

# Common Frequencies

## Frecuencias Comunes

**How can we learn from science and nature to improve our lives in community?**

*Common Frequencies*, May 1 - October 15, 2020 at BioBAT Art Space, located in the Brooklyn Army Terminal, will bring together a group of cross-disciplinary Mexican artists whose work meets at the intersection of art and science, and explores the relationship between these two disciplines through sound, urban ecology, language, and the construction of symbolic

***A six month exhibition with free public programming featuring cross-disciplinary Mexican artists working at the intersection of art and science, to envision new collaborative systems.***

imageries. The exhibition, curated by Elisa Gutiérrez Eriksen, features the work of **Tania Candiani, Lorena Mal, Gilberto Esparza, Marcela Armas** and the **Interspecifics** collective.

The artists—working mainly across sound, performance and installation—are inspired by nature, resonance, mechanics, electricity, and magnetism and take these phenomena as the basis for the invention of poetic mechanisms that permit the possibility of tuning into multiple natural frequencies—emerging from minerals, animals, bacteria, plants, and humans—that are translated into visual and sonic landscapes.



MAY 1<sup>ST</sup> - OCTOBER 15<sup>TH</sup>  
COMMON FREQUENCIES  
*BioBAT Art Space*

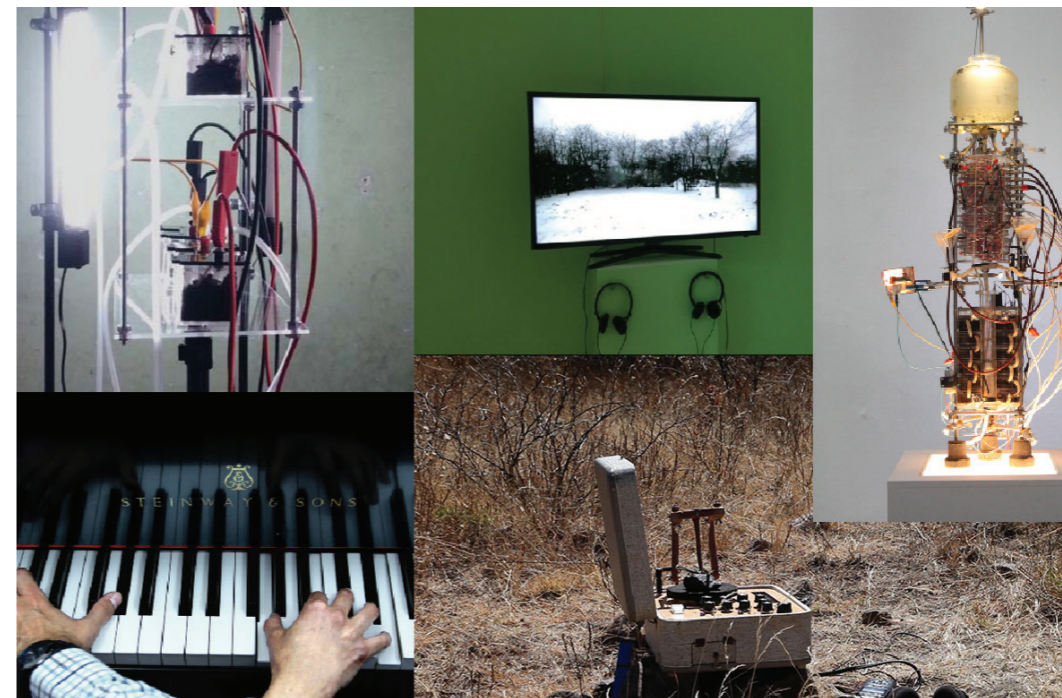
This exhibition is based on a now vastly known fact: everything in the world vibrates. And what vibrates has a frequency and produce a noise. A frequency is described as “the number of occurrences of a repeating event per unit time.” Frequency is then a temporal unit, but it can also be perceived as sound, as light, as radio and magnetic waves.

The idea of community in *Common Frequencies* takes direct reference from the french word *milieu* (a person’s social environment) seen as the place in which we, as a specific species exist and coexist with other species. However, it is important to also acknowledge that we are a milieu or environment ourselves: we host millions of bacteria and other living beings that allows us to digest, breathe, exist.

The exhibition stresses the idea that humans are only 1 of millions of other living vibrating beings and that we require each other to make our milieu work, in the same way that us, as individuals, need every living being inside us to be. Evidently, this concepts also extrapolates to the social.

