the journal's mission, and ARI's tenth anniversary marks a decade of promoting and supporting arts integrated research across disciplines in the social sciences and humanities, both within and beyond academic settings. Over the past twenty years, the use of the arts in research—from data collection and analysis to dissemination—has evolved significantly, gaining greater acceptance and integration. As highlighted in the special call, ARI has provided a vital platform that celebrates the diverse ways art enriches knowledge and understanding.

In this contribution, I reflect on the journey of arts integration in research, which has progressed from being unrecognized and lacking publication venues, to supporting my Canada Research Chair in Arts Integrated Studies from 2012-2022 and significant

projects such as a $26.5 million US National Institutes of Health research grant. When I began experimenting with form, genre, parallax, and transmediation in my 2006 dissertation, such possibilities seemed unimaginable. The 2000s saw a burgeoning surge in educational research, with influential work from Ardra Cole and J. Gary Knowles in arts-informed inquiry, Elliot Eisner and Tom Barone in arts-based educational research, and Rita Irwin and others in a/r/tography. ARI's launch in 2015 was timely, providing a crucial space for this growing field.

This article is an edited version of my 2025 Lakehead Distinguished Researcher Award Lecture, which was shared when I received the university's highest recognition for sustained research excellence. Receiving this award was deeply humbling, especially remembering times when arts integrated research was not acknowledged. In 2025, the *HOPE project* (detailed below) was the recipient of Lakehead University's inaugural Equity, Diversity, and Inclusion in Research Award—a testament to the capacity of the Community Arts Integrated Research (CAIR) program within the HOPE project. I am deeply grateful to all the colleagues, students, participants, and contributors (recognized and not recognized) who are shaping possibilities for arts integration in research. ARI has been instrumental in increasing the visibility and acceptance of the field.

Here, I share how the arts have been woven into the design of the HOPE project. The documentation spans Years 1-4 of a five-year project. Arts integrated research has resulted in engagement opportunities with a pedagogical reach that would not have been possible with traditional research. This includes the thousands of views across social media platforms of posts, interviews, and events; seven permanent art exhibitions; 2500 purchased copies of a poetry book; publications; events; and an educational animation. Arts integrated research can be measured by its reparative impact—returning value to participants and communities—and its residual success, as projects continue to grow independently of the researchers. By these measures, the HOPE CAIR program is poised for ongoing reach by the works that are publicly accessible online, in print, or on exhibit.

Community Arts Integrated Research (CAIR) in the HOPE Project

This section is structured in three parts. First, I outline key perspectives that shape my work. Second, I introduce the project, describe its design and methodology, and share some of the CAIR projects. Third, I conclude with an explanation of *Ecosystem*—an artwork that further demonstrates where arts integration can go.

Research Standpoints

While there are many important contributing viewpoints that guide my work, these three serve as foundational guiding cornerstones:

- Research dreams a better future. As we think, imagine, make, and share, we construct the society we hope for. Research is the generation of life worlds that are nothing less than our contemporary and future society (Sameshima, 2019b).
- Imagination is a quotidian politics; the everyday revolution that is lived in the moment. In our daily lived experience, the familiar language of resistance, revolt, or revolution must be reimagined for a politics of creativity and generation. A politics of the imagination turns away from combative confrontation and binary and dichotomous tensions to generate new networks and systems of social relationships. Research is not a resistance or a revolt but a new making, an addition to what is (Sameshima, 2019b).
- Language shapes our conceptions. When we use oppositional or violent language (which creates our frames of thinking), we lose opportunities to account for the middle spaces where lives can thrive in difference.

The HOPE Project

The HIV Obstruction by Programmed Epigenetics (HOPE) Collaboratory is an international research initiative focused on finding a cure for HIV. Supported by a $26.5 million grant from the U.S. National Institutes of Health, HOPE unites researchers from institutions around the world to develop an innovative *block-lock-stop* (BLS) strategy. This approach aims to: block the HIV from reactivating, lock it into a dormant state, and stop it by making the virus permanently defective using gene editing techniques. What sets HOPE apart is its foundation in the natural history of viruses—specifically, how some viruses have become harmless over time and now make up about 8% of human DNA. The project seeks to accelerate this process for HIV, integrating it safely into the body's ecosystem.

The project's principal investigator (PI) is Dr. Melanie Ott at the Gladstone Institute of Virology in San Francisco, with two additional PIs based in New York and Florida. The team includes co-investigators, partner researchers, students, and partner collaborators from many countries. As a co-PI, supporting additional funding from Gilead Institutes from the United States, the Social Sciences and Humanities Research Council of Canada, and Lakehead University in Canada, I lead the Community Arts Integrated Research (CAIR) team, which is an integral part of the Community Engagement Team. Research reported on the HOPE project is also supported by the NIAID, NHLBI, NIDA, NINDS, NIMH, and NIDDK of the National Institutes of Health under Award Number

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About HIV

Human Immunodeficiency Virus (HIV) is a virus that, once contracted, integrates itself into human DNA and remains in the body for life. HIV weakens the immune system, making individuals more susceptible to other diseases and infections. Without treatment, HIV progressively destroys the immune system, eventually leading to Acquired Immunodeficiency Syndrome (AIDS). Current treatments can control the virus but do not eliminate it. Finding a cure for HIV is essential to end lifelong treatment, prevent new transmissions, reduce healthcare costs, avoid drug-related side effects, and restore normal life expectancy for those affected.