Tania Candiani  
Marcela Armas  
Lorena Mal  
Gilberto Esparza  
Interespecifics

CURATOR - ELISA GUTIÉRREZ ERIKSEN



In the midst of a time that seems to be more and more divided, this group of artists investigate and generate several connections that prove that union, collaboration and connectivity are more present than ever. They show that we are not an independent species, but rather dependent and inter-connected with every single being on the planet.

In the exhibition, these interconnections are made evident through the form of sonic landscapes— languages that are easier to identify as commons, as something we can relate to and use our response ability in return.

The artists in this exhibition are inspired by nature, resonance, mechanics, electricity, and magnetism and take these phenomena as the basis for the invention of poetic mechanisms that make it possible to tune into multiple natural frequencies.

Common Frequencies aims to emphasize the importance of multidisciplinary practices for active listening, invention, and envisioning new collaborative systems.

In **Synchrony**, a visual and numerical archive, Lorena Mal investigates the relationship between the body and the perception of time through a series of scores based on the heart rate of 88 animal species. The work is based on a common temporal metric, the BPM -Beats Per Minute

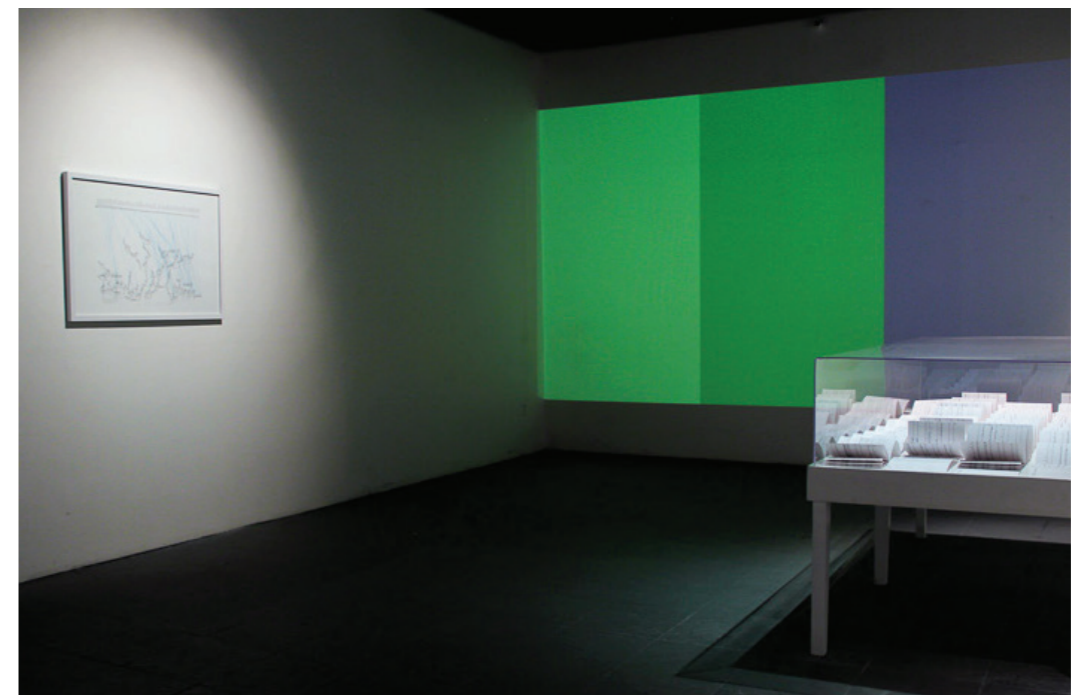


Lorena Mal, **Synchrony** - Performance piece

or Pulses Per Minute- used to measure the time of both heart pulses and musical tempo, to force the temporal limits of the standard metronome that coincide with the human heart rate (40 to 200 bpm) to a wider range that is within the limits of what is perceptible and interpretable (1 to 1400 bpm, from the pulse of a clam sleeping to a shrew in a state of stress).

**Synchrony** seeks a personal definition of the historical systems from this new biological and multiple metrics, generating other relationships of meaning on the limits of actions such as 'synchronize', compose 'chords', join 'rhythmic cells', common 'tempo', 'movements', 'frequencies' and 'chromatic melodies'.