Canada is actively working to meet international thresholds for halting HIV transmission, as HIV remains a significant public health concern (UNAIDS, 2025). Global data points from UNAIDS 2025 include:

- 40.8 million people were living with HIV in 2024
- 1.3 million people were newly infected in 2024
- 630,000 people died from AIDS-related illnesses in 2024
- Women and girls made up 45% of all new infections in 2024
- 4,000 adolescent girls and young women aged 15–24 became newly infected with HIV worldwide in 2024
- About 5.3 million people did not know that they were living with HIV in 2024

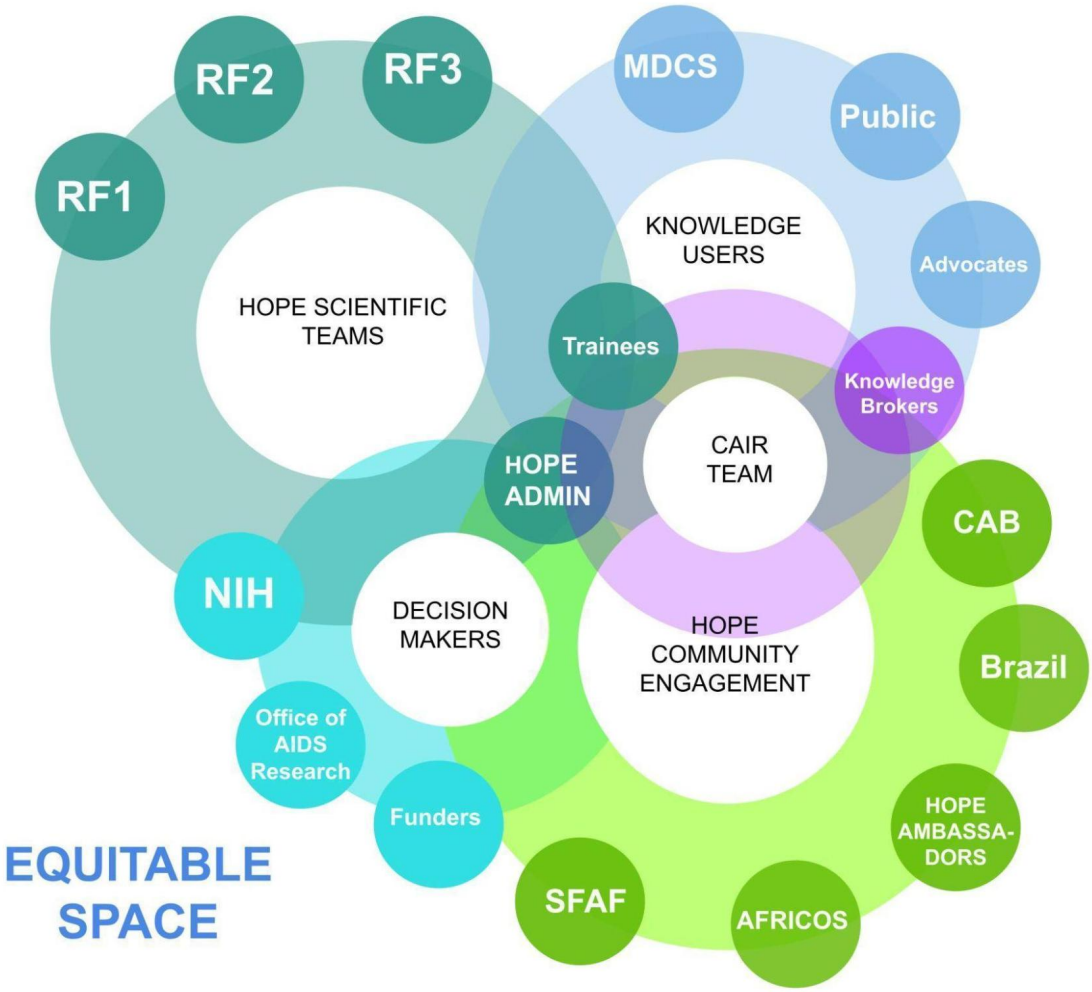
Tragically, Basilio (2025) documents that by March 2025, The Trump administration, previously the largest funder of HIV research, had terminated more than 230 grants for HIV and AIDS research. Among the cuts included a $258 million vaccine research program, and $800 million for U.S. surveillance, testing, and education programs in the United States. As well, foreign assistance that includes HIV/Aids was cut by about 60%. The February 2025 UNAIDS report projects that the severe cuts in U.S. funding for HIV prevention and treatment could lead to an additional 4.2 million AIDS-related deaths globally between 2025 and 2029. The report also notes an additional 6.6 million new HIV infections during this period due to the disruptions caused by funding reductions (UNAIDS, 2025).

Community Arts Integrated Research (CAIR)

My role on this project focuses on community engagement, and I lead the CAIR program. One of the goals of the CAIR team is to educate people living with HIV and those affected by HIV, as well as the public, about the BLS HIV cure. CAIR is the purple

ring in Figure 2 (below). This is an Equitable Space model of the project. The model is grown from Canadian Indigenous scholar Willie Ermine's (2007) work on ethical spaces when working across communities. On the top left, there are three *RFs* or Research Focus arms, which would traditionally seem like the engine of the research, but the model helps visualize the necessary relations of decision makers, community engagement, and knowledge users. The CAIR team's work radiates out, influencing all parts of the team and beyond, while it is itself being developed and embraced through multi-directional learning from the various stakeholders. The visual is important for all involved to understand their value, importance, and relationality on this project.

Figure 2
HOPE Equitable Space Model



Team Building and Mentorship

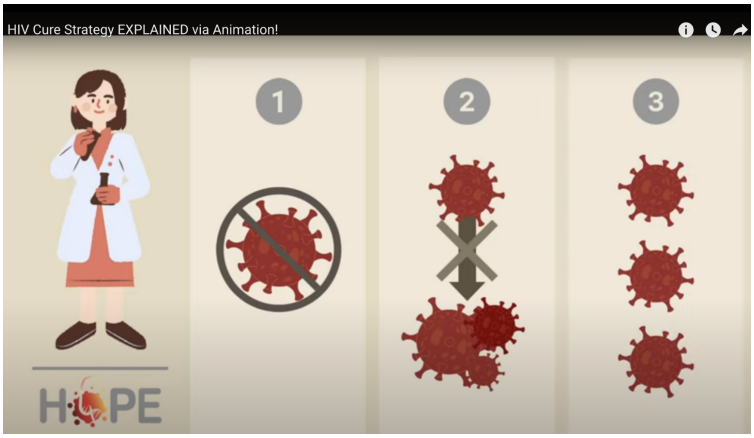
A critical part of the CAIR program is collaboration, team building, and mentorship. The project hosts standing meetings across various groups including HOPE-wide meetings, individual research focus meetings, site (Uganda and Brazil) community engagement (CE) meetings, Community Advisory Board meetings, CAIR meetings, and meetings amongst co-PIs and PIs. The various teams also cross-mentor numerous students. CAIR Lakehead students included a post-doctoral student, three PhD students and four Master of Education students. The CE team planned and hosted various international events, exhibits, and presentations. The CE team was also successful in securing a Social Sciences and Humanities Research Council Connections Grant in 2023 to gather at C2U, a community engagement conference hosted in Thunder Bay. This reel (Sameshima, 2023) documents some of the activities the team was involved in for the Connections Grant, which also included a local TV interview (Lakehead University, 2023).

CAIR Activities

The CAIR program is dedicated to educating the public about the HOPE cure strategy and HIV cure research. Through the Community Engagement arm of the HOPE project, the team uses arts activities, events, social media, and exhibitions to foster collaboration, share the stories of people living with HIV, and provide accessible education on HIV cure efforts. Notably, our animation video explaining the BLS cure strategy received over 31,000 views in its first two years (see Figure 3).

Figure 3

Block, Lock, Stop Animation Video (Link)

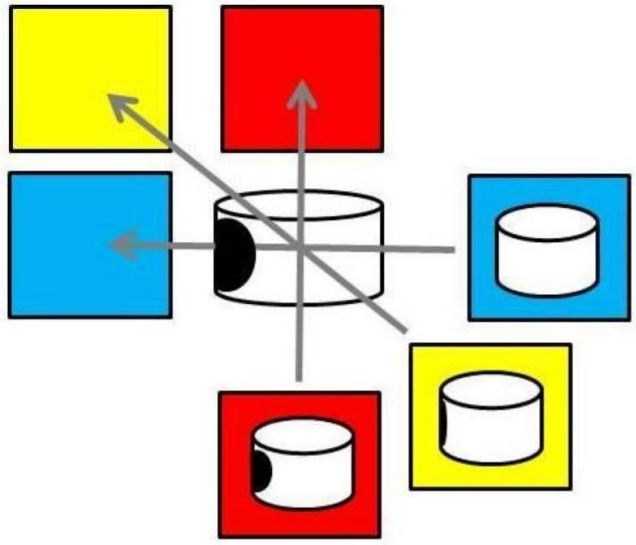


Note: Still image from the BLS video (Derrazi, 2023 April 13).

Parallaxic Praxis

The CAIR Program uses the Parallaxic Praxis framework (Sameshima et al., 2019a), which relies on the belief that what is seen differs for everyone and depends on a myriad of factors (see Figures 4 and 5). In Figure 4, while everyone is looking at the same object, we can see that different perspectives provide different observations. In Figure 5, some people may see a human figure running *into* the woods, and others may see a dog running *out* of the woods. In this situation, a mistaken observation occurs between a human and an animal, but the opposing observations of entry and exit remind us that opposites can be observed simultaneously. This, too, is the beauty that arts integrated works offer—openings for interpretation.