The sound action consists of 4 movements to be interpreted on 2 pianos and 4 interpreters that coordinate their playing in a synchronic and synergic way, while having a visual correspondance that allows to see all the coincidences between pulses, as a new understanding of 'chromatic melody'.



Lorena Mal, **Synchrony** -Visual score



Sound has been for many years a secondary aspect when speaking about perception. However, it is not only the first sense that we develop as humans but also the only one that has the capacity of integrating us into the rest of the world. In contrast to sight, which separates us from other bodies, sound integrates us in a common frequency with our surroundings, starting from the womb, where the beating hearts—of the mother and child—exist on the same level. The heart beat as a primal frequency gives us a sense of placement in the womb and later on, in the universe. “The ear is the first organ to posit a generic referent within a geometry of relations from which the subject engenders him or herself, in a psychic sense.”



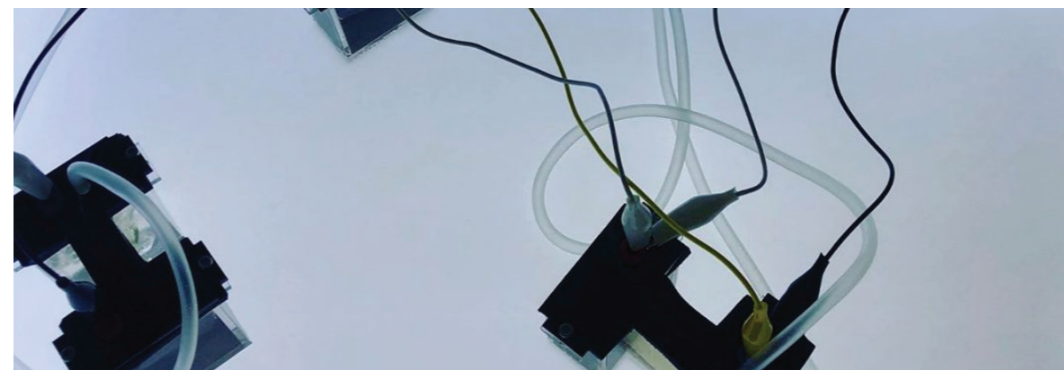
Marcela Armas, *Tzinamekuta*

Frequencies as magnetic waves are deeply explored in *Tsinamekuta*, a work in progress by Marcela Armas based on the discovery of a magnetic mineral called pyrrhotite inside an active mine located on a mountain in the Potosí highlands in northern central Mexico. Pyrrhotite is a ferrous sulfide that is distinguished by its magnetic properties. The project is developed from the construction of a series of instruments for the detection and sound interpretation of the magnetic memory of this mineral, as well as processes of induction of new magnetic fields on its surface, in dialogue and collaboration with the inhabitants of the region where this mountain rises.



Marcela Armas, *Tzinamekuta*

*Speculative Communications* by Interspecifics is the result of an artistic research, dedicated to the study of patterns emerging from the morphology of various species from *Paenibacillus* bacteria. The project develops an environment of observation that allows humans to recognize through machines, repeated organized behaviors within biological crops. The system classifies the events and gives them a unique sound and visual gesture, in order to achieve a joint self-generative composition orchestrated by the movement and the changes of form of the microorganism. Over time, the machine accumulates the logic of the registered transformations, becoming an artificial intelligence that can potentially anticipate the reactions of the bacteria and co-evolve with it through the same audiovisual composition.



Interspecifics, *Ontological Machines*



Gilberto Esparza, *BioSoNot*

*BioSoNot*, by Gilberto Esparza, consists of the development of a series of configurations of sensitive artifacts that collect data that is interpreted in audible frequencies that are activated with contaminated water and then translates into sound the biological activity of microorganisms and the contamination levels of different rivers.



Tania Candiani, *Syreny*

Tania Candiani's *Syreny* explores the poetic relations that emerge from mimicking the sounds that are alien to humans. In a sound action that uses the sound of the voice (specifically with choral groups) to interpret, replicate, or deconstruct sounds that are not typical of the human voice, such as the sound of machines; nature; and mathematical, mechanical, and/or digital processes.

For a person to imitate another species requires a certain level of understanding of the body and its acoustics.