Figure 4



Note: Sameshima et al., 2019a, p. 3.

Figure 5

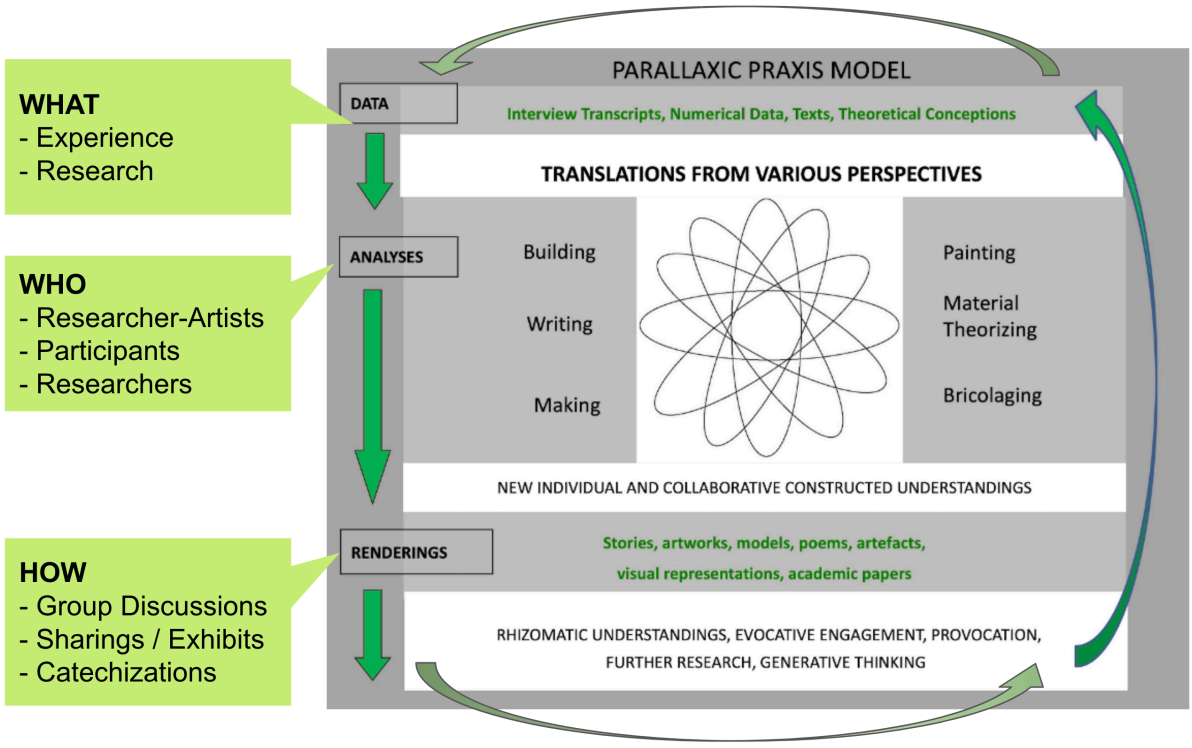
Note: Photo credit unknown.

The Framework (see Figure 6) has three cyclical phases. Data are collected from people's experiences or other data sources in the first phase (top). During the second phase, called the Analyses Phase, data are translated into another modality through ekphrasic processes. For example, experiences can be imbued into pottery creations or into journal reflections. This phase involves transmediation of data across modalities; an example may be the conversion of numeric data into graph form. In this project, focus group participants made *holders*, bowls that depict their hopes and fears about HIV research. The participants were recorded talking about their artworks and being in a guided discussion about the artworks. The systematic dialogic discussion follows a "Catechization Process" (Sameshima et al., 2019a) and generatively allows analysis

and comparisons across multi-modal works. The recordings were transcribed and the de-identified transcripts were then used as the data for found poetry or composite poetry writing, and for research-art creation. The poems and art offered a way for participants to see themselves reflected in others' words and creations, validating their stories and also sharing how other people think and feel. Poetry and artwork are distilled representations, or flavourful reductions (taking a term from culinary arts) of usually large data sets. Through arts integration, the public can access the lived experiences of those affected by HIV through manageable means. The third phase refers to the Renderings Phase. In this section, public artefacts are shared pedagogically, as a means to generate new ideas and dialogue. In this project, one of the renderings is a poetry book featuring some of the art created by participants, and poetry from the focus groups written by two researchers and a community member (Sameshima et al., 2025). In the CAIR program, community members are invited to co-write and participate in research dissemination (such as being involved in poetry readings); however, these aspects of arts integration dissemination must be included in grant writing proposals, as community members and artists must be compensated for their time and participation.

Figure 6

Parallaxic Praxis Model



Note: Model adapted from Sameshima et al., 2019a, p. 4.

HOPE Team Art Making Data: Sympoiesis Artwork

The picture of this installation (Figure 7) was taken on World AIDS Day 2022 when this exhibition launched. The scientists and community advisory members responded to the questions, “What does an HIV cure mean to you?” “What are your hopes and fears about HIV cure research?” and “What excites you about cure research?”

Figure 7
Sympoiesis

Note: HOPE Team Art. Gladstone Institutes, 2022.

Scientists and community member attendees made individual responses in clay polymer and attached their art makings to six previously made spherical infrastructures. The hanging sphere has three balls subsumed within one another. The clay frameworks and the finished collated artwork were created by Pauline Sameshima and Tashya Orasi.

As an act of *sympoiesis*, as described by feminist theorist Donna Haraway (2016), this artefact shows the beauty, strength and vulnerability of making-with one another as this collective works together, reconfiguring relationality, towards a future with a cure for HIV.

Photographs (see Figures 8, 9, and 10) and video clips from the data collection were brought together in this educational reel (Sameshima, 2022). The reel is educational, providing insight into the creative process and is publicly available on Instagram and Facebook. At the end of the reel, you will see Adam Castillejo holding the artwork. Adam is one of a very small group of individuals who have been cured of HIV following bone marrow transplantation. Please note that cures from bone marrow transplants are expensive and high-risk; BLS is intended to be a cure that will be globally accessible and administered by injection.

Figures 8, 9, 10
The making of Sympoiesis

Note: Figure 10: Esper Callas from the Brazil team is adding his piece to one of the frames, 2022.

At the session where scientists and community team members made clay contributions for the communal artwork, Raif Derrazi, a social media influencer and co-chair of the HOPE Community Advisory Board, interviewed members about what they made. The resulting video is an excellent way for laypeople to learn about various perspectives on HIV cure research. The video garnered 11,000 views in its first two years (See Figure 11). Documentation of the data collection process and resulting collective artwork can be viewed in a video (link) titled “Scientists reveal what they think

of HIV Cure research!" (Derrazi, 2023) and provides insight and transparency to people outside of academic fields. The artworks, conversations, and recordings build connection and understanding amongst the team and the resulting artefacts act as teaching tools and conversation starters for the broader public.

Figure 11

Raif Derrazi interviewing HOPE members

Note: Still photo from the video (Derrazi, 2023 January 9). Link to video.

HOPE Team Embodied Data Collection

Another HOPE arts integrated activity was a flashmob led by CAIR and community members at HOPE's 2023 annual meeting. The popularity of the event has continued to live on, with members participating in the catchy song and dance at subsequent annual meetings. The dance is performed to Rick Asley's (1987) "Never gonna give you up!" (referring to how HIV will remain inactive in the body in the BLS strategy). Through movement and music, the team investigated environments of change —in cells, in the body, in identities, and in communities. Scientists and community members unpacked approaches, understandings, and metaphors for embracing BLS

(See Figures 12 and 13). The detailed outcomes learned from participating in the flashmob and the catechization process of collecting dialogic data via questioning processes will be published elsewhere (Sameshima et al., forthcoming); however, a documentation of the flashmob and catechization process is in this video of the 2023 HOPE Annual Meeting (Sameshima, 2024).

Figure 12

Note: HOPE members reflecting on dance participation.

Figure 13

Note: HOPE members participating in a Flashmob dance.

Focus Group Data Collection

The HOPE scientific team focuses on three main areas of research: understanding how HIV transcription and chromatin structure create unique opportunities for silencing the virus; investigating how silencing-promoting agents (SPAs) can prevent viral rebound after antiretroviral therapy (ART) is discontinued; and exploring genome engineering techniques that could safely and permanently inactivate HIV. While the science is complex, the CAIR team's mission is to make the BLS strategy accessible to the public through clear education. The importance of early and comprehensive public education was highlighted during the COVID-19 pandemic—studies suggested that more timely and widespread information could have significantly reduced the pandemic's duration and consequences (Betsch et al., 2020).

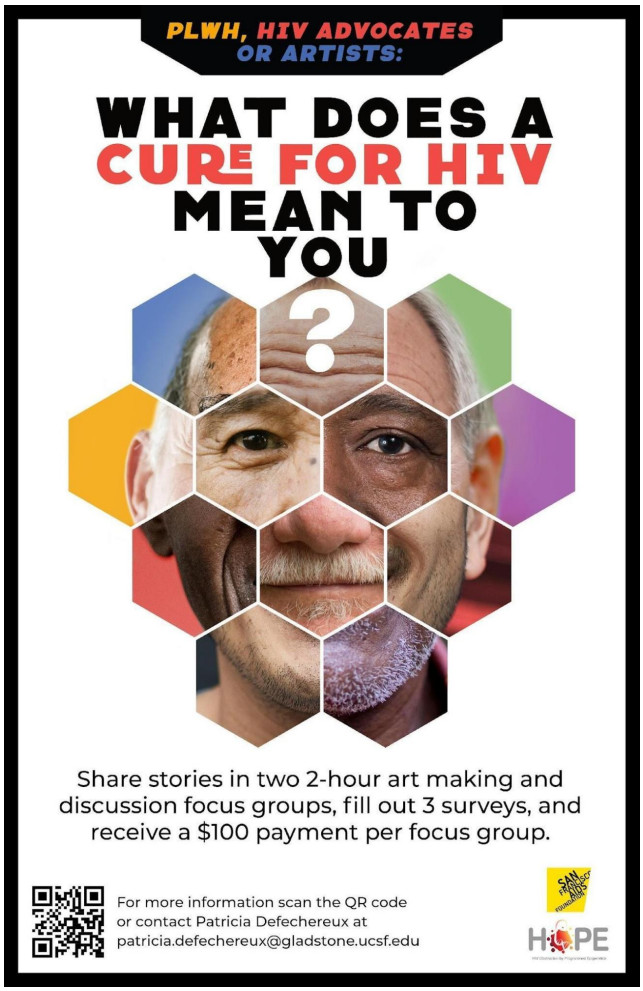
In Fall 2023, two sets of focus groups were held at the HOPE Team's community partner's facility, the San Francisco AIDS Foundation (SFAF), a nonprofit organization dedicated to providing services for people with HIV. SFAF is one of the largest and