For the human race, the voice is the main way to be part of a community, not only as sound (form) but also as speech (content). "Community begins in, and remains symbolically organized around, a communicativity that is passionate before it's rational, passive before it is willed. Many animals have the capacity of voice, which is not merely an evolutionary expedience to find mates, scare enemies or communicate food sources, but are also a sonic exploration of ontological conditions. It is a way of testing the world and one's location, role, and value in it." (Menely in *Sonic intimacies*, p.54).



***Common Frequencies*** plans to be a platform for artistic and scientific research as well as a common-ing space to develop connections with the local community in Sunset Park and the wider NYC area.



Lorena Mal, *Sincrony*

In addition to the pieces presented at the BioBAT Art Space gallery, each one of the artists will be conducting a series of concerts, performances, and workshops. Also as part of the exhibition, artist talks and educational and family programming will be free and open to the general public.

One of the main objectives of this exhibition is to provide innovative contemporary art, science, and education programming that is accessible to all in different ways: free, bilingual (English and Spanish), and relevant.

This will be the first bilingual exhibition in BioBAT ArtSpace. Thus, the main beneficiary will be the local community, and secondarily, the artistic community that lives in the neighborhood, as well as in the rest of the city.

In the midst of a time that seems to be more and more divided, this group of artists investigate and generate several connections that prove that union and connectivity are more present than ever and it shows that we are not an independent species, but rather dependant and interconnected with every single being on the planet. These interconnections are made evident in a language that is easier to identify as common, as ours, as something we can “understand” and reply to. Stressing concepts like cacophony, euphony, polyphony, repetition, and imitation, this series of poetic encounters with nature aim to generate a different sonic landscape in which the concept of commonness and community accentuates the fact that we are individual but critically connected.



# Artists

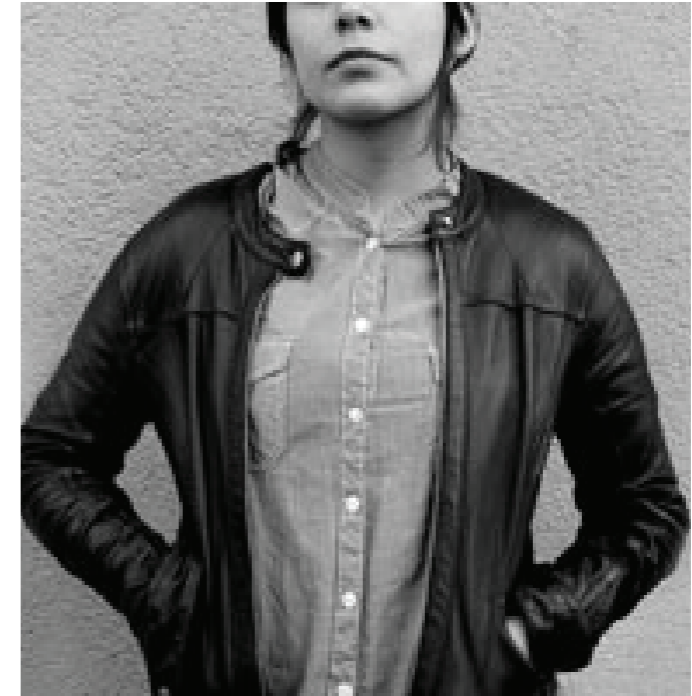


## TANIA CANDIANI

Tania Candiani is a multidisciplinary, Guggenheim Fellow (2011), Smithsonian Fellow (2018); represented Mexico in the 56th Venice Biennial.

## MARCELA ARMAS

Marcela Armas' work inquires into the relationships of society with matter, energy, space-time and the construction of memory. Participated in Mercosur Biennial in Porto Alegre, Brazil, 2009 and Habana 11th Biennial, 2012.



## LORENA MAL

Lorena Mal work focuses on sound and vision as tools of investigation. 1st prize winner of the International Video and Electronic Arts Festival Transito in 2013.



# Featured Artists



## GILBERTO ESPARZA

Gilberto Esparza's work involves electronic and robotic means to investigate the impacts of technology in everyday life. Golden Nika, Hybrid Art at the Prix Ars Electronica 2015, second vida 13 awardee.

## INTERSPECIFICS

Interspecifics' work use sound to understand the bioelectrical activity of different bacterial consortiums, plants. They have presented their work in Media Lab Prado, Museo de Arte Reina Sofia, O1SJ, Museum of Latin American Arts, Public Art Lab de Berlin, among others.