oldest community-based AIDS service organizations in the United States, and the HOPE team is honoured to work with this community partner.

Funding from a United States Gilead Institutes community grant, combined with the exceptional collaboration between Community Engagement Coordinator Dr. Patricia Defechereux and SFAF liaison Ebony Gordon, ensured that all logistical aspects—including recruitment, transportation, food, stipends, and inclusive access for participants with mobility and visual impairments—were effectively managed (see recruitment posters, Figures 14 & 15).

Research ethics boards in the US and Canada approved three questionnaires, the teaching of the BLS strategy, and pre- and post-surveys bookending the art making and discussions.

Figures 14, 15
Recruitment posters for focus groups



Focus Group participants were introduced to the BLS strategy and asked to create holders with polymer clay that expressed their excitement and concern about BLS and HIV cure (See Figures 16, 17,18).

Figures 16, 17, 18
Focus group participant art, 2022



Participants met in two cohorts, each for two sessions (See Figures 19, 20, 21). In the first session, participants learned about BLS and made their artworks; and in the second session, participants talked about what they made and engaged as a group in a catechization discussion process (guided questioning). The recordings from the focus groups, along with two other surveys, were analyzed, coded for themes, and/or put into *RedCap* (Research Electronic Data Capture), a data collection and database management system.

Figures 19, 20, 21
Participants in Focus Groups.



A very brief overview of the focus groups and learnings is provided here to illustrate the possibilities of arts integrated research:

- 27 participants in 2 separate groups (including the 50 Plus Elizabeth Taylor Network and the Black Health Program) met twice on two separate days at SFAF
- The average age was 56 years
- 65% Black, 23% White, 4% Latino
- 73 % LGBTQ+
- 65% of participants were People Living with HIV (PLWH) and/or 58% had family members/partners living with HIV

The key findings from the focus groups centre on experiences, personal growth, and the types of support needed by people living with HIV. The data highlights the importance of understanding specific needs for future cure implementation.

Participants emphasized how HIV has become an integral part of their lives and expressed gratitude for the personal growth and positive reframing that have resulted from their experiences. A strong and consistent theme was the need for extensive education about any potential cures or new treatments. Even more than education, however, participants expressed hope for holistic, community-centred approaches to support. They want a future where people with HIV can feel they belong and are equal to anyone else in this world without stigma or isolation. The desire for unity and equality was a consistent thread throughout the conversations.

Overall, the focus group findings provide clear direction: participants want educational initiatives and support systems that are holistic and rooted in community. While there is keen interest in a potential cure, participants remain cautiously optimistic about its implementation.

A key finding from our focus groups is the need to more clearly explain what the term “cure” means in this context. In the BLS cure strategy, the virus remains in the body but is rendered inactive. The artwork below depicts a cure as the complete removal of the virus, as well as a loss of identity. This distinction is important for the rollout approach, as the BLS strategy aims to lock the virus in an inactive state within the DNA, and not remove it from the body. Figure 22 highlights that conversations about the potential loss of identity associated with no longer having HIV will be essential during the rollout for some people. As one participant described their artwork, “I don't know what life would be like if it wasn't part of me. It would be like this empty big hole.”

Figure 22
An empty big hole

Note: Participant art.

The data from the focus group has been shared through events, presentations, papers, a book of poetry titled *Holding HIV: Poems of HOPE* (Sameshima et al., 2025) and seven permanent exhibits.

Art Exhibitions and Public Sharings

Art exhibits play a crucial role in art integrated research. The exhibits enhance public engagement and understanding, making research accessible and generating interest with audiences who might not typically engage with academic work or a particular topic. Exhibits invite curiosity and foster discussions and understanding of complex topics (see Sameshima et al., 2019a). The exhibits or public sharing of works created in research projects affirm the participants' experiences—their voices, stories, or creations are shared in wider spaces, enabling others to affirm their own stories or see another's perspectives.

Public sharings also communicate knowledge in new ways. The exhibits offer alternative modes of knowledge production and dissemination, often creating new multi-disciplinary partnerships or cross-community collaborations. They allow researchers to communicate findings through sensory and emotive experiences, provoking new wonderings and making abstract or technical concepts more tangible and memorable. The artworks foster creativity, imagination, critical thinking, and joy, celebrating multiple perspectives, inclusion, and further research. See Figures 23, 24, and 25.

Figure 23

Note: Permanent Exhibit by Pisci Bruja et al. (2023), Gladstone Institutes.

Figure 24

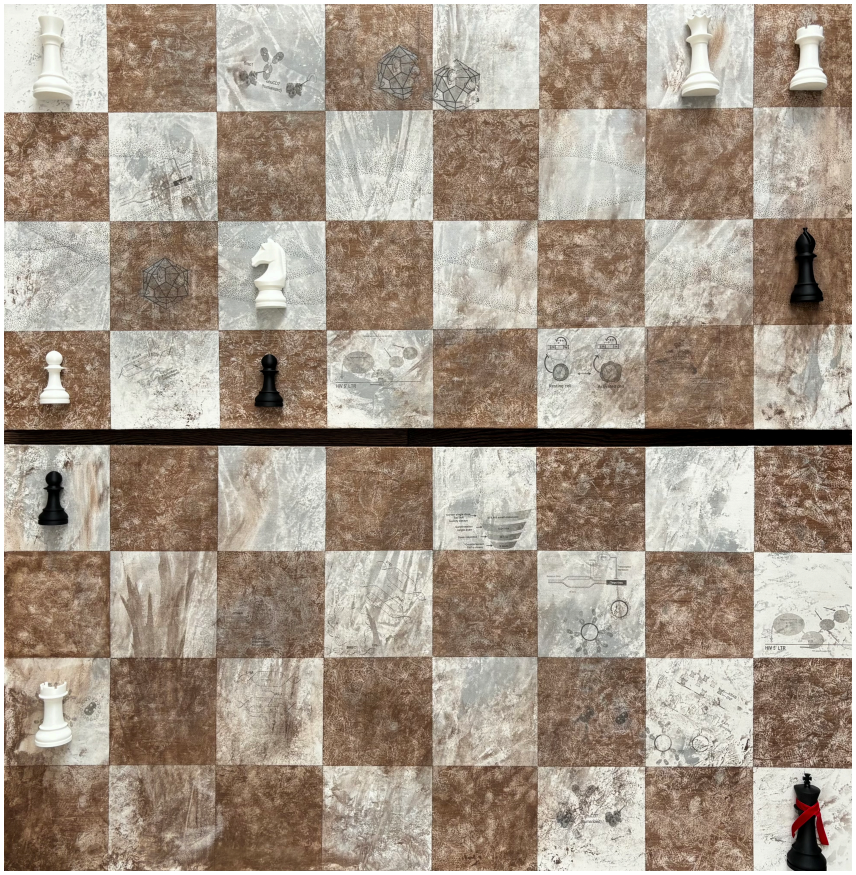
Note: Permanent Exhibit by Pauline Sameshima & Tashy Orasi (2023), Gladstone Institutes.

Figure 25

Note: Art by Pauline Sameshima (2022). Clay polymer.

Permanent Art Exhibit: *Ecosystem* Explained

Figure 26
Ecosystem (P. Sameshima, 2024)



Note: Acrylic on canvas, 3-D printed chess pieces.

An ecosystem is a biological community made up of interacting organisms and their physical environment. *Ecosystem* is also the title of this artwork (Figure 26), a name chosen through collaborative engagement and discussion involving both the scientific and community teams at the 2024 Annual Meeting.

One of the main goals of the Community Engagement team is to educate people about BLS and inspire deeper thinking about BLS and HIV cure research. With this in mind, the artwork I created in 2024 reflects themes identified in focus group discussions as well as the three main research areas of the scientific team.

Over the past 40 years of HIV research, HIV therapy has involved the *shock and kill* approach. Agents reactivate the latent virus and then eliminate the cells. The BLS

model does not seek to overpower the virus; rather, this approach seeks a more symbiotic relationship, exploring ways to coexist with HIV—hence the title *Ecosystem*.

The Construction of the Artwork

The artwork consists of two canvases, each measuring 2 feet by 4 feet, made using acrylic paint, transfers, and ink. It was photographed and printed on acrylic panels for installations at Lakehead University in Thunder Bay, the Gladstone Institutes in San Francisco, and the Scripps Institute at the University of Florida. For Weill Cornell Medicine in New York, the artwork was printed on metal. The chess pieces are movable and attach magnetically to the boards.

The scientific graphics in the artwork were created by scientists from the Hope Collaboratory. The 3D-printed chess pieces were produced by Anthony Tung, each printed at a three-quarters cross-section. The design for the chess pieces is attributed to Stanleyerland on Thingiverse, under the Creative Commons license for "World Chess Championship Chess Pieces." These pieces were made using PLA (Polylactic Acid) filament, a bioplastic that is environmentally friendly and derived from corn or sugarcane.

I chose to have the pieces facing forward, not as they would stand up in a game, to bring the viewer into the game, as if level with the people involved. Viewing the pieces from above could create a sense of distance and control, which I wanted to avoid. The chessboard itself is split into two sections, symbolizing the ongoing effort and collaboration required in the journey toward an HIV cure.