## ELISA GUTIÉRREZ ERIKSEN (CURATOR)

Elisa Gutiérrez is a Mexican Independent Curator and Arts and cultural producer based in Brooklyn. Having worked for UNESCO and The Ministry of Culture in Mexico, her curatorial practice stems from her interest in artistic projects linked to practices that enhance social cohesion and a sense of community.

# Spring-Summer 2020 Public Program

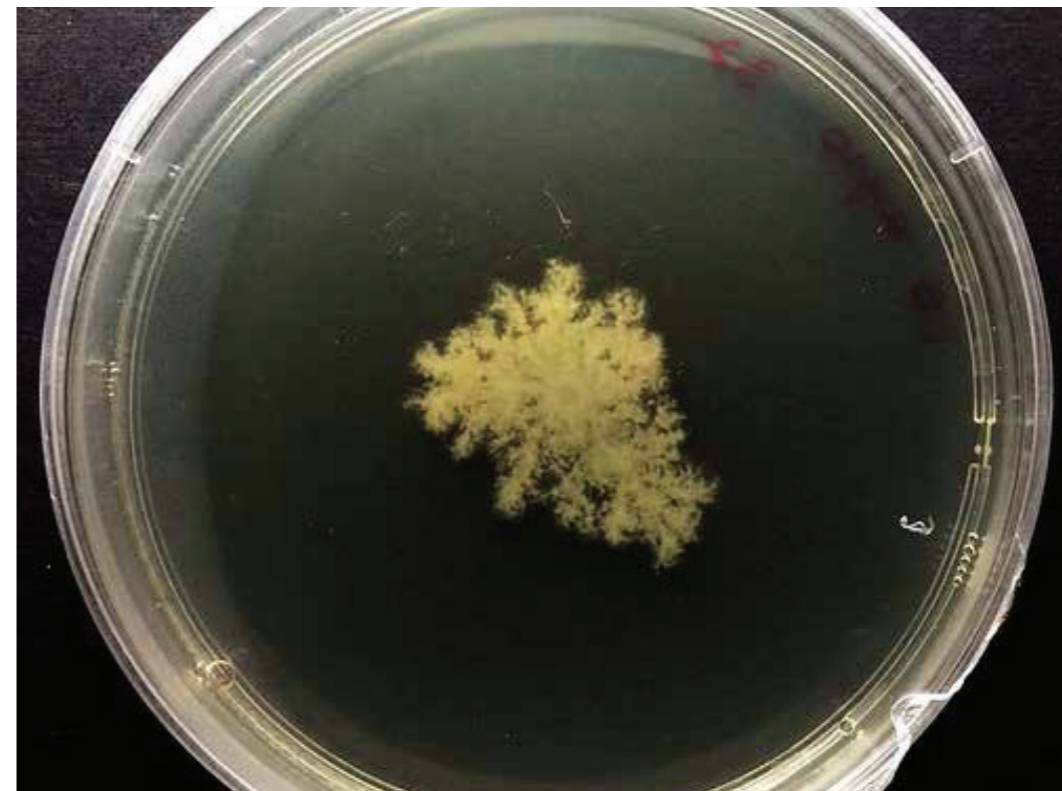
\*The projects and requirements presented are still in development.

\*This programming is subject to change.

Approaching these concepts from an artistic viewpoint in an accessible context, like an exhibition, will offer the Sunset Park community the opportunity to engage in a critical dialogue that emphasizes the importance of multidisciplinary practices towards invention and the creation of new collaborative systems.

The exhibition will be accompanied by a series of free bilingual programs that aim to engage the local community in discussions that will allow for the participation of families, young adults, and children.

**Common Frequencies** plans to be a platform for artistic and scientific research and a common-ing space to develop connections with the local community and the wider NYC area.



Interspecifics, *SITI*, *Search for Intraterrestrial Intelligence* - **CITIZEN LAB**

M A Y 1

M A Y 3

J U N E

J U N E 27

O P E N I N G R E C E P T I O N

7 - 9 pm

S Y N C R O N Y

by Lorena Mal

This sound piece is based on a new metric system where the standard metronome of 40bpm (Grave) to 200bpm (Prestissimo, a rhythmic range that matches the human heart capacity), is expanded to a wider and more relative time(s), by gathering public scientific data of all animal species heart pulses, a current archive of 150 species and around 750 ranges of different rhythms. The result is a new possible metronome that goes from 1 bpm (pulse of *Mesodesma mactroides* -Clam- in a state of calm) to 1500 bpm (pulse of *Suncus murinus* -Shrew- in a limit state). This piece will be performed with Lidia Gueberof and 3 more piano players.