When asked why I chose white to represent the blocking team and black to represent the virus, I explained that, in chess, white always makes the first move. Chess databases show that white has a slightly higher winning percentage; for example, Rowson (2021) notes that white wins about 55% of the time. In this artwork, white symbolizes the researchers, intentionally setting the stage for a positive outcome.

Stalemate in a Chess Game

HIV is represented in the artwork by a red AIDS ribbon wrapped around the king piece in the bottom right corner (see Figure 27). The chessboard depicts a stalemate scenario, which is explained by Wikipedia (“Stalemate,” 2025) as “a situation in chess where the player whose turn it is to move is not in check and has no legal move. Stalemate results in a draw” (n.p.).

Figure 27

Note: Detail of the king piece representing HIV.

In this situation, it is black's turn to move, but black has no legal moves, resulting in a stalemate. If the king tries to move forward, the rook on the left would put it in check. Moving diagonally or to the left would also place the king in check by the queen at the top of the board. The black bishop cannot be moved without exposing the king to check. The pawn—often seen as the weakest piece—plays a crucial role simply by holding its position and enabling the draw. Every piece, regardless of its perceived power, contributes to the outcome. This serves as a powerful metaphor for HIV cure research: everyone involved, no matter their role, is essential to progress. Each contribution is valuable, regardless of how small it may seem.

Inkwork

The inkwork in the piece (excluding the scientific transfers) was created using stippling—a technique that uses countless individual dots. The borders of the chess grid are made up of these dots, each one representing a person who helps define the boundaries and rules that shape the understanding of the virus. The dotted, regimented squares remind us that these frameworks are human-made and do not have to remain rigid; we can be open to reimagining the tools and perspectives we use.

In the top two rows of the chessboard, the dots come together to form a visible wave, symbolizing people moving in unison. A single dot can easily go unnoticed, but together, they create momentum and progress. This collective movement is reminiscent of starling murmurations, where birds fly in coordinated patterns to protect themselves from predators. Similarly, progress in HIV research is achieved through collective effort, with some contributions more visible than others, but all are essential to the ongoing flow of work. This reel (Sameshima, 2025) shares the installation and launch of the artwork in San Francisco in 2024.

Figure 28

Note: Detail of science transfers and murmuration waves.

Reflections on the Artwork

Reflecting on the evolution of *Ecosystem* and its permanent installation at four university research sites, I feel tremendous gratitude for being invited to join this project by Dr. Patricia Defechereux, the Community Engagement Coordinator. This experience reminds me of how much arts integration as a qualitative research method has advanced.

I also am aware that the artwork inspired by the BLS strategy stands in sharp contrast to the colonial mindset that inherently directs and frames academic educational and scientific research. Traditional approaches like the “shock and kill” strategy are rooted in the idea of aggressively conquering and eradicating the virus, much like a chess game is focused on controlling territory—mirroring the attempt to dominate the body’s internal landscape. In contrast, BLS proposes a more inclusive, collaborative, and even maternal approach. It suggests that encouraging HIV to integrate peacefully into the genome, as ancient viruses have done over time, could be a promising new direction. One of my wire ball sculptures from the first year of the project, photographed among bare winter trees, visually captures this concept of harmonious integration (see Figure 29). Scientists also recognize that the most effective moment to apply a silencing strategy is when HIV is latent (winter), highlighting the importance of timing and a gentle touch—qualities reflected in the artwork. By bringing together art and science, we can open up new ways of thinking. Non-violent, gentler strategies that move beyond traditional colonial academic frameworks—such as viewing a draw as a form of victory in a chess game—may ultimately help us discover a cure for HIV.

Figure 29
Chromosome Territories, 2022 (P. Sameshima)

Closing

As I reflect on CAIR (community arts integrated research) within the scientific pursuit of an HIV cure in the HOPE Collaboratory, I am reminded of the depth and breadth of human connection, creativity, and community engagement that support the success of this research. The evolution from marginalization of arts integrated inquiry to its central role in the community engagement arm in the HOPE Project demonstrates the transformative power of interdisciplinary, collaborative, community arts integrated research. Through the CAIR program and the Parallaxic Praxis framework, the project demonstrates how art can foster empathy, amplify marginalized voices, and translate complex scientific concepts into accessible, resonant forms. The permanent artworks, poetry, and community events are not just byproducts of research; they are living artefacts that continue to educate, inspire, and unite diverse communities. The metaphor of the chessboard in the *Ecosystem* art installations is a reminder that every participant—scientist, community member, onlooker, or advocate—plays a crucial role in moving us toward a future cure grown from collective wisdom and compassion. This work is a call to focus on *middle spaces* where science and art converge, where language is reimagined, and where new possibilities for belonging and healing are possible. The opening perspective, that research dreams a better future, is built on innovation, inclusion, imagination, and making with others.

In celebrating a decade of ARI and the ongoing work of the HOPE Collaboratory, I look forward to a future where arts integrated research continues to shape the landscape of discovery and hope.

Figure 30

Note: HOPE Scientific Leadership Team at the University of Florida Scripps Institute with *Ecosystem.*

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