S I T I , S E A R C H F O R I N T R A T E R R E S T R I A L I N -  
T E L L I G E N C E - C I T I Z E N L A B

by Interspecifics

SITI is the acronym of Search for Intra Terrestrial Intelligence. It is inspired by the research center of similar name: SETI, also dedicated to the search for intelligent life, but in their case, Extra Terrestrial. SITI is a pop-up laboratory of citizen science, which revolves around the idea that microorganisms have both cognitive and social intelligence, and investigates the possible mechanisms that - as humans - we can develop to communicate and make contact with them. The laboratory is open to the public and offers a series of short workshops that involve the use of DIY microscopes of different magnifications, through which biological samples can be analyzed and non-pathogenic microorganisms of common origin. The microscopes will collect photographs and videos from the visitor's analysis that will be part of a decentralized online catalog that will contain the microscopic world of the area.

P E R F O R M A N C E C O N C E R T

by Interspecifics

Non-Human Rhythms will be a live recording featuring different micro-organisms and their bio-electrical activity translated into sound, 30 minutes of signals originated in a DIY bacterial fuel cells containing different bacterial consortiums.



J U L Y 1 8

A U G U S T 1 5

S E P T E M B E R 1 2

O C T O B E R 1 5

T S I N A M E K U T A G E O L O G I C A L I N T E R V E N T I O N

by Marcela Armas

This performance uses a series of instruments for the detection and sound interpretation of the magnetic memory of a mineral. The artists will make a series of demonstrations and performative actions to give voice to the mineral.

B I O S O N O T P E R F R O M A N C E

by Gilberto Esparza

Gilberto will be performing with BioSoNot 1.2, a hybrid bio-sound instrument that translates biological activity into sound as it cleans contaminated water samples. During the performance, BioSoNot 1.2 will generate music and noise from the biological activity of living microorganisms inhabiting the East River in NYC.

S Y R E N Y

by Tania Candiani

This performance uses the sound of the voice to interpret, replicate or deconstruct sounds that are not typical of the human voice, such as machine sounds, nature, mathematical processes, mechanics and/or Digital. Tania Candiani will work a group of young people (a local choir) to explore and define the sounds of Sunset Park –at the waterfront, the streets, the ferry, the nature around it. While the performance will be guided by the artists, a group of young people will be the ones performing. During the live performance, this sonic landscape will be accompanied by a video projection.

C L O S I N G R E C E P T I O N

7 - 9 pm

# Project Outcomes

- execute a 6 month exhibition with 5 public performances*
- cultivate direct interaction/involvement with the community*
- integrate a multitude of artists / community members into the project*

## A D D I T I O N A L L Y

- create employment opportunities*
- build community*
- produce culturally relevant programming*
- produce bilingual exhibition / marketing*
- foster environmental awareness*
- build bridges between disparate social and political groups*
- create opportunities for Mexican artists to further connect to the NYC arts community*
- highlight the creative and scientific achievements of Mexican artists*



BioBAT Art Space

# BioBAT Art Space

<https://www.biobatartspace.com/>

The exhibition will take place at BioBAT Art Space, an artist-run gallery founded in January 2019 by Jeannine Bardo and Elena Soterakis. The Art Space is entirely dedicated to the intersection of Art and Science and its mission is to cultivate relationships between artists, scientists, the community and future generations of innovators.

BioBAT Art Space 3,000 sqft gallery located on the Brooklyn waterfront of the historic Brooklyn Army Terminal, located at 140 58th Street, Brooklyn Army Terminal Building A. The gallery is housed in the donated lobby of BioBAT a (501c3) biotech incubator created by SUNY downstate and the EDC.

Public performances will be held in “The Dark Space” a 15,000 Sqft additional space on the main floor of BioBAT that was launched in November 2019, to highlight new media art.

**ACCESSIBILITY:** The lobby of BioBAT Art Space is wheelchair accessible with free public wi-fi and outdoor performances accessible to all. Text that is specific to the exhibition will be bilingual (Spanish/English).



# PARTNERSHIPS & SPONSORS

**BIOBAT**  
ART SPACE



MEXICAN  
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P  
A  
C

